

DRAGLINES AND DOZER ASSIST

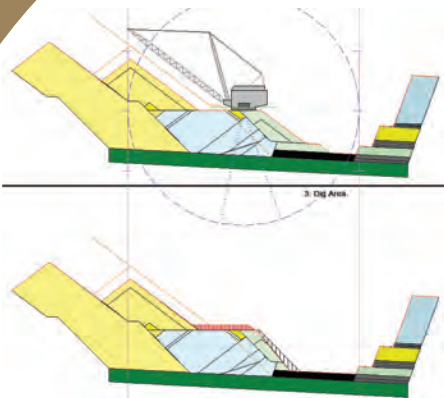
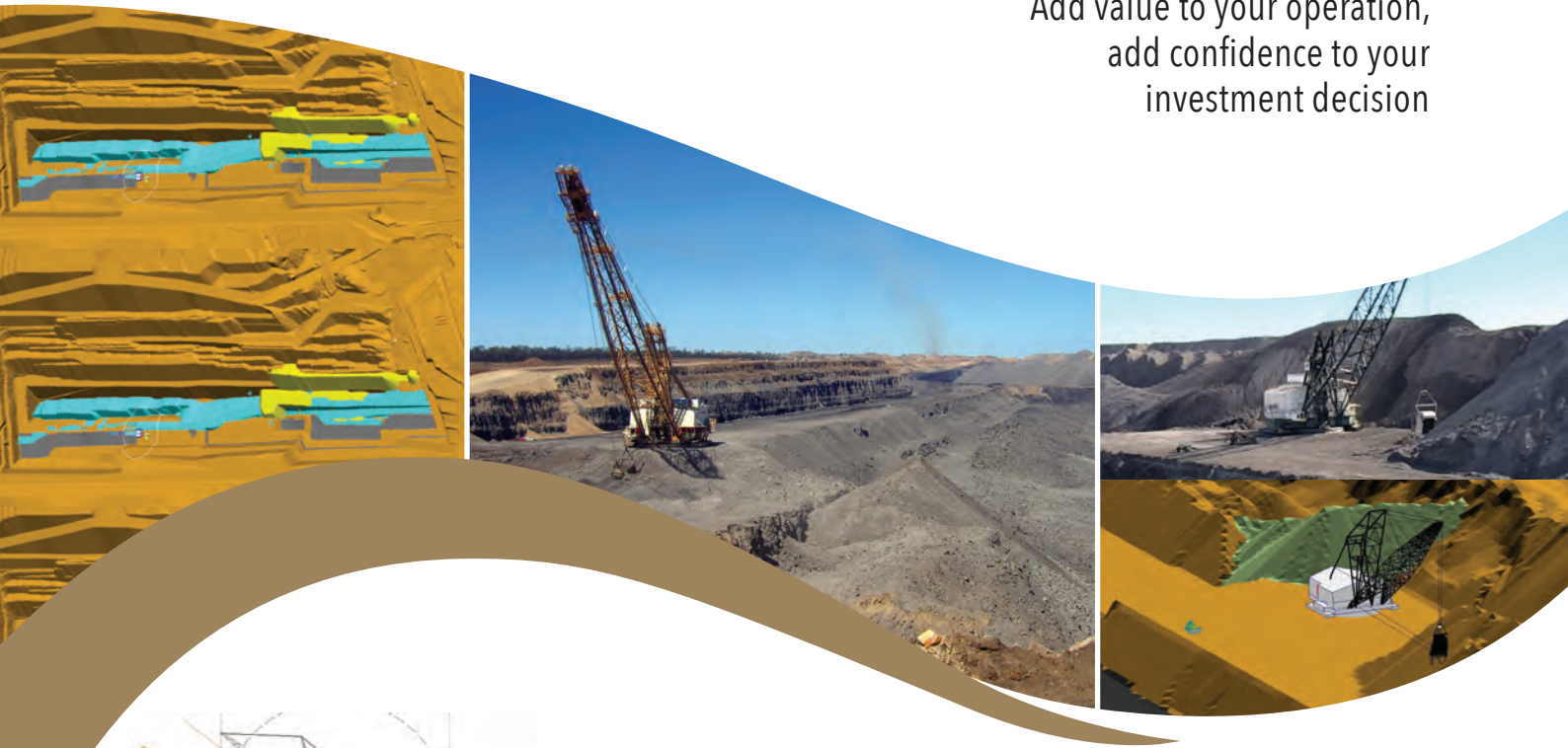
Add value to your operation, add confidence
to your investment decision



Exploration Management
Due Diligence and Technical Reviews
Project, Concept and Feasibility Studies
Environmental Planning and Approvals
Risk, Insurance and Safety Management
Infrastructure and Project Management
Operations Planning, Design and Scheduling
Resource Evaluation and Geological Modelling
Business Optimisation, Financial Modelling and Cost Reduction

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Xenith has extensive experience in the analysis of dragline techniques to evaluate the effectiveness of various digging methods; throw blasting alternatives; multipass methods; and dragline pullback on coal exposure economics.

We regularly represent clients to assist in the configuration for new draglines to best fit the mines' conditions, as well as evaluate potential retrofits of existing machines to better suit changing conditions. We employ state-of-the-art 2D and 3D simulation systems to model dragline operations, combined with our own fit-for-purpose mining database system to produce fast and accurate results.

Dragline Operations and Selection:

- Short, medium, and long term planning of dragline operations.
- Automated prestrip bench horizon determination to match scheduling constraints and targets.
- Detailed 3D dragline methodology simulation and detailed pit design using 3d-Dig.
- Evaluation of Dozers to potentially increase coal uncover rates in both dragline and trucking operations.
- Selection of the most suitable dragline models matched with the optimum boom length, bucket sizing and motor sizing to best match the planned mine.

- Optimization of the total dragline system incorporating prestrip, production dozing, dragline and poststrip on a productivity and lowest cost basis.
- Alternate coal access strategies (such as parallel -Vs- perpendicular ramps) as well as integration with prestrip roads.
- Dragline methods analysis to determine accurate rehandle and productivity curves, incorporating inconstant criteria such as varying waste and coal thicknesses and pit floor dip.
- Evaluation of draglines and carry dozers for non-coal stratigraphic deposits such as iron ore, phosphates and bauxite.

Technology

Our personnel are proficient in the integrated use of several software systems for our dragline and dozer assist modelling work:

- Dragsim for detailed methods analysis and provision of rehandle and productivity curves for inclusion in planning databases such as XPAC, Deswik, etc.
- 3d-DigPlus for detailed 3D analysis and simulation of real mining pits for detailed preplanning of actual operations.
- xTract, a custom-built system for rapid waste allocation to equipment, dragline horizon limits determination and bench horizon design.



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