

## ASX ANNOUNCEMENT

2 April 2008

**Presentation by the Managing Director and Chief Executive Officer of Monto Minerals Limited, Mr Geoff Moore, at the Industrial Minerals 19<sup>th</sup> International Congress held in Athens 30 March – 2 April 2008**

### **GOONDICUM MINE ON STREAM: A NEW SOURCE OF ILMENITE FROM AUSTRALIA**

In October 2007, Monto Minerals Limited brought into production a new industrial minerals project at Goondicum located in central Queensland, Australia. The project is 30 kilometres due east of the township of Monto and 130km south of the major port and industrial centre of Gladstone. Production commenced in October and the mine and associated processing plant were officially opened at a ceremony on 12<sup>th</sup> November 2007. The first domestic sales commenced in October and the first shipment of ilmenite was exported from Gladstone in January 2008. A second facility for acid washing the feldspar located at Dakiel 24 kilometres west of the the Goondicum Mine, on the railway, was commissioned during January and February 2008 and the first sales were in March 2008.

The mineralisation is contained in a weathered layered Gabbro intrusive. An aureole of hornfelsed sediments around the intrusive, creates a distinctive "crater" 6km in diameter and best observed from Google Earth satellite imagery or aerial photographs. The aureole has enhanced the commercial viability of the deposit by containing the weathered rock within the "crater" to an average depth of 5 to 6 metres and maximum depth of 20 metres. It is this weathered material that is the mining Reserve for the estimated mine life of more than 25 years. The layered gabbroic rocks contain, among other minerals, ilmenite, feldspar, phosphate rock apatite, and titanomagnetite.

The Goondicum Industrial Minerals Project is unique for a number of reasons:

- Geology – easily mined weathered gabbro contained within a 28 km<sup>2</sup> "crater"
- Processing technology – proven mineral sands technologies applied innovatively to weathered rock to produce four separate mineral products including two "light" minerals.
- Diversified products and markets – four minerals spread across five different industries.

The Goondicum mine is already supplying customers with sulphateable ilmenite and phosphate rock. Deliveries of feldspar have commenced for glass manufacture, and it is planned to deliver titanomagnetite for coal washing later in 2008.

#### **Geology - the key to low cost, low risk mine**

The intrusive Gabbro host to the mineral deposit is relatively young in the context of Australian geological ages hence the circular undeformed and unfaulted shape of the intrusive. It is slightly older, Late Cretaceous (approximately 65 million years), and with similar chemistry to many Early Tertiary shield basaltic flows in the region including a

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basalt which forms the crest of Mount Goondicum central to the “crater”. The Gabbro intrudes late Devonian meta-sediments of the Wandilla Formation.

The Goondicum mine exploits a large alluvial weathered multi-mineral deposit contained within a “crater” of hornfelsed country rocks which stand up as a prominent rim. The geology of formation has created a very large, shallow deposit that has been contained by the more resistant crater rim, and which has not been eroded and washed into the main drainages in the relatively rugged topography. The unusual deeply weathered ore is easily mined by truck and shovel or scraper and requires no drilling or blasting thus contributing to a low cost, low risk mining and processing operation. The Gabbro intrusive is layered and the outer annulus is equigranular and very consistent in mineralogical and chemical composition. The weathering process has “liberated” the constituent minerals to sand-sized grains, making them amenable to mineral sands style wet concentration and separation technology with no crushing. The only grinding applied is a light coarse ball milling to the ilmenite to reduce the CaO and P<sub>2</sub>O<sub>5</sub> content due to some composite grains, also the titanomagnetite will be ground on site to final product specification for coal washing - generally 40-60 µ.

The Goondicum project is similar to many mineral sands mining operations. The ore is scraped from the shallow open pit, trucked to a stockpile then slurried using a high pressure water monitor feeding to a sump for transportation as a slurry to the processing plant. There, the typical mineral sands technologies of magnetic and gravity separators are employed to produce ilmenite, feldspar, apatite and titanomagnetite, taking advantage of the differences in specific gravity and magnetic susceptibilities of the four minerals. The significant difference to mineral sands mineralogy is the recovery and separation of the “lighter” minerals feldspar and apatite which also having a small difference in density, necessitate the application of shaking tables.

The Dakiel facility is located on the railway and is both a washing facility for the feldspar product and eventually will be used to load products onto the rail for transport to Gladstone. It has been designed to remove iron staining from the feldspar grains and reduce the iron content to <0.30% by hot acid leaching. The staining is a result of the weathering process and the run-of-mine feldspar product contains up to 1% iron from near-surface, but with cleaner material deeper in the weathering profile. The plant can also be used as an acid activating process to liberate some of the phosphate in the apatite product.

Some distinctive features specific to the deposit help with the long term economics. The host Gabbro by definition is silica deficient and has no quartz, all silica is combined as silicates such as feldspar and other ferromagnesian gangue minerals. This silica deficiency results in the commercial products containing no free silica which is a significant health and safety benefit for many uses and applications. Grain size and chemistry are very consistent due to the large homogeneous zoning and slow cooling of the Gabbro. The uniform sand-size minerals are liberated by the weathering process and the sizing makes the minerals amenable to mineral sand type separation technology. And finally, the containment by the surrounding “crater” has preserved the very deep weathering profile.

The current Stage 1 is designed to produce at the rate of about 150,000 tonnes of saleable products per year. Stage 2 expansion which could double production is already under consideration.

The project was completed at a total cost of approximately \$70 million, which was within budget, despite the considerable cost pressures of the resources boom in Australia and the nearby Bowen Coal Basin.

## **Infrastructure**

Land transport is via an unsealed road for 23 km from the mine to the Dakiel plant and rail loading facility. Haulage to Gladstone Port is initially by truck for about 120 km by partially sealed road. Haulage over unsealed roads is common practise for the mining industry in outback Australia. Eventually it is expected that haulage will be by train from Dakiel direct to the loading facility at Gladstone Port.

Power is via a 24km 66kV line constructed by Monto Minerals and connected to the network power grid provided by a State owned corporation, Ergon Energy. Full network power has been provided incrementally and start-up power was by four diesel generators - full network power should be available in April 2008.

The project is critically dependent on water for slurry transport of the ore and for the wet concentrator. Water is transported through a 35 km pipe line installed by a State owned corporation, SunWater, under an agreement whereby the capital cost is paid as user fees over the 20 year life of the agreement. The water is sourced from three proposed artesian bores in the Mulgildie Basin an offshoot of the Great Artesian Basin. One bore to 600 metres depth has been installed and a second is planned in 2008 to service the planned expansion of production.

60-70% of mine products will be exported through Gladstone Port, which is a major industrial port through which large volumes of mineral – dominantly coal and alumina- and other raw materials are exported. The mine products, mostly ilmenite, are hauled and stockpiled at the loading facility of Auckland Point at Gladstone.

The workforce of about 45 direct employees for the two processing plants live in Monto township and district, which has a total population of about 2700. All but 4-5 of the employees have been hired locally from existing rural and service industries. Several senior experienced plant operators and supervisors were hired from elsewhere but now reside in the district. The mining, product haulage, and mine maintenance are contracted with local groups.

## **New mine coincides with strengthening markets**

Ilmenite underpins the project, representing over half of the projected production volume and revenue. Goondicum ilmenite is suited for use in the sulphate process for the manufacture of titanium dioxide pigment. The sulphate process, rather than the alternative chloride route, is dominant in Europe and Asia. There is a strong and increasing demand for sulphateable ilmenite, and adding to that demand for Monto's product is the quality, being very low in the contaminants Pb, Cr<sub>2</sub>O<sub>3</sub>, U and Th, and with a high FeO/Fe<sub>2</sub>O<sub>3</sub> ratio of 4:1. The second shipment was despatched in March from Gladstone to titanium dioxide producers in Asia.

The initial production of Monto's high grade phosphate rock containing ~35% P<sub>2</sub>O<sub>5</sub> or 15%P, has been fully contracted to an Australian manufacturer of organic fertiliser. Deliveries commenced in October 2007. Demand for fertiliser – and for Monto's phosphate rock – have been boosted by high world prices for agricultural products and very good recent rainfall in Eastern Australia after a prolonged drought.

The first delivery of feldspar occurred in March 2008, to a glass manufacturer in Australia. As with the ilmenite and phosphate rock, the Goondicum feldspar enjoys quality advantages. It has alumina content of 27%, which is higher than any feldspar or nepheline syenite traded on the international market. The absence of free silica is a significant health and workplace safety benefit in the handling of the product. The feldspar is upgraded by removing iron staining, at the purpose-built plant 25km at Dakiel

on the rail line that Monto proposes to use to transport the mine product to Gladstone and other destinations.

The spiralling cost of ocean freight has, for the time being, precluded Monto from selling competitively priced feldspar for glass manufacture internationally. While this competitive disadvantage continues, the Dakiel plant excess capacity will be used to upgrade the apatite by activating some of the contained phosphate.

Potential export markets, for a high value application of finely ground feldspar is being developed in the USA and possibly Europe. The significant advantage of this product in the market is the absence of free silica as a long term health and safety benefit. Several containers of Goondicum feldspar will be finely ground and trialled for application in paint and powder coatings in the USA.

Later this year, Monto expects to begin selling titanomagnetite locally as a coal washing agent in coal processing plants in the booming Queensland coal industry from the nearby Bowen Coal basin. The competitiveness of Monto's titanomagnetite against imported magnetite will be significantly enhanced by the large increase in iron ore prices currently being experienced internationally.

Last year, the company secured sufficient capital to fund the completion of the project and a planned expansion in 2008/09. The possibility of expanding production earlier than planned is being considered, due to the strong demand for ilmenite, apatite and potentially titanomagnetite. The expansion would lift ilmenite production and sales from 70,000 to 150,000 tonnes per year by 2009/2010, with a similar increase in the other products.

Bringing the Goondicum industrial minerals project into production required a multi-product strategy to capture the economic benefits of four products diversified into five different markets. It also required persistent advocacy to secure the necessary investment to bring the project to fruition. Now increasing demand for its products, particularly ilmenite, is pushing the company towards expansion even as the initial operation's production is still being ramped up to design capacity. Monto Minerals has brought a new source of high quality ilmenite to international markets at the right time to meet growing demand.



# Monto Minerals Limited

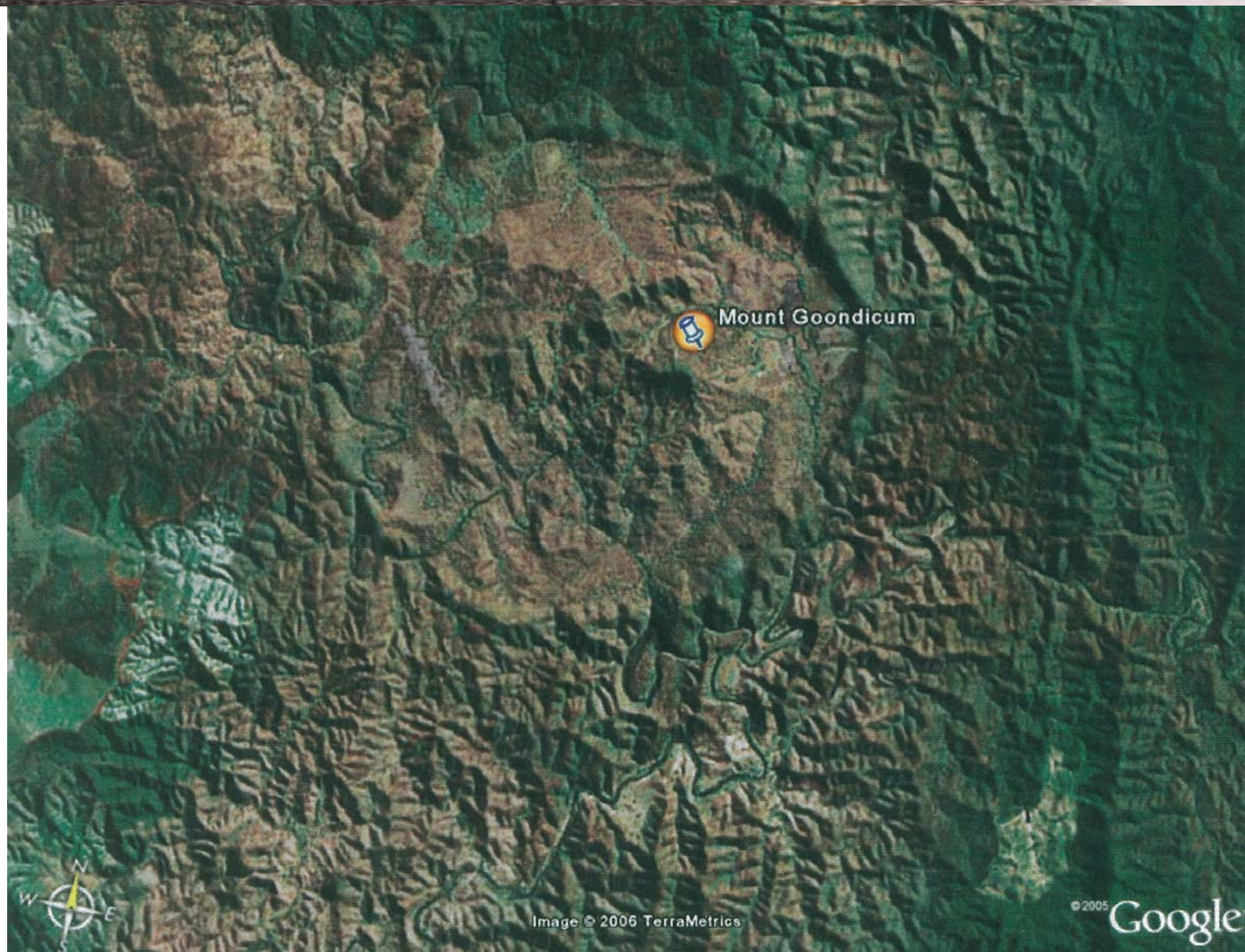
**Goondicum Mine on Stream:  
A new source of Ilmenite from Australia**

Industrial Minerals 19<sup>th</sup> International Congress  
1 April 2008

Geoff Moore, Managing Director



# Mount Goondicum



# Location Map



# Goondicum Mine site

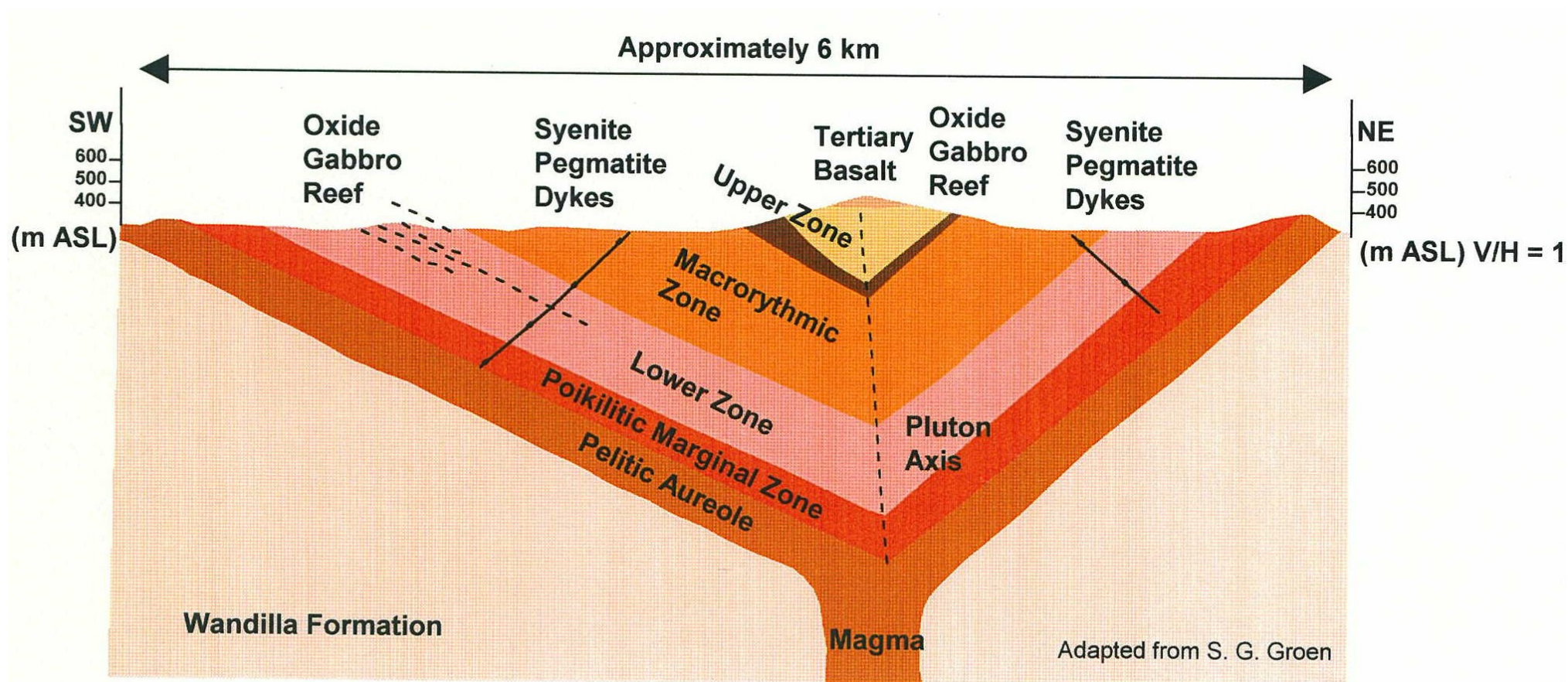


# Commencement of production and sales

- **Production commenced October 2007**
- **Goondicum Mine and processing Plant officially opened on 12th November 2007**
- **First sale apatite to fertilizer customer in October 2007**
- **First shipment of ilmenite from Gladstone Port in January 2008**
- **Dakiel feldspar washing facility commissioned in January 2008**
- **First sales of feldspar in March 2008**
- **Sales of titanomagnetite expected in September quarter 2008**



# Diagrammatic cross-section through the Goondicum complex



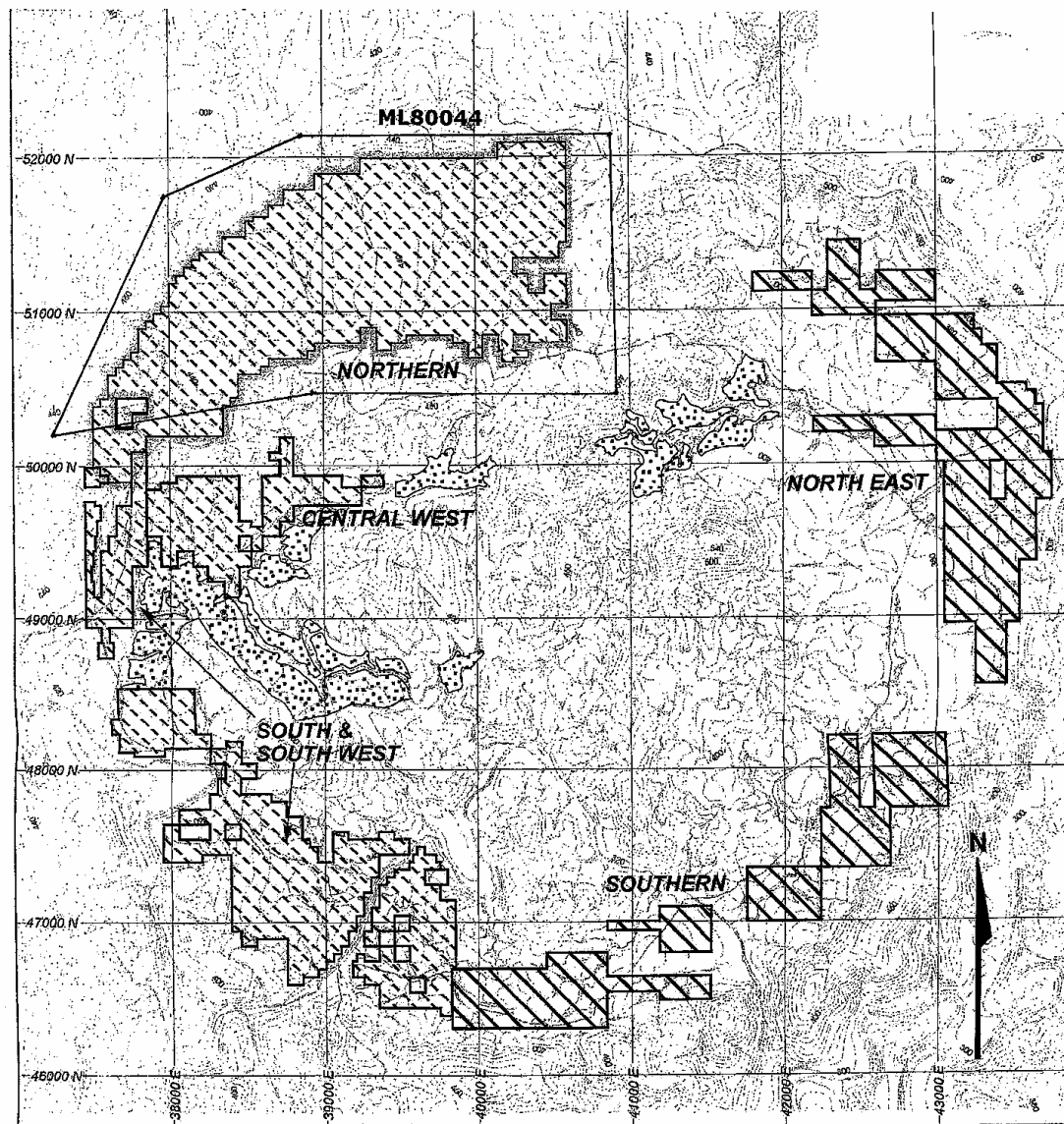
# Geology of the Goondicum Layered Gabbro



## LEGEND

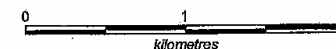
|  |                      |  |                          |
|--|----------------------|--|--------------------------|
|  | Oxide Gabbro         |  | Upper Zone               |
|  | Sill                 |  | Pelitic Aureole          |
|  | Approximate Boundary |  | Poikilitic Marginal Zone |
|  | Drainage             |  | Lower Zone               |
|  | Dyke                 |  | Macrorhythmic            |
|  | Roads                |  | Wandilla Formation       |

# Goondicum Crater resource areas



- Measured Resource
- Indicated Resource
- 1996 Investigation
- Mineralized Zone (Not Drilled)

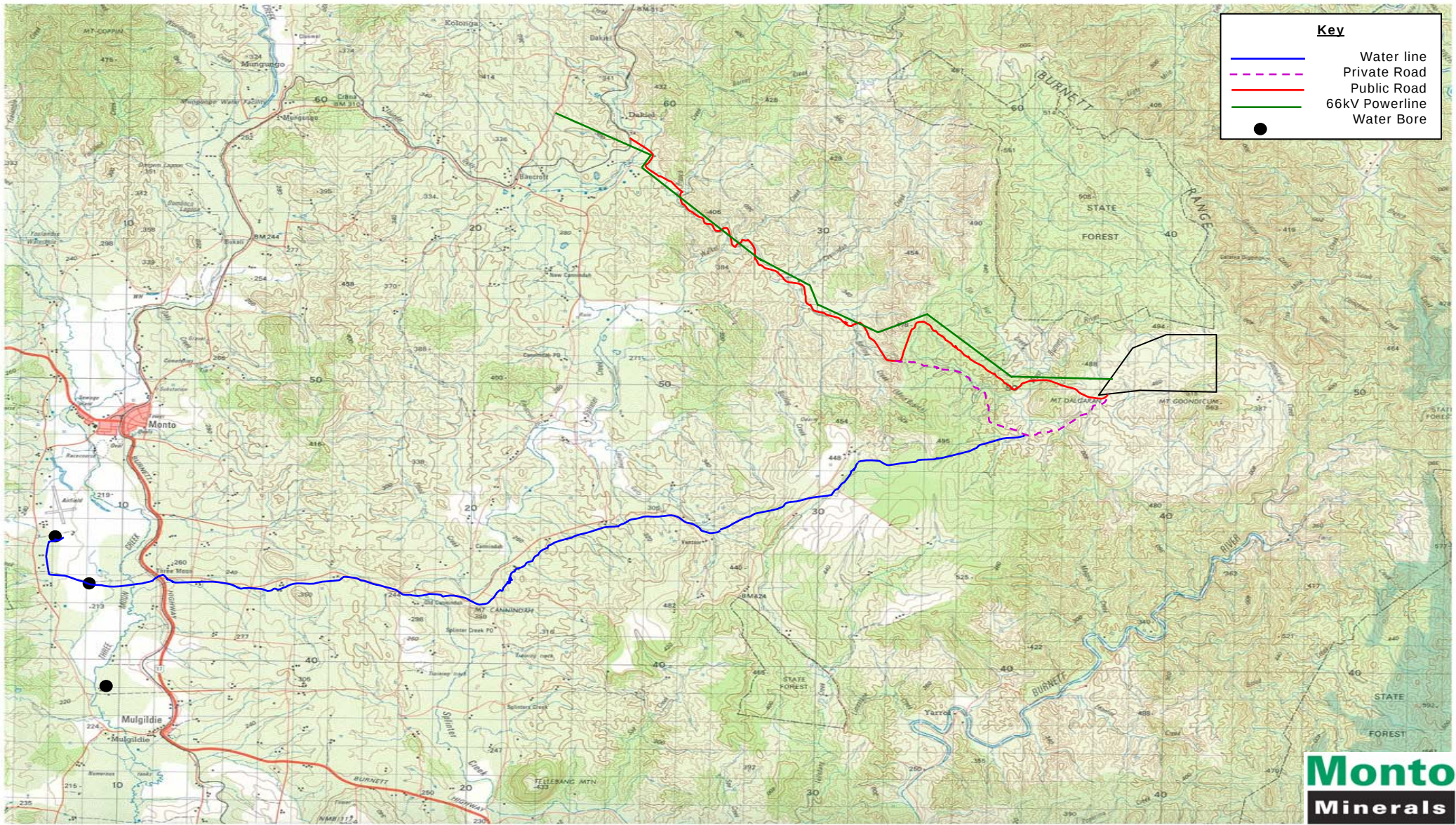
SCALE 1:25 000



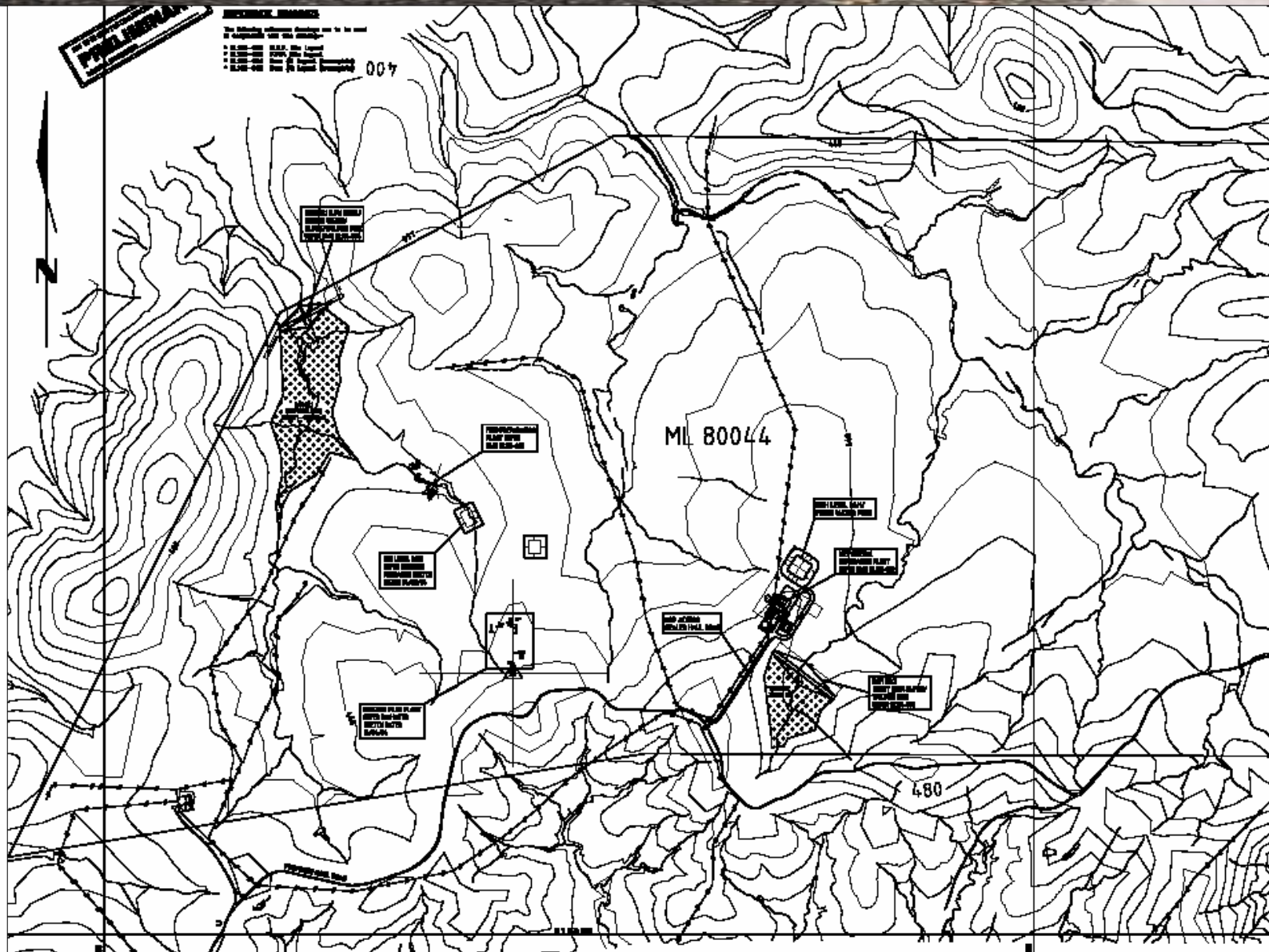
**MONTO MINERALS**  
**MEASURED  
AND INDICATED  
RESOURCES AREAS**  
3.0% Cut-Off 5.5amp Magnetics  
Author: G.Lee | Sept. 2000 | Figure 9



# Project Infrastructure



# Plant and Mine layout

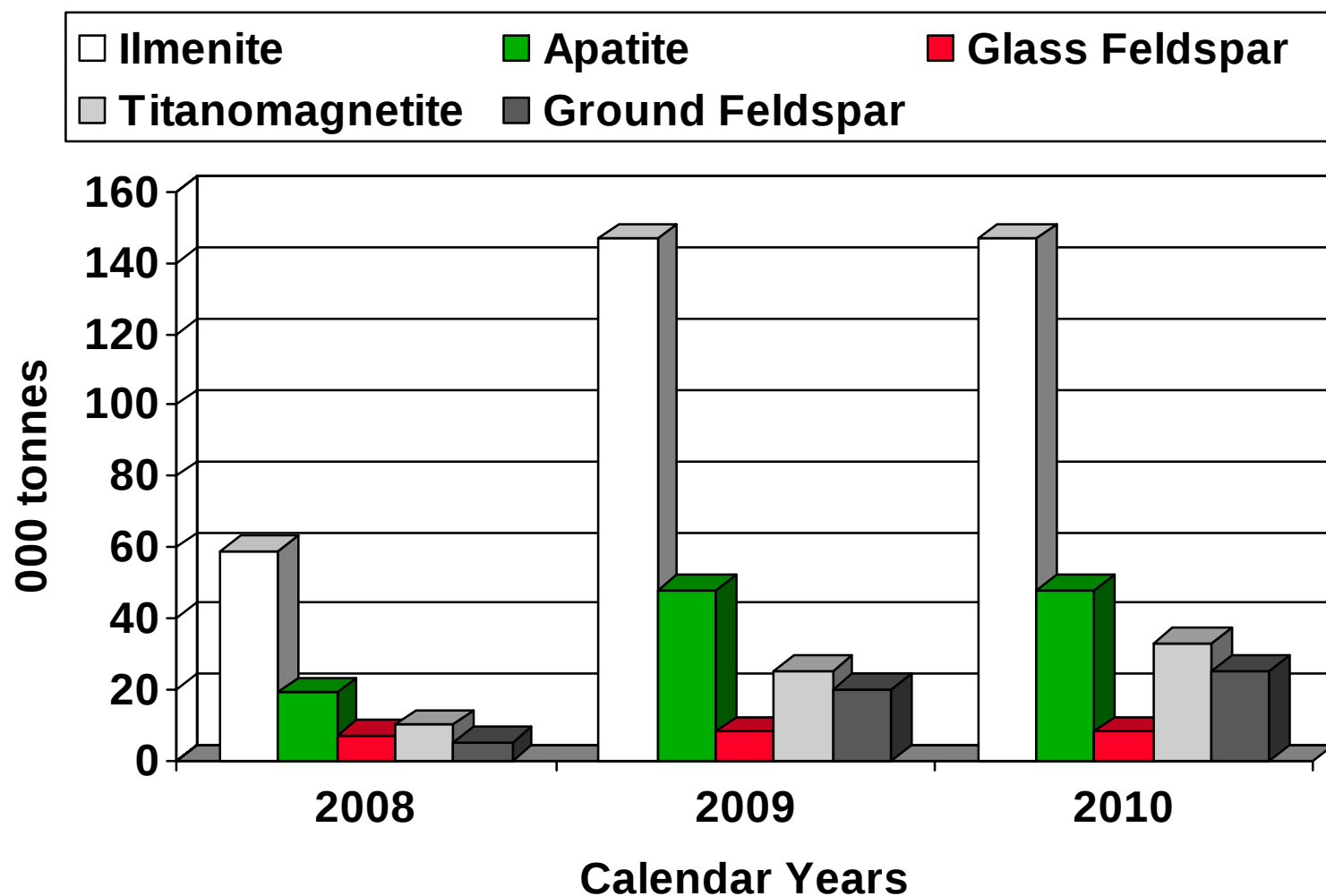


# Project Development Costs – Source and Application of Funds

|                                                            | <b>\$A Million</b> |
|------------------------------------------------------------|--------------------|
| <b>Goondicum Plant</b>                                     | <b>24.6</b>        |
| <b>Dakiel Plant</b>                                        | <b>13.9</b>        |
|                                                            | <hr/>              |
|                                                            | <b>38.5</b>        |
| <b>Infrastructure Guarantees</b>                           | <b>15.7</b>        |
| <b>Power line</b>                                          | <b>6.5</b>         |
| <b>Roads</b>                                               | <b>2.0</b>         |
| <b>T/M Plant, Tailings Dam &amp; Pre-excavation of ore</b> | <b>2.1</b>         |
| <b>Working Capital</b>                                     | <b>7.7</b>         |
|                                                            | <hr/>              |
|                                                            | <b>72.5</b>        |
| <b><u>Funded by:</u></b>                                   |                    |
| <b>AIM IPO (May 2006)</b>                                  | <b>39.0</b>        |
| <b>Share Placement (May/Jun 2007)</b>                      | <b>21.5</b>        |
| <b>Convertible Note (Aug 2007)</b>                         | <b>12.0</b>        |
|                                                            | <hr/>              |
|                                                            | <b>72.5</b>        |

# Sales Projections

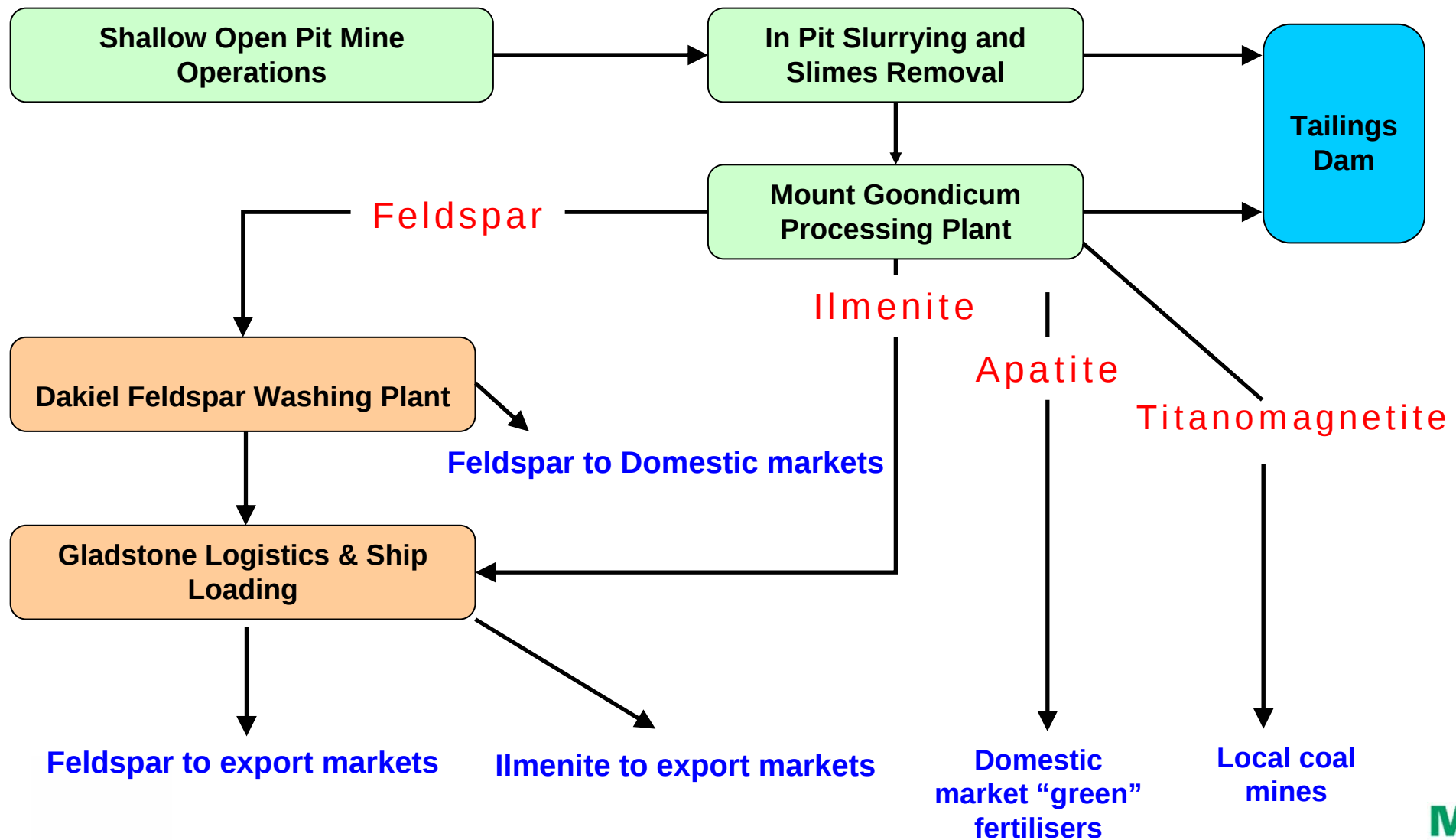
## Sales Projections (Base Case)



# Tailings Dam and Initial Mining



# Processing Route



# Goondicum Processing Plant



# Feed Preparation Area



# Production Deck in Goondicum Plant



# Apatite & Feldspar Shaking Tables



# Dakiel Plant



# Dakiel Plant Acid Leach Reactor



# Lining the Reactor at Dakiel



# Market Status

## ➤ Ilmenite

- Strong demand for Monto Ilmenite
- Long term export contracts



## ➤ Apatite

- Sole domestic supply contract for 100% of production
- Some synergies being explored with customer for value add and cost sharing opportunities at Dakiel plant



## ➤ Titanomagnetite

- Successful completion of wash plant trials
- Grinding Plant being assembled for installation in June 2008
- Targeting local coal washeries



# Market Status

## ➤ Glass Feldspar

- Domestic contract confirmed
- Export market dependant on sea freight movements

## ➤ Ground Feldspar

- Commercial partnerships being progressed in United States and Europe
- Market development and processing of bulk tonnage is underway in the USA



# Customer Markets

## **Ilmenite** (paint, paper and plastic pigment)

- **Monto plans to produce 59,000 tonnes in 2008 increasing to 147,000 tonnes by year 2010**
  - **Represents approx 60% of project sales volume and revenue**
- **Monto sulphateable ilmenite suited to Europe and Asia**
  - **Low contaminants (U, Th, Cr, Pb)**
  - **High ferrous to ferric iron ratio**
- **Global supply deficits forecast from 2007/2008 - increased requests for ilmenite supply for 2008 onwards from European and Asian customers**



**All production fully sold in 2008**

# Customer Markets

## Apatite (organic fertiliser)

- Projected production of 19,000 tonnes in 2008 rising to 48,000 tonnes in 2010
  - Represents approx 20% of project sales volume and 15% of revenue
- Rich in phosphate; low contaminants
- No competing domestic supplier to organic market in Australia
- Monto's location offers a strong competitive advantage



**4 year renewable customer commitment to buy 25,000 t/yr  
with first right of refusal on extra production**

# Customer Markets

## Feldspar (glass)

- Projected production rate and subsequent growth rates subject to export competitiveness.
- Initial production of 3,000 tonnes in 2008 for the domestic market.
- High alumina content; no free silica; dust free
- Successful trial processing of 700 tonnes with global glass manufacturers



**2-year domestic customer agreement for 5,000 t/yr  
with global glass maker**

# Developing Customer Markets

## Titanomagnetite (coal washing)

- Monto forecast sales of 10,000 tonnes in 2008 rising to 44,000 tonnes in 2010
  - 10 % of project sales volume and revenue in 2008, rising to 15% in 2010
- Australian consumption of magnetite forecast at 210,000 tonnes in 2008, including 120,000 tonnes in Queensland
- Current supply predominantly imported, local Monto production gives very strong competitive advantage



**Major local coal producers have expressed a strong interest in the product**

# Developing Customer Markets

## Ground feldspar (paint, powder coating)

- Projected sales of up to 25,000 tonnes by 2010
  - 10% of project sales volume by 2010
  - 20% of project sales revenue by 2010
- High value end product, only one international competitor
- Zero free silica content is a significant health and safety benefit and is driving market growth



**Market development and commercial partnerships being advanced in USA & Europe**

# Gladstone Port Auckland Point (foreground)



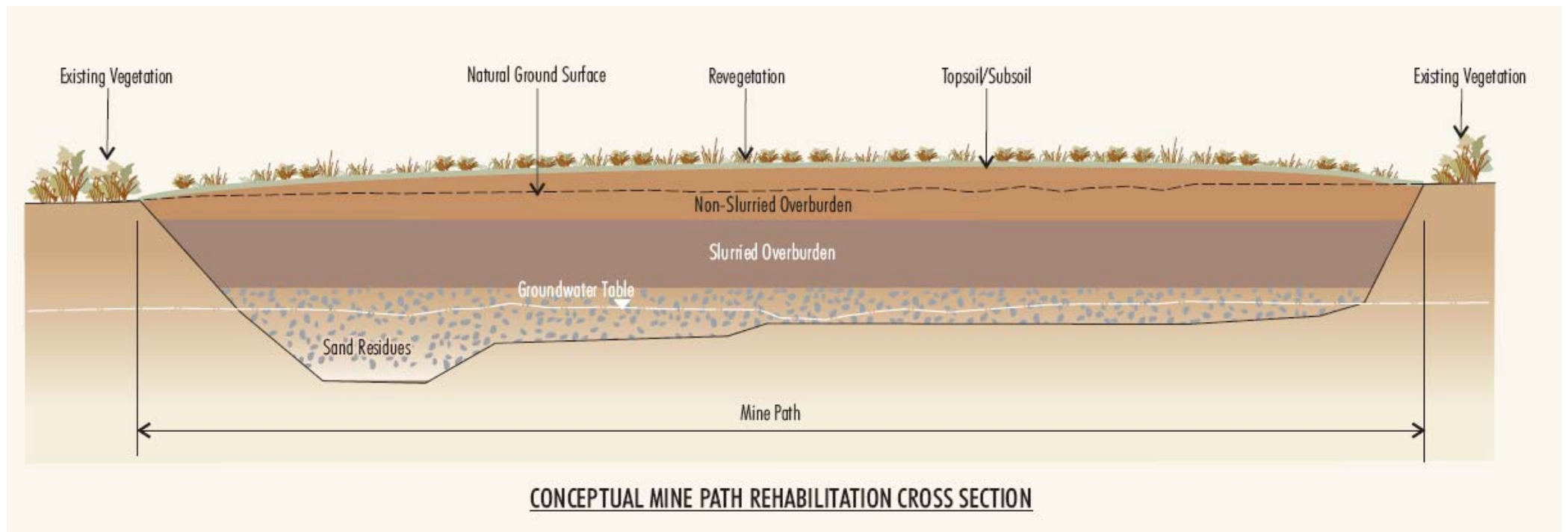
**Ilmenite loading first shipment 17 Jan 2008**



# First Production of Washed Feldspar January 2008



# Typical Rehabilitation Cross Section



# Goondicum Pilot Plant Tailings Regeneration

