



GRAND RIVER HERITAGE MINES SOCIETY NEWSLETTER

OCTOBER- NOVEMBER-DECEMBER 2000

Bits and Pieces

by Jean Farquharson, Ed.

Coming Events for the next few months - please mark your calendars:

Oct 13 - Ilse will lead a tour for the Convention of Carolinian Canada Association in the Brantford Northwest to see Davisville and the Tufa Prairie and the Hanging Fen. For time and meeting place phone Ilse at 756-6634.

Oct.15 - Business Meeting, Hike and Lunch at the home of Alf and Eileen Peart. For members who have not visited Peart's before, their historic red brick home was built in the early 1800's by the Cook family, original settlers who farmed the land and mined the gypsum from the Cook Mine. Enjoy a cozy fire while sitting in front of one of the huge fireplaces. Meet at 10 a.m. to adopt our Constitution. Bring your own lunch.

We have also been invited to attend at 2:30 that afternoon, at the park in York, the **official dedication of a plaque** marking one of the locks built and used by the **Grand River Navigation Company.** We will leave Ilse's (23 KingsHill Lane, Strawberry Hill) at 9:15 for those who want to car pool or follow along. Phone Ilse at 756-6634 to confirm.

Oct. 21 - Field Trip to the Garland-Carson Mine. This is located southwest of Caledonia, near McGowan Road, on the properties of Harold Cruikshank and Blake Schaeffer, who have given us permission to look at the site. Mr. Cruikshank has offered to show us around. We will leave Ilse's at 9:15, to arrive about 10:00 a.m. at Highway 54 at the parking lot under Highway 6 overpass. Please phone her to confirm and/or arrange car pool.

Oct. 28 - Some of you interested in local history may want to peruse **Tweedsmuir Histories** kept by some of the local Women's Institutes in Brant County. Brant County Branch, Ont. Genealogical Society, is offering a **Millenium Workshop** at Smokey Hollow Estates, 114 Powerline Rd., Brantford, from 9 a.m. to 3 p.m., lunch included if you pre-register, for \$10. There will be guest speakers as well. For more information and pre-registration, phone Jean Farquharson at 442-2156 or Helen Doctor at 753-8581.

Nov. 4th - Field Trip to Mt. Olivet. See the outcrop with many fossils from the Onondaga Formation. Meet at 9:00 at Ilse's, or at 10 a.m. at Ms. Shirley Richert's, 136 Mt. Olivet Rd., next to the church in Mt. Olivet. Pack your lunch.

Nov. 25th, 6 p.m. Christmas Pot-Luck at
Ilse's. Please let her know if you can come.

Contributors to this issue:

*Our newsletter has an article contributed by members Paul and Gloria Boulaine about their trip to the West.

*Mike O'Byrne is updating us on current exciting mining events.

*Ilse has contributed two articles, one on the Field Trip to the Canadian Drilling Rig Museum at Rainham Centre and some background information about Mount Olivet to prepare us for the field trip.

*I am offering you two articles as well - first a report on the Garland-Carson Mine, to prepare you for our field trip there. I have also prepared a report on the recent public meeting where our guest speaker Ray Hartviksen, told us about his experiences opening No. 3 Mine at Caledonia and the Drumbo Gypsum Mine. Thanks to Mike for arranging the meeting.

Mining Lore - August 2000

by Mike O'Byrne

Note: the following was largely highgraded from the Globe and Mail July 20, 2000.

Falconbridge Ltd. reported that it would spend \$640 million at its Kidd Creek base metal mine near Timmins, Ontario. When completed, Kidd Creek will become the world's deepest base metal mine.

The mine is currently worked via a shaft collared on the surface and extending 2,100 feet. The new shaft or winze (internal shaft)

will be sunk one kilometre from the original shaft to the 3,100 metre level. AngloGold is currently the world's deepest gold mine, its workings extending to a depth of 3.7 km.

Miners will descend the original shaft, then be transported to the new winze by electric trolley where they will descend to their working levels. It is estimated that the temperature at that level will be 32 degrees Centigrade. The initial phase of the project includes \$131 million for sinking the shaft, \$42 million for ventilation and refrigeration and \$42 million for new underground mobile equipment with air conditioned cabs.

This is an awesome project when you consider the engineering work involved and the tremendous quantities of material that will be blasted, loaded and lifted to the surface.

The Canadian Drilling Rig Museum by Ilse Kraemer

On Sunday, September 17th, a group of the GRHMS members visited the annual Open House of this Museum. It was a beautiful warm, windy day, and a visit to be recommended. The huge drilling rig or derrick with the Canadian flag on top of it, painted in red and brown, was visible for miles. The location is a park-like, immaculately groomed setting in Rainham Centre. The derrick, which was first used in Milton in 1896 to drill for gas, is the last known example of this type. 20 metres high, it is a fully working steam-powered rig.

The Museum consists of many buildings storing and displaying drilling artifacts, pictures from olden days and drilling operations in the nearby Selkirk area.

We met and talked with the members of the Museum, very dedicated people, willing to explain patiently the many questions we asked. Their goal is to make the visit to the Museum a very special and rewarding experience, to continue the development of the Museum, to preserve any artifact, photo or personal knowledge regarding the discovery and production of natural gas.

In 1891 the first gas well was drilled in Dunnville by a company from Port Colborne. In 1912 the Charles Ross Gas Co. struck a well in Stromness, south of Dunnville, that yielded more than two million cubic feet of gas a day. This was the most productive gas well in Haldimand. In 1915 work on a new pipeline for gas from Selkirk to Simcoe was to be installed. In 1918 gas drillers from Lyndoch and St. Williams field hoped to drill between three and four thousand feet deep at Long Point. Local natural gas at the well head is 96% methane.

We were intrigued by all the small models of pumps, derricks, etc., all working and displayed inside the buildings. At 12 o'clock noon a loud whistle sounded from the rig, indicating lunchtime. We brought our lunches along, and sat on the grass and stretched our legs. Behind the buildings a lot of gas well equipment was stored, waiting to be restored to its old glory.

This was an outing we all enjoyed as we are working in the same field, and we all felt so very welcome. Executives of the Museum invited us to set up a display of our work in one of the buildings, maybe even a permanent display. We told them we would.

Paul and Gloria's Rocky Vacation

At 7:30 a.m. on June 12th, we headed west in our trusty station wagon along Highway 17. What an excellent road to look at rock formations! The drilling and blasting of rocks millions of years old tells a fascinating tale of the past. Glaciers, ancient lakes, volcanoes, compression and other past occurrences have left the rocks in their present state.

The colours of the rock cuts vary from white, pink, red, grey, black, blue, to yellow and other colours either solitary, yellow, or mixed. Textures and shapes can be jagged, smooth, porous, hard or soft. The angle of the layers go from horizontal to vertical, showing how the earth upheaved in the past. Some of the formations are fairly high, creating a small version of the Rocky Mountains.

We had a rainy ride through Manitoba and Saskatchewan to arrive in sunny Alberta. What at first look like clouds are really snow-capped mountains. Their size is hard to judge. It wasn't until we saw some slow-moving specks on a slope at Lake Louise and realized the specks were rock climbers that we got an idea of the height of the mountains. Gloria and I spent several days enjoying the views. Every turn in the road was a new photo opportunity. It was time to head home, and after a few days we were back in Ontario where we took the ferry to Tobermory - a nice boat ride!

One stop we made might be of interest to the GRHMS members. Just outside of Winnipeg, at Birds Hill Provincial Park, is an old lime kiln. The dome is gone, but the walls of the six foot diameter base are still

intact. In the 1930's limestone gravel was burned in the kiln to make quicklime, a building material used for whitewash, plaster, mortar and sewage treatment. It reminded me of the old kilns in our area.

Nearby, at Stonewall Quarry park, are displays of 1900's lime and pot kilns. Unfortunately I didn't find out about these until we were back in Paris.

Our membership with the GRHMS has helped us appreciate geology more. This, along with our interest in flora and fauna made for a very full and interesting vacation.

Mount Olivet, by Ilse Kraemer

On our way back from Rainham Centre, we visited a ghost town called Mt. Olivet. It is a strange but beautiful little village. The area south of Hagersville is very flat; it was the former lakebed of Lake Warren. A few miles south of Hagersville is a large high knoll, an outcropping or runner-off of the Onandaga Escarpment. There is only one road, one church and cemetery, a few empty old homesteads and some houses and a farm. Hundreds of miniature lilac bushes cover the area. The houses have low stone walls set up as fences, with lilacs on both sides. These stones are made up mainly of fossils of all sorts and sizes. The geological strata is the Bois Blanc Formation, belonging to the Lower Devonian - about 300 to 400 million years old. The sandstone is medium to coarse-grained fossiliferous, calcareous quartz sandstone. Some dolostone, brown chert, and sandy limestone is also present. The fossils are very concentrated here and diverse: worms, brachiopods, corals in all sizes. This

indicates a lakebed of saltwater existed there long ago. We saw some old quarries, and would have liked to look around. Gypsum may have been found there, but at lower levels.

I talked to a lady who lives in Mt. Olivet - Shirley Richert. She told me her farmhouse was erected in 1860. They have no water, only a cistern, but below the Mount is a cave with water running out which feeds two ponds. Leaning against the barn is a grinding stone; it was never used and she does not know why it is sitting there. No streams large enough for a mill are in the area. A few years ago a water bottling plant was built on top of the Mount, but it never opened up for production. Nobody knows the reason. The old quarries, long since overgrown, were quarried a long time ago by bucket.

Shirley will contact local historians and the church to find more history for us. If I get this information, it will be in the next newsletter.

Indians in prehistoric times lived on the Mount, which is indicated by the many arrowheads found in this area. It could have been a flint quarry, too; The Indians liked to work the flint right where they quarried it - less weight to carry.

News Flash! Howard and Gwen Parkhill notified us that they found a new cave-in in the bean field of Mr. Gurney south and east of Mile Hill. This is where the mine tunnels of the Alabastine Company were situated - called the Paris Plaster Mine. Howard investigated a few months ago and the hole was up to his armpits. It has since receded some more.

THE GARLAND-CARSON-MUTCHMORE MINES

by Jean Farquharson

Mr. N. Garland of Toronto operated two mines, one in Concession V, Lot 13 and in Concession VI, Lot 13. It began about 1870 when Joseph Brown sank a water well on his property and ran into 4 ½ feet of white gypsum of good quality. Brown sold the property to Garland, who started to mine it shortly after. The incline drift, driven southwestward from a few feet above the level of Mackenzie Creek, caved and filled with clay overburden. Then a new opening was started on an incline of 1 to 9, and gypsum was struck at a vertical depth of 57 feet. The gypsum bed was about 4 ½ feet thick, with a roof of about 5 inches of soft dolomite.

About 1879, the mine was operated by Mr. Mutchmore.

Mr. L.H. Johnson, who became owner of the property in 1881, operated it for nine or ten years.

In 1891, Mr. Garland again obtained the property and operated it until 1895.

Mr. Garland opened a second mine in 1886 on the west half of Lot 14, Concession V, Oneida Township. It was purchased by William Smith in 1898.

The gypsum bed was found at a depth of 70 feet through an inclined drift.

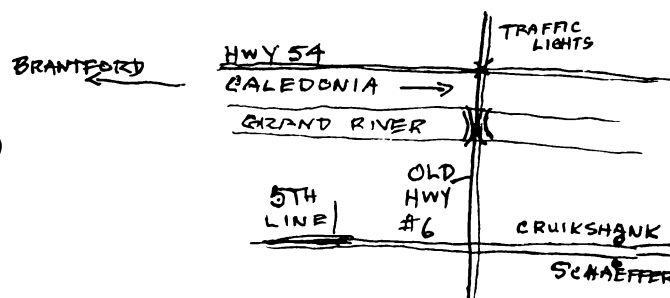
Both properties were taken over by the Alabastine Company of Paris in 1895 and renamed the Carson Mine.

Blake Schaeffer, who worked at DomTar for 39 years, lives at 318'-5th Line Road, Oneida where the Carson Mine was located. By the time he moved onto the property in 1958, it was all filled in. There had been sinkholes where the airshaft and drifts had been. He stated that the rock was dug out and hauled to the Gibson farm across McGowan Rd. where it was stockpiled, and later taken in wagons to the mill in Caledonia, where it was ground up and shipped all over Ontario to be used as fertilizer. The Alabastine Company sent their gypsum to the mill at Paris, where it was used to make land plaster and plaster.

Harold Cruikshank lives on the property where the Smith Mine was located. The airshaft on his property was 60 feet deep, and it is now filled in.

There was a cave-in in his corn field four to five feet deep, which has been filled in. He also located an old mine wheel and a talus heap. This mine was located close to the route of the new Highway 6.

Willow Grove Women's Institute has collected in their Tweedsmuir History some of the history of the mines in the area. After we complete our field trip, we shall report any new information that we receive from Mr. Cruikshank and Mr. Schaeffer and the Willow Grove W.I.



THE EXPERIENCES OF A MINING ENGINEER- GEOLOGIST: RAY HARTVIKSEN

By Jean Farquharson

Members of the Grand River Heritage Mines Society were fascinated by a talk given by Ray Hartviksen, a consultant in mining engineering and geology from Woodstock. His education included graduation from the Lakehead Tech. Institute in Technical Mining and from the Michigan College of Mining and Technology, with a BSc. in Geological Engineering. He worked in the exploration and mining geology field for several companies, including the Sherman Mine. He was employed by the Canadian Gypsum Co. in Hagersville, as project engineer, working his way up to mine superintendent. He mechanized their mine, and opened up the part of the mine on the Six Nations Reserve.

In 1976, Mr. Hartviksen joined Westroc as mine manager. It was his task to open the Drumbo mine, and he described in detail the difficult procedures required to drill and install a liner through the glacial till and glaciofluvial deposits to the bedrock 164 feet below the surface. Two artesian zones were encountered and had to be sealed, with difficulty. The gypsum bed being mined occurs at the base of the Salina formation of Silurian Age, from 8 to 18 feet above the underlying Guelph Dolomite. The thickness of the gypsum varies from 5 to 8 feet, and the grade is about 88% $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$, the same as at Hagersville, but higher than at Caledonia.

Some of the problems encountered were:

- To keep the shaft from collapsing while it was being opened up, it had to be filled with Bentonite, a special kind of clay;
- When the steel liners were sealed with 1930 tons of grout, the liner came up 11 inches;
- When they struck water while drilling the shaft, it filled up to 50 feet below the surface and had to be pumped out;
- They had to pour a concrete plug below the gypsum bed to stop a flow of 200 gallons per minute;
- When salt is mixed with the gypsum it is difficult to make wallboard. Boric acid must be added to counteract the salt, but the board becomes hard and stiff.

The mine was closed a few years ago. Production exceeded demand, and also gypsum is now obtained as the by-product of buffering the exhaust from the huge Ont. Hydro chimneys. Ground limestone is used as the buffering agent. It combines with hydrogen sulphide to produce gypsum at a cheaper price, and it helps reduce air pollution! Although the mine could produce 250,000 tons of gypsum per year, there was only a market for half of that. It was not economically viable.

This newsletter is edited by Jean Farquharson. We are not responsible for errors. We are looking for more information about the mining industry in Southern Ontario. Submissions are welcome. Please send **correspondence** to Jean Farquharson, R.R.3, Paris ON N3L 3E3. Phone 519/442-2156. Fax 519/442-2373. For **membership inquiries**, contact Ilse Kraemer, 23 KingsHill Lane, Brantford ON N3T 6A3. Phone 519-756-6634.