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# Financial Snapshot (As at 30 June 2010)

Shares on issue	38,655,103
Net tangible assets per share	100.1 cents
Revenue	\$120.3 million
Net profit after tax	\$16.0 million
Earnings per share after tax	41.6 cents
Dividend per share (fully franked)	27.0 cents



# Chairman's Report

My name is Mick Caratti. I am one of the founders and presently chairman of Lycopodium Limited. This publication is designed to introduce you to the company telling you who we are, what we do and how we see our future. This report does not replace the statutory financial statements but is designed to provide an informative insight into Lycopodium in an easier to read layout.

As announced at the AGM in October 2009, Rod Leonard was appointed as Managing Director and took over the position from January 2010, allowing Laurie Marshall to return to a non executive role. Rod was a founding Director of Lycopodium and has held a variety of senior roles including Managing Director of Lycopodium Minerals. Rod has, in the last 5 years, managed the introduction of systems and procedures that has allowed the company to grow and establish its credibility in delivering projects for major clients.

I believe Rod will maintain the culture of Lycopodium while leading it onto new challenges. He has already had a material effect and has begun the process of establishing a new office in North America.

2009/2010 has been a surprising period for Lycopodium. The Global Financial Crisis struck the mining industry hard in early 2009 and Lycopodium management made some difficult decisions to ensure the ongoing viability of the company, in what were very uncertain times. However, confidence returned much faster than we expected and the company has been increasing staff numbers. The speed of return of confidence, combined with some one off items which Rod will explain in the MD's report, has led Lycopodium to a record profit.

It was also a surprising year politically. The proposed introduction of a Resource Super Profits Tax, subsequently modified to a Mineral Resource Rent Tax, was a major issue during the period and caused the kind of political polarisation that I have not seen for a long time. Unfortunately, all objectivity disappeared during the process and the uncertainty will have an impact on Australian projects until it is settled. If the final form of the tax is not realistic the effect will last a long time.

The main area of work during the period has been feasibility studies which indicates that our clients have a high level of confidence in metal prices being maintained. However, the rate at which these studies obtain finance and are committed to construction will depend on whether metal prices remain stable and, for Australian projects, the outcome of the resource rent tax debate. Lycopodium has a policy to maintain a balance between Australian and offshore projects to insulate against these situations and the number of studies provides opportunities well into the future.

The achievement of a record profit in such uncertain times is, I believe, a tribute to the quality of work produced by our staff, the strength of the management team and the strategy of focussing on the performance of our clients' projects. I would like to congratulate all our staff, managers and directors on an excellent performance.

I hope you find the following information of interest and if you have any questions please call me.

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**M J Caratti** Chairman



# Managing Directors Report

I am pleased to be able to report a solid performance for the 2009/10 financial year despite the lingering effects of the global financial crisis. The exceptional efforts of our staff during this period and the continued support from our valued clients have underpinned the current year's results.

Our core strategy continues to concentrate on the delivery of EPCM consulting services. This focus has enabled the company to develop a world class capability in delivering large projects for leading multi-national companies. As part of this strategy we target a blend of domestic and international work encompassing a broad range of commodities. Our aim with this strategy is to consistently deliver quality and value in all aspects of our clients' projects. Lycopodium enjoys a strong repeat client base as a result of this singular focus on project excellence.

From the commencement of the 2009/10 financial year, our key clients began initiating feasibility studies in order to understand the effect of the changes in costs and metal prices following the global financial crisis. As a sector, gold projects emerged particularly strong from the global financial crisis. Additionally, given an improved economic environment, a number of suspended projects were re-activated by our clients.

This unprecedented level of study activity, coupled with several minor project awards, has fuelled our gradual increase in workload through the course of this financial year. We remain guardedly optimistic that a number of these projects will at some point in the near future proceed into the execution stage, with the timeline being governed by regulatory and corporate approvals and in a number of instances external financing.

# Full Year Results

During the financial year ended 30 June 2010, Lycopodium realised revenues of \$120 million, an 18% decrease from \$147 million in the previous financial year. However, net profit after tax was \$16 million, as compared to \$14.2 million in the previous financial year, a 13% increase. Net profit after tax was favourably impacted by the resolution of the tax dispute in Tanzania, which was highlighted in the previous financial year, and the finalisation of a prior year contract which enabled the release of a performance provision. The underlying operating profit before tax was \$16 million, down from \$20 million in the prior year.

Basic earnings per share increased from 37.4 cents for the previous financial year to 41.6 cents and in accordance with the company's dividend policy, the Directors have resolved to pay a final dividend of 22 cents fully franked. The total dividend for the year is therefore 27 cents fully franked.

## Outlook

The market for Lycopodium's services in 2010/11 remains unsettled and difficult to accurately forecast.

The first half of the 2010/11 financial year will see the completion of a number of major feasibility studies. Subject to favourable conditions, there is the prospect of select projects continuing into the execution phase which will provide a forward pipeline of work for the company. In the event that these projects are delayed in approval then the prospects for a material increase in revenues in 2010/11 will be limited.

At present the company has adopted the view that there will be a modest increase to the company's financial performance in 2010/11 with a forecast revenue of \$135 million and profit after tax of \$13 million.

### Corporate Overview

During the past financial year there have been no material changes to the operating subsidiaries with efforts focussed on servicing our clients and their projects.

# **Operational Highlights**

As discussed, this year has been characterised by a combination of extremely high study workload and reactivation or continuation of previously committed projects. Some of the larger and more challenging projects and studies are detailed in the Project Review section of this report.

Lycopodium continued the strong relationship established with First Quantum Minerals Ltd and was awarded EPCM services associated with the re-commencement of the Ravensthorpe Project in Western Australia. Engineering and site services are progressing to plan for re-commencement of this major nickel laterite project. This is considered a strategic opportunity to further our expertise in this area and expand our services to a key client.

Following completion of the bankable feasibility study for Adamus Resources, Lycopodium was awarded the EPCM services for the Nzema Gold Project in Ghana. Detailed design was essentially complete at the end of June 2010 and construction activities are on schedule.

Design and construction of the Cadia Vertimill Project for Newcrest Mining in New South Wales was completed during the period with first ore introduced in early July. The regrind mill is currently the largest tower mill in the world.

Lycopodium Process Industries remains active in the chemicals and manufacturing sectors. The Solvay Interox Upgrade Project in New South Wales was successfully completed and handed over late in the financial year following first production of hydrogen peroxide on the site.

Additionally, a basic engineering package was completed for a hydrogen sulphide plant in the Philippines.



Detailed design of the Talc Redesign Project at Mount Keith for BHP Billiton Nickel West is essentially complete and the focus has now moved to the construction phase.

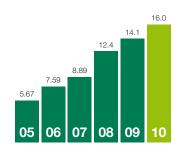
Lycopodium was awarded the EPCM services for a dump leach facility at the Tasiast Gold Mine in Mauritania which is owned by Red Back Mining, a company for whom Lycopodium has undertaken several prior project briefs in Ghana.

Lycopodium remained active in the iron ore sector with feasibility studies in progress for Rio Tinto at Marandoo and Western Turner Syncline, design services for Fortescue Metals Group at their Cloudbreak Operations, a feasibility study for the processing facilities on the Roy Hill Project for Hancock Prospecting and a feasibility study for the Mbalam Project in Cameroon for Sundance Resources.

As mentioned earlier, the company has experienced an unprecedented level of study activity during the year. Illustrating this point are key feasibility studies currently in progress encompassing gold, iron ore, manganese, cobalt, copper, nickel, uranium, phosphate and rare earths.

SUPL focussed on long term clients during the year, based on major reliability and maintenance engineering briefs with Woodside and Chevron in the oil and gas sector and Newmont and BHP Billiton in the minerals sector.

Orway Mineral Consultants continues to focus on providing comminution circuit design and optimisation services across a wide range of commodities, with the gold and iron ore sectors being particularly buoyant. Expansion of their consulting services into the hydrometallurgical field also continued with strategic briefs awarded in uranium, manganese, cobalt and nickel.



Net Profit After Tax (\$ Millions)

Our infrastructure initiative continued to progress during the year. The Whyalla Solar Demonstration Plant process definition and engineering phases are substantially complete. Additionally, Lycopodium provided design services to the Solar Oasis Consortium which was awarded federal funding through the REDP to develop a 40 MW concentrated solar power station.

## HSE & Community

Throughout our company, our focus continues to be on developing and maintaining a safe, healthy, harmonious and involved workforce. Whether on a project site or our various offices in Australia or overseas, our HSE personnel strive for an unrivalled safety record, encouraging behaviours and implementing processes that ensure the safety and health of all employees and contractors.

In 2009/10 there were 1.2 million manhours worked across the Lycopodium managed projects with no lost time injuries and two medical treatment injuries. There remains a proactive approach to training and attention to lead indicators in order to provide a safe working environment across our sites.

As part of our philosophy, we believe it important that we are involved with the various communities in which we work and live. In Ghana, Lycopodium is supporting BASICS, an NGO working to improve the quality of life for children living in poor communities of Accra by providing personnel to help with the development of a new school. In Perth, Lycopodium is a sponsor and supporter of The Clontarf Foundation, a charitable not-for-profit organisation improving the education, discipline, self esteem, life skills and employment prospects of young Aboriginal men.



## Acknowledgement

Lycopodium is a service organisation reliant on its personnel to deliver quality and value to clients. The Board of Directors acknowledges that the company's ability to continue to deliver world class services to our clients and to maintain and enhance the company's performance and capability is dependant on the continued commitment and support of our personnel.

The Board of Directors recognises that the demands placed on our personnel during this period of adversity in the global market have been extremely high. On behalf of my fellow Directors I take this opportunity to sincerely thank all personnel for their highly valued contribution.

Rod Leonard Managing Director

# Board of Directors



# Mick Caratti

#### Non Executive Chairman

Mick has over 35 years' experience in the mineral processing industry with involvement in conceptual evaluation, engineering, commissioning and study management for new and existing projects in Australia and overseas.

Mick has extensive experience in company management having been a director and shareholder of a successful engineering consulting company from 1982 to 1987, and then as a director and shareholder of Lycopodium from its formation in 1992.

Mick's primary role as Chairman is to take a global view of the engineering industry and Lycopodium's place in it whilst maintaining the company's founding philosophies and strategies. However, Mick continues to be involved at a project level as a Senior Consultant as required.



# Rod Leonard

## Managing Director

Rod became the Managing Director of Lycopodium Limited in January 2010.

One of the founding partners of Lycopodium and an Executive Director of Lycopodium Limited since listing in 2004, Rod has been a Director and Chairman of Lycopodium Minerals and a Non Executive Director of OMC.

His management roles within Lycopodium Minerals have included that of Technical Director for the Risk Management Group, Managing Director, General Manager of Operations and Manager of Metallurgy.

Rod has over 25 years' experience in a variety of roles in the operation and project development of major projects in North and South America, Africa, Asia and Australia and has been involved in many aspects of the mineral processing industry from process development, feasibility studies, and design assignments as well as commissioning of projects.



# Robert Osmetti

## Executive Director

Bob is a Civil Engineer with over 30 years' experience in the project management and construction management of projects and has worked for major construction contractors in the mining sector. He brings direct experience in all aspects of project implementation, estimating, scheduling and construction management as well as the management of a number of feasibility studies for major resource projects.

One of the founding partners of Lycopodium, Bob has held diverse positions within the group and continues to apply his expertise across the companies as required. He is a Non Executive Director of Lycopodium Minerals Queensland.



# Bruno Ruggiero

#### **Executive Director**

Bruno is a Mechanical Engineer with over 20 years' experience in the minerals industry completing both national and international projects.

Currently a Technical Director with Lycopodium Minerals, Bruno sets the technical direction and standards for new project initiatives that the company undertakes. Over the past few years he has applied Lycopodium's mineral processing expertise to the iron ore projects being undertaken, particularly the Rio Tinto projects.

Bruno is a founding partner of Lycopodium and, with expertise in both mechanical and process design, has undertaken diverse roles within the company. He is an Executive Director of Lycopodium Minerals and a Non Executive Director of SUPL.



# Peter De Leo

## **Executive Director**

Peter is a Civil Engineer with 22 years' experience within the construction and engineering industries. Peter possesses strong management and project implementation skills and has been responsible for the successful delivery of many of Lycopodium's pioneering and large scale projects.

Currently the Managing Director of Lycopodium Minerals, Peter has previously held the roles of General Manager - Operations, Manager of Projects and Project Director.

A Fellow of the Institute of Engineers Australia, Peter maintains an active involvement with industry associations and tertiary education institutions both as a representative of the organisation and of industry.



# Laurie Marshall

#### Non Executive Director

With the appointment of Rod Leonard as Managing Director early in 2010, Laurie has again taken up the position of Non Executive Director and Consultant. He is also a Non Executive Director of Lycopodium Minerals Queensland and Lycopodium Process Industries.

As a founding partner and Certified Practicing Accountant with over 40 years' experience in corporate, financial and operational management, Laurie has been instrumental in the development of Lycopodium from its early days as a privately owned engineering consultancy to that of a public company.



# Keith Bakker

### **Company Secretary**

Keith has been with Lycopodium for 14 years and in that time has carried out the roles of Commercial Manager and General Manager Finance.

A Fellow of the Certified Practicing Accountants of Australia, he brings to his role of Company Secretary and Chief Financial Officer, 30 years' experience in company secretarial and finance roles within the airline, human resource management and mining services sectors.



# About Lycopodium

Lycopodium Limited is a leading Australian headquartered engineering and project management consultancy with offices nationally in Perth, Melbourne, Brisbane, Sydney and Gladstone and internationally in Ghana and the Philippines.

# Our Company

Through six subsidiaries: Lycopodium Minerals, Lycopodium Minerals Queensland, Lycopodium Infrastructure, Lycopodium Process Industries, OMC and SUPL, Lycopodium delivers consistently high quality, diverse and cost effective services across a broad range of commodities in the mining and mineral processing industries as well as a wide range of sectors in the process industries.

Listed on the Australian Stock Exchange in 2004, Lycopodium's board, executives and employees are a diverse and experienced team with a strong knowledge of the engineering industry.

# Our Business

Lycopodium's business model is based on delivering a superior quality service to clients by delivering studies, engineering, projects, and maintenance advice that are fit for purpose and that exceed established acceptance criteria. In this way Lycopodium adds value to a client's business leading to long term beneficial relationships.

We work closely with our clients to evaluate, develop and implement engineering solutions for their projects and our involvement starts from the early conceptual planning moving through the feasibility phases to the completion of design, construction, commissioning and handover, continuing with reliability engineering and maintenance services on operational sites.

Our contracting model is predominantly EPCM based (Engineering, Procurement, Construction Management).

Our work, reflecting diversity in not only client background, but commodity, technology, scale of operation and geographic location, falls into five groups:

### Mineral Processing

Projects, undertaken in diverse environments including tropical, arid, arctic and high altitude conditions, range in scope from large greenfields projects involving process plant and equipment, civil and building works, control systems, services and infrastructure to small skidmounted pilot plants.

Our Mining and Mineral Processing clients range from major multinational producers through to junior exploration companies and their projects involve a wide range of commodities: gold, silver, copper, cobalt, iron ore, nickel, zinc, lead, manganese, uranium, tin, tantalum, mineral sands, rare earth minerals and platinum group metals.

### Infrastructure

Lycopodium has wide-ranging experience managing the assessment, design, planning and implementation of a variety of infrastructure elements, both independently and in conjunction with mineral processing projects. Infrastructure elements include power supply, water supply, accommodation, industrial buildings, roads and general infrastructure.

## Process Industries

Our Process Industries clients, many of them household names, produce a wide variety of products in the manufacturing, pharmaceutical, chemical, food and beverage, healthcare, oil and gas and petrochemical sectors.

With this diversity of sectors, Lycopodium's expertise is wide, ranging from greenfield production facilities through to cutting-edge biotechnology and scientific research projects.

### Renewables

Lycopodium is at the forefront of developments in renewable energy and energy efficient including solar, biofuels, and heat energy recovery.

### Maintenance & Reliability Engineering

Maintenance and Reliability Engineering clients come from the oil and gas, petrochemical, power and water utilities, mining and minerals processing industries.

In this sector, there is significant experience in re-engineering existing systems for brownfield operations as well as developing and implementing new maintenance management systems for greenfield operations.

Project examples of the various commodities and industry sectors in which Lycopodium has worked during the 2009/10 year follow on Page 11.



# Our Services

Over the years, Lycopodium has developed a reputation for providing technically innovative and cost effective engineering solutions as well as delivering projects which exceed the client's project criteria and performance targets.

Our services fall generally into four areas of expertise:

#### Process

Lycopodium's process group has a wide range of experience to undertake the development of new processes and determine the viability of new and existing processes, including:

- Planning, design, supervision and interpretation of laboratory, bench scale and pilot scale test programs.
- Flowsheet development, mass and energy balances, process modelling, process design specification.
- Management and coordination of necessary skills in the production of studies. These studies are done at different levels of confidence depending on the stage of investigation and are usually defined as scoping study, prefeasibility study and detailed feasibility study.
- Evaluation and selection of new and alternative processes at the conceptual and prefeasibility study stages to determine the viability of new and existing processes.
- Comminution circuit design using specialist database and in-house software to design crushing and grinding circuits and predict their performance.
- Hydrometallurgy for base metals.
- Commissioning, training and operations services.
- Design, construction management and operation of pilot plant installations.
- Plant audits, debottlenecking evaluations and staged development planning.
- Environmental compliance processes, e.g. cyanide recovery and destruction, arsenic fixation and disposal, metal precipitation and water management.

# Engineering

Lycopodium's engineering group can offer a wide range of expertise for the development of a project, including:

- Conceptual and detailed design of treatment plants.
- Conceptual and detailed design of plant associated infrastructure including earthworks, roads, drainage, power supply and transmission systems, buildings and villages, water and wastewater systems.
- Design expertise covering all relevant disciplines including Architectural, Civil, Structural, Mechanical, Piping, Electrical, Instrumentation and Process Controls.
- Design, program, test and commission plant automation control systems.
- Plant refurbishment and relocation.
- Conceptual and detailed design of portable and skid-mounted plants.
- Plant debottlenecking, upgrading and improvements.
- Troubleshooting and modification of mechanical and electrical installations.
- Design expertise in tropical, arid, arctic and high altitude locations.
- General engineering consulting services including due diligence reports, project valuations and debottlenecking studies.

### Project Delivery

Lycopodium undertakes the engineering, design, procurement and construction management (EPCM) of clients' projects, including:

- Full project management on a predominantly EPCM basis to deliver complete projects.
- Project controls including cost control and scheduling.
- Tender preparation and evaluation.
- Procurement, expediting and inspection services.
- Plant evaluations and assessments for insurance or sales purposes.
- Capital and operating cost estimates.
- Financial evaluation of projects.
- Client representation.
- Development and implementation of project accounting services.
- Development and implementation of project maintenance and reliability engineering services.
- Logistical and transport management.

## Maintenance and Reliability Engineering Services

Lycopodium can assist plant site operators to reduce operating costs and increase productivity, whilst complying with statutory regulations and duty of care obligations, by re-engineering their maintenance management practices and implementing the required change processes.

These services fall within the following areas:

- Maintenance System Development the preparation of work instructions to provide comprehensive maintenance actions.
- Optimisation the fine tuning of systems, procedures and processes to cost effectively provide the highest availability and reliability for an operational site.
- Materials Management and Optimisation - encompasses all aspects of identifying, categorising and organising equipment in a facility or system.
- Operational Readiness the provision of services to assist clients to initiate operation of new projects.
- Planning the detailed processes and practices that form the maintenance planning cycle.



# Our People

Engineering consulting is a service industry and Lycopodium is dependent on its people for the quality of service it provides.

Lycopodium is proud of the professionalism and loyalty of the team it has assembled and their achievements in the innovative and cost effective design and construction of projects in diverse industries and regions.

Lycopodium uses a team approach to its work where each project has a team drawn from the disciplines required and is led by a project manager. Each discipline is headed by a discipline manager who is responsible for monitoring and controlling the quality of work within the discipline and ensuring each project manager has sufficient resources to run the project team.

Regular formal management meetings are held to review progress, cost and quality and ensure all projects are fully resourced, on time and on budget.

# Our Projects

Lycopodium, while Australian based, operates both nationally and internationally and has undertaken projects in diverse locations such as Brazil, Burkina Faso, Cameroon, Canada, Chile, China, Democratic Republic of the Congo, Egypt, Finland, Ghana, Laos, Kazakhstan, Malaysia, Mauritania, Papua New Guinea, Philippines, Russia and Tanzania.

# Our Clients

Lycopodium services a wide range of organisations headquartered throughout the world including:

- AngloGold Ashanti
- Barrick
- BHP Billiton
- Bluescope Steel
- First Quantum Minerals Limited
- GlaxoSmithKline
- Gold Fields
- Newmont Gold
- Newcrest Mining
- Orica
- Red Back Mining
- Rio Tinto
- Toyota Motor Corporation
- Yakult

# Lycopodium

# Our Goals

Lycopodium's aim is to be the best in its field and believes its success is a function of the success of its clients' projects.

Lycopodium has a proven track record of meeting budgets and schedules and achieving project performance criteria on both large and small projects and in greenfield (new) and brownfield (existing operating plant) environments.

A successful company doesn't stand still - it grows, accepting new challenges and resetting goals, which for Lycopodium reflects in larger, more complex projects and work in new areas, be they technical or geographic. In order to assist this growth Lycopodium's strategies are as follows:

#### Clients

Lycopodium focuses on achieving clients' aims as its primary objective and its success is demonstrated by the high level of client satisfaction and repeat business the company enjoys.

#### People

Lycopodium continues to build and retain a team of respected professionals in each of the disciplines required in an engineering consultancy and project delivery business.

Our teams are based in offices nationally in Perth, Melbourne, Sydney, Gladstone and Brisbane, and internationally in Ghana, the Philippines, and on project sites as required.

### Profitability

Lycopodium's objective is to maintain consistent profit margins while not exposing the company to unacceptable risk.

#### Growth

Lycopodium continues to focus on organic growth in alternative geographic locations and through strategic acquisition where clear added value to the business can be demonstrated.





# Project Reviews

Client: Sector:

Project: Cadia Vertimill Location: New South Wales Newcrest Mining Ltd Mineral Processing -Gold / Copper

Project: Tasiast Location: Mauritania, West Africa Client: Tasiast Mauritanie Limited SA Mineral Processing - Gold Sector:

This year, continuing a long term relationship with Newcrest Mining which has involved the successful development of projects and studies at various Newcrest sites, Lycopodium has been working with the Cadia Valley Operations team in New South Wales to install what is currently the world's largest vertimill.

One of Australia's largest gold producers, Cadia Vallev Operations comprises the large, low grade Cadia Hill open pit mine and the higher grade Ridgeway underground mine. The Cadia Hill and Ridgeway ore processing concentrators are located adjacent to each other and share a number of infrastructure facilities and services enabling the two concentrators to be efficiently operated as a single complex.

In early 2009, Newcrest identified an economic opportunity to install a VTM 3000 Vertimill and requested Lycopodium to complete an options study to examine alternative locations for the Vertimill in the existing grinding circuit in the High Grade Concentrator. The Vertimill is being installed to improve recovery by augmenting the ball milling capacity of the high grade Ridgeway plant. As the name suggests, a vertimill grinds in an energy efficient way in the vertical position using a spiral to lift and agitate the charge.

When the study was submitted to Newcrest in May 2009, Lycopodium proposed operation of the VTM 3000 in series with the VTM 1250 and existing ball mill, processing primary cyclone overflow. In October 2009, Newcrest requested Lycopodium to undertake the EPCM services for the execution phase of the project. The engineering, design and procurement services were executed from the Perth office, with construction management services being delivered from the site.

Commissioning of the Vertimill took place July 2010 with the Vertimill Circuit successfully operating on a continuous 24/7 basis as part of the plant operations. Red Back Mining Inc. is a Canadian based gold producer operating the Chirano Gold Mine in Ghana and the Tasiast Gold Mine in Mauritania, West Africa.

The original 2 Mtpa Chirano process plant was designed and constructed by Lycopodium and commenced production in 2005. The Tasiast plant was designed and constructed by others and commenced production in 2006.

In 2008/09, Lycopodium designed and constructed a brownfield expansion to the existing Chirano plant to increase nameplate throughput to 3.5 Mtpa. The expanded plant, delivered on time and on budget, was brought into production with minimum disruption to the existing operation in September 2009 with a significant increase in gold production.

Based on this success at Chirano, in December 2009 Lycopodium was requested to undertake a feasibility study for a proposed 11 Mtpa Dump Leach Facility at Red Back's Tasiast operation. This study was completed in 1Q2010 and in May 2010, Lycopodium was awarded the EPCM contract for the execution phase of this project.

Detailed design and procurement commenced in May and the project is scheduled for completion in April 2011.

In parallel to the Dump Leach Project, Lycopodium has been awarded three additional feasibility studies for their Tasiast Operation.

Project: Ravensthorpe Recommissioning Location: Western Australia Client: First Quantum Minerals Sector: Mineral Processing - Nickel

Lycopodium is providing EPCM services and working with First Quantum Minerals group to achieve the required modifications as part of the recommissioning of the Ravensthorpe mine in Western Australia.

Acquired in February 2010, First Quantum Minerals is looking to have mine operations back up and running in 2011. Originally designed to process low-grade nickel laterite ore, First Quantum's implementation plans incorporate a modified comminution circuit for processing the sticky laterite nickel ore.

First Quantum is expecting Ravensthorpe to produce an average of 39,000 tonnes of nickel a year for the first five years after operations restart, while overall production over the mine's expected 32 year life is forecast at 28,000 tonnes a vear.

This assignment continues a strong working relationship established between Lycopodium and First Quantum.

A growing mining and metals company engaged in mineral exploration, development and mining, First Quantum has operations and projects in Finland, Zambia and Mauritania. Listed on the Toronto and London stock exchanges, the company operates from a base in Perth, Western Australia.

# Project Reviews continued

Project:Highland Plains PhosphateLocation:Northern TerritoryClient:Phosphate Australia Pty LtdSector:Mineral Processing - Phosphate

Project:Marandoo Mine Phase 2Location:Western AustraliaClient:Rio TintoSector:Mineral Processing - Iron Ore

Project:Hydrochloric Acid Plant UpgradeLocation:VictoriaClient:Orica Australia Pty LtdSector:Process Industries - Chemical

The design of an appropriate testwork programme for any project is of utmost importance to ensure a systematic approach and adequate data generation for flowsheet selection.

Such an approach becomes even more significant when ores that are difficult to process are being investigated. OMC has managed numerous testwork programmes over the years, ranging from scoping level through to definitive studies for a variety of commodities.

The Highland Plains Project is situated in the Northern Territory within the geological setting of the Georgina Basin. The occurrence of vast quantities of apatite (phosphate mineral) in the Georgina Basin has been known of for a long time, but the complex metallurgy has prohibited extraction on a larger scale.

To enable the client to establish the potential treatment routes of the project, OMC developed a testwork programme covering a wide range of process options. The options included physical size separation, flotation of whole ore as well as separate size flotation, desliming and selective flocculation. This resulted in a flowsheet that produces a premium quality product, with further optimisation testwork planned to improve recovery. Economic evaluation of the process will be done as part of the next study phase.

Listed on the ASX in July 2008, Phosphate Australia Limited is a rock phosphate development company targeting the production and sale of up to 3 Mtpa of premium grade beneficiated rock phosphate with low contaminants. Rio Tinto's Marandoo mine, located approximately 35 km northeast of the town of Tom Price, commenced operations in 1994. Current production is 15 Mtpa with all mining of the Marra Mamba type ore taking place above the water table.

With the expected completion of the above the water table mining activity at Marandoo in 2012, the Marandoo Mine Phase 2 Project involves extending the mine pit to allow for the mining of below water table ore. This development will allow for the ongoing supply of high quality Marra Mamba ore in the Pilbara Blend product.

The Marandoo Mine Phase 2 Project is a major brownfields project and consists of a dewatering system, new village, wet processing plant and all associated infrastructure and facilities.

The challenge to take the Marandoo Mine below the water table has many aspects ranging from the need for new mining methods to cope with soft clays in the waste that overlies the ore to the development of a robust and efficient wet processing plant that will overcome the handling issues that occur when trying to process ore from below the water table in a dry plant.

Lycopodium completed the Preliminary Engineering Study for the project early 2009 and was awarded the Definitive Engineering Study in April 2009.

The expected project duration is estimated to be approximately 35 months with commencement of early works in 2Q2010 to first below water table ore in 1Q2013. The Orica Watercare Division provides acid and alkali chemicals to a broad range of industries, primarily the water treatment and mining industries. In response to growing market demand, an accelerated project program was initiated at the Orica Chlor-Alkali plant in Laverton, Victoria.

Lycopodium has assisted Orica on many projects in the past, most recently to deliver, on an EPCM basis, a fast tracked sodium hypochlorite plant for Orica Chemicals in Western Australia. It was on the strength of this relationship that Orica selected Lycopodium to assist in the upgrade of the Laverton HCl plant.

At the time of award, recognising that the main plant items supplied as a complete skid mounted unit from a European supplier would not achieve the required schedule, Lycopodium was engaged to incorporate the main HCI Synthesis unit, gas scrubber and associated equipment into the existing process structure.

Lycopodium completed preliminary structural, mechanical and instrument/ electrical design, capital cost estimating and detailed design and procurement for the project in early 2010 with construction commencing on site in June 2010. Installation of the HCI Synthesis unit occurred in August and mechanical completion is expected in September, with production commissioning later that month.

At the conclusion of the project, the Laverton plant will have more than doubled its HCl production capacity.

Project:Nzema GoldLocation:Ghana, West AfricaClient:Adamus ResourcesSector:Mineral Processing - Gold

Project:Plant Capacity UpgradeLocation:New South WalesClient:Solvay Interox Pty LtdSector:Process Industries - Chemical

Perth-based explorer and mine developer, Adamus Resources Limited has been focussed on becoming the next significant gold producer in Ghana by realising the economic potential of the 90% owned Nzema Gold Project in Ghana, West Africa.

To help them achieve that goal, Adamus has worked with Lycopodium in the completion of the conceptual and feasibility studies, and in October 2009, appointed Lycopodium as its preferred engineer to build the processing plant for the project.

At the time of award, Adamus Managing Director Mark Bojanjac said "Lycopodium has an experienced team based in Ghana who have delivered a number of plant implementations in the nation, including the recent expansion of Redback Mining's Chirano Project and the development of the plant for Newmont's Ahafo Project. We selected Lycopodium on the basis of their good reputation and excellent track record in the area and we remain confident of becoming a gold producer by early 2011".

At July 2010, that prediction remains on track with site construction well advanced and Adamus still confident of its first gold pour in 1Q2011.

Nzema (prounounced 'en zimmer') is a greenfield development of open pit mining operations, processing facility and associated infrastructure to mine and process gold-bearing ores. The treatment plant will process oxide, transitional and primary ores from the various pits at a nameplate rate of 2.1 Mtpa on oxide ore. The process route comprises primary crushing, SAG milling, gravity recovery of free gold, carbon-in-leach (CIL) and countercurrent washing of the final tailings prior to disposal. Carbon from the CIL will be processed in a Zadra elution circuit followed by electrowinning of the gold onto stainless steel cathodes.

Solvay is the world's leading producer of hydrogen peroxide and its derivatives, with production facilities worldwide. In Australia, Solvay is based in Banksmeadow, New South Wales with its subsidiary, Solvay Interox Pty Ltd, and serves the peroxygen needs of Australia, New Zealand and the south west Pacific Islands.

The company produces hydrogen peroxide used in a variety of industries including pulp and paper, textiles, chemical, food and beverage, and consumer products.

Solvay Interox appointed Lycopodium to provide engineering, procurement and construction management (EPCM) services for the expansion of the Banksmeadow Hydrogen Peroxide Plant from 17.5 ktpa capacity to 24 ktpa capacity.

To increase the plant capacity, four areas were addressed:

- Hydrogen Plant Installation of a new Hydrogen Plant that was fabricated off-shore and shipped in modules.
- Oxidation Installation of a new air compressor.
- Extraction Installation of an extraction column and coalescer.
- Alkaline Reversion Installation of a new reversion process, integrated into existing plant facilities.



# Financial Results

	Consolidated			
	2010 \$	2009 \$	2008 \$	
Revenue	120,801,462	149,735,813	120,578,416	
Employee and contractors expense	(89,037,656)	(109,134,618)	(84,913,521)	
Depreciation and amortisation expense	(1,608,491)	(1,841,544)	(1,485,445)	
Other project expenses	(446,985)	(6,904,017)	(5,102,515)	
Administration and management costs	(9,889,072)	(10,745,710)	(10,880,248)	
Other	(1,107,480)	(907,182)	(532,135)	
Profit before income tax	18,711,778	20,202,742	17,664,552	
Income tax expense	(2,653,312)	(5,425,487)	(5,187,734)	
Profit for the year	16,058,466	14,777,255	12,476,818	
Dividend (fully franked) (cents)				
Interim	5.0	5.0	5.0	
Final	22.0	20.0	20.0	
Total Dividend	27.00	25.0	25.0	
Shares on issue	38,655,103	37,840,000	37,840,000	
Share price as at 30 June (A\$)	3.14	1.37	4.75	
Earnings per share (cents)	41.6	37.4	33.0	
Price earnings ratio	7.5	3.7	14.4	
Net tangible assets per share (cents)	100.1	91.6	74.9	

# Balance Sheet

	Consolidated		
	2010 \$	2009 \$	2008 \$
ASSETS			
Current assets			
Cash and cash equivalents	23,395,487	26,362,861	9,987,106
Trade and other receivables	27,665,267	24,100,564	31,342,277
Other current assets	2,790,730	1,415,308	1,314,998
Non current assets held for sale	0	0	2,078,180
Total current assets	53,851,484	51,878,733	44,722,561
Non current assets			
Property, plant and equipment	3,147,532	3,548,705	3,788,669
Other assets	1,891,515	490,344	445,848
Deferred tax assets	2,152,651	2,921,830	2,514,477
Intangible assets	6,018,211	5,063,182	5,484,053
Total non current assets	13,209,909	12,024,061	12,233,047
Total assets	67,061,393	63,902,794	56,955,608
LIABILITIES			
Current liabilities			
Trade and other payables	18,994,066	16,344,344	14,561,054
Borrowings	782,003	837,249	2,113,375
Current tax liabilities and provisions	475,000	4,607,180	3,592,357
Total current liabilities	20,251,069	21,788,773	20,266,786
Non current liabilities			
Borrowings	1,473,918	1,931,273	2,500,372
Provisions	616,973	455,448	338,750
Total non current liabilities	2,090,891	2,386,721	2,839,122
Total liabilities	22,341,960	24,175,494	23,105,908
Net assets	44,719,433	39,727,300	33,849,700
EQUITY			
Contributed equity	18,730,297	17,656,497	17,656,497
Reserves	(134,501)	(158,143)	(718,488)
Retained profits	26,123,637	21,622,524	16,912,106
Minority interest	0	606,422	(415)
Total equity	44,719,433	39,727,300	33,849,700

# Shareholder Information

The shareholder information set out below was applicable as at 13 September 2010.

#### A. Distribution of equity securities

Analysis of numbers of equity security holders by size of holding:

			Ordinary shares
1	-	1000	324
1,001	-	5,000	672
5,001	-	10,000	213
10,001	-	100,000	207
100,001	-	and over	29
			1,445

There were 34 holders of less than a marketable parcel of ordinary shares.

#### B. Equity security holders

The names of the twenty largest holders of quoted equity securities are listed as:

Ν	ame	Number held	Percentage of Units
1	Reesh Pty Ltd	9,205,696	23.81
2	Luala Pty Ltd	3,167,332	8.19
3	HSBC Custody Nominees (Australia) Limited	2,917,757	7.55
4	Caddy Fox Pty Ltd	2,812,332	7.28
5	Accede Pty Ltd	2,142,332	5.54
6	Selso Pty Ltd	2,141,781	5.54
7	Equity Trustees Ltd	1,119,038	2.89
8	Citicorp Nominees Pty Ltd (CFSIL CWLTH SMALL CO 7 A/C)	656,912	1.70
9	Mr Peter De Leo	622,466	1.61
10	Lycopodium Share Plan Pty Ltd	607,500	1.57
11	Mr Ian Yovich & Ms Kay Somerville	500,103	1.29
12	ANZ Nominees Ltd	470,256	1.22
13	De Leo Nominees Pty Ltd	407,900	1.05
14	Claw Pty Ltd	355,000	0.92
15	Mr Glenn Robertson	309,997	0.80
16	Citicorp Nominees Pty Ltd (CFSIL CWLTH SMALL COS 1 A/C)	248,544	0.64
17	National Australia Trustees Ltd	226,948	0.59
18	Botech Pty Ltd	225,405	0.58
19	Mr Peter De Leo & Mrs Tiana De Leo	215,405	0.56
20	Mr David James Taylor	200,000	0.51
Tot	al	28,552,704	73.84

#### C. Substantial holders

Substantial holders in the company are set out below:

Name	Number held	Percentage of Units
1 Reesh Pty Ltd	9,205,696	23.81
2 Luala Pty Ltd	3,167,332	8.19
3 HSBC Custody Nominees (Australia) Limited	2,917,757	7.55
4 Caddy Fox Pty Ltd	2,812,332	7.28
5 Accezde Pty Ltd	2,142,332	5.54

### D. Voting rights

Ordinary shares: On a show of hands every member present at a meeting or by proxy shall have one vote and upon a poll each share shall have one vote.

# Corporate Directory

#### Directors

Michael (Mick) John Caratti Rodney (Rod) Lloyd Leonard Robert (Bob) Joseph Osmetti Bruno Ruggiero Peter De Leo Lawrence (Laurie) William Marshall

**Company Secretary** Keith Bakker

### **Registered and Principal Office**

Level 5, 1 Adelaide Terrace East Perth WA 6004 T: + 61 (0)8 6210 5222 E: limited@lycopodium.com.au www.lycopodium.com.au

# **Share Registry**

Computershare Investor Services Pty Limited Level 2, 45 St George's Terrace, Perth WA 6000 T: +61 (0)3 9415 4267 Direct line for Investors: 1300 764 130 www.computershare.com.au

#### Lawyers to the Company

Hardy Bowen Level 1, 28 Ord Street West Perth WA 6005 T: +61 (0)8 9211 3600 www.hardybowen.com

### Auditor

PricewaterhouseCoopers QV1 Building, Levels 19 - 21 250 St George's Terrace Perth WA 6000 T: +61 (0)8 9238 3000 www.pwc.com/au





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