Monto Minerals

Australian Stock Exchange
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13 December 2002

ASX ANNOUNCEMENT

INFORMATION MEMORANDUM

Attached is an Information Memorandum, detailing the Company's proposed operations, which is to be placed on the website.

By order of the Board

LAURIE G JOHNSON (F. Aus.I.M.M., C.P. Geo)
Executive Director

Information in this report insofar as it relates to ore or mineralisation is based on information compiled by Mr L.G. Johnson, a full-time employee of the Company, who is a Corporate Member of the Australasian Institute of Mining and Metallurgy and who has a minimum of five years experience in the field of activity being reported on.

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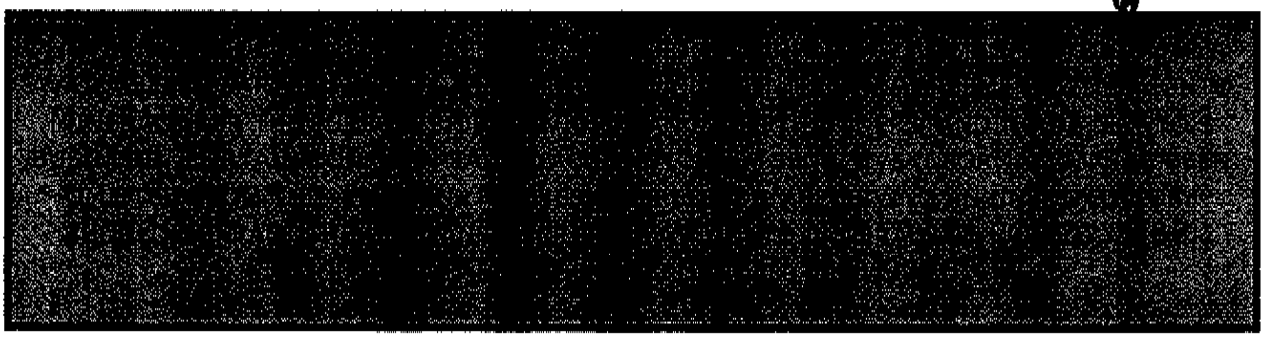
Monto Minerals NL

INFORMATION MEMORANDUM

13 December 2002

Goondicum Industrial Minerals Project



DISCLAIMER:
This Information Memorandum has been compiled to give a conceptual framework to the Goondicum Crater Project.

Whilst every effort has been made to use the most up-to-date information available to Monto Minerals NL there remain a number of assumptions which may over time prove to be inaccurate. Any persons in receipt of this Information Memorandum who may be considering becoming a stakeholder in the Project (whether as a customer, investor, financier or contractor) should not rely on this Information Memorandum but should undertake their own due diligence before making any decision.

Monto Minerals NL, its servants, consultants, agents and contractors therefore make no representation or warranty (expressed or implied) as to the accuracy or veracity of any fact or information contained herein.

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1. EXECUTIVE SUMMARY

The Goondicum Crater Project is a multi-product industrial minerals mining project located near Monto, 132km by road south of the industrial city and bulk commodity port of Gladstone.

The Goondicum deposit is close to existing road and rail infrastructure to Gladstone and water is available from three water bore licences.

The mining is based on a zero discharge philosophy eliminating most of the environmental issues. As the Mining Leases have been granted over existing freehold land there are no native title issues being encountered.

The initial feasibility studies concentrated on a predominantly ilmenite-based development. Whilst these studies showed that the development of the resource was economic it was not sufficiently robust to develop the mine using project finance.

Recent efforts have been targeted towards capturing economic advantage for the feldspar and apatite resource which show great potential. It is now likely that all of the apatite (approximately 60,000 tonnes per annum) will be able to be sold domestically. Monto Minerals is actively pursuing a contract for 100,000 – 120,000 tonnes of ilmenite in the export market through Gladstone which contracts will be phased in to reflect the stages of development of the Project.

The initial investigations indicate there is a substantial export market for the feldspar if the plant trials replicate the initial samples given to overseas customers. To prove up this market an outlay of approximately A$4M will be needed to provide bulk samples to a representative suite of customers. In section 8.1 we outline plans by which we may be able to substantially lessen the capital costs of the Demonstration Plant.

If the bulk samples prove acceptable another A$1M (approximately) will be needed to finalise the feasibility study and bring the Project to financial closure.

Present, relatively conservative, indications show that on completion of the feasibility study the Project, on a multi-product basis, should show returns in excess of 25% on a capital investment in the order of A$41M on an ungeared basis (see section 9). With the ilmenite and apatite being able to be contracted for up to 5 years duration, the development should be able to be project financed with debt at the 50% level.

2. HISTORY AND CONCEPT

2.1 History

Late 1992	Discovery of ilmenite made at Goondicum
Mar 1996	Company floated and raised $7M
	Focus shifted to Crater from Burnett River system after Parthenium plants identified
Late 1997	Kvaerner completed Feasibility Study on Crater. Tailings disposal and water supply identified as issues to be resolved
July 1999	Rights Issue raised $3.76M
Sept 1999	Mining Leases granted
Aug 2000	Water Bore confirmed adequate water supply. Tailings treatment and rehabilitation trials on Crater Lease successful
Oct 2000	Pilot Plant operation at Crater Lease to establish thickener performance and rehabilitation
July 2001	Monadelphous Agreement signed to finalise Feasibility Study
Mar 2002	Water Bore Licence granted for 21 years
May 2002	Monto Minerals Board restructured and Peter Slaughter appointed Executive Chairman
July 2002	Flowsheet changes eliminate flotation to produce feldspar and apatite after success with improved gravity and magnetic separation
July 2002	Production of high quality feldspar and apatite samples and market research of targeted customers
July 2002	Marketing of feldspar to Australia, Malaysia, Indonesia and Philippines with product differentiation being the high Al. Bulk samples requested by several large customers.
Sept 2002	Letter of Intent received from The SAFE Group of Companies for the purchase of entire production of Apatite (approximately 300 tonnes).
Sept 2002	Monto Minerals announce discussions underway with Monadelphous to determine the best way forward after Monadelphous confirm they are unable to secure funding on ilmenite and titano-magnetite production only

2.2 Initial Stage – Marketing and Finalisation of Feasibility Study

- Initially process ore on site using scrubber – trommel, screens, spiral and magnetic separators to produce ilmenite, titano-magnetite and apatite concentrates.
- Ilmenite, titano-magnetite and apatite concentrate transported in containers by truck or rail to Gladstone for shipping to customers.
- Feldspar concentrate trucked or railed to Gladstone for acid washing.
- Feldspar product transported in bulk by truck to ACI plant in Brisbane and shipped to several glass manufacturers in Malaysia and Indonesia for 1 – 2 week full plant trials exported through Gladstone.
- If successful, lead to Letters of Intent or Contracts for ilmenite, feldspar, apatite and titano-magnetite.
- We are anticipating that market development for ilmenite will be finalised before the feldspar as this has been the area on which Monto initially concentrated. Hopefully, conditional contracts (the major conditions being the proving up of the bulk samples and financial close of the Project) will be able to be written for delivery to start in 2004, building up to 150,000 tonnes per annum by January 2005. The earliest these contracts could be concluded, albeit on a conditional basis, is December 2002.
- A Letter of Intent has been received from The SAFE Group of Companies ("SAFE") for all of our production of apatite.
- Provided the bulk sampling exercise is successful, we anticipate that some conditional contracts for the feldspar could be concluded by May 2003.
- This stage should cost between A$4M and A$5M though Monto is refining plans which may be able to substantially lessen the capital costs of the Demonstration Plant (see section 8.1).
- Once conditional contracts for the ilmenite, apatite and possibly titano-magnetite have been concluded, finalisation of the partially completed feasibility study can occur.
- To bring the Project to a Bankable Feasibility Study (BFS) will cost another A$1M (see section 8.2).
- Present indications are that financial close could occur in June 2003.
- Tonnage Estimates for Product Evaluation Trials:

Ilmenite	-	1,000 tonnes
Titano-magnetite	-	600 tonnes
Feldspar	-	2,400 tonnes
Apatite	-	300 tonnes

2.3 Construction and Demonstration Plants

2.3.1 Demonstration Plant

- To satisfy customers that product will be available by 2004 from the full scale mining and processing operation (a requirement if contracts are to be concluded) we are exploring the option that the Demonstration Plant necessary for producing the bulk samples will be retained at site and operated on a single shift, 5 day a week basis (if necessary) until the full-scale plant is commissioned (to be located on Mining Lease 80044 – Crater Lease).

- Bulk samples of ilmenite and feldspar produced by the Demonstration Plant will then be stockpiled at site providing some surety for customers on initial shipments.

- All products for plant trials and for other consumers will be provided at a fee during this phase to provide some cashflow.

- Water is available at the MSP from contiguous bores and from Ilmenite Bore No.1 near Mulgildie.

- A single shift, 5 day a week operation should process 500 tonnes of ore per week, producing 60 tonnes per week of feldspar, 24 tonnes per week of ilmenite, 14 tonnes per week of titano-magnetite and 7 tonnes per week of apatite for demonstration purposes.

- In the first half of 2003, the feldspar would be transported to Gladstone for acid-washing (a distance of approximately 100km by rail).

2.3.2 Construction

- Construction of the wet process plant may be run by Monto Minerals, a mining and construction company or a third party.

- Following completion of the BFS, an Equipment Purchase Contract (EPC) will be let conditional on financial close for the wet process plant (for description of the plant see section 7.1) on the Crater Lease.

- It is envisaged that the full scale plant and infrastructure can be constructed for A$41M and can be commissioned within 9 months of turning the sod.

- We are exploring options by which we can take advantage of the topography at the Crater Lease to minimise this capital cost.

- The critical milestone is the construction of a 32 km pipeline with pumping stations at the bore field and about half way where increased gradient requires additional pumping.

2.4 Operations

- It is envisaged that the operation and maintenance of the plant and the mining will be contracted out to a reputable and experienced third party.

- The mining and processing of the ore body is a simple operation utilising the gravity and magnetic separation techniques developed in the sand mining industry. Mining will be by excavation to a depth of approximately 7 metres. The ore will be loaded directly onto trucks to be transported about up to 2-3 kms to the wet processing plant which is located at a fixed location.

- The ilmenite, titano-magnetite and apatite will be produced as saleable concentrates directly from the wet processing plant. The feldspar will require further treatment (acid washing) to lower the iron content prior to sale.

- Process water will be recycled and recovered where possible using conventional thickeners and decanting from tailings cells.

- The apatite and titano-magnetite will be sold on an ex-mine basis and trucked to Ipswich.

- A small quantity of the feldspar will be sold domestically.

- The vast majority of the feldspar (our target is to build up to 150,000 by 2005 and 200,000 tonnes per annum by January 2006) will be sold on an FIS basis to South East Asia, ex Gladstone.

- Further marketing needs to be undertaken to determine whether the market has an appetite for Goondicum Feldspar of greater than 150,000 tonnes per annum.

- The ilmenite will be exported on an FOB basis, ex Gladstone.

- If the economics show a greater return, it is possible that Monto Minerals could charter its ships to co-transport the ilmenite and feldspar.

3. MARKETS

3.1 General

There are four distinct products being focused on from the Goondicum Crater Project, namely:

Ilmenite	A major industrial mineral of iron and titanium used for the manufacture of about 90% of the world's TiO_2 white pigment, a non-toxic pigment used in just about everything which is white. The metal titanium is used in the aerospace industry.
Feldspar	A complex mineral composed of aluminium and silica used in glass, sanitary ware, ceramic tiles and cosmetics.
Titano-magnetite	Another iron and titanium mineral with less titanium than ilmenite and which is primarily used in furnaces to protect furnace walls from extreme heat. An alternative use is in agricultural and feed stock applications.
Apatite	A phosphate mineral, essential for fertilizers such as super phosphates.

There is also potential to produce a high temperature mica known as biotite / phlogopite, but this option will be held in abeyance until operations have been bedded down.

3.2 Ilmenite

3.2.1 Characteristics of the Market

The market has been supplied traditionally from heavy mineral concentrations in beach and dune sands but this source of supply is restricted by environmental and political pressure to preserve beaches and sand dune areas for leisure pursuits and national parks.

Ilmenite is processed by either the chloride route or the sulphate route. The selection of process route is determined by the characteristics of the raw material and in particular TiO_2 and MgO contents. As Goondicum Ilmenite is a primary ilmenite with around 49.3% TiO_2 and is high in magnesium (MgO) it is suitable for the sulphate route and some slag or synthetic rutile plants.

As chromium, uranium and thorium are particularly low in Goondicum Ilmenite making it amenable to use as a base feedstock for blending with other titanium feed stocks handicapped with higher levels of these elements. The relatively coarse grain size of Goondicum Ilmenite is an additional attraction for customers converting the ilmenite to synthetic rutile or slag.

Goondicum Ilmenite, containing over 37% ferrous oxide (FeO), is very reactive in the process to produce TiO_2 pigment. The reaction produces ferrous sulphate which is widely used in water purification plants; with a higher ratio of ferrous to ferric iron than other ilmenites, Goondicum Ilmenite produces less ferric waste. As concern over the use of the existing Alumina based water purification process increases in Europe, there is an expanding market for this by-product thus increasing the attractiveness of Goondicum Ilmenite. A typical sulphate processing plant requires between 50,000 and 400,000 tonnes per annum, making shipping a major consideration for many suppliers.

Supply of ilmenite from Australia offers customers more certainty and less sovereign risk than many other sources.

Present indications are that the sulphate ilmenite market is quite balanced.

3.2.2 Uses

Ilmenite is a major feed source for manufacture of white non-toxic pigment which is used in paint, plastics, paper, inks, cosmetics and food. Titanium metal, which is used in aircraft frames, jet engines, aerospace and many applications where light, strong, corrosive-free metal is required, is produced from rutile and in some instances synthetic rutile derived from ilmenite.

3.2.3 Our Product

Goondicum Ilmenite has special attractive features such as high reactivity, and very low uranium, thorium and chromium. The sand size particles are coarse compared to ilmenites from beach and dunal deposits.

3.2.4 Issues

The titanium content and high magnesium dioxide (MgO) content classify Goondicum Ilmenite as a sulphate route ilmenite. Approx-imately 45% of ilmenite produced globally is processed via the sulphate route.

3.3 Feldspar

3.3.1 Characteristics of the Market

Goondicum Feldspar has an unusually high content (>27%) of aluminium oxide (Al_2O_3). Glass producers are attracted by the potentially low unit cost for aluminium oxide, which is available in Goondicum Feldspar. Iron levels in Goondicum feldspar mean that in some applications it must be blended with low iron feldspars, but for container glass and tinted plate glass applications it can be used without blending.

Whether using all Goondicum feldspar or a blend with other material, the Goondicum product provides consumers with the opportunity to reduce the input costs of Alumina units. With 10% calcium and 5% sodium, Goondicum also offers the opportunity for consumers to reduce inputs of lime (CaO) units from other sources.

The domestic market is dominated by Unimin (Sibelco), which has over 60% market share of the seaborne trade. A number of consumers are actively seeking a more diversified supply source.

3.3.2 Uses

Feldspar is used in the glass and ceramics industry. Approximately 8 to 9 million tonnes of feldspar are consumed worldwide annually and is the major source of aluminium oxide. The aluminium oxide provides strength and low shrinkage properties to the glass and ceramic products.

Glass in all forms and ceramics as tiles, sanitary ware and crockery all require substantial amounts of feldspar or other feed stocks containing aluminium oxide.

Nepheline syenite is the most common form of aluminium units and less expensive substitutes for nepheline syenite are constantly sought. (Nepheline syenite cost structure is determined by the need to underground mine, drill, blast, crush and screen the material prior to shipping.)

3.3.3 Our Product

The unusually high content of aluminium oxide in Goondicum Feldspar makes it very attractive to glass and some ceramic producers. The dust free sand sized grains are within the size range most desirable for glass manufacture.

3.3.4 Issues

The higher iron oxide in Goondicum Feldspar is undesirable for some tableware glass and ceramics producers, but the high level of aluminium oxide makes Goondicum Feldspar acceptable for most applications particularly flat glass and glass containers.

As noted earlier, where 100% Goondicum Feldspar is not practical, consumers can blend to obtain low cost alumina inputs.

3.4 Apatite

3.4.1 Characteristics of the Market

Apatite is a source of phosphate, the major constituent of phosphatic fertilizers. Most phosphatic fertilizers use phosphorite, a sedimentary form of apatite, as a feed source.

Goondicum Apatite is high in phosphorous (P_2O_5) being over 40% and is derived from igneous rocks. All igneous apatite used in Australia is imported. Phosphorite (sedimentary apatite) is usually in the range 20% to 35% P_2O_5 and can contain numerous contaminants such as cadmium (Cd), mercury (Hg), arsenic (As), lead (Pb), uranium (U) and thorium (Th). Goondicum Apatite is virtually free of these contaminants.

In practice, sedimentary apatite often produces undesirable odours and causes additional environmental problems for the fertilizer producers. Goondicum Apatite does not have this characteristic but is slower to dissolve in acid.

3.4.2 Uses

Apatite is used in the production of phosphatic fertilizers and animal stockfeed. Phosphoric acid produced from apatite is used in detergents and food products.

3.4.3 Our Product

Goondicum Apatite is extremely pure, having no deleterious elements (contaminants) in significant amounts. The phosphorous pentoxide content is in excess of 40%, which is a very high level. Up to 10% feldspar in the product can be a beneficial source of calcium and magnesium for consumers. The apatite occurs as fine sand-sized particles, which is desirable for dissolution in acid for fertilizer production and for direct application in soil for slow release "organic – non-chemical fertilizer". Markets for Goondicum Apatite have been identified in Australia.

3.4.4 Issues

Apatite often contains contaminants but Goondicum Apatite has no levels of toxic elements that are considered detrimental. The slower dissolution of Goondicum apatite is countered by the increasing agricultural demand for slow release organic non-chemical products. Minor feldspar can be beneficial.

3.5 Titano-magnetite

3.5.1 Characteristics of the Market

The use of Goondicum Titano-magnetite can be used either to blast furnace applications where it produces a layer of protection for the furnace vessel because of the high TiO_2 content of about 18% or as an ingredient in agricultural and stock feeds.

Traditionally, until some two years ago, lump titano-magnetite for Japan was sourced from Korean deposits, which are now depleted. Additional low TiO_2 titano-magnetite from New Zealand supplemented the Korean lump material, however this has become uneconomic through cost of replacement of specialised ships. The Japanese consumers now rely on high TiO_2 slag from the east coast of Canada.

3.5.2 Uses

Traditionally, this type of titano-magnetite is used as a pyrothermic layer in blast furnaces for the production of steel. The layer protects the expensive inner layer of refractory bricks designed to insulate the metal outer layer of the furnace. There is also a possibility that the titano-magnetite may be able to be used in agricultural and stock feed applications. This application is for the domestic market.

3.5.3 Our Product

Goondicum Titano-magnetite is a coarse sand-sized magnetite product with a very high titanium dioxide content (18%). No sales revenue has been included in the financial model, pending further market investigations, though we are optimistic that this product will be sold domestically for agricultural and stock feed applications.

3.5.4 Issues

Slag containing titanium dioxide is used in Japan and Korea. This is sourced in Eastern Canada. Although lump is preferred, the shipping cost of slag is much higher than the estimated cost to transport bulk shipments from the Port of Gladstone.

4. RESOURCE

4.1 Proved and Probable Reserves

The Goondicum Crater Project has a Proved and Probable Reserve to sustain 17 – 20 years of mine life to produce about 210,000 tonnes per annum of ilmenite and 80,000 tonnes per annum of titano-magnetite. These figures are calculated at the annual nameplate capacity for the wet processing plant (4.5 million tonnes per year) and are covered by Mining Lease 80044 and Exploration Permit (Minerals) 9100. In reality, throughput varies depending upon grade being mined.

Depending upon demand, between 400,000 and 500,000 tonnes per annum of feldspar will be produced and over 60,000 tonnes of apatite per annum. Approximately 150,000 to 200,000 tonnes of feldspar will be prepared by acid washing for market with the capacity to increase to 400,000 tonnes or more, depending on market demand (see section 2.2). The opportunity to offer different grades will be explored.

If there is a market beyond the existing delineated reserves there are further reserves of ilmenite and titano-magnetite which Monto could access, namely the River leases (Mining Lease Application 80040 Minerals). At this stage it is anticipated that active appraisal of this option will be pursued around 2020. The non-decomposed gabbro in the Crater lease remains a potential resource of all products. The economics of both sources would be enhanced by the amortized capital expended on the initial Crater Project.

4.1.1 Summary

- Proved and Probable Reserves:
  69 million tonnes at 4.9% ilmenite (3.4 million tonnes)

  being derived from:

  - Measured and Indicated Resources:
    79 million tonnes at 5.0% ilmenite (3.95 million tonnes)
    and 2.8% titano-magnetite, plus (2.2 million tonnes)
  - Additional Mineralised:
    7 million tonnes (approx. 0.3 million tonnes ilmenite)

- Estimated Grade / Tonnes of feldspar and apatite contained in the Resource of 79 million tonnes:

feldspar	12%	(9.5 million tonnes)
apatite	1.5%	(1.2 million tonnes)

4.2 Issues

The ore body of decomposed gabbro is approximately 6 – 7 metres thick and commences at the surface. There is, however, 20 centimetres of topsoil to be removed for stockpiling and redistributed over the mined areas during rehabilitation.

The ore body has a high level of clay particles, which have shown to be satisfactorily thickened and replaced into the mined pits with other tailings during trials carried out on site.

5. TENEMENTS AND LICENCES

5.1 Description

Monto Minerals NL, through its subsidiaries Monto Resources Pty Ltd and Eulogie Resources Pty Ltd, hold three Exploration Permits, two granted Mining Leases and a Mining Lease Application. In addition, Monto Resources Pty Ltd hold three granted Water Bore Licences.

5.2 General

Monto Resources Pty Ltd holds the following:

- Exploration Permits
  EP (Minerals) No: 9100
  EP (Minerals) No: 10262

- Mining Leases
  ML No: 80044 - Crater Lease
  ML No: 80075 - MSP Lease (originally the Mineral Separation Plant site on rail line)
  ML(Application) No: 80040 - Northern River Lease

- Water Bore Licences
  WBL 74220M
  WBL 74221M
  WBL 74222M

5.3 Landholder

Mining Lease No: 80044 falls within freehold land owned by Mrs R M Campbell. The area which is the source of the mineralisation is enclosed in a large (28km^2) crater-like structural depression. The area containing the Proved and Probable Reserves is totally within Mrs Campbell's property ("Goondicum") and is covered by EP (Minerals) No: 9100 and ML80044. As part of the process by which the Mining Lease was granted, Monto entered into a compensation agreement with Mrs Campbell, under which all monies have been paid except for the final payment which is payable on the commencement of full-scale mining and construction.

Mining Lease 80075, located approximately 21 km west of ML80044, is also located on freehold property which is owned by Mr & Mrs L Benecke.

These two landholders are the only entities associated with the proposed mining of the Goondicum Crater Project.

Numerous landholders are involved in the areas held outside the Goondicum Crater Project area and most of this land is freehold.

5.4 Native Title

All of the property subject to mining operations within the Goondicum Crater Project are native title free.

The pipeline route has been carefully selected to avoid any native title issues.

5.5 Water

The Burnett Region is suffering very badly from the drought which commenced in 1996. The Monto District (within the Burnett Region) is particularly affected and surface water is practically non existent.

Monto Resources Pty Ltd holds three water bore licences each with a water allocation of 1,000 megalitres per annum for the life of the mine. The borefield is located approximately 32 km west of the Crater Lease and agreement in principle has been obtained from all three property holders (all freehold) and the Monto Shire Council. The water bore licences will produce sufficient water for all of the Goondicum Crater Project's needs. It is envisaged that such pipeline will be constructed by a third party from the water bores to the Goondicum Crater Project at a capital cost of about A$12 to A$14M.

5.6 Environment

An Environmental Management Overview Strategy (EMOS) has been completed and accepted by the Department of Mines and Energy prior to each Mining Lease being granted. The EMOS will form the basis of the "Plan of Operations" which will be developed and lodged prior to the commencement of mining and processing.

5.7 Issues

Mining leases in Queensland can only be granted once environmental, native title and landholder matters have been cleared or resolved. The grant of ML80044 is evidence that these issues have been resolved. The Goondicum Crater Project has a substantial, sustainable water supply and the backing of the Local Governments, State Government and the local community.

It is envisaged that the labour required for the Project will be able to be drawn substantially from the local community.

Many mining and processing operations are located in remote areas with little to no established infrastructure. The Goondicum Crater Project fortunately is located in a developed rural area with a network of roads, highways, rail lines and power corridors. A substantial capable workforce is located in the Monto District which is provided with a 24 hour all weather airport, ambulance and hospital.

The major bulk commodities export Port of Gladstone is located 100 km by rail from the MSP Lease.

6. APPROVALS

6.1 Local Government

Local Government has little to no jurisdiction over Mining Leases except where shire roads are involved.

The Monto Shire Council and Perry Shire Council will both have some input to the public road (haul road) from the Crater lease to the MSP Lease on the rail-line. However, as this is between granted leases and given the high level of local support, their input is expected to be constructive.

6.2 Transport / Rail

The Department of Transport has been fully informed and involved in freight matters both on rail and highways. This Department is supportive and competitive.

6.3 Mining Leases

The Department of Natural Resources and Mines administers all matters within Mining Leases and is the authority which provides approvals with the exception of environmental matters. Generally, the approvals are standard matters and bureaucratic in nature.

The EMOS which has been approved will be followed in detail regarding procedures and the Plan of Operations will be developed and lodged noting EMOS requirements. Variations in mining and processing procedures differing from the EMOS will need to be addressed and the EMOS amended accordingly.

7. MINING & PROCESSING PLANS

7.1 Description

The mining method proposes two mining faces with an excavator and two trucks at each face. The ore will be trucked to a 600 tonnes per hour wet processing plant where the ore will be scrubbed and screened prior to gravity and magnetic separation within a sand and water slurry.

Fine materials (clay) produced during this process will be thickened and returned via pipeline to the mined pits and combined with coarse tailings before restoration and rehabilitation.

Water will be recovered from the process operations and the rehabilitation sites for recirculation in the separation process. The operation will be designed as zero discharge and all water, other than that lost to the tailings, will be captured and re-cycled.

The wet plant operation will produce ilmenite, titano-magnetite and apatite concentrates for immediate distribution to customers.

The feldspar concentrate will be transported to Gladstone (unless acid washing at site proves more economical) where the marketable tonnages will be acid washed to reduce the iron level and then shipped to customers through the Port of Gladstone. The ilmenite product will be shipped in bulk through the Port of Gladstone and the apatite concentrate will probably be trucked or railed directly to a fertilizer producer in Australia.

7.2 Issues

7.2.1 Transport

Queensland Rail have advised that for products totalling over 500,000 tonnes per annum rail transport would be more economical. However, quotations for trucking from private enterprise indicate that trucking is more economical at current anticipated production levels.

A decision will be made depending upon the most economical and environmentally acceptable method of transport to Gladstone.

7.2.2 Rehabilitation

The existence of substantial clay content in the orebody has necessitated extensive research into recovery of process water from the clay tailings and consolidation of tailings in restored mine pits in preparation for rehabilitation.

The establishment of lucerne on trial restored areas has proved a very practical, successful and environmentally acceptable method to remove the remaining water from the tailings in the pits after consolidation.

7.2.3 Acid Washing

The feldspar requires acid washing to reduce the iron content. The use of acid at the mine site is presently being investigated.

Gladstone, as with most industrial cities, has areas set aside for noxious chemical use and is a large producer and consumer of both hydrochloric and sulphuric acid; either acid can be used for iron reduction in the feldspar. For this reason the acid washing may be done in Gladstone which is an environmentally acceptable location and alleviates the need to address any further environmental issues.

7.3 Mining Plans

7.3.1 Bulk Sampling Stage

It is envisaged that the mining for this stage will be carried out by a local contractor. A small mining pit will be developed, restored and rehabilitated for this exercise.

7.3.2 Long Term Mining Plans

One of the major constraints in the mining plan has been the placement of the tailings (see sections 4.2 and 7.2.2). This has led Sinclair Knight Merz ("SKM") to design a cell-based mining plan. Present planning is base on a rate of 600 tonnes per hour.

8. FINANCING

8.1 Plant Trial Bulk Shipment

8.1.1 Costs

To enable the bulk shipment to occur, a Demonstration Plant will need to be constructed. The indicative capital costs of such a plant is A$2.6M. The capital costs assume the construction at the MSP of a 9m tall structure as this is where the water source is. In late 2000, Monto built a 1.5 tonne/hour pilot plant at the Crater Lease using the natural topography to provide the gravity feed. We are exploring the concept of hauling water at no more than the 18 tonne/hour feed rate to a Demonstration Plant on the Crater Lease and replicating the pilot plant on an upscaled design utilizing existing pads, thereby avoiding:

(a) some assumed civil costs; and
(b) the requirement for a 9m structure; and
(c) the hauling of tailings from the MSP to the Crater Lease.

The total budget for this stage is A$5.03M; this plant will be dismantled once the main plant is commissioned. The budget has substantial scope for optimisation not only in capital but also in the areas of tax planning and cashflow. For budgetary purposes we have assumed straight capital investment.

8.1.2 Options

This stage is critical to the success of the Project and will form the basis of the viability of the Project. Current plans are to finance using all or some of the following:

(a) Equity – Existing Source

A further placement of shares to existing shareholders is envisaged.

(b) Risk Capital – Contractor

It is possible that a party may be willing to build the plant and operate both the plant and the mine on a long term basis, and in order to do this may be willing to:

a. lease the plant on a deferred (wholly or partially) payment basis secured on the basis of equity in the Project; or

b. undertake the work on a success fee basis; or

c. undertake the work in exchange for equity.

(c) Cornerstone Investor

It may be possible for Monto Minerals to attract a cornerstone investor from an existing participant in the market.

(d) Leasing

Leasing all or part of the Demonstration Plant.

8.2 Bankable Feasibility Study

8.2.1 Costs

To complete the Feasibility Study, refinement of the existing feasibility is required as well as detailed design of the final plant. There will be financing and legal costs involved in reaching financing close.

8.2.2 Options

Most of the options outlined in 8.1.2 are available here. It is also possible that some sort of debt financing could be available.

8.3 The Final Stage

8.3.1 Costs

Further work is required before these costs can be finalised. It is expected that the Monadelphous Feasibility Study, from which study the estimate of $41M capital is derived, will become available once an arrangement with Monadelphous and SKM is completed.

8.3.2 Options

We anticipate that in April 2003 we will give a mandate to a financial institution to come up with the optimal long term financing plan unless other interested parties have agreed to a mechanism to bring the Project into production.

9. FINANCIAL MODELS

9.1 Description

The model has been extensively modified since first prepared by ANZ for Monadelphous.

Modifications were made in January 2002 by Dick Keevers (analyst) and John Roche (consultant to Monadelphous) and include many of the debt/equity calculations on the summary page. The modifications at that time were made to include production and sale of feldspar and apatite. While Monto Minerals was adamant that these products were important to the project, Monadelphous had previously sought to demonstrate that the project was robust with only ilmenite, and had modelled accordingly.

Because of that, the cost of producing apatite and feldspar was added as a single line item by Monadelphous on the Opex sheet at $35/tonne, whereas the costs of operating the plant for ilmenite production are detailed into components such as labour, power etc. The $35/tonne cost of producing apatite and feldspar was on the assumption the apatite and feldspar were separate product streams, separated by flotation plant after the ilmenite had been extracted. Present indications are that the flotation plant will no longer be necessary. As such we feel comfortable that the $35/tonne is an adequate allowance, notwithstanding the lack of detail behind it.

Acid washing of feldspar has been assumed at Gladstone, though we are exploring the option of washing at site if this proves economically justified.

Subsequent model changes have been made by Monto Minerals to allow sensitivities for 25%, 50% or 75% of feldspar production being processed and sold. The Project will probably see in the first full calendar year of production (being 2005) 150,000 tonnes of feldspar being sold (approximately 50% case). Modification of the price of feldspar to current FIS estimates has also been made. As the actual FIS costs are highly dependent on the location of the customer, the actual costs are difficult to quantify generically. The allowances made have been done on the most probable expensive customer basis and should be adequate for the purposes of this model.

9.2 Assumptions – Base Case:

9.2.1 Revenue

- All recovered ilmenite and apatite is sold
- 50% of available feldspar is processed and sold (approximately 200,000 tpa)
- No titano-magnetite is sold

9.2.2 Capex

- Water supply bores and pipeline are built by a third party and water sold to the project.
- Power corridor upgrade is performed by the supplier, leaving only $1M capital cost to the project for connection. Operating cost of power supply reflects this arrangement.
- Wet plant and infrastructure costs are $41M at the base case production level (this does not include the costs of the Demonstration Plant).

9.2.3 Opex

Based on Monadelphous calculations as amended to include feldspar and apatite separation.

9.2.4 Working Capital

The matter of delayed receipt of revenue has been addressed in the model by allowing 2 months revenue as working capital requirement. This is the estimated time from mining ore to having a marketable quantity of product at Gladstone for shipment. A greater allowance may therefore need to be made for feldspar being sold on FIS basis rather than FOB basis. The final wording of the ilmenite contracts will determine the accuracy of this calculation for ilmenite.

As it is anticipated that titano-magnetite and apatite will be sold FOR ex mine, the working capital in relation to these products will be less than two months.

9.2.5 Debt : Equity

50% debt and 50% equity.

9.2.6 Return

The base case currently delivers a IRR on the project of close to 40% and, at 50% debt level, delivers a return on equity of around 60%.

9.3 Further Work

The enclosed model will need to be extensively re-worked to reflect the changes in the marketing assumptions, timing of cashflow and capital costs. Given that the changes from the beginning have been grafted on to the existing model, a new model will probably need to be constructed starting from scratch. It is anticipated that this work will be done on a project basis as soon as the strategic partner has been selected.

To fully understand the model, Monto Minerals will need to be in receipt of the Monadelphous Feasibility Study .