Nova Scotia
Minerals Update
Department of Natural Resources, Mineral Resources Branch

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In This Issue

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NOVA SCOTIA
Natural Resources

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Mining Matters for Nova Scotia.... Really!

The 2004 Mining Matters conference will be held at the Westin Nova Scotian Hotel in Halifax on November 1 and 2, 2004. Once again the organizers have put together a program that will be of interest to a broad audience. A technical session on Monday morning, November 1, will focus on some of the current developments in the province's mining industry. Presentations will provide an overview of exploration and development activities. Individual presentations will include an update of Federal Gypsum Company's recently announced Point Tupper Wallboard project, Scotia Slate Products Ltd.'s slate operation in West Gore, and a summary of the mine permitting process in Nova Scotia.

At 12:00 pm on Nov. 1, the Mining Society of Nova Scotia will host a luncheon in the Atlantic Ballroom featuring a presentation by Mr. Ron Hawkes of Diamond Ventures Ltd. entitled *Why We Explore for Gold: the Success of Plutonic Resources Limited in Australia*. Diamond Ventures is currently evaluating the gold potential of the Touquoy gold deposit at Moose River.

The technical session to be held on Monday afternoon is entitled *East Kemptville 25 Years Later: the Mineral Wealth of Southwestern Nova Scotia*. This

Delegate examines a display on iron oxide-copper-gold (IOCG) deposits near the Cobequid-Chedabucto Fault Zone at Mining Matters 2003. Exploration for IOCG deposits (analogous to those of the Olympic Dam, Australia, area) was a major portion of the mineral exploration effort in Nova Scotia last year. Companies have continued their pursuit of this mineral association in 2004.

An important aspect of Mining Matters is the opportunity for anyone to discuss current activities with the people who are presenting their work. There is no fee for admission to the conference.

session celebrates the 25th anniversary of the discovery of the East Kemptville tin deposit near Yarmouth. For seven years the East Kemptville mine was a major producer of tin, zinc and copper. The mine closed in 1992 and BHP Billiton continues to conduct reclamation of the former mine site. One presentation in the afternoon will focus on the geology and production history of the deposit, and a second will outline the reclamation activities. Other presentations will summarize the mineral resources of this part of the province with specific focus on kaolin-quartz, peat, gold and industrial minerals such as zeolites and rare-metal pegmatites.

Immediately following the afternoon session, the Honourable Richard Hurlburt will host a reception in the display area. The reception will feature a jazz ensemble and food, and will give delegates an excellent chance to interact and tour the posters in the Commonwealth ballroom. Posters and displays will be presented by geoscientists from DNR, Natural Resources Canada and local universities. In addition, several mining companies will have displays outlining all aspects of the mining cycle from exploration, through development and permitting, to the production and reclamation phases of an operation. Heather Lawson from Raspberry Bay Stone will be on site carving a sandstone sculpture. This will give delegates an opportunity to see a link between art and natural resources.

There will be a technical session on Tuesday morning, November 2, entitled *Rocks to Riches: Geology and Mineral Wealth of the Carboniferous in Nova Scotia*. Salt and gypsum from the Carboniferous rocks of central Nova Scotia and Cape Breton Island are mainstays of the provincial mineral industry. Individual presentations will focus on the potential for development of resources in Carboniferous rock units, including potential development of underground hydrocarbon storage, potential for commercial oil and gas deposits, and base metal deposits. Carboniferous sandstone has been quarried in Nova Scotia for more than 100 years and was used in many national buildings, including the Peace Tower in Ottawa. Sandstone for dimension stone applications continues to have excellent potential for development. Exposures of Carboniferous fossils in Nova Scotia are recognized as some of the best in the world and, in fact, work is underway to establish the Joggins section as a UNESCO World Heritage Site (see *Nova Scotia Minerals Update*, vol. 21, no. 3). Other presentations will describe some of these aspects of the Carboniferous rocks.

A Geoscience Luncheon will be held on Tuesday in the Atlantic Ballroom. The Keynote Speaker will be Gordon Fader and his presentation will be entitled *The Story of Halifax Harbour*. The talk will provide a unique view of the bottom of the harbour, as revealed by sonar surveys. The level of detail is such that individual shipwrecks and other features can bee easily viewed. Mr. Fader will also describe some of the effects of Hurricane Juan on the bottom sediments in Halifax Harbour.

Two field trips are planned, one to southwestern Nova Scotia to visit Black Bull Resources' new quartz mine near Yarmouth, and the geology and reclamation history of the East Kemptville tin mine. The second trip will feature a tour, provisionally termed MetroGeo, to examine the urban geology of the Halifax-Dartmouth metro area. All in all, Mining Matters 2004 is shaping up to be one of the best yet, so mark November 1 and 2 on your calendar and plan to attend.

Mike MacDonald

Director of Geological Services Mike Cherry (R) discusses some of the maps unveiled at last year's conference with Geologist and GIS Specialist Jeff Poole. New maps are often shown for the first time at the Mining Matters conference.

From the Mineral Inventory Files

Specular Iron Mines

Many people think that the oldest known iron mines in the province date from around 1825 in Nictaux Falls, Annapolis County. Actually, that distinction belongs to the little known Specular Iron Mines located near Sunnybrae in southern Pictou County (Fig. 1). Very little is known of these deposits other than a few sentences in geological reports, such as H. Fletcher's 1893 Geological Survey of Canada Annual Report and a location provided on his 1902 geology map of the region. It is not known exactly when the deposits were worked, but it is likely to have occurred before the 1800s.

Today the deposits are marked by little more than a cluster of small open cuts, trenches, prospect pits, and one shaft located along a linear trend of 4-5 km along the northern edge of the St. Marys Graben. The graben is underlain almost entirely by sandstone and siltstone belonging to the Carboniferous Horton Group, and is bound on the north by the Chedabucto Fault and on the south by the St. Marys River Fault. Both these faults are major splays of the system of east-west transform faults known collectively as the Cobequid-Chedabucto Fault Zone (CCFZ). The CCFZ is perhaps the most prominent geological feature in the province and serves as a the terrane boundary between the Avalon Terrane to the north and Meguma Terrane to the south.

An examination of the iron deposits quickly reveals that they have a strong structural control and are related to movements along the CCFZ (Fig. 1). The iron deposits were ignored from an exploration standpoint for more than a century, until Mispec Resources Inc. included the deposits in a gold exploration play along the northern margin of the St. Marys Graben in the mid-1990s. Their exploration recognized two interesting features along the strike length of the deposits: (1) elevated Cu-Co-Ag concentrations in highly altered metasediments and felsic intrusive rocks; and (2) anomalous Au-Cu-Co in soil samples over the iron-mineralized zone. Four follow-up diamond-drill holes (total of 767 m) were put down in 1997 and two intersected veins and lenses of massive magnetite-specularite up to 12 m thick, enveloped within many metres of replacement silica alteration and iron-carbonate veins (see inset on Fig. 1). The mineralized rocks are localized within zones of faulting, mylonite and intense brecciation. Magnetite is believed to be the source of the pronounced aeromagnetic high that delineates these deposits (see magnetic contours on Fig. 1). The country rocks in this area of the graben are grey to black slate and siltstone but, where silicified adjacent to the iron-oxide zones, these rocks are altered to a tawny brown and are very siliceous.

Pyrite disseminations are ubiquitous within the iron oxides and reach concentrations up to 20 volume per cent in some zones. Unfortunately, assaying of the core returned only weakly elevated gold levels but highly anomalous levels of Zn (to 2290 ppm), Co (to 2240 ppm), Ni (to 268 ppm), Cu (to 770 ppm), Sb (to 34 ppm) and Hg (to 5 ppm) were found. The presence of massive iron oxides in the ores, their strong structural control, and the Co-Zn-Cu-Ni elemental assemblage are strongly suggestive that these deposits have affinity to the iron oxide-copper-gold (IOCG) class of mineral deposits currently being sought along the CCFZ. The fact that soil geochemistry indicates the presence of gold in the system suggests that these deposits may warrant another look.

George O'Reilly

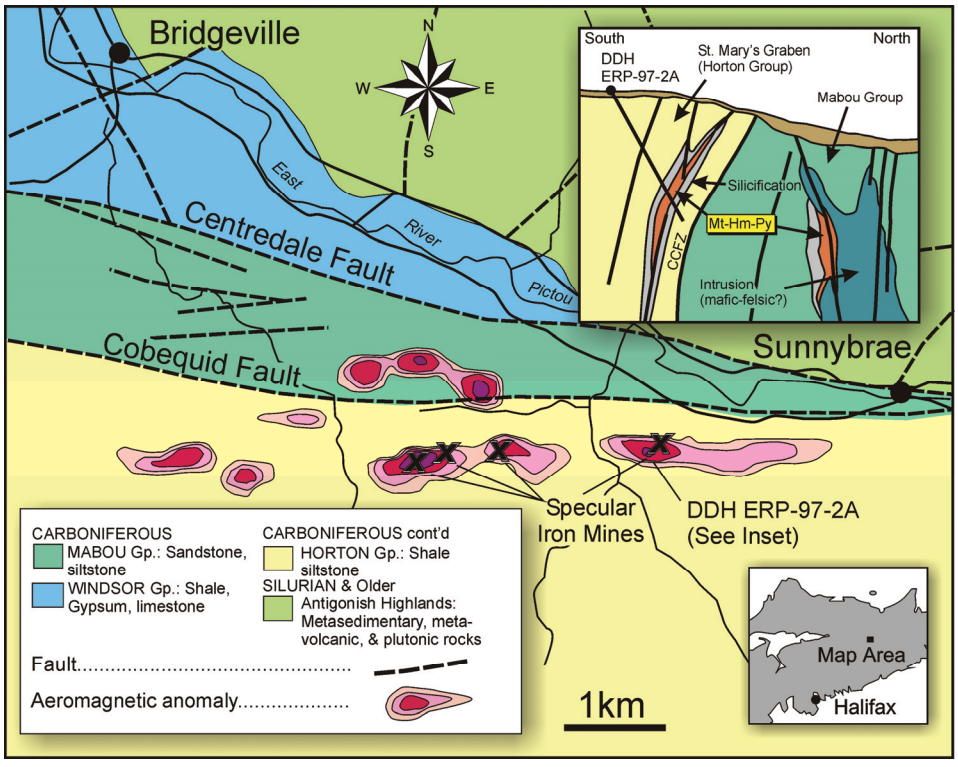

***Figure 1**. Geology of the northern margin of the St. Marys Graben in the area of Sunnybrae, Pictou County, showing the location of the Specular Iron Mines. Inset shows a section through diamond-drill hole ERP-97-2A of Mispec Resources Inc. Mt = magnetite, Hm = hematite, Py = pyrite.*

Mining Matters 2004: Technical Program

Commonwealth Ballroom A and B, The Westin Nova Scotian Hotel, Halifax

Monday, November 1, 2004

8:30 am - 7:00 pm **Registration (Commonwealth Foyer)**
8:30 am - 9:00 am **Coffee and Refreshments (Commonwealth B)**
10:00 am - 9:00 pm **Displays Open (Commonwealth A)**

Note: All talks will be presented in Commonwealth B

Session 1. *Current Developments in Nova Scotia's Mining Industry*

Session Chair: Scott Swinden, Nova Scotia Department of Natural Resources (DNR)

9:00 am - 9:10 am
Peter Underwood, Deputy Minister, DNR: ***Welcoming Remarks***
9:10 am - 9:40 am
Mike MacDonald, DNR: ***Mining and Mineral Exploration in Nova Scotia***
9:40 am - 10:00 am
Mike Cherry, DNR: ***Overview of Activities of the Geological Services Division***
10:00 am - 10:10 am
Scott Swinden, DNR: ***A Mineral Development Strategy for Nova Scotia***
10:10 am - 10:40 pm
Refreshment Break
10:40 am - 10:50 am
Paul Boutilier, Nova Scotia Business Inc.: ***Nova Scotia Business Inc. and the Mineral Industry***
10:50 am - 11:10 am
Rhyne Simpson Jr., Federal Gypsum Company: ***The Point Tupper Gypsum Wallboard Plant: Project Update***
11:10 am - 11:30 am
Debra Donovan and Rod Simpson, Scotia Slate Products Ltd.: ***Nature to be Commanded, Must be Obeyed***
11:30 am - 11:50 pm
Peter Oram, MGI Limited: ***Mine Permitting 101: How to Get a Mine Permitted in Nova Scotia***
12:00 pm - 2:00 pm
Mining Society of Nova Scotia Luncheon, Atlantic Ballroom. Keynote Speaker - Ron Hawkes, Diamond Ventures Ltd.: ***Why We Explore for Gold: the Success of Plutonic Resources Limited in Australia,*** **Cost $20**

Session 2. *East Kemptville 25 Years Later: the Mineral Wealth of Southwestern Nova Scotia*

Session Chair: Mike Cherry, DNR

2:00 pm - 2:05 pm
Mike Cherry, DNR: ***Introductory Comments***
2:05 pm - 2:25 pm
Chris White, DNR: ***The Last 550 Million Years - a Geological History of Southwestern Nova Scotia***
2:25 pm - 2:40 pm
Dan Kontak, DNR: ***25th Anniversary of the Discovery of the East Kemptville Tin Deposit...Where to Now?***
2:40 pm - 3:00 pm
Representative of BHP Billiton: ***Reclaiming the East Kemptville Tin Mine***
3.00 pm - 3.20 pm
Mike MacDonald, DNR, and Guy MacGillivray, W. G. Shaw and Associates: ***Serendipity: A Case Study of Mineral Exploration in Southwestern Nova Scotia***
3:20 pm - 3:40 pm
Don Hilton, Black Bull Resources: ***The White Rock Mine, Southwestern Nova Scotia***
3:40 pm - 4:00 pm
Refreshment Break

Mining Matters 2004: Technical Program (cont.)

4:00 pm - 4:20 pm
A. R. (Sandy) Anderson, DNR: ***Peat Resources of Southwestern Nova Scotia***
4:20 pm - 4:40 pm
Dan Kontak, DNR: ***An Update on Industrial Mineral Projects in Southwestern Nova Scotia: Kitty Litter to Make-up***
4:40 pm - 5:00 pm
Rick Horne, George O'Reilly, Dan Kontak, Chris White and Mike Corey DNR: ***Shear Zones and Mineralization in Southwestern Nova Scotia***
5:00 pm
Beer and Beef-on-a-bun Reception Hosted by the Hon. Richard Hurlburt, Minister of Natural Resources, with Guest Speaker the Hon. Ernest Fage, Minister of Economic Development, Commonwealth Ballroom A, Cost $10

Tuesday, November 2, 2004

8:30 am - 12:30 pm	**Registration**
8:30 am - 3:00 pm	**Displays Open (Commonwealth A)**
8:30 am - 9:00 am	**Coffee and Refreshments**

Session 3. *Rocks to Riches: Geology and Mineral Wealth of the Carboniferous in Nova Scotia*

Session Chair: Mike Cherry

9:00 am - 9:20 am
Peter Giles, Natural Resources Canada: ***Recent Advances in the Geology of the Windsor Group in Nova Scotia***
9:20 am - 9:40 am
Dave Carter, Hy-Grade Geoscience: ***LNG, CNG and Salt Cavern Storage***
9:40 am - 10:00 am
Phil Finck, DNR: ***Nova Scotia's Gypsum Industry: Past, Present and Future***
10:00 am - 10:40 am
Refreshment Break
10:40 am - 11:00 am
Tom Martel, Corridor Resources Inc.: ***The Depositional Sequence of the Horton Group and its Significance for Hydrocarbon Exploration***
11:00 am - 11:20 am
John Calder, DNR: ***Geology and Economic Potential of the Upper Carboniferous Rocks in Nova Scotia: Tradition Meets Innovation***
11:20 am - 11:40 am
Bob Ryan, DNR: ***Basin Brine Expulsion, Solution Front, to IOCG Models - The Carboniferous Cu-Ag-Au-Co-Pb-Zn Connection***
11:40 am - 12:00 pm
Scott Swinden, DNR: ***Concluding Remarks***
12:15 pm - 1:30 pm
Geoscience Luncheon, Atlantic Ballroom. Keynote Speaker - Gordon Fader, Natural Resources Canada: ***The Story of Halifax Harbour,*** **Cost $20**
12:00 pm - 3:00 pm
Cash Bar, Commonwealth Ballroom A
3:00 pm
Conference Closed

Post-conference Field Trips (Wednesday, November 3, 2004)

The Black Bull Resources White Rock Mine and Other Mineral Resources of Southwestern Nova Scotia**, field trip leaders Dan Kontak, Mike MacDonald and Phil Finck, DNR, Cost $10**

Metro-Geo: Urban Geology of the Halifax Area**, field trip leaders Fred Bonner and Howard Donohoe, DNR, Cost $10**

New Slate Quarry in Central Nova Scotia

Nova Scotia has a small but vibrant dimension stone industry that continues to grow. L'Ardoisière, a Quebec-based company, has commenced quarrying slate from its recently permitted site near East Gore in east Hants County. The new quarry is located near a former slate quarry that reportedly produced slate products, including roofing tiles and monuments, in the 19th Century. The company is extracting variably coloured slate from the Cambro-Ordovician Glen Brook Member of the Halifax Formation. L'Ardoisière is currently exporting raw stone to its fabrication plant near Montreal.

Nova Scotia has a proud tradition of producing dimension stone, commencing with the Wallace sandstone quarry in the early 1800s, and followed by granite and slate operations in southern Nova Scotia, sandstone quarries throughout northern Nova Scotia, and marble quarries in Cape Breton Island. Nova Scotia stone has been used both locally and for export throughout North America. Slate products from the Halifax Formation have proven to be of very high quality, and several heritage buildings in Halifax still have their original slate roofs from local quarries. Currently, several types of dimension stone, including slate, marble, sandstone and granite, are being successfully marketed in North America and as far away as Italy. The appeal of natural stone products, coupled with environmental concerns over the use of carpeting in both residential and commercial buildings, continues to provide burgeoning markets for Nova Scotia's stone products.

Mike MacDonald

Photo to the right: Workers at the L'Ardoisière slate quarry near East Gore, Hants County.

July - September Open Assessment Reports

Report Number	NTS	Licensee
AR ME 2002-53	11F/14B	Intragaz and Company Limited Partnership
AR ME 2002-54	11E/13B	Intragaz and Company Limited Partnership
AR ME 2002-55	11F/11C	Intragaz and Company Limited Partnership
AR ME 2002-56	11F/15A	Barrett, A M
AR ME 2002-58	20O/16D	Champlain Resources Incorporated
	20P/13C	Hudgins, A D
	21A/04B	
AR ME 2002-59	11D/12D	DeBay, A
AR ME 2002-60	11F/14C	Marchant, R L
AR ME 2002-62	11E/03C	Titanium Corporation Incorporated
	11E/06B	
AR ME 2002-63	11F/04C	Rainbow Resources Limited
	11F/05B	Forgeron, D
AR ME 2002-64	11E/06B	Titanium Corporation Incorporated
AR ME 2002-65	11E/03C	Titanium Corporation Incorporated
AR ME 2002-66	11E/03C	Titanium Corporation Incorporated
AR ME 2002-67	11D/13B	DeBay, A
AR ME 2002-68	11E/06B	Titanium Corporation Incorporated
AR ME 2002-69	11D/16C	D R Duncan and Associates Limited
		Nycon Resources Incorporated
AR ME 2002-73	21A/08C	Silver, B
AR ME 2002-74	21H/07B	Booth, I
AR ME 2002-90	11E/04B	Hoskin, D C
AR ME 2003-1	11F/15C	Mercator Geological Services Limited
	11K/02B	Jubilee Minerals Limited
AR ME 2003-29	11E/05C, D	Monster Copper Resources Incorporated
	11E/06C	
	11E/11B	
	11E/12A	
	21H/07B, C, D	

Susan Saunders and Jeff Poole

Abandoned Mine Closure at Lake Charlotte Protects People and Animals

Nova Scotia has a long mining history. Part of this history is recorded by several thousand mine openings created in the pursuit of underground minerals. Modern mine reclamation standards require that mine openings be securely sealed to eliminate safety hazards. There are, however, many abandoned mine openings in the province that have remained open. People have been known to risk their safety, and the safety of others, by entering abandoned mine workings.

Over the past two decades, the Department of Natural Resources has worked to catalogue the state of abandoned mine openings, especially on Crown land where DNR has landowner responsibilities. The department has established a fund for the remediation of mine openings on Crown land, and numerous mine openings have been capped, filled or otherwise made safe using this fund.

One such hazard existed as an open adit (tunnel) on the western shore of Lake Charlotte, Halifax County. The adit (Fig. 1) was created in 1939 to extract gold and has a recorded length of 127 m. The adit is arch-shaped, approximately 2.1 m high and 2.4 m wide at the base, and follows the natural folds of the rock formation. Directly in front of the adit is a relatively flat area where there are signs of recent human activity (for example, a camp fire). There are also indications of human activity inside the adit.

While the Lake Charlotte adit may appear stable and safe, conditions at an unmonitored mine can change quickly. There is also the possibility that poisonous gases, a lack of oxygen, or abandoned explosives exist within the workings. The department has attempted to make people aware of hazardous conditions by posting signs around many of these areas; however, not all people heed our warnings to "Stay Out, Stay Alive".

Although the department wants humans to keep away from abandoned mine openings, other creatures sometimes use abandoned mines as habitat. The Lake Charlotte adit has become home to thousands of hibernating bats over the sixty years that it has been abandoned. Human activity in a bat hibernaculum can be hazardous to both humans and bats. Bats disturbed during their hibernation can die because they use up valuable overwintering reserves.

In 2004, the Lake Charlotte adit was chosen as a high priority abandoned mine closure by the committee that administers the remediation program. To ensure that the bat habitat was conserved, the proposed structure was required to prevent human entry while maintaining access for bats. In addition, the closure design was required to minimize changes to the existing environment within the adit.

Each mine opening is unique and each closure project presents site-specific challenges. Don Weir (Regional Geologist, Central Region) and Dan Khan (Mining Engineer, Mineral Development and Policy Section) were given the task of developing a mine closure option that addressed both public safety and bat habitat issues. After several site visits by staff of DNR and Department of Transportation and Public Works (West Chezzetcook), a barrier was designed as a metal grate imbedded in a 250 mm thick concrete collar. The grate is a series of thick-walled 60 mm aluminium pipes (filled with cement grout and re-bar) that create openings of approximately 150 mm by 760 mm (Fig. 2).

The site itself is remote, so one of the biggest challenges was planning the logistics of getting materials, tools and workforce into the site. During the week of August 23 to 27, a small army of DNR and DOT&PW employees completed closure of the Lake Charlotte mine adit. Staff of DNR's Middle Musquodoboit office provided essential support, including setting up fire pumps to supply fresh water for concrete mix and providing ATV transportation for equipment. Mark Saywood (Forestry Technician) also contributed in many other ways to the coordination and success of the project.

The crew put in long days to complete the project on time and as designed. The week following construction, bats were already noted to be returning to the adit in preparation for the 2004-2005 overwintering season. Signs indicating the hazards of entering abandoned mines and the significance of this particular bat habitat will be placed on and near the structure.

We sincerely hope the bats enjoy their new front door and that human visitors respect the department's efforts to protect both human and animal welfare.

Dan Khan, Don Weir and Mark Saywood

***Figure 1**. Mine opening at Lake Charlotte before remediation.*

***Figure 2.** Mine opening after the closure project.*

Teaching the Teachers

The Eleventh Annual EdGEO Workshop was held this year in Halifax on August 23, 24 and 25. This year saw a record number (35) of elementary, junior high, and high school science/geology teachers enroll in the three-day workshop that provides them with hands-on experience and useful information and resources pertaining to the earth sciences. The workshop incorporates classroom-style presentations combined with several field trips.

The goal of the field trip that I presented was to show the bedrock, glacial, economic and environmental geology of the Halifax Regional Municipality (HRM), with stops in the Bayers Lake Industrial Park, along Kearney Lake Road, in the Blue Acres Industrial Park, and in the Waterstone Subdivision in Lucasville.

At the first stop, the regional geological setting was established. The stratigraphic relationship of the Cambro-Ordovician Meguma Group metasediments and their relationship to Devonian granitic rocks was discussed as were examples of mineral occurrences in each of the main rock types. This was followed by a brief discussion on the regional ice flow history and how it has affected the bedrock.

The bedrock geology was well represented, with numerous outcrop exposures of metasandstones of the Goldenville Formation and the overlying slates and metasiltstones of the Halifax Formation. One stop examined the contact relationships between metasandstones and intrusive granodiorite. The presence and significance of chill margins, cordierite and zenoliths were observed and discussed.

Evidence of glaciation, including striations and grooves observed on slates and metasandstones, as well as a stoss/lee erosional feature exhibiting plucked surfaces and crescentic features on an outcrop of metasandstone. Interpretations of the observed ice flow indicators were discussed in the context of glacial drift prospecting, a technique commonly used in mineral exploration programs throughout Canada.

The region's economic geology was discussed, mainly with respect to the annual usage of aggregate in HRM. The backdrop for this discussion was a former quarry located on the Kearney Lake Road. Coincidently, the 3 million tonnes of crushed bedrock aggregate removed from this quarry represents the current annual usage of crushed stone for the HRM area. Examples of the use of crushed stone included large boulders (rip rap) used for lining the edge of Kearney Lake Road, medium-sized boulders used for the construction of retaining walls and fine-grained aggregate used in road asphalt and concrete products.

The final stops of the day involved observation and discussion of the lower unit of the Halifax Formation, locally referred to as the Cunard Unit, characterized by its rusty appearance due to the presence of sulphide minerals. These exposed sulphides have been weathering and are probably forming acid rock drainage, as revealed by the presence of red iron precipitate in the ditches. The overlying Glen Brook Unit is characterized by a relative absence of sulphides and lack of staining of the outcrop.

The teachers absorbed the beautiful weather and a lot of information at the same time. Hopefully they will pass on to their students the viewpoint that mineral resources are an integral part of life.

Terry Goodwin

Organizers of the EdGEO Workshop gather at the DNR Core Library in Stellarton to prepare rock and mineral kits for the teachers. Terry Goodwin stands at far left.

Dates to Remember

October 28-30, 2004
Atlantic Universities Geological Conference, Acadia University, Wolfville, N. S. For information visit the conference web site: http://ace.acadiau.ca/science/geol/augc2004.

November 1 and 2, 2004
Mining Matters 2004, Westin Nova Scotian Hotel, Halifax, N. S. For more information see article on this page, or contact Mike MacDonald (phone 902-424-2523 or e-mail mamacdon@gov.ns.ca).

November 4-6, 2004
Review of Activities, Geological Survey of Newfoundland and Labrador, Newfoundland Department of Natural Resources, and Fall Meeting of the Newfoundland Branch CIM, Delta St. John's Hotel, St. John's, Newfoundland. For more information contact Norm Mercer (709-729-6193).

November 7 - 9, 2004
2004 Review of Activities, New Brunswick Department of Natural Resources, Delta Hotel, Fredericton, New Brunswick. For more information contact Carol McNeill-Dobbelsteyn (phone 506-453-6624 or e-mail dobbelsteyn@gnb.ca).

January 24-27, 2005
Mineral Exploration Roundup 2005. Western Bayshore Resort and Marina, Vancouver, British Columbia. For more information call 604-689-4800 or e-mail roundup@chamberofmines.bc.ca.

March 6-9, 2005
Prospectors and Developers Association of Canada, 2005 International Convention, Trade Show and Investors Exchange, Metro Toronto Convention Centre, Toronto, Ontario. For more information call 416-362-1969 or visit the web site http://www.pdac.ca/pdac/com.