



PRESENTATION TO INDUSTRIAL MINERALS 2011

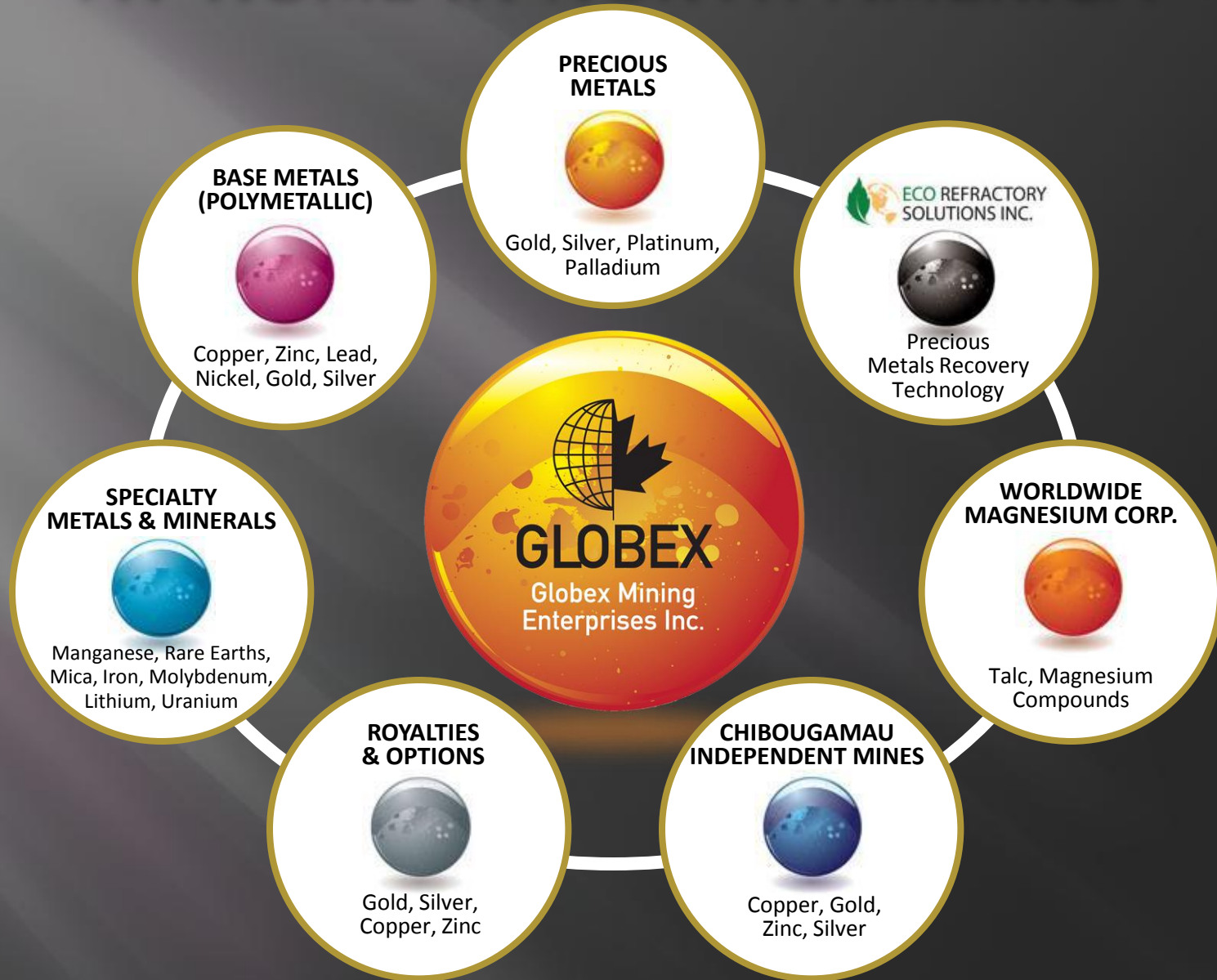
BUILDING AN INDUSTRIAL MINERALS COMPANY IN THE  
HEART OF GOLD COUNTRY

# TIMMINS TALC – MAGNESITE PROJECT

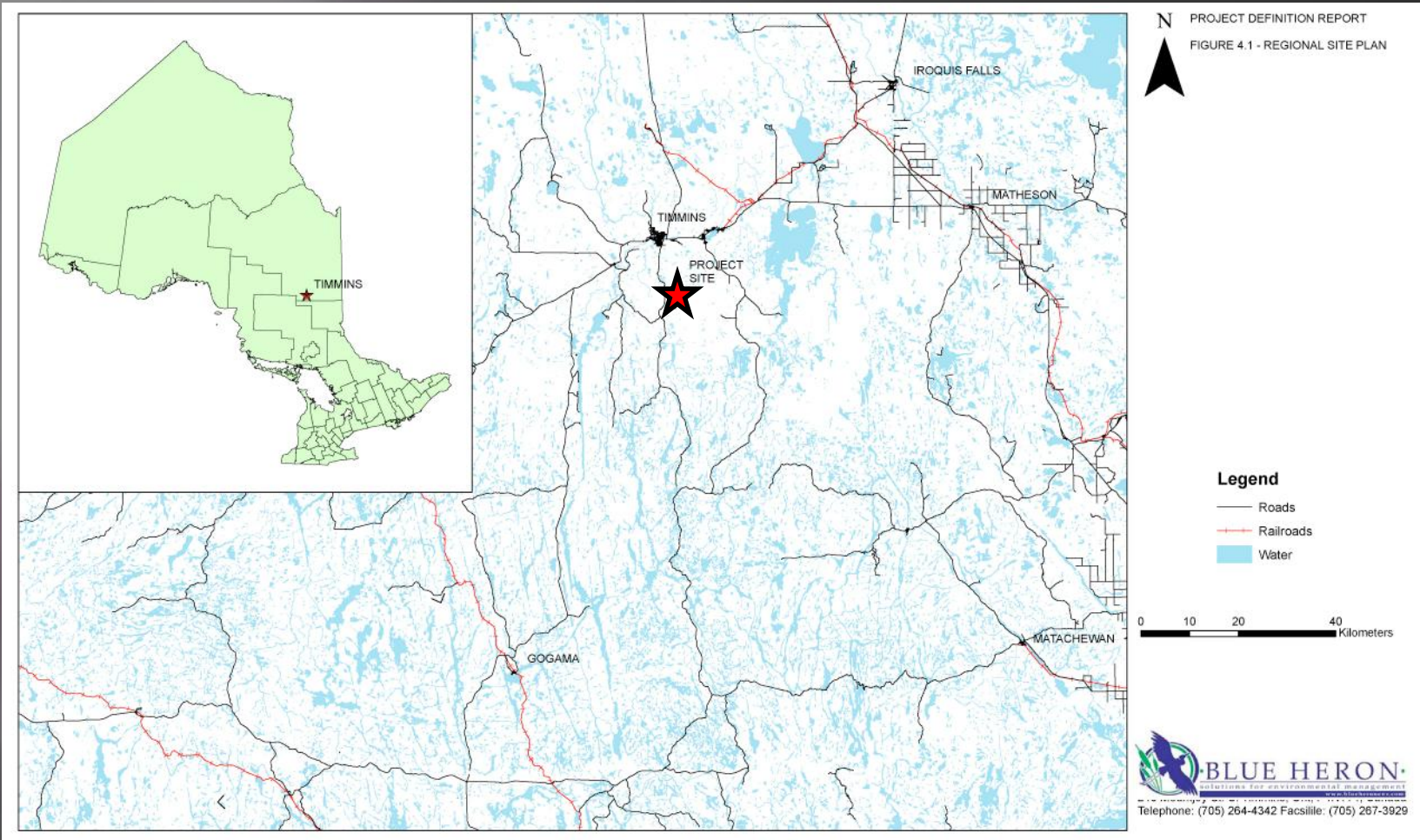
October 18, 2011

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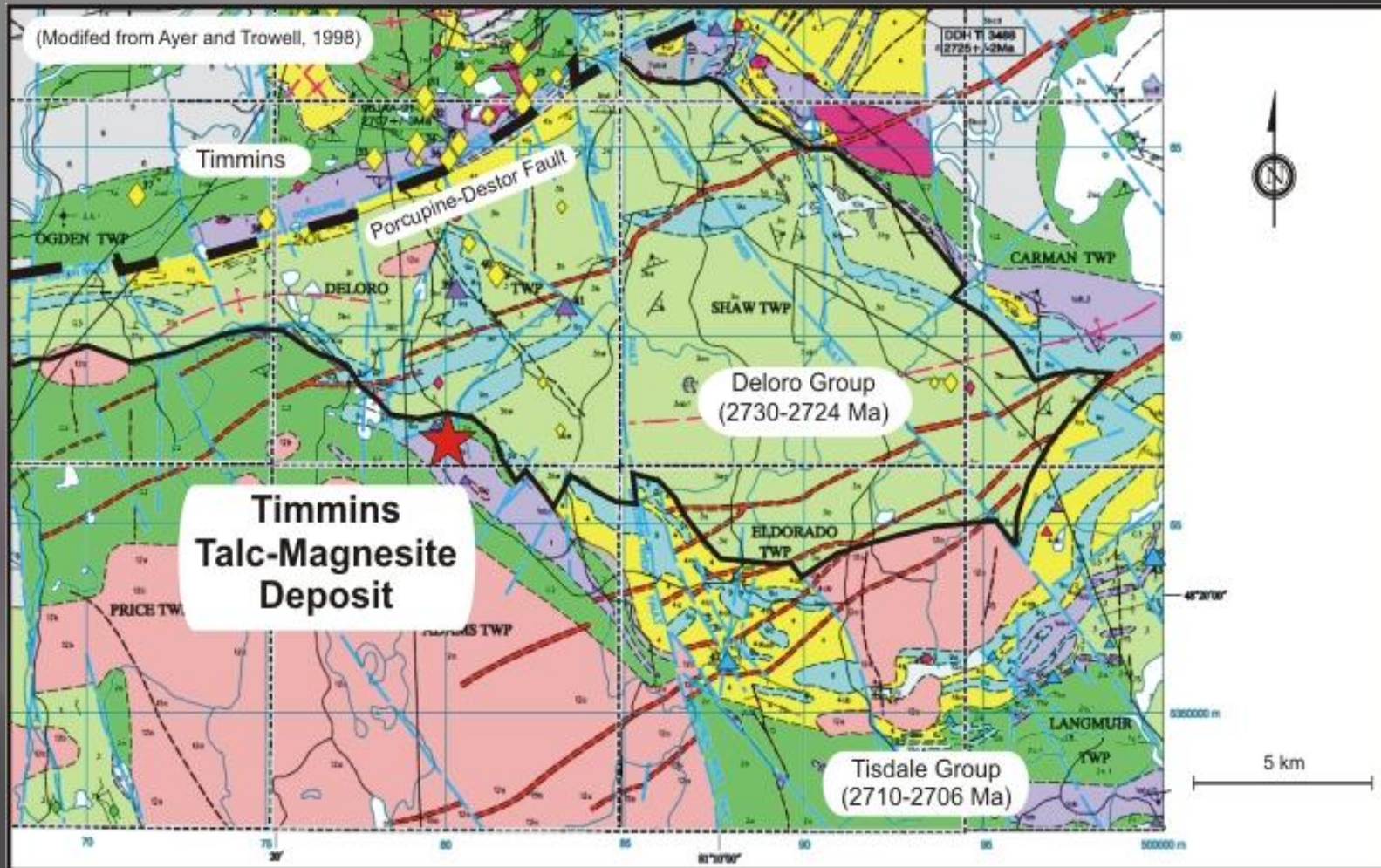
# AT HOME IN NORTH AMERICA



# Timmins Talc-Magnesite (TTM) Project Project Site Location



# Timmins Talc – Magnesite (TTM) Project Regional Geology

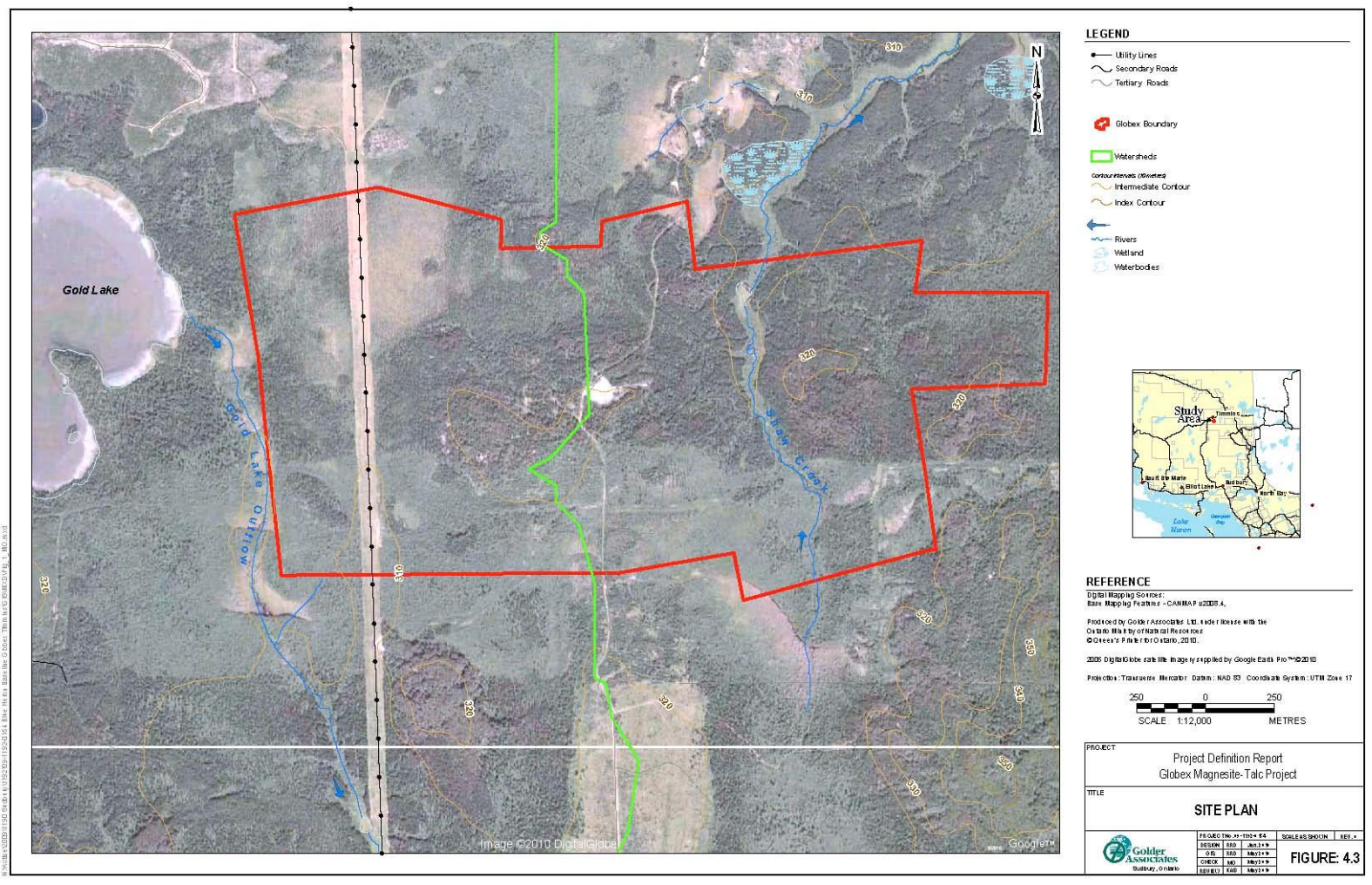


# Timmins Talc – Magnesite (TTM) Project Highlights



- ▣ Well known deposit, first recognized in the late 1950's by A. Griffis, assessed for refractories during 1960's to 1990's by various companies
- ▣ 2001: acquired by Globex and initially advanced as a "magnesium metal" project
- ▣ 2007 : Globex introduced to DMI technology and begins investigating talc / magnesia processes
- ▣ 2008 : 21 drill holes completed on "A Zone" and part of west "B Zone" contact (2,469m)
- ▣ 2009:
  - Bench-scale talc and magnesia test work completed
  - Environmental baseline study and project permitting initiated
- ▣ 2010:
  - Initial technical report (NI 43-101) with resources released
  - Talc product micronized and characterized
  - 100kg ore leach test completed, magnesia product successfully made
  - Market study completed
  - Micro-pilot plant study completed
  - First Nations engagement initiated
- ▣ 2011: Pre-feasibility study in progress

# Timmins Talc – Magnesite (TTM) Project Site Plan



# Timmins Talc – Magnesite (TTM) Project Deposit Geology

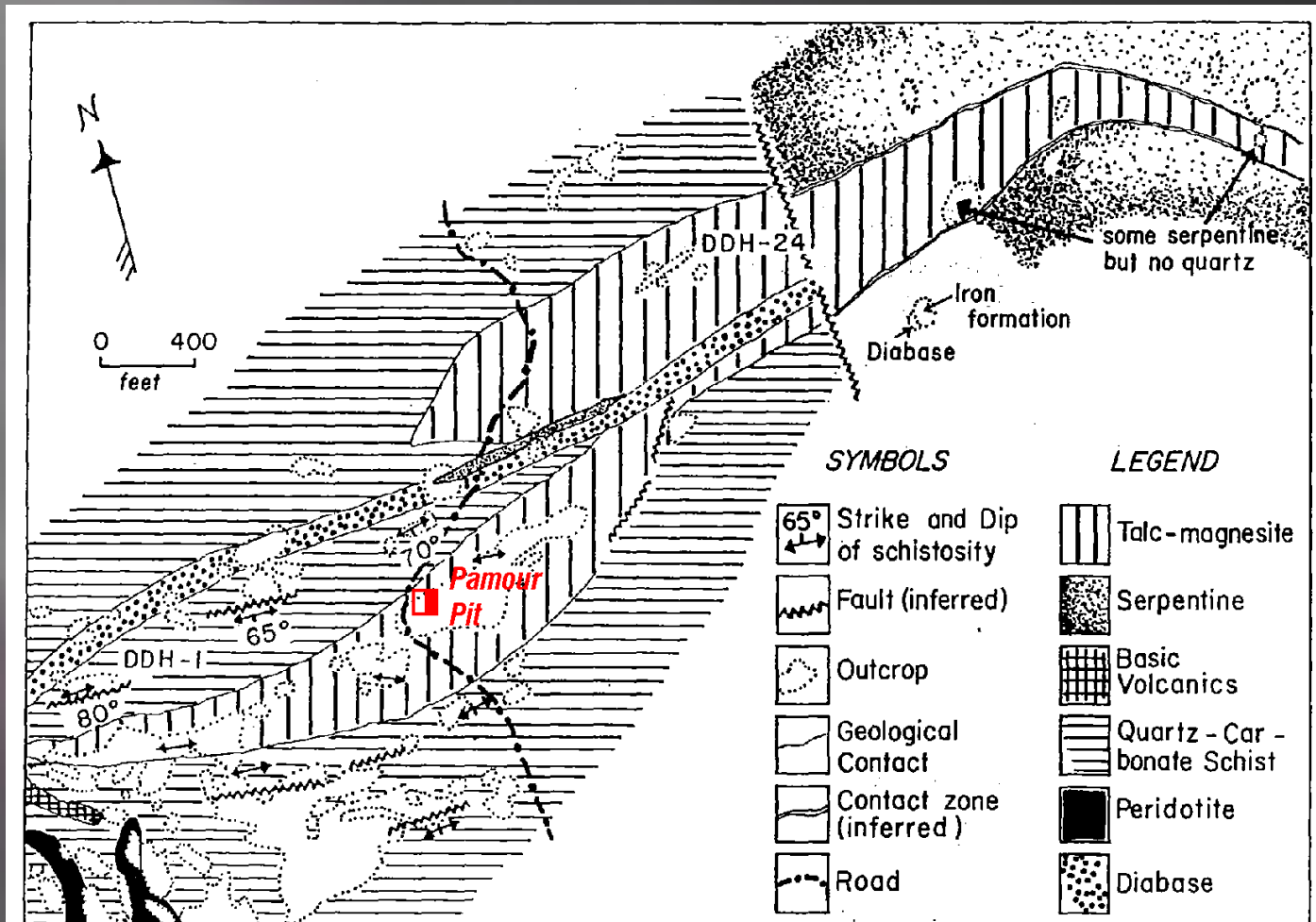
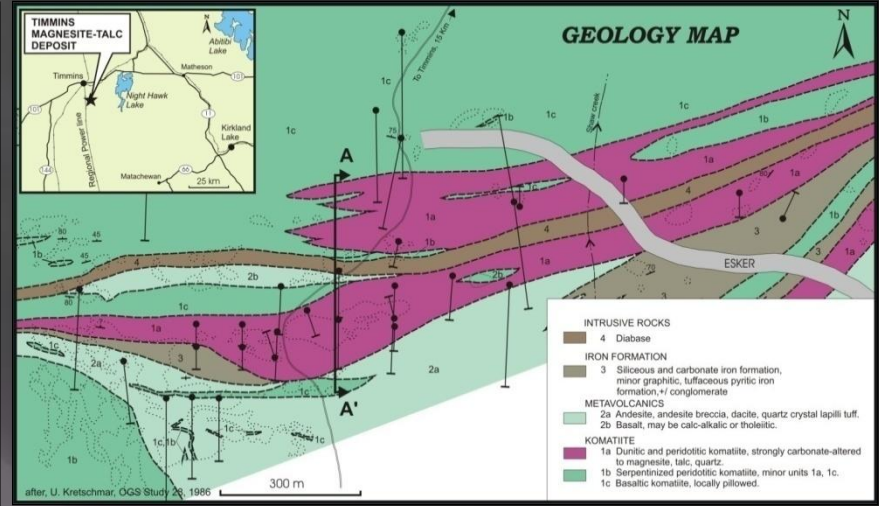
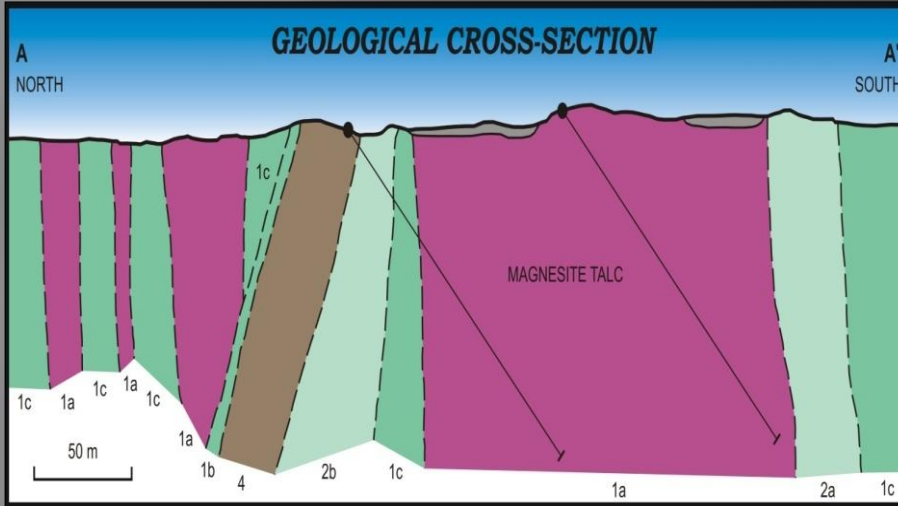


FIG. 2. Geology of the Deloro Township talc-magnesite deposit (modified after Lawrence, R. D., 1964. Summary report, Canadian Magnesite Mines Ltd., unpublished).

# Timmins Talc-Magnesite Project



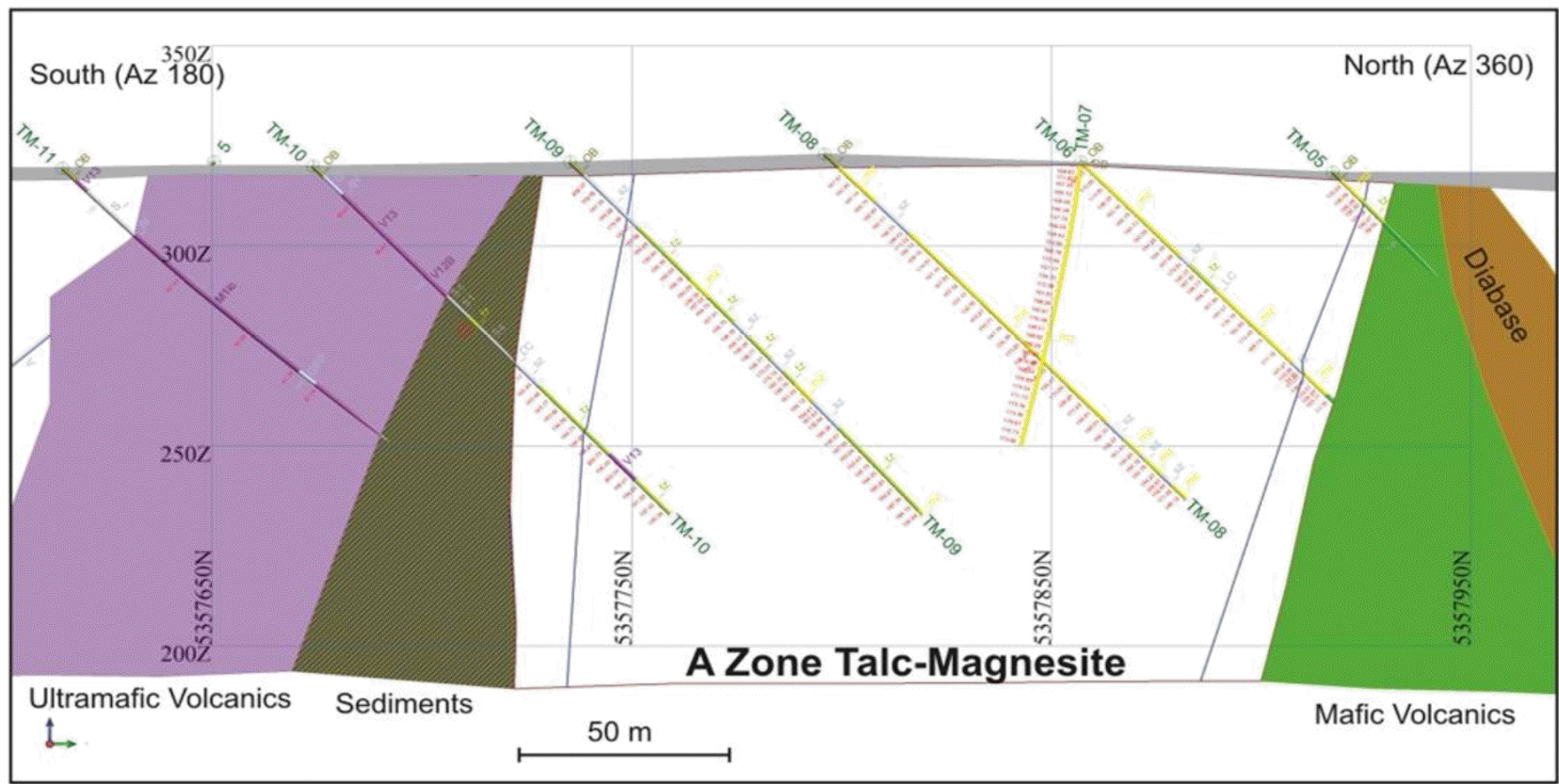
Resource Category - Zone A	Tonnage (t)	Magnesite (%)	Talc (%)
Indicated	12,728,000	52.1	35.4
Inferred	18,778,000	53.1	31.7

- Magnesium Oxide (MgO) > **19%** Recoverable
- Talc > **23%** Recoverable
- Annual Mined Tonnage **1 Million** tonnes
- Annual Gross Contained Value > **\$160,000,000** Cdn.
- **Annual Gross Profit EBITDA** > **\$80,000,000** Cdn.
- Price (MgO) > **\$476/t** Cdn.
- Price (Talc) > **\$305/t** Cdn.
- Size Potential + **100 M. Tonnes**
- Life + **30 years**
- Mining Method - **Open Pit**
- Start-up + **3 years**
- MgO Purity + **98% - 99%**
- **Talc Brightness** + **94**
- Financial Advisors **KPMG Corp. Finance**

Projections based upon Micon International Limited report



# Timmins Talc – Magnesite (TTM) Project Deposit Cross Section



**A Zone Talc-Magnesite**

Section 479750E  
(Looking West)

# Timmins Talc – Magnesite (TTM) Project Typical Ore Zone Intersection



banded tz: 48%mgm, 36%tc,  
1%dol, 2%serp, 2%chl

# Timmins Talc – Magnesite (TTM) Project

## Current NI 43 – 101 Resources\*



Category	Tonnes	Sol. MgO (%)	Sol. Ca (%)	Magnesite (%)	Talc (%)
<b>A Zone Core:</b>					
Indicated	12,728,000	20	0.21	52.1	35.4
Inferred	18,778,000	20.9	0.26	53.1	31.7
<b>A Zone Fringe:</b>					
Inferred	5,003,000	17.6	2.82	34.2	33.4

### “A Zone”

**Conceptual**      20 to 25 million tonnes more may be added to A Zone (at similar grade)

### “B Zone”

**Conceptual**      40 to 45 million tonnes may be added by exploration

\*from Micon International Ltd., February 2010)

# Timmins Talc – Magnesite (TTM) Project Proposed Mine Development and Operations

## CONCEPTUAL “ZERO DISCHARGE” OPERATION:

- ▣ 1Mt p.a. open pit centered in Deloro Township
- ▣ Timmins based combined plant producing:
  - Talc filler
  - Magnesia and later magnesium compounds
  - Miscellaneous ferruginous and nickel products
  - Agricultural soil amendments
  - CO<sub>2</sub> products

# Talc Production and Consumption



<b>Worldwide Production</b>		<b>6,000,000 t</b>
Production Breakdown	China	2,200,000 t
	Europe	1,200,000 t
	India	550,000 t
	Brazil	400,000 t
	U.S.A.	700,000 t
	Canada	70,000 t
	Other	880,000 t
Consumption Breakdown	Asia	2,000,000 t
	Europe	2,000,000 t
	U.S.A. & Canada	900,000 t
	Other	1,100,000 t
Markets	Polymers (rubber, plastics) ± \$450 US/t FOB	
	Technical Ceramics ± \$600 US/t FOB	
	Coatings (paints, shingles, glue, putty) ± \$210 US/t FOB	

## Talc Potential – Globex

“Concern over the supply of bright talc from China has been mounting for some years and the degree of concern is growing. One reason for this is that China’s reserves of bright talc are declining; many mines no longer have reserves of high-quality talc. The price of Chinese talc is also on an upward trend”.

“The TTM deposit, which contains talc comparable in brightness to the Chinese material, is ideally located to supply the key North American markets for bright talc and is very large”.

# Talc

“The polymers market would appear to offer a good opportunity for Globex, particularly in light of the fact that it will be competing in this segment with bright Chinese talc. Chinese suppliers of talc (and most other mineral products) are becoming less popular in North America”.

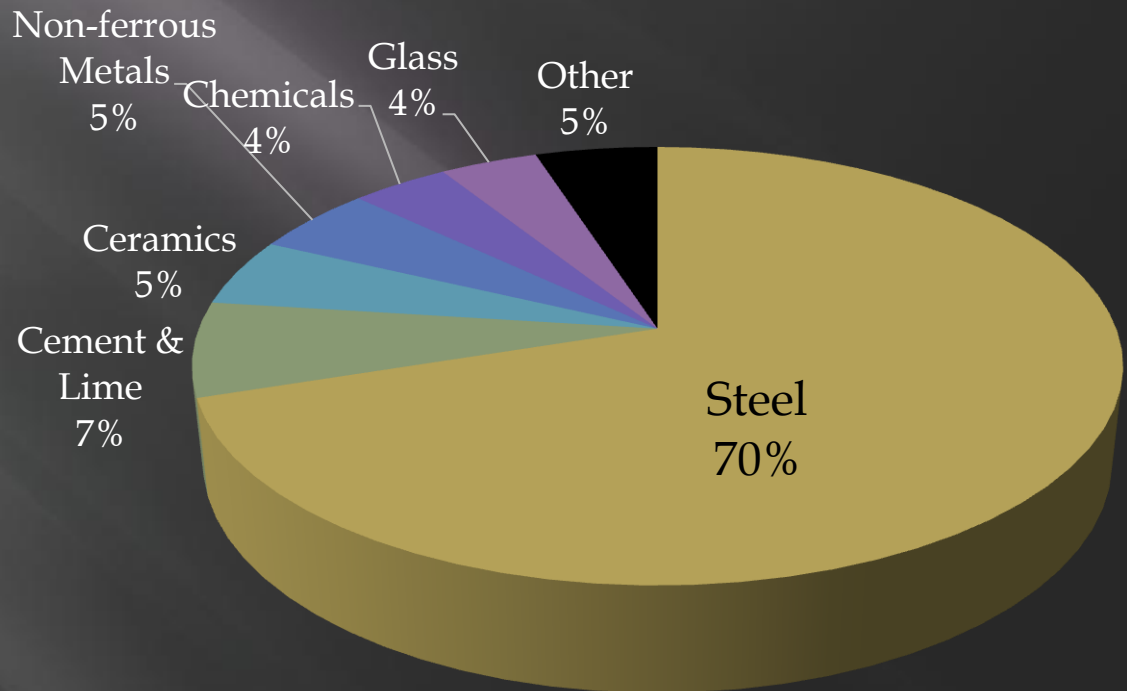
“The demand prospects look good. Globally, the (Polymer) demand is forecast to increase from 42MT in 2009 to nearly 56MT in 2014, with all regions seeing increased demand”.

# Magnesia–Markets for Refractories



- Refractories are used in linings for furnaces, kilns, incinerators, reactors and are also used to make crucibles. Major applications for both acid and basic refractories are in the steel, cement, chemical and ceramic industries.

**World: Estimated Consumption of Refractories by application, 2009 (%)**



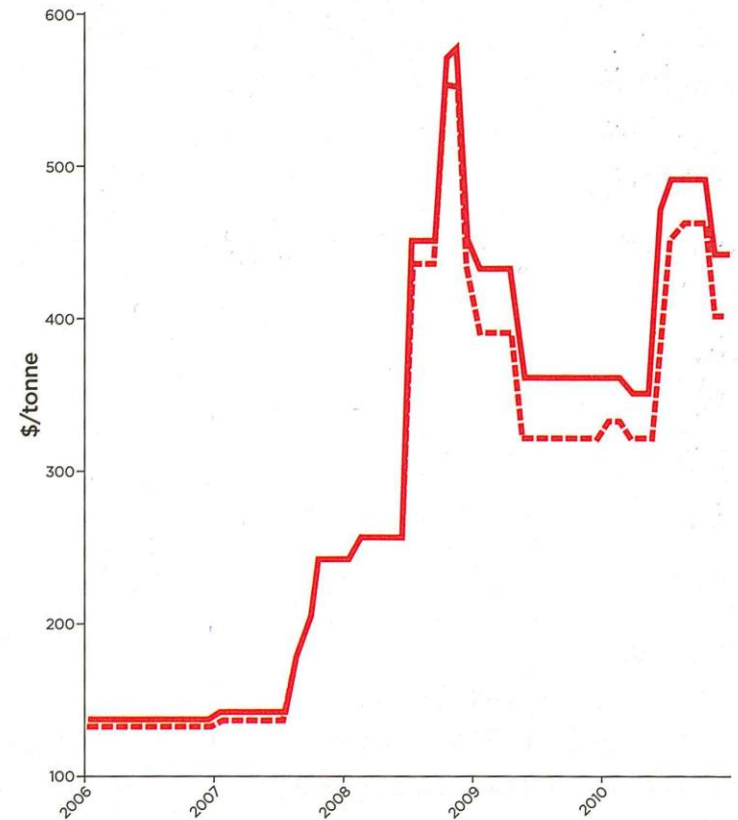


# REFRACTORY MAGNESIA PRICING

## Industrial Minerals, (Prices Jan 2011)

- CCM 90-92% MgO FOB China \$ 370 – 480
- DBM 90% FOB China \$ 400 – 440
- 92% FOB China \$ 430 – 460
- 94-95% FOB China \$ 460 – 520
- 97.5% FOB China \$ 510 - 550

Dead-burned magnesia, 90% MgO, FOB China\*



\*bulk, lump

# Magnesia World Consumption 2008 (000t)



	Refractories		Industrial	Agriculture	Others	Total CCM	Total
	DBM	FM	CCM	CCM	CCM		
Asia	4,890	960	3,235	75	165	3,475	9,325
Europe	2,175	325	600	200	150	950	3,450
N. America	400	100	225	100	75	400	900
S. America	200	10	50	10	10	70	280
Middle East	50	10	35	5	5	45	105
Oceania	10	10	20	5	5	30	50
Africa	25	10	15	5	5	25	60
<b>Total</b>	<b>7,750</b>	<b>1,425</b>	<b>4,180</b>	<b>400</b>	<b>415</b>	<b>4,995</b>	<b>14,170</b>

# Magnesia World Forecast Demand 2013 (000t)



	Refractories		Industrial	Agriculture	Others	Total CCM	Total
	DBM	FM	CCM	CCM	CCM		
Asia	5,675	1,000	3,925	90	175	4,190	10,865
Europe	2,250	350	650	200	150	1,000	3,600
N. America	450	100	250	105	30	385	935
S. America	350	20	75	12	15	102	472
Middle East	75	10	50	6	10	66	151
Oceania	25	10	25	6	10	41	76
Africa	50	10	25	6	10	41	101
<b>Total</b>	<b>8,875</b>	<b>1,500</b>	<b>5,000</b>	<b>425</b>	<b>400</b>	<b>5,825</b>	<b>16,200</b>

# Magnesia Potential

- ▣ “We consider that there is potentially a very good opportunity for Globex to become a major player in the North American refractory magnesia market.”
- ▣ “...U.S. refractory producers, we interviewed are all very interested in the possibility of a new North American supplier, to provide an alternative to Chinese supply...”.

# Timmins Talc – Magnesite (TTM) Project

## Path Forward



- ▣ **2011**
  - Complete PFS
  - Continue permitting and First Nations engagement
- ▣ **2012**
  - Build talc-magnesia demonstration plant
  - Definition diamond drilling completed on “A Zone”
  - Plant engineering & feasibility study
  - Complete Public & First Nations consultations
  - Finalize permitting
- ▣ **2013 – 2014**
  - Construction of plant to produce talc and magnesia

# Timmins Talc-Magnesite (TTM) Project Team Members



## **GLOBEX MINING ENTERPRISES INC.**

Ray Zalnierunas

Project lead, geology

Peter Godbehere

Metallurgy, DMI technology coordinator

David Hall

Talc, plant & product development

## **DRINKARD METALOX INC.**

Bill Drinkard

Hydrometallurgy, process & magnesia R&D

Fred Gallagher

Operations manager, Charlotte, NC

Hans Woerner

Hydrometallurgy, operations supervisor

## **Supporting Consultants**

Micon International

Independent geologic QP, resources/reserves

Peimeng Ling

Consulting process engineer

Pat Raleigh

Independent process & plant engineer

Pocock Industrial Inc.

Solid liquid separation testing

Swenson Tech. / Veolia Water

Evaporation

KPMG Corporate Finance LLC

Financial services

Roskill Consulting Group Ltd.

International marketing consultants

Jacobs Minerals Canada

Lead Engineering firm

Blue Heron / Golder

Environmental baseline study and project permitting

# Timmins Talc – Magnesite (TTM) Project Contact Information



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# Timmins Talc – Magnesite (TTM) Project

Thank you for your attention