

Shareholder
Report 2016

Energy

Financial Snapshot

Financial Snapshot

(As at 30 June 2016)

39,732,373

Shares on Issue

142.0 cents

Net tangible assets per share

\$124.5 million

Revenue

\$3.3 million

Net profit after tax

8.0 cents

Earnings per share after tax

5.5 cents

Dividend per share (fully franked)

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Chairman's Report



My name is Mick Caratti. I am one of the founders and presently chairman of Lycopodium.

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.

I would like to begin by thanking Rod Leonard for his commitment and leadership during the six years that he lead the company as Managing Director. These were the most difficult years in the company's 24 year history and included the dip which followed the heady time up to the GFC and the continued rise to 2012 and then the downsizing and restructuring that followed. During that time Lycopodium made total profit of \$80.8M, returned \$59.7M in dividends to Shareholders and made a loss of only \$1M in one period. That is an enviable record for any company and its Managing Director and management can be proud of the achievement. I would also like to thank Rod for taking the Managing Director role in Lycopodium Minerals where his technical knowledge and respect in the industry is invaluable in what is still a difficult market.

As per previous years I would like to provide some thoughts on the industries we service and the major trends as we see them.

Reading through my letters of the past two years I find little seems to have changed with Brexit replacing Greece as the concern in the Euro zone, China remaining a question and the US continuing to improve. Metal prices fell significantly in 2014/15 but have seen little change in the last year yet the outlook in the mining sector as we see it has changed materially as shown by:

- The relative stability in iron ore prices where predictions a year ago had been dire
- A continued strong gold price
- Junior miners successfully raising both equity and debt for project development and some flowing through to exploration

The last of these points is a material change as it allows advanced projects to proceed to development and a year ago most projects were stalled in financing. Lycopodium has benefitted from this effect with the commitment of some material projects announced recently. The company is now actively constructing seven greenfield and expansion projects.

I do not mean to imply a return to boom times as the number of projects being developed is limited and price is critical however we do feel that the worst may be over.

The next issue as we see it will be the rate at which juniors can raise money for exploration as the funding drought in recent years could lead to a dip in the number of projects being ready for development in the future.

For Lycopodium we believe that we are in a rebuilding phase following the contraction and restructuring that occurred over the past two years. Our offices in Australia, Africa, North America and the Philippines provide access to a large number of clients and our experience allows us to service a spread of project sizes and commodities which we believe will provide secure work in what are still difficult times.

While the minerals sector provides the major part of Lycopodium's revenue the company now undertakes a wide variety of work in other process industries and in infrastructure. The process industries in Australia have suffered badly from the impact of high costs that resulted from the boom times in the minerals industry over the past ten years and our team that services those industries has done well to maintain a flow of work in difficult times. The subsidiaries that service infrastructure have been combined to be able to offer a wider variety of services across Australia and we have provided more details on these changes in the Managing Director's report. The infrastructure work in the Eastern states provides an opportunity for the combined infrastructure, asset management and rail groups.

I would like to introduce Peter De Leo who commenced in the Managing Director's role of Lycopodium Limited at the last AGM. Peter has been with Lycopodium since 1994 and has been a director since 2002. Peter is a civil engineer and an experienced project manager who undertook our first project in Africa (Konongo) in 1994 along with Newmont's first African project (Ahafo) in 2004 and has held all the major management positions in the company on the way to the lead role. Peter has the full confidence of the board and I welcome him in his new role.

The improved result this year is the result of the efforts and commitment of the whole staff and management team and I would like to thank you on behalf of the Directors and Shareholders.

I hope you find this report informative and readable and if you would like further information please give us a call.

M J Caratti

Managing Director's Report



This is my first report since taking the helm from Rod Leonard in November 2015. First and foremost I wish to thank Rod for his leadership and drive during his tenure ensuring the Company remained focused and successfully achieved its primary objective of being a recognised leader in the delivery of quality professional services across our market sectors.

Last year we reported that Lycopodium had in the previous twelve months seen the worst market environment since it began operating in 1992. Market conditions across the 2015/2016 financial year stabilised but continued to be challenging with uncertainty and poor forward visibility on future workload prevailing. This was particularly the case in the six months to December 2016. This period required us to continue the cost reduction and capacity downsizing efforts to match the market needs. This was a difficult exercise, testing the management and staff across the business and requiring them to maintain a strong focus on continuing to deliver high quality services to our clients, whilst at the same time rationalising many aspects of the business so as to reduce costs. Our teams rose to the challenge meeting the demands of the market and the needs of the Company in this regard. Moving into the second half of the financial year a slight but identifiable improvement was seen in the mineral resources market and signs of improvement were also seen across some of the other market sectors we service. Through tight and focused management across all subsidiaries Lycopodium returned to profit and has been able to establish a trend of steady improvement in financial performance.

Based on our high level of repeat business there is no doubt that Clients appreciate our efforts to deliver a quality outcome. What we clearly appreciate, is that due to the funding challenges in this market, cost is a major driver for clients when selecting their engineer. Key to meeting the markets cost expectations has been our ability to use a blend of high level expertise housed in our client facing offices supplemented by our design and drafting centre in Manila.

In both the Resources and Process Industries sectors we have seen the markets preference for EPC delivery continue to grow. Whilst the majority of our work continues to be delivered on an EP or EPCM basis we have been able to respond to the market and have bid and won work which will be delivered on an EPC basis.

This has in some areas required us to adopt revised approaches to certain aspects of project delivery but still firmly encapsulates our traditional strengths developed in the delivery of hundreds of projects over the past twenty four years.

Across the Infrastructure, Transport and Asset Management sectors we continue to operate primarily as a consultant with the business model based on the delivery of professional services on either a fixed price or reimbursable basis. Similarities in the delivery of services across these sectors, as well as the overlap sometimes seen by these three subsidiary businesses informed our decision to consolidate the subsidiaries, Infrastructure, Rail and Asset Management into one under the Infrastructure banner. This has provided a strengthened management team working across a broader footprint to service new geographic markets in terms of the specific sector involvement.

Our strategy and collaborative approach has seen us emerge from a period of significant uncertainty across most of our markets with first class teams, a sound financial position and a plan to tackle and achieve good outcomes in our selected markets. We continue to maintain and grow a world class capability in the provision of professional services for all phases of the project development cycle, delivering large projects for leading multi-national companies through to enabling emerging and junior companies to achieve first production.

Full Year Results

As per prior guidance, the Directors are pleased to report a return to profitability for the financial year ended 30 June 2016, with Lycopodium achieving revenues of \$124.5 million and a net profit after tax of \$3.3 million.

Basic earnings per share were 8.0 cents. The Directors have resolved to pay a final dividend of 4.0 cents fully franked, which aligns with our dividend policy. The total dividend for the year is 5.5 cents fully franked.

Outlook

Our traditional markets remain tight and this will continue to translate into tight forecast margins.

In the Resources Sector, gold as well as several other emerging minerals have seen heightened activity. On the back of our track record in gold and mineral processing generally we are now active in the development phase of seven gold projects in Africa and one gold project in South America. In addition, we continue our work on the massive Cobré Panama Copper Project in Panama for First Quantum Minerals Limited, as well as being active on projects relating to diamonds, fluorspar, graphite and an assortment of other minerals. We are also working on a reasonable number of studies for a variety of minerals and metals including those already mentioned, as well as sulfate of potash (SOP) projects.

In the Infrastructure space we are seeing an improving level of activity in the Asset Management sector with opportunities presenting in local government and industry across Australia. Similarly we believe we are well positioned to participate to a greater extent in the high level of activity being seen in Eastern Australia in both transport (predominantly rail) and urban infrastructure related work.

Geographically we will remain active during the next year in Australia, Canada, South Africa, Philippines, Ghana, Côte D'Ivoire, Burkina Faso, Columbia, Namibia, Botswana, Mali and Senegal as well as undertaking study services related to a host of other localities.



On the back of the recent award of several material contracts including the Houndé Project (EPCM), Mako Project (EPC) and Sissingué Project (EPC) we have reasonably good visibility on the first half of the 2016/2017 financial year. The second half will see activity wind down on the Cobré Panama Project. Subject to favorable conditions there is the prospect of select projects continuing from study into execution phase which can provide a forward pipeline of work to somewhat offset this, however we currently have modest visibility into the second half.

At present the Company has adopted the view that there will be an increase to the Company's financial performance from this year with forecast revenue of \$200M and profit after tax of \$6M for 2016/17.

Corporate Overview

We have, during the year, worked on the consolidation of the wholly owned subsidiaries Lycopodium Infrastructure Pty Ltd, Lycopodium Rail Pty Ltd and Lycopodium Asset Management Pty Ltd under the Infrastructure business banner. The changes formally came into effect on 1 July 2016. The change was made to leverage off our expertise within several of our subsidiaries, broaden our reach and access new markets to offset the impacts of the tighter economic conditions. The consolidated entity is headed up by Stuart Sutherland, formerly Managing Director of Lycopodium Rail Pty Ltd.

There were no other material changes to the operating subsidiaries.

Operational Highlights

Lycopodium continued to operate positively across all its market sectors during the period.

Resources

Lycopodium Minerals (including the Perth, Brisbane, Toronto and Manila based organisations) continued building its track record as the preeminent international engineer in terms of gold projects working on study or development phase activities for projects in Colombia, Mali, Senegal, Ghana, Burkina Faso, Ethiopia, Namibia, Philippines, Côte D'Ivoire and French Guiana. Lycopodium Minerals also continued its long relationship with First Quantum Minerals Limited (FQML) with work continuing on the world class Cobré Panama Project in Panama. ADP built on its relationship with key clients including De Beers (and its subsidiaries) whilst advancing several key studies and projects. Orway Mineral Consultants (OMC) built on the Group's strong reputation for innovation with its work on the Carapateena / Prominent Hill Projects for OZ Minerals.

Lycopodium Minerals, ADP and OMC provided services predominantly to the resources sectors with the following highlights:

- **Cobré**
Lycopodium continued working on the 70 Mtpa Mina De Cobré Panama (Cobré Panama) Project for FQML. This project involves the largest unit processing equipment in the world and Lycopodium's approach of working collaboratively with FQML has been able to support this Client's project development style to achieve industry leading capital intensity and project schedule targets.
- **Bouly**
Construction and commissioning of the Bouly Project in Burkina Faso, West Africa was completed and handed over on time and under budget to Bissa Gold (subsidiary of Nord Gold) whilst achieving an excellent health and safety record. The Bouly Project involved a greenfield 7.5 Mtpa heap leach facility as well as brownfield upgrades to the Bissa gold treatment plant. Lycopodium was responsible for the gold processing facilities and associated services and this brief represented a continuation of the relationship with Nord Gold something which has been further extended with the award to Lycopodium of the Definitive Feasibility Study for the Montagné D'Or Project in French Guiana.
- **Agbaou Crusher Upgrade**
Following on from its work with Endeavour on the Nzema Project in Ghana and the Agbaou Project in Côte D'Ivoire, Lycopodium was engaged to provide the delivery, on an EPCM basis, of the Agbaou Secondary and Pebble Crushing Circuit. Completion of the project is forecast for 3Q2016, five weeks ahead of schedule, below budget and with an excellent safety record and represents a continuation of our involvement with this key client, something which is set to continue beyond this latest effort with the award of the Houndé Project (EPCM) in Burkina Faso.
- **Fekola**
Under construction for B2Gold in a remote location in south western Mali, some 400 km west of the capital Bamako, is the Fekola mine. Lycopodium's involvement in the development of this project is a continuation of a successful association with two other B2Gold projects - Otjikoto in Namibia and Masbate in the Philippines. In July 2015, Lycopodium commenced detailed design, with a scope encompassing the complete process plant, site water and power distribution and building infrastructure design. Detailed design is well advanced and on schedule to be completed July 2016. Lycopodium has also provided a small team of engineers who will integrate with B2Gold's construction team to deliver general site technical and scheduling support. This role will continue for the duration of the construction period and expand with additional engineering resources once plant commissioning commences mid 2017.
- **Santa Rosa**
Lycopodium completed the Definitive Feasibility Study of the San Ramon Gold Project in October 2014. In March 2015 Lycopodium was awarded the EPCM contract for the development of the fully-permitted Santa Rosa Project. Early works focused on procurement of the long lead items and detailed engineering commenced in May 2015. Engineering and procurement was essentially complete in January 2016 with the main effort being carried out by the Lycopodium Toronto office with the help of a local Colombian engineering company based in Medellin. The mechanical installation is progressing well with site construction expected to be essentially complete in Q3 2016. Once completed, Santa Rosa will be one of the largest gold mines in Colombia and the first gold mine operating under modern environmental permitting legislation.

Managing Director's Report (Continued)

- **Houndé**

In April 2016 Lycopodium was awarded the EPCM contract for the delivery of Endeavour Mining's Houndé Project in Burkina Faso. The project comprises the delivery of a gold processing plant and associated infrastructure capable of treating 3.0 Mtpa of gold bearing ore. Lycopodium successfully completed the feasibility study for the project before being awarded the EPCM.

- **ARDC**

Having completed the Treatment Plant portions of the Pre-feasibility and Feasibility Studies for De Beers Marine, Lycopodium ADP (LADP) were awarded the contract to undertake the complete detailed engineering for the treatment (sampling plant) for the Alternative Resource Development Capability New Evaluation Vessel (ARDC NEV) Project. The Project, which is being managed by De Beers Marine (PTY) Limited (DBM), comprises of the delivery and integration of a new deep-water diamond exploration and sampling vessel called the SS Nujoma. The highly specialised and technologically advanced vessel will become the sixth ship in the Debeers Namibia fleet. The vessel is being built in a Norwegian shipyard, Kleven Verft, and is named after Namibia's founding president, Dr Sam Nujoma. Once completed, the vessel will be delivered to Cape Town for integration of Mission Equipment comprising the sampling tool, the launch and recovery system and the LADP designed treatment plant. This work is a good example of the continued working relationship of our Cape Town based group with De Beers and its subsidiaries.

- **Letšeng**

High in the Maloti Mountains in Lesotho, at an elevation of 3,100 m above sea level, Gem Diamonds operates the highest diamond mine in the world, the Letšeng Diamond Mine. This mine is not only recognised for its high altitude location, but has earned a reputation for producing a great number of prestigious large investment diamonds with the purest physical diamond characteristics, achieving the highest price per carat in the world. Lycopodium ADP (LADP) has done a number of diamond process improvement projects at the Letšeng Diamond Mine for Gem Diamonds and was awarded the EPCM contract for the design and implementation of the New Final Recovery Plant (NFRP) which was successfully completed and commissioned during the period.

- **Colluli**

Potash is the common term for fertiliser forms of the element potassium which is one of three key fertiliser 'macro-nutrients' essential for healthy soil and plant growth. The Danakil region of Eritrea in East Africa is an emerging potash province of significance with over 6 billion tonnes of potassium bearing salts having been identified to date. The Colluli deposit lies within this region. In November 2015, a definitive feasibility study (DFS) was completed with Lycopodium responsible for not only the coordination of the study, but also the process design and supporting infrastructure for the project.

- **Prominent Hill / Carapateena**

OMC has been involved with the OZ Minerals' owned Carrapateena copper-gold project since the inception of the pre-feasibility study in early 2013, principally working on a complex hydrometallurgical concentrate treatment process. OZ Minerals plan to use OMC's technology (OZ Minerals term it the Hydromet Process) to leach iron from the concentrate, whereby increasing the copper content by up to 50-60% and significantly reducing the impurity content, particularly uranium. This process will open up additional markets for the concentrates as well as further de-risking concentrate export. OMC in conjunction with Lycopodium Minerals has successfully progressed efforts on study completion and the procurement process associated with long lead key equipment.

- **Nammuldi / Silvergrass**

Pilbara EPCM, the successful joint venture group, owned equally by Lycopodium Minerals Pty Ltd and AECOM continued to provide services to Rio Tinto on their Nammuldi BWT Project as well as preparatory work on their associated Silvergrass Project.

Lycopodium Process Industries provided services predominantly to the chemicals, renewable and pharmaceutical sectors with the following highlights:

- **Weak Nitric Acid**

Thales issued a Construction EPC tender which Lycopodium won in January 2015. Lycopodium was responsible for all aspects of the construction and management of the upgrade to the facility as a brown field construction site in an operating facility. The project was completed on time and on budget in June 2016 and has now been commissioned and is fully operational.

Lycopodium Infrastructure provided services across the urban infrastructure, transport (road and rail) and asset management sectors with the following highlights:

- **Robinson Rd Upgrade**

The town of Brookton is located 138 km from the Perth via the Brookton Highway. The Shire is intent on improving the town centre facilities with an upgraded main street, improved streetscape etc. Based on Urban Design proposals initially put forward by the Brookton Townscape Committee, Lycopodium developed concept and detailed designs for the Shire of Brookton incorporating improvements to the public domain and encouraging enhanced pedestrian movement through traffic calming initiatives.

- *NorthLink WA*

NorthLink WA is being undertaken by Main Roads Western Australia (MRWA) to build a strategic transport link between Morley and Muchea as part of improving links between Perth and the State's north west. NorthLink WA has a long term vision to cater for the traffic volumes associated with a future Perth population of 3.5 million. NorthLink WA projects comprise three separate sections and Lycopodium has worked on all three sections. During the period Lycopodium provided MRWA with independent tender evaluation services, project management services for the procurement phase and independent tender evaluation services. Lycopodium has been retained to continue providing services on this key infrastructure initiative based on the value it continues to deliver to the MRWA.

- *Charles Street Bus Project*

On behalf of the Public Transport Authority, Main Roads WA (MRWA) is undertaking a project that will see the construction of a new bus bridge and associated bus priority measures that will enable buses from Perth's northern and north-western suburbs to avoid congested city roads. The project includes: a dedicated busway from the existing James Street bus bridge to the Charles Street / Newcastle Street intersection, including a new 110 m long bridge over the Graham Farmer Freeway as well as other works. In September 2015, Lycopodium was engaged by MRWA to provide project management services during the procurement phase of the project. The scope included finalisation of the concept design, traffic modelling, investigation works, preparation and issue of tender documentation and tender evaluation services. At the conclusion of the procurement phase, Lycopodium was then engaged to provide design coordination services for the project.

HSE and Community

As always Lycopodium's primary focus is on the health and safety of its staff and all personnel working on its projects. We continue to set and achieve a high standard of health and safety across all our projects and given the highly international nature of our activities we have worked proactively to ensure the safety and well being of our personnel wherever they may be.

In 2015/16 there were 2.04 million manhours worked across the Lycopodium managed projects with a LTIFR of 0.49 against an 8.5 construction industry average.

On the community side, Lycopodium continued as an active 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.
- B.A.S.I.C.S based in Accra, Ghana, an organisation committed to improving the quality of life for children living in some of the poorest areas of that city.

Additionally Lycopodium was an active participant in a number of Industry Engagement Panels and targeted educational initiatives in association with both the University of Western Australia, Curtin University (Western Australia) and the South African Minerals Education Trust Fund (METF). The Company also continued to provide support to a number of charitable initiatives championed by staff including St Vincent DePaul (Vinnies) CEO Sleepout in aid of homeless people.

Acknowledgement

As noted previously the 2015/16 financial year was both challenging and testing for the broader organisation. The Board of Directors recognises that the demands placed on our personnel during this period have been high and acknowledges that the company's ability to continue delivering world class services to our clients and to maintain and enhance the company's performance and capability is dependent on the continued commitment and support of our personnel. On behalf of my fellow Directors I take this opportunity to sincerely thank all personnel for their highly valued contribution.

We would also like to thank our clients for their continued trust in Lycopodium to deliver services to their projects and studies. We will as always work hard to maintain these valued relationships.



Peter De Leo

Managing Director

Board of Directors

Michael (Mick) Caratti

NON EXECUTIVE CHAIRMAN

Mick has over 37 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.

Peter De Leo

MANAGING DIRECTOR

Peter assumed the role of Managing Director of Lycopodium Limited in November 2015. He has been with the organisation since 1994 and was the Managing Director of Lycopodium Minerals Pty Ltd from 2009 through to 2015.

Peter is a Civil Engineer with over 27 years experience in engineering and construction within the resources and infrastructure sectors. Peter possesses strong business management and project implementation skills and has been responsible for the successful delivery of many of Lycopodium's pioneering and large scale projects. In his corporate roles he has often led the organisation in shaping to meet the needs, and capitalise on the opportunities, within the market.

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.

Rodney (Rod) Leonard

EXECUTIVE DIRECTOR

Rod is one of the founding partners of Lycopodium and an Executive Director of Lycopodium Limited since listing in 2004. Rod is presently the Managing Director of Lycopodium Minerals.

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

Rod has nearly 30 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.

Lawrence (Laurie) Marshall

NON EXECUTIVE DIRECTOR

Laurie was Lycopodium Limited's Managing Director until early 2010 when, with the appointment of Rod Leonard, Laurie took up the positions of Non Executive Director and Consultant. He is also a Non Executive Director of Lycopodium Process Industries, Lycopodium Infrastructure, ADP Holdings and Metco Global.

As a founding partner and Certified Practising Accountant with over 40 years' experience in corporate, financial operational and risk 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.



Robert (Bob) Osmetti
EXECUTIVE DIRECTOR

Bob is a Civil Engineer with over 36 years' experience in the project management and construction management of projects in an EPCM role 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 in Australia and overseas.

Bob is one of the founding partners of Lycopodium and has held diverse positions within the group, most recently President of Lycopodium Minerals Canada Ltd.

Bruno Ruggiero
NON EXECUTIVE DIRECTOR

Bruno is a Mechanical Engineer by training with additional qualifications in the fields of process engineering and structural engineering. He has 30 years' experience in the minerals industry and is a founding partner of Lycopodium.

Currently the Technical Director for Lycopodium Minerals, Bruno guides the technical direction and standards for the Company, along with any new project initiatives that the company undertakes.

Bruno is an Executive Director of Lycopodium Minerals and a Non Executive Director of ECG Pty Ltd.

Steven Chadwick
NON EXECUTIVE DIRECTOR

Steven is a Metallurgical Graduate of the WA School of Mines with 40 years' experience in the mining industry, incorporating technical, operating and management roles, as well as a strong metallurgical background.

Steven is now a metallurgical consultant specialising in project management with a range of local and international clients. He was a founding director of BC Iron and a former managing director of Coventry Resources, PacMin Mining and, Northern Gold. Steven was a director and consulted to major Canadian miner Teck Resources Australian subsidiary company for 10 years.

Previous technical roles include Production Superintendent in the Lead/Zinc concentrator at Mt Isa, Metallurgical Manager for Pine Creek Goldfields, Group Metallurgist for Normandy Poseidon and General Manager of St Barbara Mines.

Keith Bakker
COMPANY SECRETARY / CHIEF FINANCIAL OFFICER

Keith has been with Lycopodium for 20 years and in that time has carried out the roles of Commercial Manager and General Manager Finance.

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



About Lycopodium

Our Company

Lycopodium is an innovative and value driven process, engineering and project management consultancy.

Our multidiscipline services are provided through our subsidiaries, which specialise in their industry segment. Through our focused approach Lycopodium is able to consistently meet our clients' expectations and develop long term relationships.



Established in 1992, Lycopodium is headquartered in Perth, Australia and is listed on the Australian Stock Exchange. Lycopodium has offices nationally in Brisbane, Melbourne, Newcastle and Perth and internationally in Canada, South Africa and the Philippines.

Our Business

Lycopodium's business model is based on consistently delivering quality services to clients through feasibility studies, projects, operations and maintenance advice which are fit for purpose, objective and reliable. 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 optimisations, reliability engineering and maintenance services on operational sites.

Our contracting model is flexible and always aligned to meet a client's requirements. We deliver projects on the basis of reimbursable and lump sum EPCM basis (Engineering, Procurement, Construction Management), which relates to professional services only, and on an EPC basis, also referred to as lump sum turn key or design and construct, which encompasses professional services as well as plant and equipment. We can also incorporate partial or fully integrated teams together with a client to best align with a client's internal capabilities.

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

- **Mineral Processing**

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, copper, nickel, diamonds, iron ore, cobalt, zinc, lead, manganese, uranium, tin, tantalum, rare earth minerals and platinum group metals.

Projects, undertaken in diverse environments including tropical, arid, arctic and high altitude conditions, range in scope from large greenfield and brownfield projects involving process plant and equipment, civil and building works, control systems and supporting infrastructure to small skid-mounted, transportable plants.

- **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 and treatment, housing, commercial and industrial buildings, roads, aerodromes 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.

- **Rail**

Lycopodium provides rail infrastructure asset management services, feasibility study and detailed design services to the heavy rail industry. These services are often complimentary in nature to larger projects undertaken within the group which include a rail component.

- **Renewables**

Lycopodium is at the forefront of developments in renewable energy and energy efficiency including the implementation of projects in solar, biofuels, waste to energy and heat energy recovery.

- **Agriculture**

Given our extensive technical capabilities, we have had on increasing involvement in the agricultural sector. This has included large irrigation systems, food handling and processing facilities, food and animal by-product processing to generate energy as well as new value adding by-products. Often these agricultural projects encompass other industry segments in which Lycopodium operates.

- **Maintenance and Reliability**

Maintenance and reliability engineering clients come from the oil and gas, petrochemical, power and water utilities, infrastructure, mining and minerals processing and marine 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 recent year follow later in this shareholder report.

Our Services

Throughout our 20+ year history, Lycopodium has developed a reputation for providing technically innovative and cost effective engineering solutions and delivering projects which exceed the client's project criteria and performance targets.

Lycopodium operates with well established systems and processes to ensure consistency in our approach across all aspects of project delivery.

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 modeling, 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 concept study, pre-feasibility study and detailed or bankable feasibility study.
- Evaluation and selection of new and alternative processes at the conceptual and pre-feasibility 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, uranium and rare earths.
- 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.

About *Lycopodium* (Continued)

Engineering

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

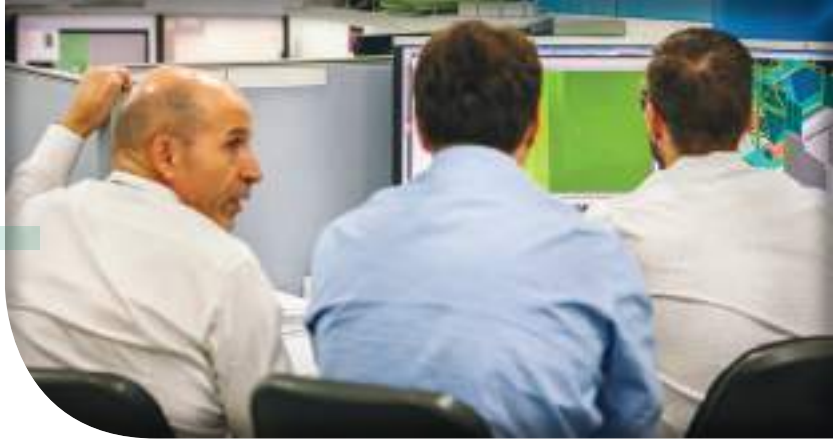
- Conceptual and detailed design of processing plants.
- Conceptual and detailed design of infrastructure including earthworks, roads, drainage, power supply and transmission systems, buildings and accommodation villages with amenities, water and wastewater systems.
- Design expertise covering all relevant disciplines including:
 - Architectural
 - Civil
 - Structural
 - Mechanical
 - Piping
 - Electrical
 - Instrumentation
 - Process Controls
- Design, program, test and commission plant automation control systems.
- Plant refurbishment and relocation.
- Conceptual and detailed design of large modular and panelised plants for major projects down to small transportable 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 project and construction management of clients' projects, including:

- Full project and construction management to deliver complete projects.
- Health, safety, environmental, community relations, quality management services.
- 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 refining or re-engineering their operating methods, 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 productivity, 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.

Lycopodium provides a team of respected professionals in each of the disciplines required in a process, engineering and project delivery business.

Our Projects

Lycopodium, while Australian headquartered, operates both nationally and internationally. Through our subsidiaries, Lycopodium has undertaken over 5,000 projects, studies and consulting briefs in over 50 countries spanning Australia, Africa, Asia, North America and South America. Projects have ranged from small, prototype facilities to demonstrate new processes or technologies through to world class, greenfield and brownfield projects incorporating the largest equipment items in the world. Many projects have been delivered into remote locations with limited existing infrastructure and services.

Our Clients

Lycopodium services a wide range of organisations headquartered throughout the world including large international companies, mid tier and emerging companies, and junior and start up companies. The majority of our services are the result of long standing relationships with our clients, built over years of high quality services specific to their requirements. Lycopodium's highly customer focused approach and ability to deliver tailored, value adding solutions has been fundamental to our success.

Lycopodium focuses on achieving each client's aims as its primary objective and its success is demonstrated by the high level of client satisfaction and repeat business the company enjoys. Lycopodium continues to deliver innovative and fit for purpose outcomes, tailored to the needs of individual clients.

Our Goals

Lycopodium's aim is to be the best in its field through the delivery of techno-economic solutions which optimise a project's returns to each of our clients. We believe our success is intimately tied to the success of our 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 process, engineering and project management consulting company doesn't stand still – it grows through consistency and reliability in project delivery, 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.

Long Term View

Lycopodium continues to focus on the longer term horizon. Our growth has always been the product of delivering excellence to our clients on a consistent basis. In turn we are rewarded through repeat work, references to new clients and industry recognition for technical and project delivery excellence. This approach has enabled the business to expand through organic growth in alternative geographic locations and through strategic acquisition where clear added value to the business can be demonstrated.



Project: New Evaluation Vessel (ARDC NEV)

Location: Cape Town

Client: De Beers Marine

Sector: Minerals - Diamonds

SIXTH SHIP IN THE DEBMARINE NAMIBIA FLEET

Having completed the Treatment Plant portions of the Pre-feasibility and Feasibility Studies for De Beers Marine, LADP were awarded the contract to do the complete detailed engineering for the treatment (sampling plant) for the Alternative Resource Development Capability New Evaluation Vessel (ARDC NEV) Project.

The Project, which is being managed by De Beers Marine (PTY) Limited (DBM), comprises of the delivery and integration of a new deep-water diamond exploration and sampling vessel called the SS Nujoma. The highly specialised and technologically advanced vessel will become the sixth ship in the Debmarine Namibia fleet. The vessel is being built in a Norwegian shipyard, Kleven Verft, and is named after Namibia's founding president, Dr Sam Nujoma.

Once completed, the vessel will be delivered to Cape Town for integration of Mission Equipment comprising the sampling tool, the launch and recovery system and the LADP designed treatment plant. The treatment plant in turn comprises the following plant areas:

- Primary Plant
- Comminution Plant
- Dense Media Separation Plant, and
- Final Recovery

These respective plant areas are being pre-assembled on the quay side and partially stripped before being lifted and placed on the prepared stools on the vessel deck.

LADP also provided the procurement packages to DBM for the plant areas.

Some of the design challenges were as follows:

- Sample integrity is paramount and no hang up or material entrapment or retention is allowed between samples. In addition fast processing and purge cycles for each sample within each of the unit processes is a critical design requirement. Layout and design challenges included keeping footprint, height and mass to a minimum. Safety in Design was also obviously critical. With regards to vessel design there are additional aspects to be considered and stringent worldwide standards such as SOLAS (Safety Of Life At Sea) needed to be adhered to.



Project: New Coarse Recovery Project

Location: Lesotho

Client: Gem Diamonds

Sector: Minerals - Diamonds

High in the Maloti Mountains in Lesotho, at an elevation of 3,200 m above sea level Gem Diamonds operates the highest diamond mine in the world, the Letšeng Diamond Mine.

This mine is not only recognised for its high altitude location, but has earned a reputation for producing a number of prestigious large gem quality diamonds.

Lycopodium ADP (LADP) has done a number of diamond process improvement projects at the Letšeng Diamond Mine for Gem Diamonds and was awarded the EPCM contract for the design and implementation of the New Final Recovery Plant (NFRP).

The main objectives of this project are as follows:

- Increased processing capacity
- Minimisation of diamond breakage
- Increase the efficiency of the recovery of free Type II diamonds, and
- Significant improvement of the over-all security of the final recovery plant

As an outcome of continuous and extensive development of diamond process engineering within the diamond processing technology industry, Letšeng Diamonds elected to embrace new technology to improve the process stream within the NFRP.

One of the new technologies employed is XRT Diamond Sorters which are the heart of the Coarse Recovery Plant within the NFRP. The NFRP was designed by LADP, in conjunction with ADP Marine and Modular, as a modular process plant to be assembled and positioned within close proximity of the existing diamond recovery plant.

On 1 July 2015, the first diamond was recovered during the initial commissioning, highlighting a remarkable accomplishment.



Project Reviews (continued)

Project: Navachab Mine Optimisation Projects Portfolio

Location: Namibia

Client: QKR Namibia

Sector: Minerals - Gold

During 2014/2015 Lycopodium ADP completed several desktop and pre-feasibility studies for Navachab Gold Mine in Karibib, Namibia which formed part of an overall initiative to increase gold production by optimising the existing facilities. Several key upgrade projects were identified for further design development by introducing advanced pre-concentration technology into the existing facilities. The portfolio of projects comprised the following key projects.

- Mill Pebble Removal - Detailed Design & Implementation Support
- Mill Classification Upgrade - Detailed Design & Implementation Support
- CIP Pre-Concentrator Upgrade - Detailed Design & Implementation Support
- Leach Retention Increase - Detailed Design
- CIP Primary Crusher Optimisation – Pre-feasibility Study



Project: Mill Pebble Removal

The Mill Pebble Removal Project aimed to reduce the recirculating load to the milling circuit which was limiting the plant's throughput. The upgrades included replacing the existing pebble crusher with a new sizing screen and introducing a pre-concentration stage in order to remove low grade ore from the process. A pre-concentration concentrate return facility to the mill feed circuit was included as well as a new tailings removal facility.

The detailed design and implementation of the Mill Pebble Removal Project commenced in the third quarter of 2014 and was commissioned at the end of the second quarter of 2015.



Project: Mill Classification Upgrade

The objective of the Mill Classification Upgrade Project is to further increase the milling plant throughput and increase gold recovery. The upgrades included replacing the existing cyclone cluster with a fine-sizing step. This is in order to achieve higher separation efficiency and upgrading the mill's product screening and pumping arrangement for improved operation and to protect the fine-sizing step. Further work included modifications to the existing interface structural steel, plate work and piping relating to the incorporation of the new facilities as well as the verification of mill product pumping duty.

The detailed design and implementation of the Mill Classification Upgrade Project commenced in the fourth quarter of 2014 and was commissioned during the third quarter of 2015.



Project: CIP Pre-concentrator Upgrade

The optimisation of the CIP Pre-concentrator Plant included a new primary crushing station with a primary crushed ore stockpile and reclaim facility, the reconfiguration and modifications to the existing crushing and screening circuit, a new stockpile ahead of the dense medium separation (DMS) plant with reclaim and feed system, and a new coarse pre-concentration stage with stockpile, reclaim facility and screening module. This also included the upgrade of and modification to the plant services, the existing DMS plant and plant infrastructure.

The detailed design and implementation of the Pre-Concentrator Plant Upgrade commenced during the third quarter of 2014 with completion at end of second quarter 2016.



Project: Leach Retention Increase

During the second quarter of 2015 Lycopodium ADP were commissioned to scope and perform a detailed design for the optimising the existing leach tank facility to increase residence time.

The detailed design included the design of four number additional 1,000 m³ leach tanks, upgrading the pre-leach thickener underflow pumping system and incorporating more efficient agitator assemblies. Further details included the design of new riser pipes, overflow pipes, oxygen lances, interconnecting launders, the interfacing with the existing tanks, and the tie-in with the cyanide dosing system and a new concrete sump bunded area with sump pump facility.

The detailed design was completed during the third quarter of 2015.



Project: CIP Primary Crusher Optimisation

During the second quarter of 2015 Lycopodium ADP was commissioned to undertake a pre-feasibility study for the optimisation of the existing CIP plant's Primary Crushing facility and the introduction of bulk sorting technology. This included the modification of the existing sacrificial conveyor belt and transfer station to facilitate feed onto a new double-deck sizing screen. A new coarse pre-concentration module was added to the flowsheet with an optional concentrate surge and reclaim facility. In addition a new waste product load-out facility and a new facility were located downstream of the CIP plant's Primary Crushing section. This is to allow for re-loading of the Pre-Concentration Plant's concentrate into the system.

The study was completed during the third quarter of 2015.



Project Reviews (continued)

Project: Maud Street Shared Path Investigations

Location: New South Wales

Client: The City of Newcastle

Sector: Rail

Newcastle City Council (NCC) is committed to enhancing cycling in Newcastle with the objective of making cycling a safe and attractive travel option, thus enabling more people to use bicycles for more of their trips. To achieve this, it has identified a range of infrastructure improvements and social initiatives.

A key regional route in Newcastle's cycle network is the route between the University of Newcastle and the Newcastle city centre. A new city centre campus is under development, which will increase demand for a safe cycling route between these sites.

Lycopodium is working with NCC to advance the Maud Street Shared Path project by undertaking a number of conceptual and detailed analysis studies. They include:

- Concept Study investigating the issues relating to how the pathway passes below the Maud Street rail overbridge.
- Concept and Investigation Assessment with respect to the proposed shared pathway alignment within the rail corridor.
- Participation in and facilitation of workshops to progress the route options.
- Detailed investigation of the preferred options to consider the requirements of all key stakeholders, the various standards of the road and rail authorities, the effect on residents and any requirement for land acquisitions.

These studies started in August 2015 and were successfully completed in late June 2016.



Project: Weak Nitric Acid Storage Facility

Location: New South Wales

Client: Thales Australia Limited

Sector: Process Industries - Chemical

In 2009 Lycopodium undertook a design brief which covered a detailed engineering assessment and strategy for the upgrade of the whole acid handling facility, encompassing a number of tank farm areas

Over the past years, Thales has undertaken various upgrade projects at the acid storage and handling facilities to update and rectify safety, maintenance and compliance issues. Working with Thales to achieve this goal, Lycopodium has completed three different projects for the upgrade and installation of new acid storage and blending facilities, as well as acid loading/unloading tanker bays on the site.

As part of an acid area tank farm upgrade, Lycopodium completed detailed design for a new Weak Nitric Acid (WNA) and mixed acid storage tank farm. To deliver this new facility, Thales issued a Construction EPC tender which Lycopodium won in January 2015.

Lycopodium was responsible for all aspects of the construction and management of the upgrade to the facility as a brown field construction site in an operating facility.

Works include demolition of the existing facility, environmental protection measures, preparation of grounds for civil works, construction and installation of mechanical platforms, structures, tanks and piping, modification of existing titanium tanks, installation of electrical and control systems and facility pre and wet commissioning.

The material of construction for the mechanical and electrical plant consisted mainly of titanium/stainless steel tanks and piping, stainless steel lined piping and special consideration was given to protective coating systems on both the civil and building structural works.

The project was completed on time and on budget in June 2016 and has now been commissioned and is fully operational.



Project: Colluli
Location: Eritrea
Client: Danakali Ltd
Sector: Minerals - Potash

Potash is the common term for fertiliser forms of the element potassium which is one of three key fertiliser 'macro-nutrients' essential for healthy soil and plant growth. It is generally used in combination with the other two macro-nutrients, nitrogen and phosphorus (PNK fertilisers), to produce a range of fertilisers.

The Danakil region of Eritrea in East Africa is an emerging potash province of significance with over 6 billion tonnes of potassium bearing salts having been identified to date. The Colluli deposit lies within this region, some 177 km south east of the capital Asmara and 280 km by road from the port of Massawa. It is a large, shallow resource comprising a variety of potassium bearing salts in close proximity to the coast and key potash markets of the future.

Responsibility for the development of the project is Colluli Share Mining Company, a joint venture between Eritrean National Mining Corporation (ENAMCO) and Danakali Ltd (Danakali) with each having 50% ownership of the joint venture company.

In November 2015, a definitive feasibility study (DFS) was completed with Lycopodium responsible for not only the coordination of the study, but also the process design and supporting infrastructure for the project.

Lycopodium's design utilises a proven modular development approach to mitigate risk and ensure Colluli can be brought into production with low upfront development costs and a high degree of expandability. Phase I is expected to produce approximately 425 ktpa of premium sulphate of potash (SOP) product with commissioning currently expected approximately two years following the granting of the mining license and the availability of development funds. Phase II, commencing production in Year 6, will increase total production to 850 ktpa.

Since completion of the DFS, the development of Colluli continues with key environmental documentation and the mining licence application being submitted to the Eritrean government. Danakali is currently progressing with off-take and financing discussions and is in negotiation with key service providers, including power station suppliers, pending completion of corporate activities necessary to commence engineering and construction activities.

In 2014, Eritrea was ranked 11th fastest growing economy globally and has recently experienced better growth than all other countries in sub-Saharan Africa driven by strong mineral exports, agricultural output and infrastructure development.

As part of the work done to date Lycopodium personnel have travelled to Eritrea and to the project site and have experienced a culture of proud, friendly and harmoniously integrated people in a jurisdiction with no sign of corruption with a pragmatic approach to economic development focussed on the mining and agriculture sectors.

As well as potash, Eritrea has an extensive amount of resources such as copper, gold, granite and marble.



Project Reviews (continued)

Project: Charles Street Bus Bridge

Location: Western Australia

Client: Main Roads WA

Sector: Infrastructure

On behalf of the Public Transport Authority, Main Roads WA (MRWA) is undertaking a project that will see the construction of a new bus bridge and associated bus priority measures that will enable buses from Perth's northern and north-western suburbs to avoid congested city roads.

More than 1,000 buses and 2,800 vehicles per day will be removed from Northbridge streets, improving travel reliability for all road users and bus passengers whilst enhancing the amenity and local accessibility for businesses and residents in the suburb.

When finished, more than 1,200 buses and almost 16,000 passengers per day will use the bus bridge and associated infrastructure to access the new Perth Busport which opened mid July 2016.

The project includes:

- a dedicated busway from the existing James Street bus bridge to the Charles Street / Newcastle Street intersection, including a new 110 m long bridge over the Graham Farmer Freeway
- a new freeway off-ramp onto Roe Street to replace James Street off-ramp which is to be removed
- approximately 500 m of new bus lanes on Charles Street
- reconfiguration of signals at five major city crossroads

In September 2015, Lycopodium was engaged by MRWA to provide project management services during the procurement phase of the project. The scope included finalisation of the concept design, traffic modelling, investigation works, preparation and issue of tender documentation and tender evaluation services. At the conclusion of the procurement phase, Lycopodium was then engaged to provide design coordination services for the project.



Project: Fekola

Location: Mali

Client: B2Gold

Sector: Minerals - Gold

B2Gold is a Vancouver based gold producer with four operating mines, one mine under construction and a portfolio of development and exploration assets in various countries around the world.

Under construction in a remote location in south western Mali, some 400 km west of the capital Bamako, is the Fekola mine. Lycopodium's involvement in the development of this project is a continuation of a successful association with two other B2Gold projects - Oujikoto in Namibia and Masbate in the Philippines.

In January 2015, B2Gold engaged Lycopodium to coordinate an Optimised Feasibility Study, developing reports completed by the previous owner. In February 2015 initial site activities began including the construction of a site access road, on-site airstrip, concrete batch plant, camp pad and clearing of the mill footprint. The Optimised Feasibility Study was filed June 2015 with the official ground-breaking taking place on site November 2015.

In July 2015, Lycopodium commenced detailed design, with a scope encompassing the complete process plant, site water and power distribution and building infrastructure design. Detailed design is well advanced and on schedule to be completed July 2016. Equipment procurement is largely complete, steelwork and platework fabrication packages are well advanced and design deliverables have been progressively issued to schedule throughout the design phase to maintain work fronts for site construction activities.

Lycopodium has also provided a small team of engineers who will integrate with B2Gold's construction team to deliver general site technical and scheduling support. This role will continue for the duration of the construction period and expand with additional engineering resources once plant commissioning commences mid 2017.

Based on current assumptions the mine development is on schedule and on budget with production expected to commence late 2017.

The process plant design is based on a robust metallurgical flowsheet designed for optimum recovery with minimum operating costs. The flowsheet is constructed from unit operations that are well proven and consists of:

- Single stage primary crushing
- SABC grinding circuit
- Leach feed thickening with thickener overflow treated through a carbon in column (CIC) circuit
- Leaching followed by carbon in pulp (CIP) adsorption
- Elution and gold recovery to doré
- Cyanide destruction, tailings thickening and disposal circuits.





Project Reviews (continued)

Project: Bouly Heap Leach

Location: Burkina Faso

Client: Nord Gold SE

Sector: Minerals - Gold

In January 2013, gold producer Nord Gold SE (Nordgold) announced the commencement of production at its Bissa Mine in Burkina Faso. The project, completed on time and on budget, delivered to Nordgold its second operating asset in Burkina Faso, a landlocked country to the north of Ghana, West Africa.

For Bissa, Lycopodium delivered detailed design, procurement, construction management and commissioning services for this greenfield gold carbon-in-leach plant. It was the first complete EPCM project undertaken by Lycopodium in Burkina Faso and provided valuable local knowledge for future endeavours in that country.

The mining industry in Burkina Faso is growing at a rapid rate due to a combination of a stable elected democratic government, excellent geology and a competitive fiscal regime.

Nordgold is now expanding the Bissa mine with the development of the nearby Bouly project, some 5 km from Bissa. The project represents a large low-grade gold mineralisation, favourable for heap leach treatment.

In 1Q2015, Nordgold finalised a Feasibility Study with Lycopodium being awarded the contract to be the lead consultant for processing, engineering and production of the overall study report. On completion of the study in January 2015, Lycopodium was awarded the EPCM contract to develop a Heap Leach facility capable of treating 7.5 Mtpa of gold bearing ore.

With Engineering and Procurement services completed, Lycopodium personnel mobilised to site in November 2015 to commence Construction Management services. First trial ore on the Leach Pad was achieved on 28 April 2016, with final handover and transfer of care, custody and control to Bouly Operations being achieved in July 2016.

The project's safety performance was excellent. Lycopodium and Nordgold's corporate culture, site management commitment, leadership qualities and employee involvement formed the backbone of the good safety performance. With 560,000 hours of construction and commissioning expended on the project, not one Lost Time Injury (LTI) was recorded.

In a July 2016 release, Nikolai Zelenski, Nordgold's CEO said: *"We have continued to invest in our development programme, in particular Bouly which we expect to launch in the third quarter – on time and under budget. Bouly, our third mine in Burkina Faso, will make a meaningful contribution to our full year production and further strengthens our position as the leading gold producer in the country."*



Photo by: Armand van Heerden

Project: NorthLink WA

Location: Western Australia

Client: Main Roads WA

Sector: Infrastructure

NorthLink WA is being undertaken by Main Roads Western Australia (MRWA) to build a strategic transport link between Morley and Muechea as part of improving links between Perth and the State's north west. NorthLink WA has a long term vision to cater for the traffic volumes associated with a future Perth population of 3.5 million.

Jointly funded by the Federal and State Government, its primary objective is to enhance freight efficiencies and productivity between Perth metropolitan area and the north west of Australia.

Commuters, tourists, freight and other road users travelling between Perth and the State's north currently use the Great Northern Highway, the State's existing major northern route. Traffic volumes on the highway are increasing but there is limited opportunity for further upgrades. NorthLink WA will take the pressure off the Great Northern Highway by shifting the majority of heavy vehicles over to the new route.

NorthLink WA projects comprise three separate sections and Lycopodium has worked on all three sections:

- Southern Section – the grade separation of the intersections of Tonkin Hwy with Collier Road, Morley Drive and Benara Road together with associated works.
- Central Section – the design and construction of a new 16 km highway link between the junction of Benara Road / Tonkin Highway and Maralla Road, Ellenbrook.
- Northern Section – the design and construction of a new 21 km highway link between Ellenbrook and the junction of Great Northern Highway / Brand Highway at Muechea.

In October 2015, Lycopodium provided MRWA with independent tender evaluation services for both the Southern Section design and construction contract and the Independent Certification triparty contract.

In December 2015, Lycopodium was engaged to provide project management services for the procurement phase of Central and Northern Sections Independent Certification Services, including preparation of contract documentation, internal Main Roads approvals to issue tenders, issue of tender documentation, independent tender evaluation services, and minister approvals.

In April 2016, MRWA engaged Lycopodium to deliver independent tender evaluation services for the Central Section design and construction contract.

In June 2016, MRWA engaged Lycopodium to provide independent tender evaluation services for the Northern Section.

In future, the \$1.12 billion NorthLink WA will link to Gateway WA, servicing regional traffic movements to the CBD, commercial and industrial areas.

Project: Flammable Manufacturing Room Design

Location: Western Australia

Client: Perrigo Australia

Sector: Process Industries - Pharmaceutical



Perrigo Australia, formerly called Orion Laboratories, manufactures and distributes over one hundred healthcare products throughout Australia and the Asia Pacific Region.

Founded in 1985, Orion had grown from a small specialty brand manufacturer to a leading Australian-based pharmaceutical manufacturer of hospital, retail and community products. In March 2010, Orion was acquired by Perrigo providing the company with a global presence and product portfolio.

Now the Perrigo Group of companies continues its expansion and has business in growing private label store brand pharmaceuticals, infant milk formula, hospital and community.

As part of its operations, Perrigo wished to increase its capacity to manufacture flammable (mainly alcohol-based) pharmaceutical products and to upgrade the safety of their production in a purpose built hazardous area and fire rated room.

The project presented many design challenges, including:

1. being a pharmaceutical process, cleanability and drainability of the piping needed to be incorporated
2. meeting both GMP and flammable materials handling requirements
3. design to enable implementation with minimal interruption to existing plant operation
4. the necessity to incorporate existing vessels.

Lycopodium worked in close collaboration with Perrigo to achieve a practical design within the available space constraints (via 3D modelling) without compromising process functionality and quality requirements.

Process engineering reviews were conducted to ensure the operability and safety of the facility. A Hazardous Area Classification was also performed along with accompanying drawings.

The fabrication installation of the flammables manufacturing room is currently being finalised and commissioned by Perrigo.

Project: Santa Rosa

Location: Colombia

Client: Red Eagle Mining Corporation

Sector: Minerals - Diamonds



Lycopodium completed the Definitive Feasibility Study of the San Ramon Gold Project in October 2014, which outlined a 1,000 tpd operation producing 50,000 ounces of gold per year over an eight year mine life. The project comprises the underground decline accessed mine, processing plant and plant infrastructure. Processing incorporates single-stage crushing, SAG milling and flotation with concentrate re-grinding followed by conventional carbon-in-leach processing the combined float tails and reground concentrate to produce gold doré with 96% recoveries. The project is located in the province of Antioquia, 73 km northeast of the department capital Medellín in northern Colombia.

In March 2015 Lycopodium was awarded the EPCM contract for the development of the fully-permitted Santa Rosa Project. Early works focused on procurement of the long lead items and detailed engineering commenced in May 2015. Engineering and procurement was essentially complete in January 2016 with the main effort being carried out by the Lycopodium Toronto office with the help of a local Colombian engineering company based in Medellín.

Site construction commenced in August 2015 with the bulk earthworks scope and followed by concrete construction in December. As at the end of July 2016 the bulk earthworks and concrete works are essentially complete. All the field erected tanks and structural steel have been erected. All the mechanical and electrical equipment has been received on site. The mechanical installation is essentially complete. The piping and electrical and instrumentation installation are well advanced. Site construction is expected to be essentially complete in Q3 2016 followed by pre-commissioning and commissioning with commercial production anticipated in Q4 2016. Once completed, Santa Rosa will be one of the largest gold mines in Colombia and the first gold mine operating under modern environmental permitting legislation.

Red Eagle Mining is a gold exploration and development company based in Vancouver, Canada. Management is focused on building shareholder value through discovering and developing gold projects with low costs and low technical risks in Colombia, a jurisdiction with prolific historic production but until recently limited modern exploration.

Project Reviews (continued)

Project: OZ Minerals Concentrate Treatment Plant

Location: South Australia
Client: OZ Minerals
Sector: Metallurgical

OMC has been involved with the OZ Minerals' owned Carrapateena copper-gold project since the inception of the pre-feasibility study in early 2013, principally working on a complex hydrometallurgical concentrate treatment process. Located in South Australia, this iron ore hosted copper-gold (IOCG) deposit is approximately 130 km north of the regional centre of Port Augusta and close to necessary infrastructure including South Australian grid electrical power and concentrate transport infrastructure via the nearby Tarcoola to Adelaide railway to the port in Whyalla.

Oz Minerals plan to use OMC's technology (Oz Minerals term it the Hydromet Process) to leach iron from the concentrate, whereby increasing the copper content by up to 50-60% and significantly reducing the impurity content, particularly uranium. This process will open up additional markets for the concentrates as well as further de-risking concentrate export.

The decision to continue with the Hydromet Process follows the successful completion of a pilot scale concentrate treatment plant in 2014 and a larger scale demonstration plant at CESL in Canada in 2015. Using a throughput rate of approximately 50 kg/h of concentrate feed, the demonstration plant operated for five months and confirmed the viability of the Hydromet Process on a continuous scale and with differing concentrate types. Modifications to the original flowsheet were made to simplify the circuit complexity, with no adverse effect on concentrate quality or grade.

Both the pilot and the demonstration plant generated quality engineering design data which will form the basis of the engineering design and costing for the potential construction of a full scale Hydromet Process facility at Whyalla, treating Oz Minerals copper concentrates.

OMC has been instrumental in providing the technology input and design data for engineering to define the non-oxidative autoclave and copper pressure leach autoclave plate quantity requirements and will continue to provide technology expertise into the Hydromet Process treatment plant design as the project moves through the design phases.

This OMC patented process will see this innovative technology applied to South Australian IOCG concentrates to not only remove impurity content (uranium), but also improve copper concentrate grade and therefore reduce transport costs, as well as smelting and refining costs.



NONOX Autoclave, Source: CESL Ltd

Project: Power Plant Workshop and Warehouse

Location: Western Australia
Client: Citic Pacific Mining
Sector: Infrastructure

CITIC Pacific Mining (CPM) is a wholly-owned subsidiary of Hong Kong listed company CITIC Limited. Headquartered in Perth, the company was established to manage the construction and operation of the Sino Iron project, an integrated magnetite mining, processing and port operation that supplies quality magnetite product to the Chinese steel mills.

Sino Iron is the largest magnetite mining and processing operation in Australia and represents China's largest-ever overseas investment in the resources sector.

The massive Sino Iron project has been developed at Cape Preston, 100 km south west of Karratha in Western Australia's Pilbara region. Production of magnetite concentrate started in late 2012 with the first shipment being sent to China in 2013. In 2016, the last of six processing lines entered commissioning.

Lycopodium's involvement with the project has been to provide detailed engineering design (using 3D modelling approach) of the warehouse, workshop, roads and drainage as well as site technical support services for the Power Plant area.

The assignment commenced January 2016 and is due for completion in September 2016.



Project: Agbaou Secondary and Pebble Crushing Circuit

Location: Côte d'Ivoire

Client: Endeavour Mining / Agbaou Gold Operations

Sector: Minerals - Gold



Lycopodium prides itself on maintaining relationships with past clients and their projects working together to ensure their plants continue to operate at a successful level. Such a situation exists with Endeavour Mining, a Canadian-based gold mining company producing over 530,000 ounces in 2016 from its five operating mines in Mali, Burkina Faso and Ghana in West Africa.

Through Ghanaian subsidiaries, Endeavour holds a 90% interest in the Nzema Gold Mine, which reached commercial production in 2011. Lycopodium was involved with the development of Nzema from the early study phase through to the provision of EPCM services to build the process plant.

Working with the same owner's team that built Nzema, Lycopodium provided full EPCM services for the development of Endeavour's Agbaou mine, some 200 km north of Abidjan, the economic capital of the country. Completed ahead of schedule and under budget, this low-cost mine achieved full commercial production in January 2014. Construction, from the start of clearing to first gold pour, took just 14 months and was achieved with an excellent safety record (2.8 million manhours with LTIFR of 0.7).

The existing mine uses a conventional open pit mining and gravity / CIL processing facilities designed to process 1.61 Mtpa of saprolite ore and 1.34 Mtpa for bedrock ore yielding ~110,000 ounces of gold per annum.

Currently Endeavour is undertaking the Secondary and Pebble Crusher Project which involves the addition of a secondary crushing and pebble crushing circuits to the existing plant crusher. Adding these will provide increased flexibility and maintain throughput as the mine transitions to harder ores.

Design of this expansion project kicked off in October 2015 and July 2016 sees Lycopodium just finishing the construction and commissioning phase. Completion of the project is forecast for 3Q2016, five weeks ahead of schedule, below budget and again with an excellent safety record (100,000 manhours with LTIFR of 0.0).

Côte d'Ivoire is one of Africa's most advanced countries, possessing excellent infrastructure in comparison to other developing economies. Whilst Côte d'Ivoire's agricultural industry currently overshadows mining, the country has gold reserves of over 322,000 sq km that is almost entirely underlain by the same prospective gold-rich Birimian formations that extend into Ghana, Mali and Burkina Faso.

Project: Robinson Road Upgrade

Location: Western Australia

Client: Shire of Brookton

Sector: Infrastructure



The town of Brookton is located 138 km from the state capital Perth via the Brookton Highway where it crosses the Great Southern Highway and is bisected by the Great Southern railway line.

Established in 1899, Brookton is a typical small settlement in the wheat belt region of Western Australia and is the seat of government for the Shire of Brookton which covers an area of approximately 1,626 sq km.

The area is mixed cropping and livestock, producing predominantly wheat and sheep; however, hay production in the last ten years has increased substantially. Unlike the majority of other rural inland towns across Western Australia, Brookton has increased in population.

In recent times, being only 138 km from Perth on a good road, it has attempted to attract Perth commuters and tourism is also playing an increasing role in the region.

The Shire is intent on improving the town centre facilities with an upgraded main street, improved streetscape, and the development of a high quality shopping environment with attractive and accessible pedestrian, social, cultural and vehicle parking spaces.

Based on Urban Design proposals initially put forward by the Brookton Townscape Committee, Lycopodium developed concept and detailed designs for the Shire of Brookton incorporating improvements to the public domain and encouraging enhanced pedestrian movement through traffic calming initiatives.

Project considerations included the development of a suitable design basis, road realignment and resulting geometric design, storm water drainage, line marking and signage, lighting and assorted streetscape features to improve the public realm.

Financial Results

| | Consolidated | |
|--|---------------------|--------------|
| | 2016 | 2015 |
| | \$ | \$ |
| Revenue | 124,460,218 | 122,811,322 |
| Employee benefits expense | (57,853,816) | (65,367,325) |
| Depreciation and amortisation expense | (1,329,095) | (1,753,905) |
| Project expenses | (4,370,898) | (4,630,594) |
| Equipment and materials | (12,080,173) | (16,875,139) |
| Contractors | (28,417,150) | (22,665,053) |
| Occupancy expense | (8,082,301) | (8,060,711) |
| Impairment of goodwill | (500,000) | - |
| Other expenses | (7,768,302) | (7,537,899) |
| Loss on disposal of asset | (1,254) | (323,251) |
| Finance costs | (33,324) | (57,836) |
| Share of net profit of associate and joint venture accounted for using the equity method | 1,191,724 | 2,840,323 |
| Profit / (Loss) before income tax | 5,215,629 | (1,620,068) |
| Income tax (expense) / benefit | (1,889,219) | 604,655 |
| Profit / (Loss) for the year | 3,326,410 | (1,015,413) |
| Dividend (fully franked) (cents) | | |
| Interim | 1.5 | 1.5 |
| Final | 4.0 | 0 |
| Total Dividend | 5.5 | 1.5 |
| Shares on issue | 39,732,373 | 39,732,373 |
| Share price as at 30 June (\$) | 2.10 | 1.26 |
| Earning per share (cents) | 8.0 | (2.3) |
| Price earnings ratio | 26.3 | (54.0) |
| Net tangible assets per share (cents) | 142.0 | 136.9 |

Balance sheet

Balance sheet

| | Consolidated | |
|---|-------------------|-------------------|
| | 2016 | 2015 |
| | \$ | \$ |
| ASSETS | | |
| Current assets | | |
| Cash and cash equivalents | 41,547,757 | 32,440,938 |
| Trade and other receivables | 26,525,309 | 24,573,180 |
| Inventories | 703,686 | 255,211 |
| Current tax receivables | 1,008,816 | 4,561,762 |
| Other current assets | 1,793,028 | 1,708,221 |
| Total current assets | 71,578,596 | 63,539,312 |
| Non current assets | | |
| Investments accounted for using the equity method | 1,768,751 | 2,789,527 |
| Available-for-sale financial assets | 102,953 | 35,750 |
| Property, plant and equipment | 2,343,796 | 2,776,265 |
| Intangible assets | 7,907,733 | 8,858,308 |
| Other receivables | 521,898 | 703,291 |
| Deferred tax assets | 2,782,541 | 5,331,787 |
| Total non current assets | 15,427,672 | 20,494,928 |
| Total assets | 87,006,268 | 84,034,240 |
| LIABILITIES | | |
| Current liabilities | | |
| Trade and other payables | 21,436,955 | 19,854,442 |
| Borrowings | 89,879 | 288,513 |
| Current tax liabilities | 508,544 | 89,725 |
| Total current liabilities | 22,035,378 | 20,232,680 |
| Non current liabilities | | |
| Provisions | 639,873 | 568,634 |
| Total non current liabilities | 639,873 | 568,634 |
| Total liabilities | 22,675,251 | 20,801,314 |
| Net assets | 64,331,017 | 63,232,926 |
| EQUITY | | |
| Contributed equity | 20,823,772 | 20,823,772 |
| Reserves | (840,944) | 754,422 |
| Retained earnings | 41,285,494 | 38,718,003 |
| Parent entity interest | 61,268,322 | 60,296,197 |
| Non-controlling interest | 3,062,695 | 2,936,729 |
| Total equity | 64,331,017 | 63,232,926 |

Shareholder Information

The shareholder information set out below was applicable as at 2 September 2016.

A. Distribution of equity securities

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

| | | | Total Holders |
|----------|---|---------|----------------------|
| 1 | - | 1,000 | 376 |
| 1,001 | - | 5,000 | 493 |
| 5,001 | - | 10,000 | 143 |
| 10,001 | - | 100,000 | 151 |
| 100,001+ | | | 25 |
| | | | 1,188 |

There were 167 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:

| Name | Number Held | Percentage of Units |
|--|-------------------|---------------------|
| 1 Reesh Pty Ltd | 9,104,637 | 22.91 |
| 2 HSBC Custody Nominees (Australia) Limited | 7,367,649 | 18.55 |
| 3 LuaLa Pty Ltd | 3,167,332 | 7.97 |
| 4 Caddy Fox Pty Ltd | 2,612,332 | 6.58 |
| 5 Selso Pty Ltd | 2,058,148 | 5.18 |
| 6 Accede Pty Ltd | 1,942,332 | 4.89 |
| 7 JP Morgan Nominees Australia Limited | 1,223,191 | 3.08 |
| 8 Citicorp Nominees Pty Ltd | 846,258 | 2.13 |
| 9 De Leo Nominees Pty Ltd | 780,366 | 1.96 |
| 10 Citicorp Nominees Pty Ltd (Colonial First State Inv A/C) | 687,068 | 1.73 |
| 11 Mr David James Taylor | 484,389 | 1.22 |
| 12 Mr Peter De Leo & Mrs Tiana De Leo | 383,405 | 0.96 |
| 13 Botech Pty Ltd | 305,405 | 0.77 |
| 14 Lycopodium Share Plan Pty Ltd | 297,500 | 0.75 |
| 15 Kensington House Nominees | 247,635 | 0.62 |
| 16 Dr Gregory O'Neil | 195,174 | 0.49 |
| 17 Rubi Holdings Pty Ltd | 175,000 | 0.44 |
| 18 Nancris Pty Ltd | 175,000 | 0.44 |
| 19 Tobaka Pty Ltd | 142,291 | 0.36 |
| 20 Mr Timothy & Mrs Lisa Kelly (The Kelly Superannuation Fund) | 139,737 | 0.35 |
| Total | 32,334,849 | 81.38 |

C. Substantial holders

Substantial holders in the company are set out below:

| Name | Number Held | Percentage of Units |
|---|-------------|---------------------|
| 1 Reesh Pty Ltd | 9,104,637 | 22.91 |
| 2 HSBC Custody Nominees (Australia) Limited | 7,367,649 | 18.55 |
| 3 LuaLa Pty Ltd | 3,167,332 | 7.97 |
| 4 Caddy Fox Pty Ltd | 2,612,332 | 6.58 |
| 5 Selso Pty Ltd | 2,058,148 | 5.18 |

Corporate Directory

Corporate directory

Directors

Michael (Mick) John Caratti

Peter De Leo

Rodney (Rod) Lloyd Leonard

Robert (Bob) Joseph Osmetti

Lawrence (Laurie) William Marshall

Bruno Ruggiero

Steven (Steve) Chadwick

Company Secretary

Keith Bakker

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Level 5, 1 Adelaide Terrace

East Perth WA 6004

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E: limited@lycopodium.com.au

www.lycopodium.com.au

Share Registry

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T: +61 (0)8 9323 2000

Direct line for Investors: 1300 764 130

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Lawyers to the Company

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Auditor

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