



# GRAND RIVER HERITAGE MINES SOCIETY NEWSLETTER

October, November, December 1998

**Editor's Notes**, by Jean Farquharson

## FIELD TRIPS AND COMING EVENTS

Well, after our l-o-n-g h-o-t dry summer, we should be raring to go on some field trips. Ilse has some to tell you about that she took quietly on her own this summer, or with a few of us accompanying her. She has several discoveries to reveal to us. The first outing will be at Five Oaks on October 18 at 10 a.m. Please call Ilse to confirm - at 519-756-6634.

Another date we must set is for the Christmas Party - November 28<sup>th</sup>, 6 p.m. at Ilse's. Please write it on your calendar right away before you forget.

## MEMBERSHIP

We are printing our membership list (paid-up members only). We excluded those who did not want their names published. If you know of someone who would like to be put back on our mailing list, please tell them to send in their membership fee. Also please notify us of any corrections that need to be made.

## DISPLAYS AND RESEARCH

We attended the **Golden Horseshoe Steam Show on August 1, 2 and 3**, with assistance from Cathy and Katie, Ilse, Jean, Mike, Harry, Alf, Mary Martindale, Mary Nelles, Barb, Paul and Gloria. Thanks, folks. Mary Martindale donated some very special clippings about the operation at Caledonia with super pictures. Thanks, Mary. Cathy often donates materials and I forget to give her credit. She is an avid hunter for old historical book and pictures. Recently she found and donated copies of old photos of Camp Thayendenagea before it became Five Oaks. She also found some information about a gypsum mill at Port Ryerse for which the miller imported gypsum by ship from along the Grand River. Thanks Cathy!

This year's theme for the York Grand River Historical Society was "Foundries", and so our new display on **Bog Iron and The Normandale Iron Foundry** were right on topic at the steam show. On our way to Normandale, Ilse and I went on a trip to Simcoe to the Eva Brook Donley Museum where we did some research on bog iron and the iron furnace at Normandale. I did further research on bog iron, and on other iron furnaces situated in S. Ontario, at the Library of the Ministry of Northern Development and Mines which is located on the campus of Laurentian University at Sudbury. We have enough material to put into a small booklet. Ilse has prepared for us an article on VanNorman for this edition of our newsletter. Ilse's granddaughter, Emily, a budding writer, has also contributed an article for the newsletter. Emily is 8 years old, lives in Glen Williams and wants to become a writer. The stories she writes take a few days. She says she uses all her ideas for one day; then the next day she thinks of new things.

In September, I gave a talk on the **gypsum mines** at the **Whiteman's Creek Women's Institute**. Because they had invited the **St. George W.I.** to the meeting, I also talked briefly on

the **marl** at Blue lake and the big **Portland Cement plant** with the ruins still there.

Our dreams came true! We have been trying to **tour an operating gypsum mine** for the last five years. It was arranged rather suddenly in early September. Mike will tell us the whole story about our tour of **Georgia Pacific**. We took photos which members can see later.

## **OUR VISIT TO MINE # 3 AT CALEDONIA - We Finally Made It!**

by **Mike "Old Grizzly" O'Byrne** (our experienced miner)

Recently six members of the Society had the privilege of touring some of the underground workings of **Georgia Pacific's** operation at Caledonia. On behalf of the Society, our sincere thanks go to **Barbara Topp** for arranging the tour and to her uncle, **Richard Murphy**, for serving as our tour guide. It was a great experience, much appreciated, and from my perspective, sort of like coming home.

The mine is located about three miles south of Caledonia with development begun in 1989, and the operation beginning in 1991.

The surface plant consists of several metal-clad buildings accommodating a large ventilation fan and a separate larger building providing space for offices, a lamp room, miners' change room or dry, and the shaft collar and hoist unit.

After signing the visitors' register, we donned disposable coveralls, steel-toed rubber boots, hard hats, cap lamp and a waist belt to carry the cap lamp storage battery. We then went into the cage for our 80 or 90 foot descent into the bowels of Caledonia.

The mine is served by one shaft, several manways to the surface, a conveyor belt system and an incline. The incline and the conveyor beltway connect to the main milling operation in Caledonia. The incline is used to move large items of mining equipment and supplies into and out of the mine.

The mine consists of one working level. Upon exiting the cage, we entered a large excavated area usually called a shaft station. We then moved through an airlock into the main production and service areas of the mine. The maintenance shops and storage areas are large rooms excavated from the rock, and are equipped with electric heaters, lights and cement floors.

We then boarded a diesel-powered Toyota Land Cruiser to tour the worksites. The Land Cruisers are used to move personnel and supplies to the various worksites. The mine has miles of tunnels, and motorized vehicles are the only practical way to get about. Once we turned off the main routes, we drove carefully through ruts and puddles. The air became dank and cool (about 18 degrees C.). The tunnels are about as wide as a city street and at a height where even short people like Jean can just reach the roof. While moving about in the Land Cruiser, we had to duck to avoid hanging suspended wires and pipes.

Mining is done using huge Joy Manufacturing Continuous mining machines. The hydraulics are all powered by hydro electricity. The cutting component of this 20-ton beast consists of tungsten carbide toothed rotating cutting heads. The machine chews into the rock, uses a gathering arm to move the broken rock onto a self-contained conveyor belt which then dumps into an awaiting shuttlecar, which conveys the rock to a nearby main conveyor dump point. The rock moves by this conveyor to the plant in Caledonia.

## What Did We Observe During the Tour?

- \* There were numerous signs promoting safe work habits. As you entered the building above ground, you read in big print beside the door the affirmation, "I will not be injured today."
- \* A sign denoting a refuge station: the stations contain a telephone connection to the surface, and have air pack equipment and spare air cylinders to be used in an emergency such as a fire.
- \* There was somewhat tame graffiti painted on some rock surfaces. The Hollywood Cafe may have been the miners' lunchroom.
- \* There was a laser show; the miners operating continuous mining machines follow a laser beam projected on the rock face being mined. This is done to ensure that mining is proceeding in the proper direction and grade.
- \* Located at regular intervals in the backs of the workings were wooden pegs used as survey points. These points would be used by mine engineers to plot where the workings were in relation to the surface so that the mine workings did not run into the Grand River or Alf Peart's gas well.
- \* Underground fuel depots, battery charging stations, electrical substations.
- \* Stalactites were growing from the ceiling where water was dripping down.
- \* There was a traffic control system controlling vehicle traffic in congested or difficult traffic areas. The incline is similarly controlled so that big pieces of equipment can be moved safely.
- \* In some areas of the mine there was a noticeable smell of sulphur.
- \* The mining method used is a type of room and pillar method, with 20% of the mineral left intact in the support pillars. The gypsum is chewed out in a series of chevron-like cuts with pillars left between the cuts. The pillars support the ground and hopefully minimize surface subsidence problems.

## Definitions That May Be Helpful

**Airlock** - a pair of doors in an airway that permits the movement of personnel and equipment without affecting the ventilation airflow, since at least one door is kept closed at all times.

**Back** - The roof or upper part of any underground mining cavity.

**Beltroad** - A roadway in which a conveyor is located.

**Brattice** - A partition often made from canvas or plastic, to direct airflow in the working area of the mine.

**Line Brattice** - Brattice used to create temporarily both ventilation intake and exhaust paths within a single heading.

**Pillar** - An area of rock left to support the overlying strata.

**Roof Bolt** - A steel bolt or cable secured into place in the roof or rib of a mine opening for the purpose of pinning layers of rock together. Rock bolting is a common form of roof control.

**Scooptram** - A load haul dump unit (front end loader) with a large bucket used to move rock and materials in a mine.

**Shuttlecar** - Rubber tired, electrical-powered vehicle that carries rock from a continuous mining machine to a conveyor dump point.

**Continuous Mining Machine** - A machine that cuts or rips ore directly from the mining face,

without use of explosives, and loads it onto a conveyor or shuttle car in a continuous operation.

**Stopping** - A wall built across old headings to confine the ventilating current to certain passages. Permanent stoppings are commonly made of masonry or concrete; temporary stoppings may be made of such materials as plywood, plastic sheeting and batrice cloth.

## A VISIT TO NORMANDALE, By Ilse Kraemer

Since our display of the iron furnace of **VanNorman** at the Lapidary Show this spring was such a success, we decided to enlarge the display for the steamshow at Caledonia. This called for more research and a trip to **Normandale** to take pictures.

On a beautiful summer day, Jean and I started out for this enchanting little hamlet on Lake Erie just west of Port Dover. On our way we stopped at the Simcoe museum to do our research.

Normandale had everything needed for the production of iron: good clay, limestone water, vast woods of apple, oak and beech for the manufacture of charcoal, used to melt the iron. The area north of Normandale has large tracts of swamp with concentrations of bog iron.

In 1818, a man named **Samuel Mason** built an iron furnace, but after it collapsed, he died, probably of exasperation. In 1820, J. VanNorman, together with partners, bought the property from his widow. Soon VanNorman began to lay out streets, and the village started to grow. For himself, he built a **belvedere style home** of red brick very close to Potter's Creek. The house is still standing and is lovingly preserved by its present owner.

The tiny church on the hill, built in 1845, now makes a charming residence. The **Normandale Post Office** (1845), and the **Union Hotel** (1837) next door, were restored in 1967. Both are used in a bed-and-breakfast operation by the present owner, who let us walk around the property in order to take pictures. She told us some of the local history that she remembers, and she pointed out this continent's largest tulip tree or yellow poplar. The tree is enormous and must be over 200 years old.

We walked down to the beach where **Potter's Creek** enters Lake Erie. This creek is very small, but heavy flowing and crystal clear. It was called Potter's Creek because in 1810, **Samuel Long** established a pottery and home beside the creek, and nearby he dug the blue clay out of the embankment to make earthenware vessels and utensils for his neighbours. Lots of broken pottery sherds are easy find all over the area.

Next to the creek was VanNorman's dock, where lake boats docked to transport the ironware all over the area and into the U.S.

While walking back up the road towards the village, we saw on our right side a large cairn dedicated to Van Norman and **The First Iron Furnace**. On the left side of the road is another tulip tree, right next to where the iron workers' huts were located. At this point, the creek was divided into two channels; one to cool the iron, the other to provide waterpower to operate the bellows. The bellows was used to make the fire hotter. The foundations of the bellows are still there.

The whole area is littered with large and small chunks of slag, refuse from the furnace, a lot of unmelted ore, and charcoal embedded in the slag. Since charcoal did not provide enough

heat to melt all of the iron ore, there was a lot of waste. This furnace operated 10 months of the year; during closing, it had to be relined with clay and slate. Furnace brick was not available at that time. Slate had to be imported from the U.S.

The enterprise produced about 4 tons of iron a day and employed 300 to 400 workers. The work involved getting out the ore, teaming it to the furnace, burning and hauling charcoal, and distributing the manufactured wares. In 1846, the population of Normandale was about 300, and later grew to about 750. Much of the trade involved bartering because money was scarce. Thus VanNorman was trading in not only farm implements and articles for household use, but also local agricultural products. A shipping operation proved very profitable to VanNorman.

Later on Van Norman built another furnace further up the road; the old dam is still there, hidden by shrubs and weeds. Other furnaces were erected in Hemlock and Houghton, but were not operated for long. Hemlock became a ghost town. Houghton has only a hotel and one or two houses standing. Here again, the only thing left is a dam and a lot of black soil. In Port Dover, another furnace was built, but we don't know much about it.

Later, VanNorman moved completely out of the area to the Rice Lake vicinity. Close to Rice Lake, the large Goose Lake was drained, and the heavy deposit of bog iron ore mined. Since there was no railway near his furnace, the cost of transporting iron ware was too high and the furnace closed. VanNorman tried to revitalize the Normandale furnace but was unsuccessful. He died soon after.

Today, walking around Normandale, one can hardly visualize the noise and activities during the time of furnace operation. It is a quiet and tranquil place, nearly forgotten by tourists.

## **THE STORY OF THE GREAT MYSTERIOUS MINE**

**By Emily Dobson**

Once upon a time there was a little girl named Carole.

She was looking for something to do so she started to walk down the street.

When she got to the stop sign she saw a whole bunch of people with a map.

She decided to ask them if they needed any help.

They said, "Actually we do need a bit of help."

She said, "Now first of all where do you want to go?"

The man said, "We are looking for the mines."

"O.K. You make a right turn and then another right turn and you will see it."

"Thank you so much little girl."

One guy tapped the man's shoulder and said, "It's a little girl, just what we need in the mines."

"You are right," said the man. "Now little girl. Would you care to work in the mines with us?"

"Why certainly I just have to go and ask my mom." She came back running with a smile on her face. When she got to them she said, "I can. Lets get started."

"But first," said the man, "You get a special director's position to tell us what to do."

Carole said, "O.K."

One day while she was directing at the mine she saw something that she had never seen before. It was interesting. She slowly walked closer and closer to it, and she became slower and slower as she walked closer and closer.

Then she suddenly stopped. It was only a man's yellow coat.  
But then she got a glimpse of something else.  
She ran over to it.

**It was... it was... GOLD!**

It was so exciting that it was put on the front page of every newspaper.  
And everyone in this story lived happily ever after.

THE END

## MEMBERSHIP LIST - 1998

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|---------------------------------|--|------------------------------|
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| Nielsen, Peter                  | 61 Clarke St., Woodstock N4S 7M4           | 519-537-8210                 |
| O'Byrne, Mike                   | 676 Mt. Pleasant Rd., Mt. Pleasant N0E 1K0 | 519-484-2795                 |
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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.