



The Geological Record

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Comments or questions? Please contact:

Doug MacDonald
Editor, *The Geological Record*
Nova Scotia Department of Natural Resources
P.O. Box 698, Halifax
Nova Scotia, Canada B3J 2T9
Phone 902-424-2510
E-mail drmacdon@gov.ns.ca

Welcome to the First Issue of *The Geological Record*

When the Mineral Resources Branch of the Nova Scotia Department of Natural Resources started to publish a newsletter in the 1990s, the title (*Nova Scotia Minerals Update*) and content of the newsletter reflected the branch's focus on understanding and managing the mineral resources of the province. While work related to mineral resources still constitutes the backbone of the branch, its appendages are more numerous and far-reaching than they were nearly 20 years ago. Over the last ten years government has expanded the responsibility of the branch to include evaluating Nova Scotia's groundwater resources and understanding the risks associated with geohazards, coastal flooding and erosion. In recognition of these changes the name and content of our newsletter have been revised to better reflect the wide range of work that constitutes today's operations of the Mineral Resources Branch.

In this inaugural issue of *The Geological Record* you will learn about the release of a provincial radon risk map and new acid rock drainage maps. There are updates on the 14th Global Gypsum conference, Coastal Zone Canada 2014 conference, and the 40th Atlantic Geoscience Society Colloquium. You will learn about progress on the review of the *Mineral Resources Act* and release of the Gardiner Pinfold report on the state of the Nova Scotia mining industry. Even though he has retired, George O'Reilly is back with his popular feature: *From the Mineral Inventory Files*. We also welcome Donnie Weir back to the branch as mineral exploration monitor and we preview the new mineral display in the DNR Library.

We hope that you enjoy the new look and content of the newsletter, and welcome your feedback and suggestions.

Coastal Zone Canada 2014 in Halifax

Coastal Zone Canada 2014 will be held at the World Trade and Convention Centre in Halifax, Nova Scotia, from June 15-19, 2014: 20 years since its inaugural meeting in this same city and venue in 1994. The 2014 conference theme is *Our Coasts: Legacies and Futures*. Coastal researchers, managers, planners, and youth from government, NGOs, industry and academia will share ideas and experience in an attempt to better understand and respond to the challenges facing our coastal resources and communities. At a time when coastal zones in Canada, and globally, are facing unprecedented use as well as impacts from climate change, collaborations between communities, government agencies and the private sector are becoming ever more important. The complexity of coastal ecosystems necessitates a complex policy and management structure. Please consider joining us in June to learn more about the current challenges facing our coasts and innovative solutions for policy and practice.

More information can be found at: <http://www.czca-azcc.org/czc-zcc2014/home.htm>.

Chantel Nixon
Program Chair, Coastal Zone Canada 2014



Map Showing the Potential for Radon in Indoor Air in Nova Scotia

Radon is a naturally occurring, colourless and odourless radioactive gas that is formed by the breakdown of uranium in soil and rock. It can seep into buildings through cracks and openings in basement floors and walls, and accumulate to dangerous levels. Exposure to radon in indoor air is the second leading cause of lung cancer after smoking. In Nova Scotia, it is estimated that 710 people die from lung cancer each year (Canadian Cancer Society, 2013), and Health Canada (2012) estimates that 16% of lung cancer deaths in Canada are caused by radon.

DNR's *Map Showing the Potential for Radon in Indoor Air in Nova Scotia* (Open File Map ME 2013-028) was released in November 2013 and is available as

a PDF map, digital download and as an on-line interactive map (Figure 1). The new radon map was developed using a GIS-based model that integrates three digital geoscience information layers: bedrock geology, surficial geology and airborne gamma-ray spectrometry. The model combines these layers to predict both radon generation potential, and the potential for radon to migrate in the subsurface toward a building foundation. Indoor air radon measurements from 524 homes were used to validate the model and to determine the probability of exceeding the radon guideline in high-, medium- and low-risk areas.

Testing is the only way to determine the radon concentration in your home, so it is important to test no matter where you live. The

radon map shows that some areas of Nova Scotia have a higher radon risk because of the local geology; however, even homes in low-risk areas can exceed the guideline established by Health Canada for indoor radon concentrations. Test results show that 40% of buildings in the high-risk areas exceed the radon guideline. In the medium-risk areas, 14% of buildings exceed the guideline and in the low-risk areas 5% exceed the guideline.

Testing for radon is easy, and do-it-yourself test kits can be ordered online for \$35 from the Lung Association of Nova Scotia. To view the interactive radon map, and find further information about radon and radon test kits, please visit: <http://gis3.natr.gov.ns.ca/Radon/index.html>

John Drage

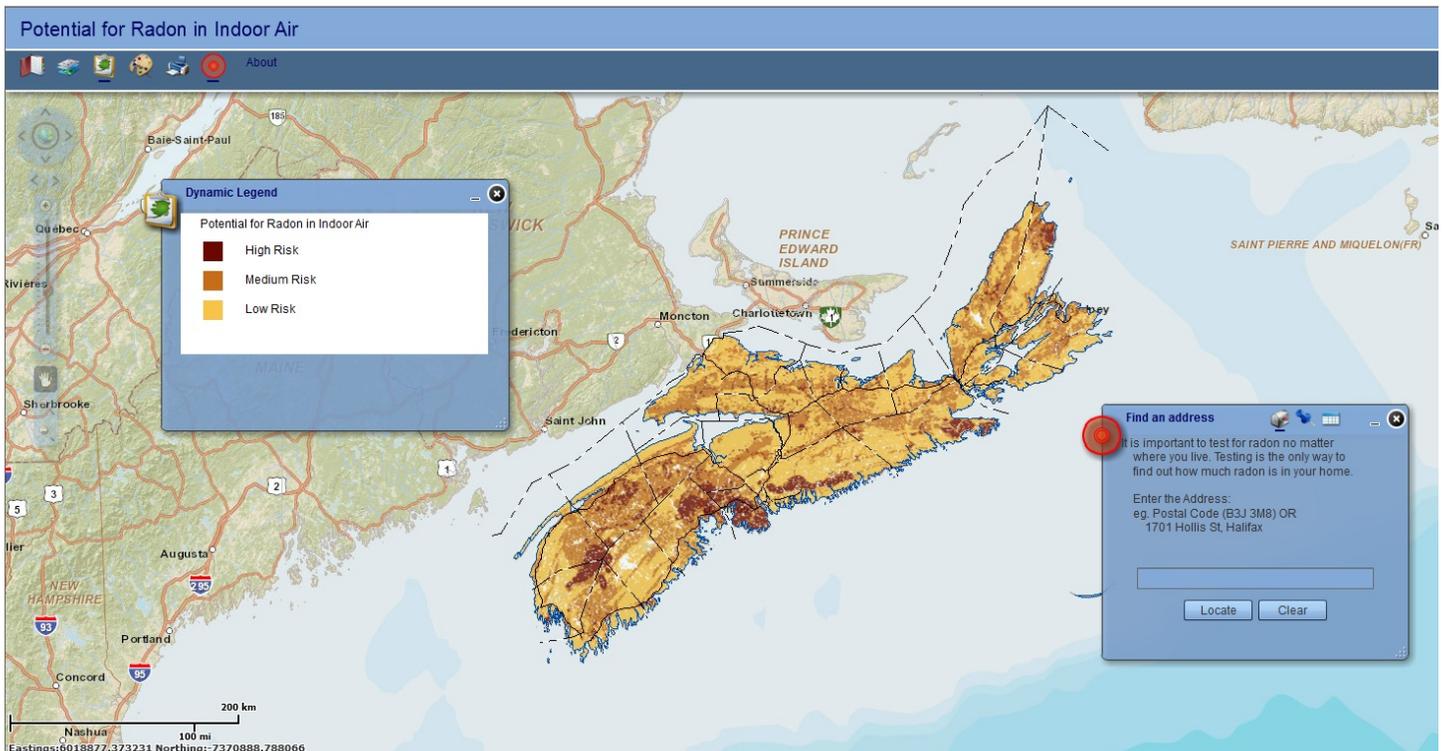


Figure 1. Interactive map showing the potential for radon in indoor air in Nova Scotia.

A Summary of DNR's Geology Matters 2013

On November 13 and 14, 2013, DNR's Mineral Resources Branch hosted its 37th annual fall conference at the Westin Hotel, Halifax. The branch was pleased to partner with Geoscientists Nova Scotia, the Mining Society of Nova Scotia and the Prospectors Association of Nova Scotia to provide a full program of technical sessions and professional development opportunities to an audience that included students, prospectors, industry representatives and associations, exploration and mining companies, service and supply companies, government organizations, and many more. The full program and DNR posters for Geology Matters 2013 can be viewed at <http://www.novascotia.ca/natr/meb/oh/GM13/GM2013.asp>.

The morning session on November 13, under the theme *New Initiatives*, included presentations on the new online Registry of Mineral and Petroleum Titles (NovaRoc), the TGI-4 federal government Targeted Geoscience Initiative, the updated Gardiner Pinfold Economic Impact Study of the mining industry, and a panel discussion on the Mineral Resources Act Review. Presentations also described the Nova Scotia Mineral Incentive Program and clearer regulatory pathways for the mining industry. Lunch on November 13 featured speaker Bill Mercer of Avalon Rare Metals and Past President and Chair of the Health and Safety Committee of the Prospectors and Development Association of Canada (PDAC). Mr. Mercer talked about Mining in a World of Rising Expectations.

During the afternoon technical session, delegates and students were offered professional development opportunities with two short courses. Craig Waldie, Senior Geologist, Compliance Review of the Ontario Securities Commission, delivered a National Instrument 43-101 short course that provided insight on the concept of materiality, compliance issues and pitfalls, technical reporting,

and closed with a question and answer period for attendees. The student short course was taught by Patrick McAndless, President of Exploration for Imperial Metals Corporation, Vancouver. Mr. McAndless volunteers his time and travels across Canada and internationally to mentor students on how to have a successful career in geoscience.

The first day of Geology Matters 2013 ended with the Minister's Reception and Awards Ceremony. The host and newly appointed Minister of Natural Resources, the Honourable Zach Churchill, met with many industry representatives and discussed current projects and issues facing the mining industry. Mr. Churchill assisted in the presentation of the Terrance Coughlan Memorial Award to Gavin Isenor, Dexter Construction, for his contribution to the development of industrial minerals in Nova Scotia. Minister Churchill presented the Prospector of the Year Award to Perry Bezanson.

A technical session on Environmental Assessment filled the morning of the second day of the conference. Special guests from

provincial and federal regulators, the office of Aboriginal Affairs, Membertou First Nation, along with experts from consulting companies, talked about regulation, the Crown's duty to consult, community consultation, baseline studies and other aspects of Environmental Assessment (EA). Consultants presented examples of successfully completed Environmental Assessments. Concurrent to the EA session was a Prospectors Panel Discussion organized by the Mining Society of Nova Scotia. Prospectors learned how to develop and market their properties. At lunch, special guest speaker Jim Megann of Stockport Exploration gave a presentation on finding investments for exploration companies.

The conference concluded with an afternoon technical session on various geological deposit models in Nova Scotia and companies outlined their exploration and mining activities.

Geology Matters 2014 will be held on November 12 and 13 at the Westin Hotel, Halifax. For further information contact Diane Webber at webberde@gov.ns.ca or 902-424-3053.

Diane Webber



The Minister's Reception and Awards Ceremony, hosted by the Honourable Zach Churchill, gets underway at Geology Matters 2013.

Dufferin Resources Obtains Industrial Approval: Expects to Pour Gold in May

All of the major regulatory approvals have now been issued to enable Dufferin Resources Inc. to re-open the Dufferin Gold Mine near Port Dufferin in Halifax County. The company is a wholly-owned subsidiary of Ressources Appalaches Inc. of Rimouski, Quebec. It is presently hiring up to 70 employees, purchasing major pieces of equipment and making the necessary preparations to restart the 300 tonne per day mill in late April or early May, 2014. When the company pours its first dore bar, probably in May, it will be the first gold pour in Nova Scotia since 2004. The company hopes to produce 20,000 to 25,000 ounces of gold per year using gravity and flotation recovery methods. No cyanide will be used.

In 2013, the Mineral Development and Policy Section of the Mineral

Resources Branch provided assistance from a mine engineering perspective to the Compliance Division of Nova Scotia Environment (NSE) during their review of the company's application for an Industrial Approval (IA). The approval attaches strict conditions on the company's activities during the dewatering, operation and reclamation phases of the underground gold mine, mill and tailings management facility. Other major government approvals that the company has held for some time prior to the Industrial Approval were a Mineral Lease and an Environmental Assessment. In the area of mine safety, the company also submitted to the Occupational Health and Safety Division of the Department of Labour and Advanced Education all the information required by the

Underground Mining Regulations.

The Industrial Approval process included review of the geotechnical engineering details related to the spillways from the tailings pond; the water balance between the underground workings, the mill and the environment; the placement of rock during mining (most of which will be placed underground in mined-out stopes); and air emissions from the gold furnace. The company's mine reclamation plan has been accepted by both the Department of Natural Resources and Nova Scotia Environment, conditional on the provision of adequate financial security. After an extensive review, NSE issued the Industrial Approval to the company on November 27, 2013.

Patrick Whiteway

DNR Promotes Resources at Global Gypsum Conference

DNR's Mineral Resources Branch promoted the gypsum resources of Nova Scotia to attendees of the 13th Global Gypsum Conference & Exhibition in Toronto, October 21 and 22, 2013. Organized by Global Gypsum Magazine of Surrey, U.K., this conference has been held annually in various cities in Asia, Europe and North America since 1999. The Toronto conference attracted about 280 delegates from 37 countries.

The gathering provided an excellent opportunity for a representative of the branch (the author) to meet delegates from Brazil, Argentina, Mexico, Honduras and Venezuela. The economies of these countries are growing at a rapid pace and companies are building new plants to supply an increasing demand for gypsum wallboard. Some of these plants import gypsum from as far away as Spain. I met most of these delegates and after discussing their gypsum needs and challenges, gave them a memory stick that contained a summary of existing

gypsum operations in Nova Scotia and all of the relevant geological publications, maps, legislation and regulations, and contact information related to gypsum quarrying in Nova Scotia.

Nova Scotia's two major gypsum producers – CGC, Little Narrows, and National Gypsum, Milford, – have expressed an interest in increasing the volume of gypsum they ship out of the province. Attending this conference is one way for the branch to facilitate communication between the producers and users of Nova Scotia gypsum.

With 45 exhibitors in attendance, the conference was also an opportunity to gather information about other end-use applications for gypsum, including those in the agriculture, architectural (self-leveling floor screeds, and moldings, for example) and ground control markets.

For further information on the conference, please see: <http://bit.ly/1fgKYg0>, and for further

information on the Mineral Resources Branch market analysis and approach to develop other end-use applications for Nova Scotia gypsum, please see: <http://bit.ly/Li7qef>.

Patrick Whiteway



Patrick Whiteway, Manager of DNR's Mineral Development and Policy Section, addressing the Global Gypsum Conference in Toronto, Oct. 21 and 22, 2013.

From the Mineral Inventory Files

Placer Gold Deposits at The Ovens: Are There Others?

Recently, while watching an episode of the reality TV series *Bering Sea Gold*, I wondered if there could be analogues in Nova Scotia. Around Nome, Alaska, several tens of kilometres of beaches and offshore sediments have produced placer gold (Au) since their discovery in 1899. Total Au production from these placers is in the order of 3.6 million ounces. Mineral exploration has determined that the placer deposits originate from numerous Au-bearing sheeted quartz veins that intrude metasedimentary rocks in the uplands inland from Nome. This geological setting seems similar to some placer deposits in Nova Scotia, most notably at The Ovens Gold District and perhaps several other locations along Nova Scotia's shoreline.

In mid June 1861, James Bowling discovered Au-bearing, saddle-reef quartz veins intruding Halifax Group slate on Drum Head at The Ovens, which is a peninsular headland forming the southern entrance into Lunenburg Harbour (Fig. 1). The name 'Ovens' refers to a dozen or so sea caves that occur in the cliffs there. The rush was on, and within a couple of weeks over a hundred people were working the area. In early August it was discovered that the beach sands below the cliffs carried considerable placer Au and this very much ramped up excitement about the area province-wide. In fact, there is one report that in early September, the farmers and farm workers in the Windsor area deserted their fields at harvest time and headed for The Ovens to strike it rich. Hundreds arrived and within a couple of months there was a shanty town with grocery stores, restaurants and a hotel. Most attention was being directed at the placers, with good success. The sands of Cunard Cove, named after William Cunard (son of Sir Samuel Cunard), who had acquired most of the claims there, were producing most of the gold. Good placer deposits were also being found to the west along the north shore of Rose Bay (Fig. 1). Things went very well until the end of 1862,

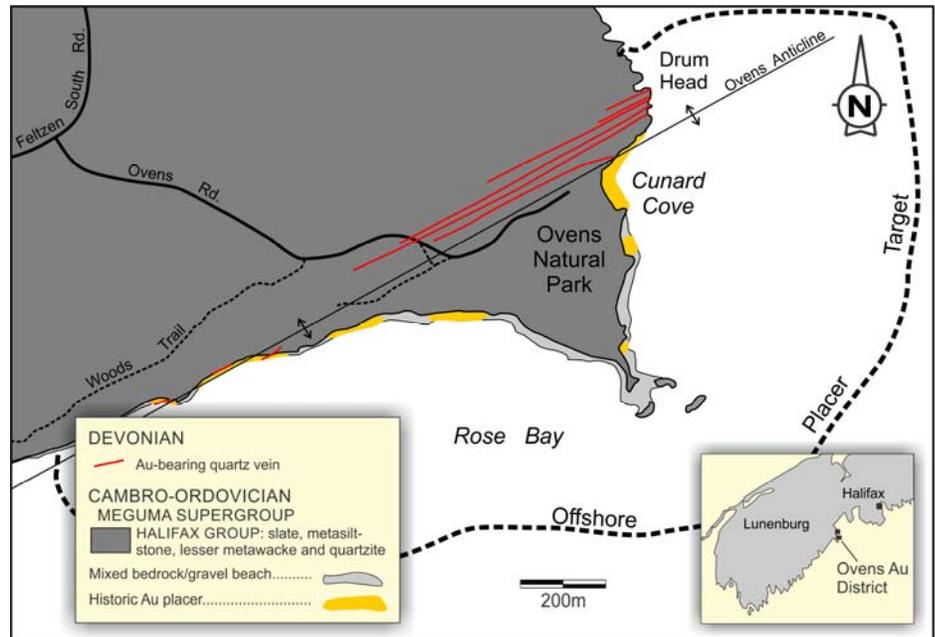


Figure 1. Placer and quartz-vein gold deposits of The Ovens Gold District, Lunenburg County, Nova Scotia.

when the placers started to deplete. In total around 2,500 ounces were produced from the district in 1861 and 1862, with most coming from the placers. Since 1863, both placer and bedrock mining in the district have been sporadic and minor.

Early work on the placers has shown that the Au-bearing beach sediment deposits are relatively thin and that most of the richest material came from cracks and crevices in the slate bedrock. Also of note is the fact that essentially no attention was directed at sediments below the low water mark. In the late 1960s, Matachewan Canadian Gold Limited carried out an extensive subsea survey off The Ovens headland and along the north shore of Rose Bay (Fig. 1). This work consisted of 123 nautical miles of seismic sea bottom profiling as well as sediment sampling. Several areas of Au-bearing sediment were defined but follow-up tests using a barge-mounted suction dredge failed to relocate these areas. The assumption was made that storms following the original sample

survey redistributed the Au-rich sediments and the project was ended.

Day and Associates revisited this model in 1988 but concluded that better results would be obtained if sampling concentrated on the abundant bedrock linears and crevices offshore of The Ovens. This enticing model, although worthy of follow-up, became lost in regulatory permitting and was not carried out. There are several other areas in the province where Au-bearing offshore gravels are either known or may exist. Wine Harbour, Tangier, Isaacs Harbour, Gold River, Cranberry Head, Country Harbour, Moose Head, Clam Harbour, Ecum Secum and Gegogan are all gold districts either on, or close to, the ocean, such that their veins could have provided gold to produce near-shore placers.

Perhaps the greatest hurdles to exploration for deposits such as these lies in permitting and garnering the social license to be able to exploit them. Solve this and some day a victor may collect the spoils.

G. A. O'Reilly

New Acid Rock Drainage (ARD) Potential Maps Released

As a derivation of the Nova Scotia Meguma terrane mapping program, the Nova Scotia Department of Natural Resources is identifying geological units in southern Nova Scotia that have acid rock drainage (ARD) potential. Mapping and follow-up studies have shown that some bedrock formations contain abundant pyrite, pyrrhotite and other sulphide minerals and have the potential to generate ARD. The main acid producers are sulphide-bearing slate, metasilstone and metasandstone of the Beaverbank, Moshers Island, Bluestone, Bear River and Government Point formations. The units with the highest acid-producing potential in southwestern Nova Scotia, however, are the Cunard Formation and the laterally equivalent Acacia Brook Formation.

After contacting several municipal government planners in southwestern Nova Scotia, as well as various local environmental companies and other interest groups, they all confirmed that the best use of this ARD data was to produce a series of maps that show the risk of acid rock drainage (ARD), which can be utilized by the various software platforms that planners use. As a result, a series of 1:50 000 scale maps (Open File Maps ME 2013-003 to 2013-027) and a related information circular were released in December 2013 and can be accessed at <http://novascotia.ca/natr/meb/data/pubs/rn/rn2013-12.pdf>. These maps show the bedrock acid rock drainage potential of formations in southwestern Nova Scotia and classify the ARD potential as high, moderate or low. These maps can be used during the planning stages of development and construction to broadly determine if sulphide-bearing bedrock is present. This information can be used to mitigate ARD's environmental and human health risks, and to reduce costly remediation efforts.

Chris White and Laura Trudell

Atlantic Geoscience Society (AGS) Colloquium and Annual General Meeting 2014

The 2014 AGS Colloquium and Annual General Meeting was held at the Old Orchard Inn in Greenwich on February 7-9, 2014. The organizers, Rob Raeside, Ian Spooner and Elisabeth Kusters, with help from numerous student volunteers, facilitated an excellent meeting. About 180 registered participants enjoyed a full and diverse program including both onshore and offshore topics. As usual, the event was well attended by DNR employees (both former and current), who also contributed to several of the sessions. This year's Colloquium actually kicked off on Thursday night (Feb. 6) with a spirited public event outlining significant Geoheritage locations in Nova Scotia. This activity was organized by Elisabeth Kusters and led by John Calder at the Wolfville Farmer's Market.

Friday's program started with a well-attended, day-long short course on "Computer Programming for Geoscientists using Python" by Evan Bianco of Agile Geoscience. For those not fortunate enough to attend the short course, the afternoon was filled with meetings pertaining to AGS business. Poster displays started Friday afternoon and remained available to view until late Saturday afternoon. Two concurrent sessions ran Friday evening: (1) The Last Fifty Years: How Geology has Evolved in Atlantic Canada, in honour of the 50th volume of *Atlantic Geology*, and (2) Environmental Geoscience. Saturday's events started early with several concurrent sessions including: Environmental Geoscience; Research at the Joggins Fossil Cliffs: Celebrating Five Years as a UNESCO World Heritage Site; Palaeontology in Atlantic Canada and Geology Offshore Southeastern Canada with a focus on the Nova Scotia margin. The Current Research in Atlantic Canada sessions covered a variety of topics including: igneous and metamorphic geology; mineralogy; mineral deposits; structural geology; tectonics; surficial geology; sedimentary geology; atmospheric matters. Later on Saturday afternoon a mini-workshop was held vetting the Nova Scotia Geoheritage List followed by the annual Science Atlantic (Earth Science Committee) meeting.

The Saturday evening awards banquet recognized several worthy student presentations and professional accomplishments. The new **Rob Raeside Award** for best undergraduate student poster went to Jennifer Archibald (Dalhousie University) and her co-authors Victoria Desjardins, Laura-Ann Broom, Jeff Minichiello, and Anne Marie Ryan. The **Graham Williams Award** for best graduate student poster went to Lea Braschi (Dalhousie University) and her co-authors Thomas Lakeman, Natalia Rybczynski, Guang Yang and John Gosse. The **Rupert MacNeill Award** for best undergraduate student oral presentation went to Ben Misiuk (Acadia University) and his co-authors Drake Tymstra, Ian Spooner and Chris White. The **Sandra Barr Award** for best graduate student oral presentation went to Justin Drummond (Acadia University) and his co-authors Peir Pufahl, Claudio Porto, and Mariana Carvalho. The **Laing Ferguson - Distinguished Service Award**, given in recognition of exceptional and altruistic contributions to the Atlantic Geoscience Society and/or to foster public appreciation of Atlantic Geoscience over a long period of time went to Ian Spooner of Acadia University. The **Distinguished Scientist Award - Gesner Medal**, given to a person who developed and promoted the advancement of geoscience in the Atlantic Region in any field of geology, was awarded to Cees vanStaal (Geological Survey of Canada-Vancouver).

As usual the AGS colloquium was a great success, keeping with the spirit of open communication and the exchange of ideas through both formal and informal group discussions. Thanks to the organizers and all of the participants for making an outstanding weekend.

Chris White

Economic Impact of the Mineral Industry in Nova Scotia - 2012 Update

The mineral industry in Nova Scotia has been an important component of the Nova Scotia economy for over two hundred years and the Department of Natural Resources (DNR) periodically assesses the economic impact of the industry by sponsoring studies that evaluate the value of mineral production, direct and indirect employment, and the gross domestic product (GDP) of activities related to mineral production and secondary (value-added) processing of mineral products.

In 2013, Gardner Pinfold Consulting Inc. was issued a contract to update the last mineral industry study, completed in 2008, which had used 2006 industry results. The *Economic Impact of the Mineral Industry in Nova Scotia - 2012 Update* was released in May 2013 as a DNR Open File Report (ME 2013-003) and used 2012 industry results to model and analyze economic benefits and comment on trends.

The 2012 updated study report focused on the following areas:

- overall economic impact results,
- exploration expenditure trends,
- mining sector production trends and
- reclamation activity impacts.

The key indicators from 2012 show that the impact of mineral exploration and production in the province compares favorably with the impacts found in the previous two economic studies in 2002 and 2006, as shown in Figure 1. Overall employment in 2012 was equivalent to 5,484 person-years and the GDP was over \$419 million.

Gardner Pinfold found that the mineral industry continues to be a major contributor to the health of the Nova Scotia economy. The 2012 report provides a number of graphs showing mineral production values by commodity produced, and exploration expenditure trends. The reader is

Rock Display Returns to DNR Library

In the winter of 2013 the Library and Registry of Mineral and Petroleum Titles were renovated. Floors were replaced. Walls were painted. Furniture was moved and some was replaced. One of the casualties was the 'rock display'. Once the dust settled it became clear that we needed a new piece of furniture to house the display so it would not stand out as a 1980s relic in the new décor.

Luckily we had the support of Darlene Matheson, Director of Information Management and Support Services for DNR and the director responsible for the Library. Although fairly new to the department, Darlene saw the value of the rock display as an expression of education and outreach: important priorities for the DNR Library. She observed that most people who pass through the Library to visit the Registry would pick up a sample, comment on it, or ask for more information about it – and not just geologists and prospectors! The display is also a source of pride for the Mineral Resources Branch, who have put a lot of time and effort into collecting the samples.

If you visit the Library and Registry you'll see that the rock display isn't just about rocks anymore. It remains a work in progress and has expanded to include items representing DNR more broadly – forestry, entomology and Crown land, to name a few. The Library serves all of the department, but our roots are firmly planted in geoscience, mineral resources and prospecting, and for this reason the rock display remains in pride of place.

Mining and prospecting are very important parts of our heritage and our future. Having this display plainly visible to everyone coming to the DNR head office is a tangible, hands on introduction to who we are, which is still important, even in our digital age.

Tracy Lenfesty
Librarian



encouraged to review the report in its entirety. The report can be found at the DNR Library in Halifax and on the DNR website: <http://>

novascotia.ca/natr/meb/data/pubs/13ofr03/ofr_me_2013-003.pdf.

Dan Khan

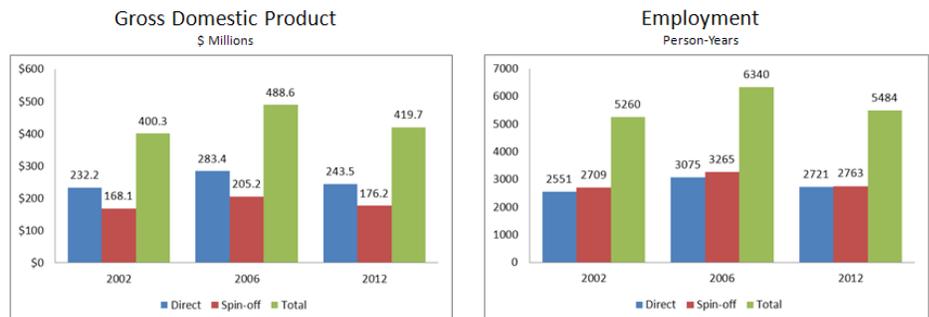


Figure 1. Mineral industry gross domestic product and employment results in Nova Scotia for 2002, 2006 and 2012.

Welcome Back Don Weir

In 2001, the Mineral Resources Branch saw Geologist Don Weir move to DNR's Regional Services Branch to assume the position of Regional Geologist for Central Nova Scotia. In 2013, the retirement of Paul McCulloch created an opening with Mineral Resources for a geologist responsible for exploration monitoring and review of assessment reports. Donnie's 12 years of experience monitoring mineral exploration activities in central Nova Scotia are ideally suited to the position. The Mineral Resources Branch is pleased to announce that Donnie Weir has accepted the position of Exploration Monitoring Geologist at the Stellarton Drill Core Library.

After obtaining a B.Sc. in Geology at St. Francis Xavier University, Don joined the Department of Mines and Energy in 1985 as a Mineral Technician and later as a Project Geologist. Donnie was responsible for Core Library support, maintaining the drill core databases, and producing summary reports on properties. As mentioned above, in 2001 Don moved to the position of Regional Geologist (Central Region) in Truro.

Donnie's experience, both with Nova Scotia's diverse geology and with the monitoring of mineral exploration activities on Crown lands, will be a great asset to the branch and his new clients. Welcome Back Don!

John MacNeil

Update on the Review of the *Mineral Resources Act* and *Regulations*

As part of the process for reviewing the *Mineral Resources Act* and *Regulations*, the review Working Group is drafting a 'Discussion Document'. The purpose of the document is to outline for stakeholders the rationale for reviewing the act, the terms, conditions and tentative schedule for the review, to highlight areas within the act that will require significant attention, as well as outline the process and opportunities for stakeholders to participate in the review process. The department has received several submissions from industry associations and NGOs, and the Discussion Document will highlight some of the concerns and interests expressed by those organizations. The Discussion Document will be ready for distribution in 2014. In December 2013 the Working Group completed its line-by-line review of the regulations.

In November 2013, the *Mineral Resources Act* review was highlighted on the agenda of the annual Geology Matters Conference. A three-member panel discussion was moderated by Mineral Resources Branch Executive Director Dr. Donald James. Representing DNR was Policy and Planning Corporate Strategist Peter Woolaver. An economist by training, Peter emphasized that the act needs to appropriately reflect the interests of stakeholders, including the public. Representing the Mining Association of Nova Scotia, geologist John F. Wightman suggested that the importance of the act should not be diminished by the review process. Panelist Gretchen Fitzgerald, Director of the Atlantic Chapter of the Sierra Club of Canada, expressed the view that the review of the act needs to be open and transparent, and suggested that all submissions to the review be kept in a public registry.

It is anticipated that formal consultations with stakeholders will occur later in 2014. We're looking forward to travelling around the province, meeting people and hearing their interests and concerns regarding exploration and mining in Nova Scotia.

Patrick Whiteway

This is the fifth in a series of columns designed to keep readers informed of the progress being made to review the *Mineral Resources Act*.

Special Note

E-mail Notification

If you would like to receive an e-mail notice (with hot links) when new maps, digital products and publications are released, or when a new issue of *The Geological Record* is released, please send your e-mail address to minerals@gov.ns.ca.

Dates to Remember

March 2-5, 2014

Prospectors and Developers Association of Canada International Convention, Trade Show & Investors Exchange, Metro Toronto Convention Centre, South Building, Toronto, Ontario. For more information please visit the web site: <http://www.pdac.ca/convention>.

April 16, 2014

Mining Association of Nova Scotia Annual General Meeting and Reception, Inn on the Lake, Fall River, Nova Scotia. For more information please contact sarah@tmans.ca.

May 21-23, 2014

GACMAC 2014: Joint Annual Meeting of the Geological Association of Canada, the Mineralogical Association of Canada and the Atlantic Geoscience Society, University of New Brunswick, Fredericton, New Brunswick. For more information please visit the web site: <http://www.unb.ca/conferences/gacmac2014/index-english.html>.

June 5 and 6, 2014

The Mining Society of Nova Scotia, 127th Annual General Meeting, Fox Harb'r Golf Resort & Spa, Wallace, Nova Scotia. For more information please visit the web site: <http://www.miningsocietyns.ca/>.

June 15-19, 2014

Coastal Zone Canada 2014, World Trade and Convention Centre, Halifax, Nova Scotia. For more information please see the article on page 1 or visit the web site: <http://www.czca-azcc.org/czc-zcc2014/home.htm>.