

**JOHN S. MCINTYRE**  
**PRINCIPAL AND MANAGING DIRECTOR**  
**BEHRE DOLBEAR AUSTRALIA PTY LTD**

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**SPECIALTIES/EXPERTISE**

- ◆ Mining evaluations of coal, precious and base metals, and uranium properties.
- ◆ Experience in underground, open cut, strip and alluvial mining operations.
- ◆ Property valuation for acquisition, merger and joint venture negotiations.
- ◆ Technical due diligence and feasibility studies.
- ◆ Mine optimization and organization studies.
- ◆ Management and direction of Independent Engineer roles for financial institutions.
- ◆ Fatal flaw and high level strategic management reviews.

**PROFESSIONAL EXPERIENCE**

1994-Present **Behre Dolbear Australia Pty. Limited - Principal and Managing Director**

Over eighteen years, John has been directly involved, both as a manager and technical consultant, in the detailed technical review of more than 600 mining development projects and operations throughout Australasia, SE Asia, Africa, North and South America and the Pacific region. As MD of BDA, he has specialised in providing experienced technical advice to banks, financial institutions and mining companies in the development of resource projects.

Experience includes mineral property evaluations and valuations, due diligence and feasibility studies, operational optimizations, mine planning, and strategic planning studies for mining companies and financial institutions. Management and coordination of multi-disciplinary teams involved in the Independent Engineer assignments, capital and operating cost reviews, project design, implementation, construction and commissioning, Completion Test criteria.

Recent activities in coal include independent technical review and Independent Technical Specialist valuation of the Yancoal and Gloucester Coal operations, for Deloitte in the A\$8 billion merger transaction. Also the Independent Technical Specialist for Lonergan Edwards in a recent Cockatoo Coal transaction, independent specialist advisor to financiers (ANZ, Macquarie, Credit Suisse) for the Whitehaven Coal longwall development and New Hope Coal.

Recent advisory and Independent Engineer activities in metalliferous operations include Independent Engineers to financiers on the PanAust Phu Kham copper and Ban Houayxai gold operations in Laos, the Iron Bridge, Solomon, Cloudbreak, Koolan Island, Southland, Savage River and Balla Balla iron ore projects, Windimurra vanadium, Voisey Bay and Mount Windarra sulphide nickel, Murrin Murrin, Goro, Cawse, Bulong and Ramu nickel laterites, Frieda River copper-gold (PNG), Masbate and Siana gold (Philippines), Mount Muro gold (Indonesia), Macraes, Frasers and Reefton gold (New Zealand) and Hera gold (NSW), peer review on the Oakajee Port & Rail and FMG Port Hedland port & rail infrastructure.

**1987-1994 McIntyre Research Party, Ltd. - Principal - Australia**

Independent consultant on a variety of projects, including:

- ◆ Contract Executive Manager (CEO) of several overseas mining projects (West Africa, New Zealand, Vietnam);
- ◆ Contract Executive General Manager of Australian gold mining operations;
- ◆ Negotiation with foreign governments to establish investment and development guidelines (Ghana, Philippines);
- ◆ Technical audit of Central Queensland coal operations and submission of recommendations concerning strategic planning;
- ◆ Preparation of prefeasibility and feasibility studies, including economic evaluations of coal, base metal and gold projects;
- ◆ Preparation of contracts on behalf of Japanese clients for joint ventures with Australian coal companies; and
- ◆ Expert financial and economic evaluations for operators, brokers and bankers, on coal, gold and base metal projects.

**1982 - 1987 ARCO Coal Australia, Inc./Curragh Queensland Mining Ltd. (6.5Mtpa Curragh Coal Mine, producing coking, PCI & thermal coal) - General Manager**

1984-1987 - General Manager Operations, Curragh Coal Mine - reporting directly to the Managing Director and responsible for the management and direction of the site workforce of 451 personnel.

1983 - Mine Superintendent and Registered Mine Manager - responsible for the safe efficient and cost-effective performance of all mining operations. Management of the mining workforce of 195 staff and wages employees.

1983 - Technical Services Superintendent & Assistant Registered Manager - responsible for the supervision and direction of 31 professional staff involved in all aspects of engineering, survey and geological services.

1982 - Chief Mining Engineer, Brisbane - reporting initially to the Manager Co-venture Relations and subsequently to the President of Anaconda Australia Inc., and responsible for:

- ◆ The identification and technical evaluation of suitable coal and metalliferous properties for acquisition or joint-venture; and
- ◆ The administration and direction of the technical group in a variety of exploration and developmental projects, and the technical and economic evaluation of each.

Chairman of the Curragh Co-venturers' Technical Committee, overview of the construction and operating performance of the project on behalf of Arco, and technical representative for Anaconda on the Blair Athol (Queensland) and Mount Thorley (Hunter Valley) coal mining projects.

1982 **Longworth & McKenzie Pty. Ltd. – Consulting Engineers - Senior Mining Engineer/Consulting - Australia**

Responsible for technical and economic evaluation of coal and metal projects for clients; specification, preparation and evaluation of tenders on mine development projects; and preparation of technical and cost estimates for consulting clients.

1978 - 1982 **Pancontinental Mining Ltd. - Senior Mining Engineer, Jabiluka Division**

Responsible for the underground design and subsequent refinement of all aspects of mine design and costing of the Jabiluka Uranium Project.

Responsible for the preparation of the initial evaluation and subsequent feasibility study of the Paddington gold property near Kalgoorlie, including on-site management of the mine rehabilitation.

Other responsibilities included the identification and technical evaluation of suitable metalliferous projects for acquisition or joint-venture, audit of operating mines to evaluate the possible entry costs for co-venture, technical liaison between the Company and members of the Aboriginal Northern Lands Council, and representative of the Northern Territory Chamber of Mines in the preparation of new statutory regulations.

1975-1978 **Utah Development Company – Goonyella Mine (6Mtpa premium coking coal), Central Queensland - Senior Mining Engineer**

Scheduling, Drilling and Blasting Engineer, October 1975 – responsible for the redesign of all site blasting practices, leading ultimately to the changes being incorporated in all five Utah Mining Australian operations.

Shift Foreman in charge of five draglines and earthworks fleet of 8 x 657 scrapers plus dozer support, all engaged on overburden stripping, Jan.-Nov. 1976.

Promoted to Senior Mining Engineer, November 1976.  
Registered Mine Manager, 1976.

1971 - 1975 **Cobar Mines Pty. Ltd. – CSA Mine - Mining Engineer - Cobar, N.S.W**

Mining Engineer in the 650,000 t.p.a. C.S.A. underground copper mine in Cobar, N.S.W. First Class Metalliferous Mine Manager's Certificate of Competency, 1974.

Experience/positions held at Cobar included underground machine miner (LHD operator – 11 months), ventilation engineer (10 months), production scheduling engineer (6 months), shaft-sinking shiftboss (8 months), production shiftboss (4 months), contractor supervisor (4 months) and technical services engineer (3 months).

**PROFESSIONAL QUALIFICATIONS**

- ◆ University of New South Wales, Kensington - B.E. Mining (Honours II)

**PROFESSIONAL AFFILIATIONS**

- ◆ Fellow, AusIMM
- ◆ Member, Mineral Industry Consultants' Association
- ◆ Board member, MICA
- ◆ Board, Mineral Industry Advisory Council, University of NSW

**PUBLICATIONS**

McIntyre, J.S. and Hagen, T.N. "The Design of Overburden Blasts to Promote Highwall Stability at a Large Strip Mine", Proc. 11th Canadian Rock Mechanics Symposium, Vancouver, 1976. Also in Hoek, E. & Bray, J., Rock Slope Engineering, 2nd Edition, Institute of Mining and Metallurgy, London, 1977.

Hagen, T.N., McIntyre, J.S., and Boyd, G.L. "The Influence of Blasting in Mine Stability", Proceedings First International Symposium on Stability in Coal Mining, Vancouver, 1978. Also published in full in Brawner, C.O. and Dorling, I.F. Stability in Coal Mining, Miller Freeman Publications, San Francisco, 1979.

McIntyre, J.S. "The Optimisation of Small-Scale Alluvial Mining Operations", Conference on Cost Effective Operations and Management of Gold Projects, Perth, 1987.

McIntyre, J.S. "Mining Issues in Project Valuation and Independent Technical Assessment", VALMIN 2012 Conference, Brisbane, 2012