

## **TECHSTAR ACQUIRES KEY BENTONITE RESOURCE**

Techstar has accelerated its strategic move into bentonite-based environmental remediation technologies with the announcement that it has signed an agreement to acquire ownership of one of the largest calcium bentonite resources in Australia.

In December 2005, Techstar completed the acquisition of the technology companies, Ipoh Pacific Limited and Exnox Technologies Limited which held IP and/or global marketing rights to a range of environmental remediation products based on the unique properties of bentonite.

These projects use modified bentonite for various technologies including the clean-up of oil spills, both in water and on land; the high level removal of carcinogens and other toxic organic compounds from smoke including tobacco smoke; and improvements in soil productivity (the major reason for the recently announced agreement to supply product to the Middle East).

As part of that acquisition, Techstar also acquired a farm-in right to acquire a 1/3 ownership of Mantuan Downs from the owner, Ipoh Pacific Resources Pty Ltd ("IPR"). This right could be exercised by Techstar paying for the completion of bankable feasibility studies of the resource. Techstar also held the pre-emptive right to acquire the remaining 2/3 of Mantuan Downs for a consideration to be negotiated.

The acquisition of Mantuan Downs is now seen even more clearly by Techstar as providing a classic case of vertical integration through guaranteeing supply for the environmental remediation products. In addition, the resource will provide an underpinning cash flow, through direct sales, to support the R&D programs for the technology projects which have the potential to deliver far greater returns.

This move follows the recent announcement that Techstar has signed an agreement with a Dubai-based environmental company to supply up to 1,000,000 tonnes of bentonite per annum for use in the remediation and improvement of Middle East desert soils, and the regional petroleum industry.

Techstar directors commissioned an independent mining engineer to prepare a valuation and feasibility report which has reported favourably on Mantuan Downs, both as to valuation and mining prospects.

Development of the mine to first production of commercial product will take approximately 12 months and cost approximately \$250,000.

A Share Sale Agreement has been signed with the shareholders of IPR conditional upon a satisfactory Independent Experts report, shareholder approval and ASX and ASIC approval. The consideration for the acquisition is:

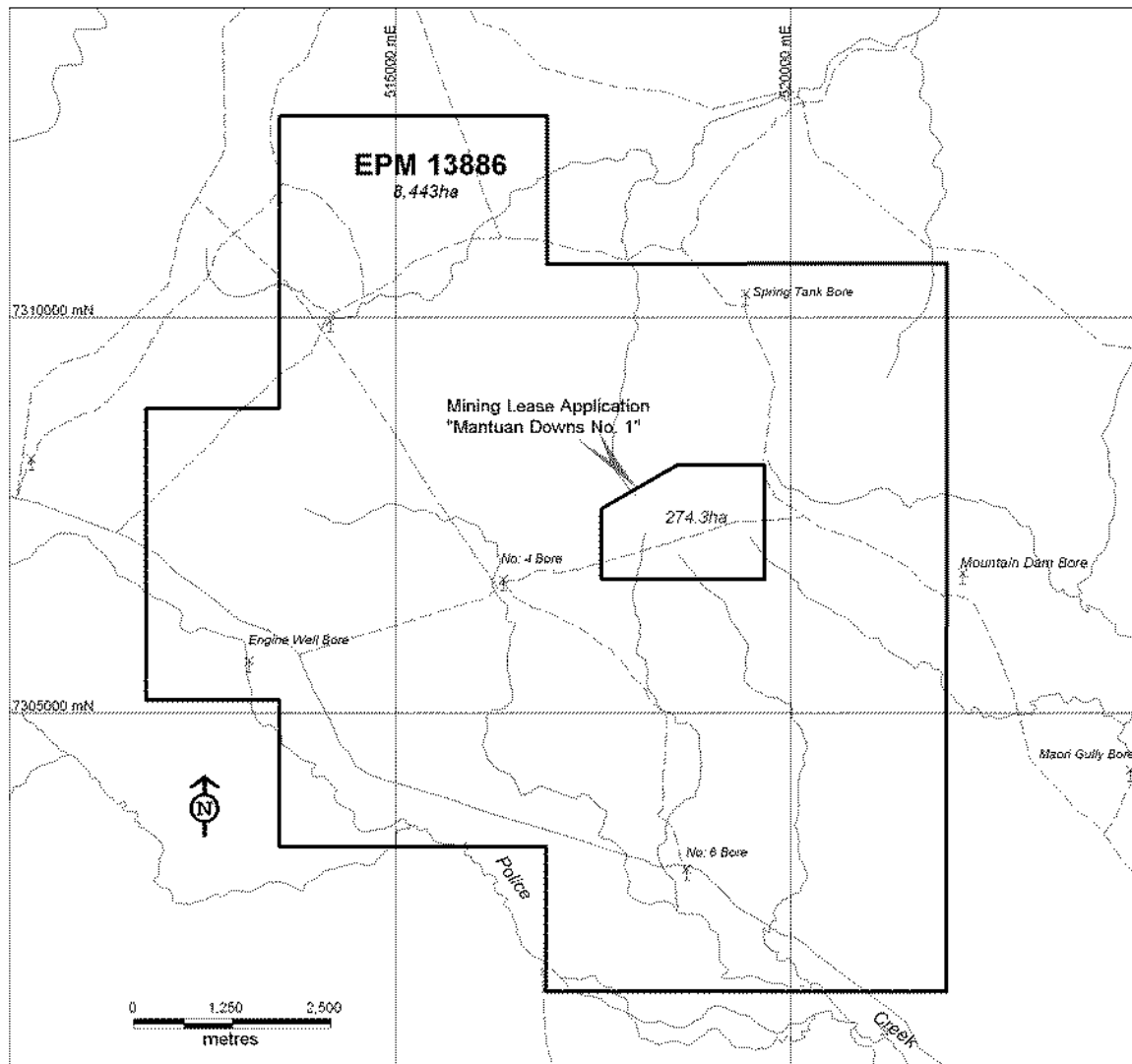
- i. \$1.150 million in a deferred vendor loan to be repaid within three years with earlier payment at the discretion of the Techstar board; plus,
- ii. 40 million TSR fully paid ordinary shares.

The current shareholders of IPR are Betty Byrne-Henderson, Paul Byrne, and Christopher Dredge who are already major shareholders of Techstar, with Byrne and Dredge being directors of Techstar.

Techstar will call a General Meeting of shareholders to approve the acquisition. A notice for the General Meeting including all details of the transaction will be sent to shareholders in the next few weeks.

## RESOURCE DESCRIPTION

The Exploration Permit for Minerals ("EPM") for Mantuan Downs covers an area of 84.4 sq kms. An initial area of 2.74 sq kms was pegged on 30 May 2006 for the first mining lease application.



Mantuan Downs is located 90 kms west of Springsure and 150 kms south West of Emerald in Central Queensland.

The Mantuan Downs calcium bentonite deposit is a large scale mineral resource of high quality bentonite of good thickness located just below the surface.

Overburden is minimal compared to other Australian bentonite deposits, and ranges from 0.8 metres at its eastern margin to around 4-5 metres near the south western part of the deposit over the upper bentonite zone which is often 4.0 to 4.5 metres thick. This upper bentonite zone is separated from a lower bentonite zone of 3.5 to 4.0 metres

thickness by up to 1.0metres of interburden. CEC values indicate that the resource is of extremely high quality.

The following resource estimate to JORC code standard has been assessed by Mr R C Pyper BSc(Geol), FAusIMM, MAICD., Consulting Geologist. *(See endnote)*

**Mineral Resource**

| <b><i>Upper Bentonite Zone</i></b> | <b><i>Tonnes</i></b>     | <b><i>Grade (CEC)</i></b> |
|------------------------------------|--------------------------|---------------------------|
| <i>Indicated</i>                   | <i>7,222,500</i>         | <i>102</i>                |
| <i>Inferred</i>                    | <i>367,500</i>           | <i>102</i>                |
| <b><i>Total Upper Zone</i></b>     | <b><i>7,590,000</i></b>  | <b><i>102</i></b>         |
| <b><i>Lower bentonite Zone</i></b> |                          |                           |
| <i>Indicated</i>                   | <i>4,925,000</i>         | <i>93</i>                 |
| <i>Inferred</i>                    | <i>2,500,000</i>         | <i>90</i>                 |
| <b><i>Total</i></b>                | <b><i>7,425,000</i></b>  | <b><i>92</i></b>          |
| <b><i>Global Total</i></b>         | <b><i>15,015,000</i></b> |                           |

Development of the resource to first production of commercial product will take approximately 12 months and cost approximately \$250,000.

## **STATUS OF EXISTING PROJECTS**

This acquisition is seen as an ideal vertical integration proposal, providing Techstar with the raw materials used in its environmental remediation products, and generating a supporting cashflow for the continued R&D on those and other products in the portfolio through to commercialization.

All existing projects are continuing through the R&D process. However, for efficient use of funds, Techstar has prioritized the projects into those with near term commercial potential (shown as Priority 1), those with later term potential (Priority 2), and those requiring additional research (Priority 3).

### **Removal of Oil Spills by Organically Modified Clays (Priority 1)**

The new oil spill removal technology developed for Ipoh Pacific by the CSIRO uses modified industrial waste clays that when contained in porous bags ("Spillows") made of spun bound propylene absorbs large amounts of oil and diesel and float on water.

Tank tests to determine optimum "Spillows" design and behaviour under varying wind, wave, and temperature conditions have been completed. Further refinement of the technology is continuing with commercial applications likely within 12 months.

### **Improved Crop Yield using Beneficiated Clay (Priority 1)**

This project was a joint venture between TSR and CSIRO. Field trials by the CSIRO using sorghum, maize and sugar cane show the application of beneficiated clay can reverse the affects of soil degradation, significantly reduce the leaching of valuable plant nutrients and sustain a significant increase in crop yield.

The recent agreement (announcement attached) to supply bentonite to the Middle East is the first commercial application of this project.

### **Reduction of Toxic Compounds from Industrial sites and Cigarette Smoke (Priority 1)**

Laboratory testing by University of South Australia Centre for the Environmental Assessment and Remediation (CERAR) (now taken over by Co-operative Research Centre for Contamination Assessment and Remediation of the Environment ("CRCCare")) show chemically modified organo-clays when used in cigarette filters successfully reduces the levels of more than 120 potentially toxic organic compounds without adversely affecting nicotine levels.

The IP associated with the technology is owned by TSR. With preliminary testing being completed and reported, TSR has requested CRCCare to prepare an immediate report endorsing the product which can be presented to potential licencees such as major tobacco companies.

### **Cost Effective Technology for Remediating Heavy Metal Contaminated Sites (Priority 1)**

This project aims to develop and field trial a cost effective technology that minimises human exposure to contaminated soils through the use of a clay-based synthetic material.

This project has the support of the South Korean Government, and CRC Care successfully completed trials in Korea and is completing trials in China which have also been successful. CRCCare is preparing a final report for TSR which is due in the next two months following which the product will be commercialised.

### **IronBar (Priority 1)**

Techstar is working to complete the commercial model of the Reomate. Strong interest in an equity or R&D support position has been received from a major USA concrete products company. At the AGM it was expected that Ironbar would be divested by June 2006. It is now likely that this will occur this calendar year.

### **SportzWhistle (Priority 1)**

Techstar announced today that it has signed heads of agreement to sell Sportzwhistle Pty Ltd and the Sportzwhistle technology, plus another Sportzwhistle-based technology, the emergency response vest, to a New Zealand based technology company.

### **Co-operative Research Centre for Contamination Assessment and Remediation of the Environment ("CRCCare") (Priority 1)**

This CRC is a public/partnership formed as a company developed under the auspices of, and with funding support from, the Federal Government. The partnership brings together corporate, academic and government organizations to develop technologies for assessing and managing contamination in land, groundwater and air, and developing environmentally acceptable solutions.

Techstar has joined with major industry partners including The Australian Institute of Petroleum, Alcoa, Rio Tinto, Coffey Geo-sciences, the Department of Defence and others to develop these technologies with support from government. Some partners, eg, Australian Institute of Petroleum and the Defence Department, may be looking for remediation solutions, whereas others such as Techstar will be providing the solutions.

Techstar is working with CRC Care to develop various innovative absorbent and adsorbant materials for use in the remediation of environmental contaminants which include the projects previously discussed.

With the transfer of research from the University of South Australia to CRCCare, this body has become the major research connection for Techstar for its product development. Recent meetings held with CRCCare also highlight that Techstar will be the source of many of its potential projects, so a relationship is being developed whereby Techstar will provide input of suitable projects, and manage the commercialization process for the CRCCare projects.

### **Modified Clay for Remediating Contaminated Soils using Bioavailability Reduction Technology (Priority 2)**

Ipoh Pacific has worked for several years through a program to use clay-based technologies to reduce the bio-availability of heavy metals and other pollutants in contaminated soils.

This project is ongoing.

### **Augen Technologies (EyeBionics™) (Priority 2)**

The "bionic eye" technology is an Australian developed product with worldwide market demand, at the leading edge of technology and with a substantial amount of development already completed.

Fundraising for development of this device has been slow. It has been intended that funds raised would go directly into the project to avoid capital dilution of Techstar. This is still the case.

### **Clay-Based Technology for Wastewater Remediation (Priority 3)**

Water contamination is a critically important and emerging issue in many countries in the Australian-Asia Pacific region. Almost all the contaminated sites are legacies of waste disposals during the past 50 years.

Ipoh Pacific and the University of South Australia were jointly developing a solution to remediate industrial and municipal waste water. Laboratory trials were positive. The environmental research has been absorbed into CRCCare, and TSR will now work with that body to continue research.

This project is ongoing.

### **Methane Reduction in Livestock (Priority 3)**

Ipoh Pacific formed a joint venture with the Queensland Government Department of Primary Industries ("DPI") in a project to determine the utility of bentonite in reducing methane emissions and improving productivity in animals.

These tests have been successfully completed with bentonite-infused feed treated sheep averaging 25% less methane than untreated animals. This project has a lower priority.

## CURRENT CAPITAL STRUCTURE

The current shareholding of Techstar is shown in the following table, together with the new shareholding following the acquisition of IPR. The shareholders of IPR are Betty Byrne-Henderson, Paul Byrne, and Christopher Dredge who are already major shareholders of Techstar.

A placement to raise up to \$2,000,000 from investors will be put to the EGM for approval as a renewal of the Resolution approved at the AGM in November 2005.

| Name                          | Current shareholding | IPR shares/<br>Placement shares | New shareholding |
|-------------------------------|----------------------|---------------------------------|------------------|
| Betty Byrne-Henderson & Assoc | 34,333,477           | 13,333,334                      | 47,666,811       |
| Paul Byrne & Assoc            | 35,333,477           | 13,333,333                      | 48,666,810       |
| Chris Dredge & Assoc          | 35,332,970           | 13,333,333                      | 48,666,303       |
| Other Directors               | 34,750,136           |                                 | 34,750,136       |
| Other Shareholders            | 47,001,546           |                                 | 47,001,546       |
| Placement Shares              |                      | 20,000,000                      |                  |
| Total shares                  | 186,751,606          | 60,000,000                      | 246,751,606      |

## PROFORMA BALANCE SHEET at 31 Dec 2005

Subsequent to the transaction and equity raising

|                          | 31 Dec 2005<br>Audited | 31 Dec 2005<br>Proforma |
|--------------------------|------------------------|-------------------------|
| Current Assets           | 269,464                | 2,269,464               |
| Non-Current Assets       | 46,753                 | 46,753                  |
| R&D Projects             | 8,175,278              | 8,175,278               |
| Mantuan Downs resource   | -                      | 3,150,000               |
| Total Non-Current Assets | 8,222,030              | 11,474,142              |
| <b>Total Assets</b>      | <b>8,491,495</b>       | <b>13,641,495</b>       |
| Current Liabilities      | 1,418,202              | 845,807                 |
| Non-current Liabilities  | 655,143                | 1,805,143               |
| <b>Total Liabilities</b> | <b>2,073,345</b>       | <b>2,650,950</b>        |
| <b>Net Assets</b>        | <b>6,418,150</b>       | <b>10,990,545</b>       |

**Endnote:** The information in this report that relates to Mineral Resources is based on information compiled by Mr R C Pyper BSc(Geol), who is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Pyper has had extensive experience in the mining industry over 40 years, the last 20 years of which have been as a consultant to the industry. He has been extensively involved in mineral project assessment and evaluation and has the appropriate relevant qualifications, experience and competence to be considered as an "Expert" as defined in ASIC Release 42, and as a Competent Person as defined in the JORC Code for the Reporting of Identified Mineral Resources and Ore Reserves. Mr Pyper consents to the inclusion in the report of the mineral resource table in the form and context in which it appears.