

# HiTec Energy

Electrofuel™ for Portable Energy

## Quarterly Report – 30 SEPTEMBER 2007

### COMMERCIALISATION OF PATENTED TECHNOLOGY

The pre-feasibility review for the Halol EMD plant continued during the quarter with good progress being made towards finessing the design concept. This work included arranging for the requisite metallurgical testwork on the Gujarat ores, which will determine the final process flow sheet and allow sizing of all process components. Excellent progress has also been achieved in identifying potential component suppliers both locally in India and offshore.

Progress on the formation, registration and resourcing of the Halol project vehicle remains within the agreed schedule. However, this work, and the formal agreement of commercial terms, has now become the key factor that could inhibit further progress in the current quarter. Whilst we understand that the next few weeks will see the achievement in India of certain important milestones, concentrated effort will be needed during the December quarter if the parties are going to be in a position by year end to begin detailed engineering drawings, establishing specifications, soliciting firm quotations and finalising budgets for the project.

### PATENT APPLICATION STATUS

In addition to the general worldwide coverage afforded by our two existing Australian patents (which involve the application of sulfur dioxide leaching and solvent extraction methods for EMD and EMM production) we have continued to apply for specific coverage in countries where these patents may have particular application, and where we believe holding local patents will enhance security over the intellectual property.

During the quarter, a third patent application was lodged in Australia that we believe will complement and add value to the first two patents. The third patent covers the production of a slow release micronutrient fertiliser from the plant tailings of an EMD or EMM production plant employing HiTec's sulfur dioxide leach process. In essence, the entire tailings from a plant would be dewatered then mixed with bonding agents, and then extruded, or compacted and granulated, to form slow release soil improvement pellets that are in high demand in many countries where soils are mineral deficient or where water soluble fertiliser forms are believed to be a primary cause of stream and river algae blooms. In some locations, it will also be possible to sell the tailings stream to a manufacturer of suspension concentrate forms of micronutrient fertilisers, which are applied by spray rather than pellets.

The production of a slow release micronutrient fertiliser from the tailings of a plant utilising HiTec's sulfur dioxide leach process is possible because the mineral compounds contained therein have not been rendered water soluble, as they are in a conventional roast process. These 'insoluble' compounds are organically leached at a slow rate thus ensuring a constant supply of nutrients to crops, whilst avoiding nutrient loss to streams and rivers in rainwater runoff.

The addition of this patent to HiTec's intellectual property package further strengthens our 'green credentials', as it eliminates the need for unsightly tailings impoundments and helps maximise the effective utilisation of a mineral resource upon which a project is based. Not only can low grade, otherwise worthless, manganese ore be used to advantage, but the minerals in these low grade resources can be fully extracted for positive gain without any resultant pollution, and at a reduced net cost for the project.

Our work to date on the commercial viability of a tailings treatment process as described indicates that the entire tailings output of a plant of the size of the one contemplated at Halol in India would be readily saleable. Obviously, in any given instance, plant location, plant size, alternate fertiliser availability and manganese ore elemental make up will all impact on the viability of this sub-process. However, in areas with manganese deficient soils (as is the case for large tracts of Western Australia and India) demand for the product appears high.

## **MANGANESE MINING LEASES**

A thorough review of HiTec's options for extracting value from its Ant Hill and Sunday Hill manganese mining leases has indicated that production could be initiated within six to nine months and that the likely product, a medium grade manganese dioxide concentrate, could be readily sold as a feed stock for silicomanganese alloy production. (Silicomanganese alloys are consumed in steel production and the high steel demand being presently experienced is expected to continue for some years as per capita steel usage in China, India and other developing countries continues to climb.) To achieve sales in such a relatively short period of time, HiTec would adopt a pre-existing mining plan for Ant Hill and begin seeking the various approvals, and a port capacity allocation, without delay.

As an alternative to developing Ant Hill and Sunday Hill as a 'stand-alone' manganese ore producer, HiTec is exploring blending opportunities with other manganese leaseholders that have the potential to improve the product offered and extend the life of the combined operations, thus maximising the value of the component ores. Additionally, we are also considering joint venturing where this can add value for HiTec shareholders. A final decision on whether to go alone or to joint venture and, in either case, whether to focus on a solely HiTec product or a blended product from commencement of operations, is expected in the very near term.

In parallel with our consideration of development options, work has continued on the upgrade of the existing JORC resource for each lease. For Ant Hill, this will involve a surface gravity survey followed by drilling of any gravity anomalies detected plus known manganese outcrops that have been mapped outside of the old South Pit area. The area around the old South Pit was previously drilled as part of earlier feasibility studies. Our exploration objective at Ant Hill will be to achieve a substantial increase in tonnage whilst lifting both manganese grades and the resource categorisation. Given that the existing JORC Inferred Resource of 420,000 tonnes at 29.5% manganese was derived from only 10% of the mesa area, and only a low grade ore was targeted as feedstock for local secondary processing, then this objective is seen as realistic.

For Sunday Hill, all relevant geophysical work to define manganese targets for testing has now been completed and a drilling plan approved. This drilling will test all of the significant surface outcrops and all seven of the geophysical anomalies that have been defined. Our exploration objective at Sunday Hill is primarily focussed upon lifting both the grade and JORC resource classification from the existing Inferred Resource of 4,700,000 tonnes at 18.5% manganese.

## LIQUIDITY

As at 30 September 2007, HiTec had cash and current receivables of \$1.1m and creditors and accruals of \$0.0m giving net liquid funds of \$1.1m. The Company has no outstanding debt and is well placed to fund its current and planned mineral processing activities. (NB: Whilst the costs associated with bringing Ant Hill into production could also be accommodated within current cash reserves, it is more likely that the development option finally selected would be self funding, involving funding advances by offtakers or joint venturers.)



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