



30 August 2006

PIKE RIVER COAL CONFERENCE PAPER

Attached is the Pike Mine Development Conference Paper being presented to the Australasian Institute of Mining and Metallurgy Conference at Waihi on 30 August 2006. The paper is being presented by Mr Peter Whittall, the General Manager, Mines for Pike River Coal Limited.

FOR FURTHER INFORMATION PLEASE CONTACT:

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NZOG stock symbols: NZX shares - NZO options - NZOOD
ASX shares - NZO options - NZOO

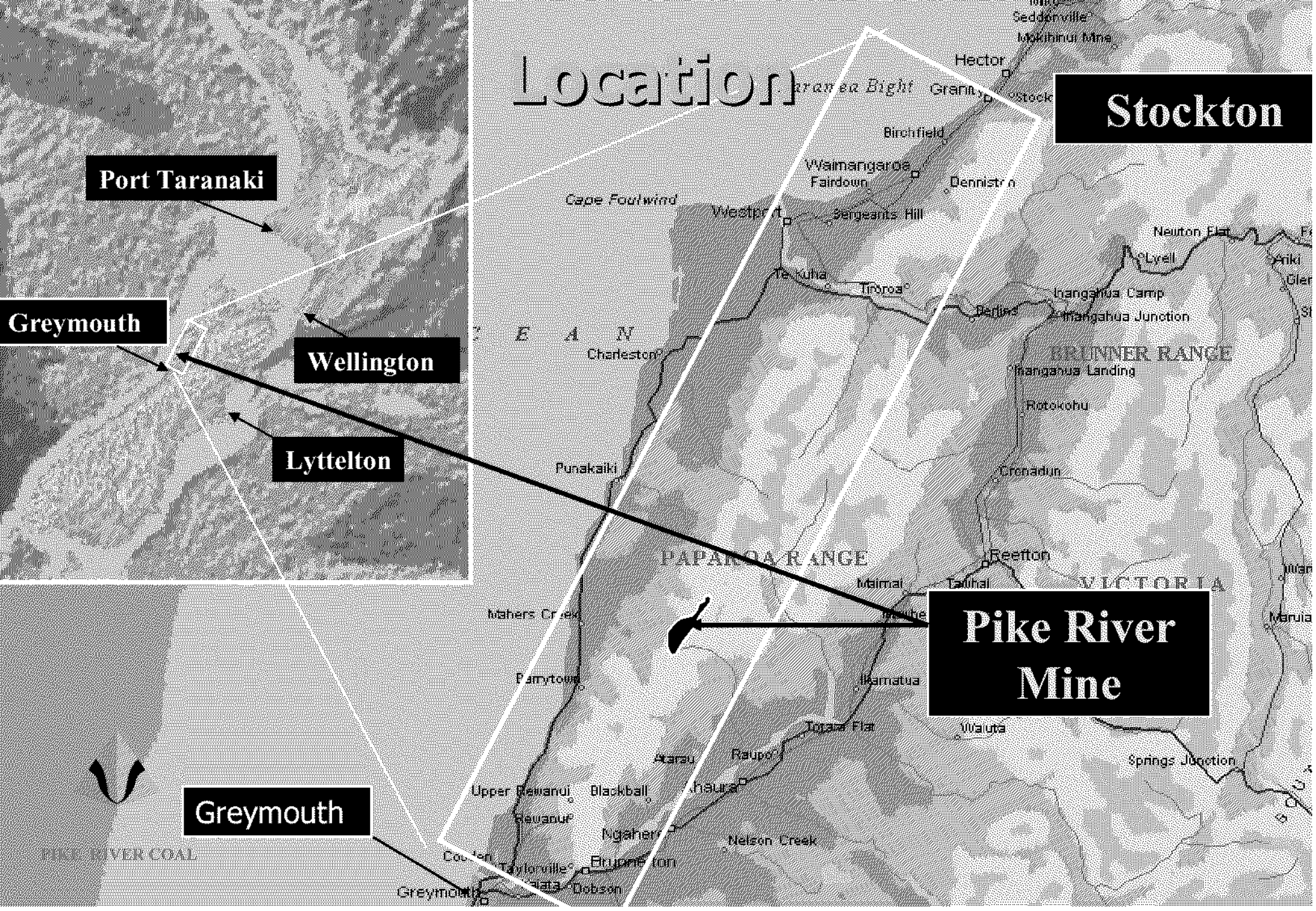
news release

Pike River Coal Limited AusIMM 2006

The logo is a stylized, three-dimensional representation of a coal seam or a folded piece of paper. It features a central, dark, curved shape that resembles a coal seam, set against a lighter, textured background that suggests a rock face or a folded surface. The overall appearance is that of a physical object, possibly a piece of coal or a folded document, with a strong sense of depth and texture.

PIKE RIVER COAL

Peter Whittall – General Manager, Mines
Waihi, August 2006



Location

Stockton

Port Taranaki

Greymouth

Wellington

Lyttelton

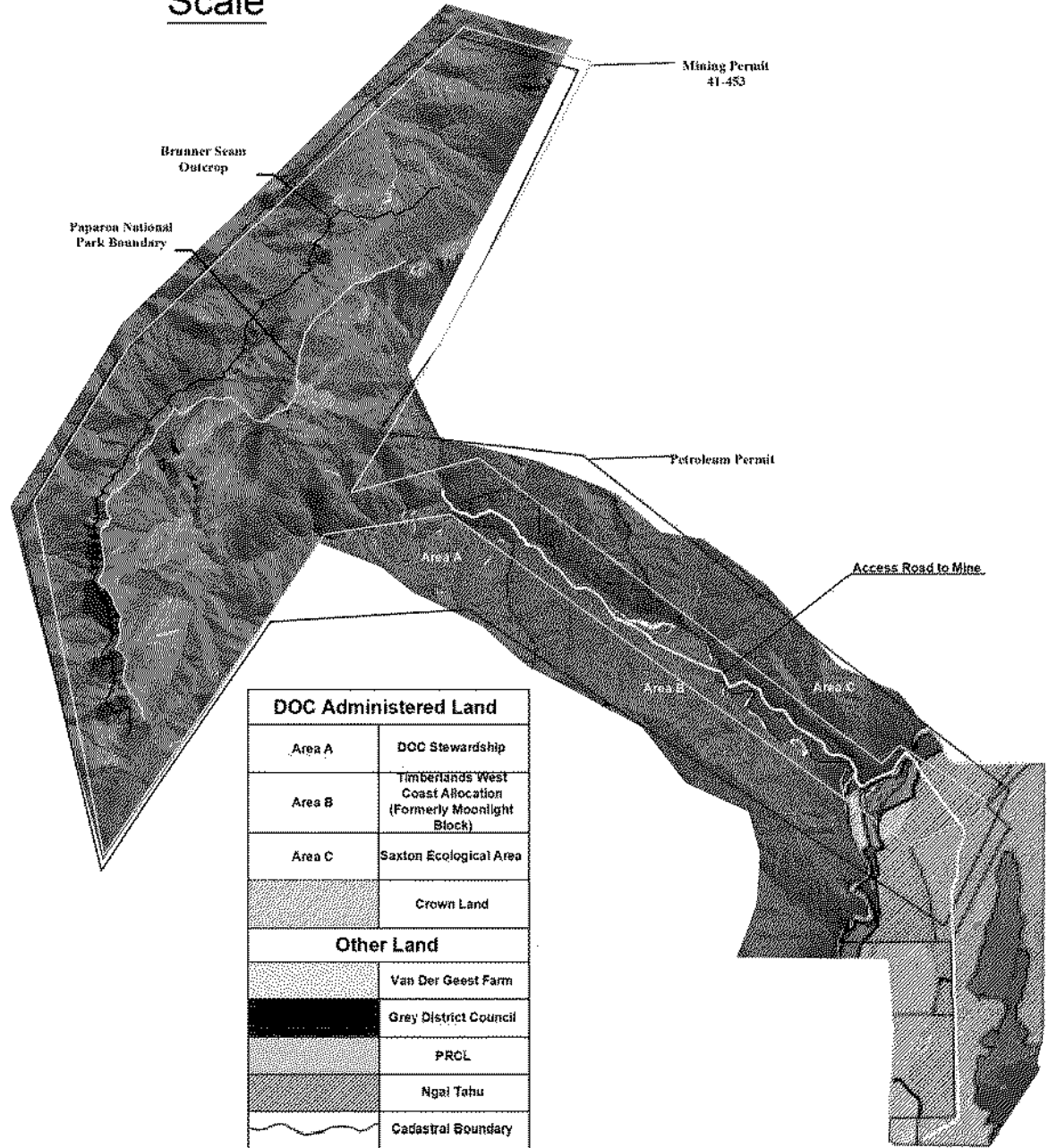
Pike River Mine

Greymouth

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Scale



DOC Administered Land	
Area A	DOC Stewardship
Area B	Timberlands West Coast Allocation (Formerly Moonlight Block)
Area C	Saxton Ecological Area
	Crown Land
Other Land	
	Van Der Geest Farm
	Grey District Council
	PRCL
	Nga'i Tahu
	Cadastral Boundary



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Pike River Mining Permit

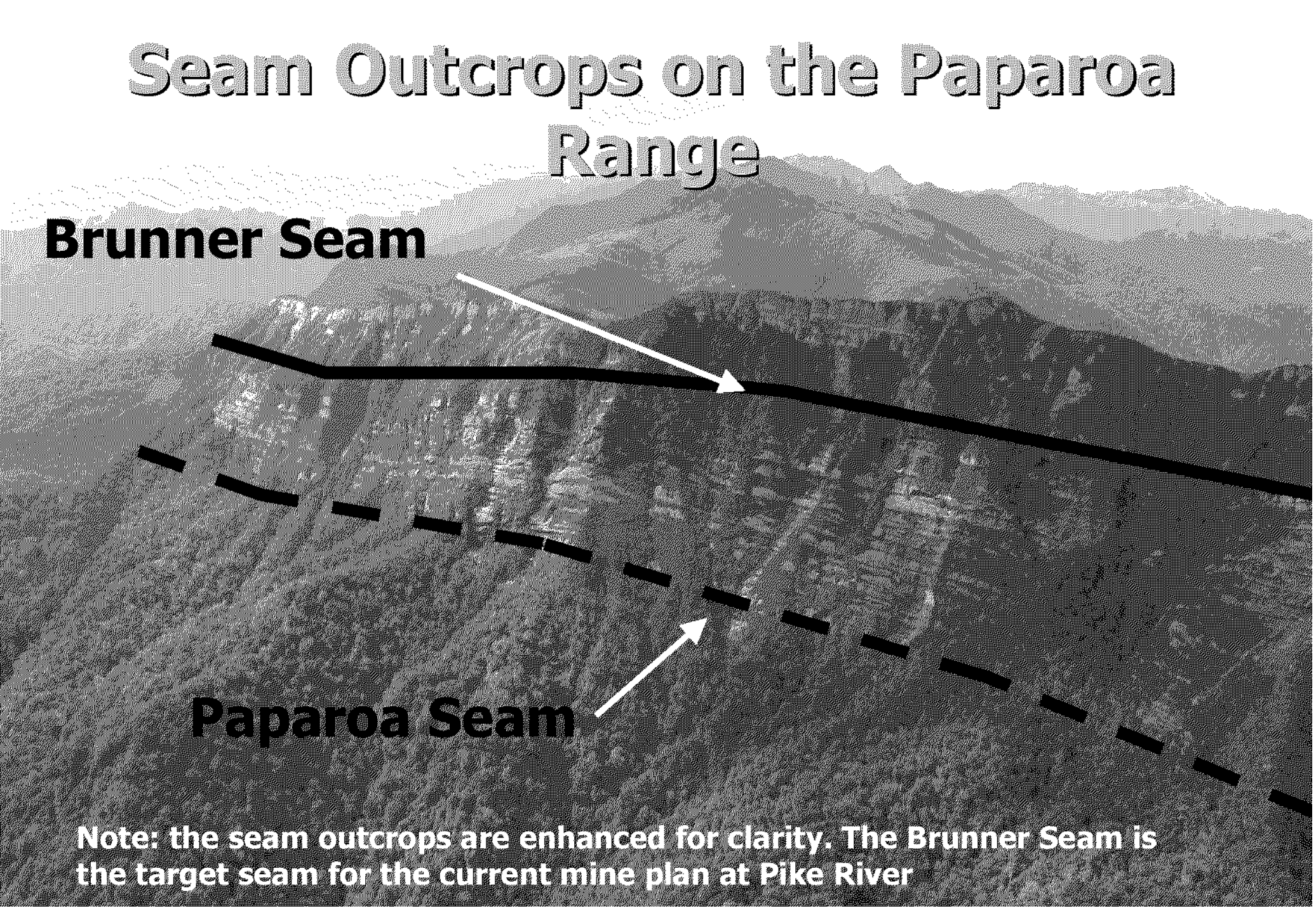
(Topographic View)

Seam Outcrops on the Paparaoa Range

Brunner Seam

Paparaoa Seam

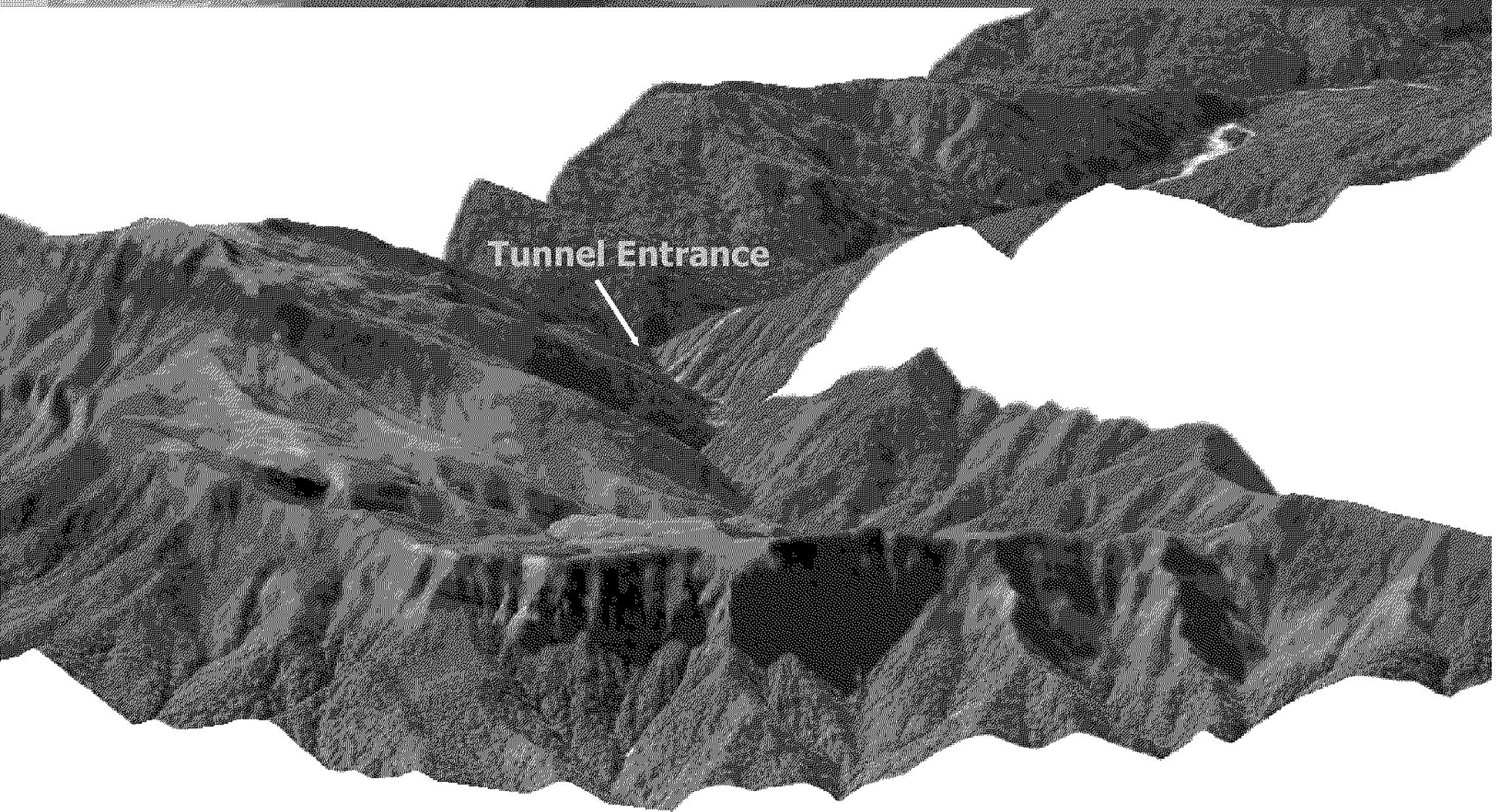
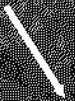
Note: the seam outcrops are enhanced for clarity. The Brunner Seam is the target seam for the current mine plan at Pike River



Isometric View of Pike River Valley



Tunnel Entrance

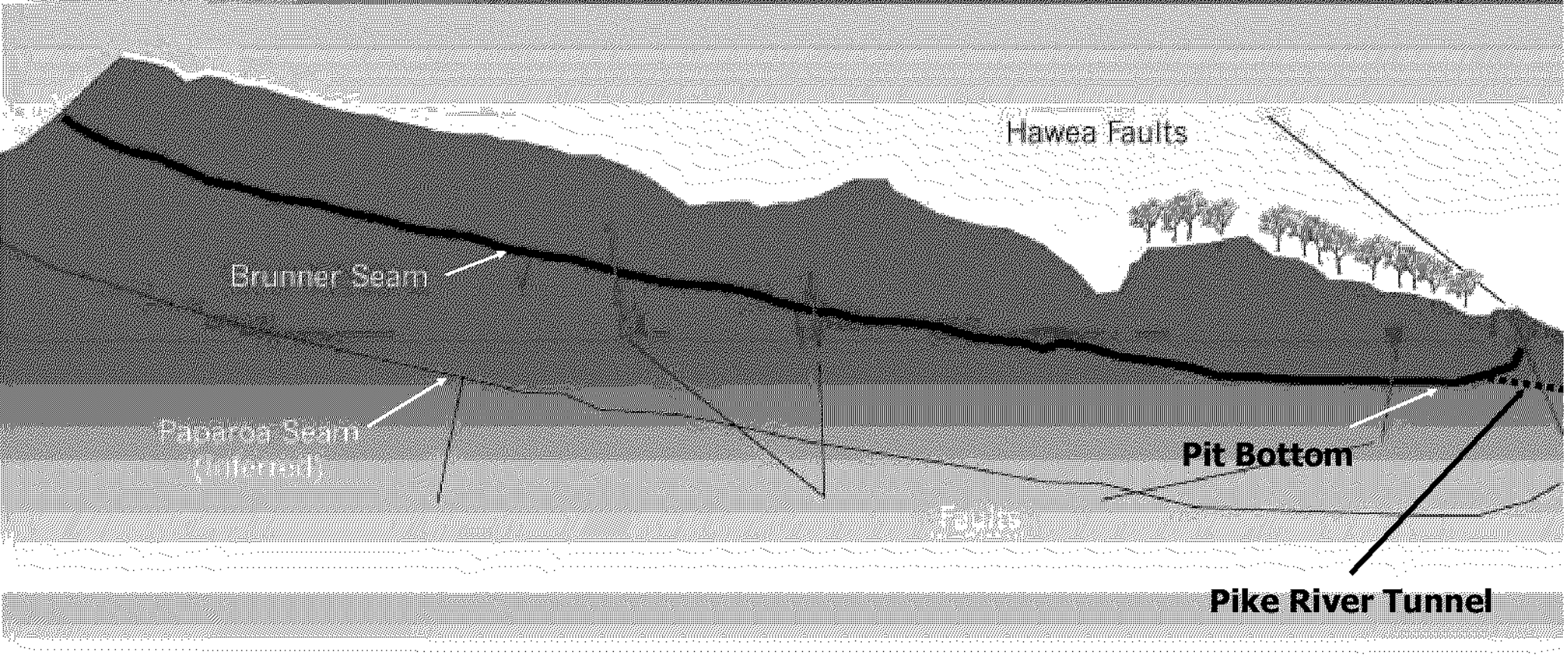
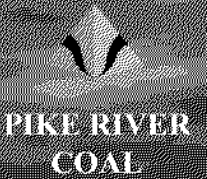


Mining Strategy and Parameters



- **Seam thickness: 3 to 13m but typically 4 – 9m;**
- **Gas: 5 to 7 m³/tonne. High of 10m³/t under Mt Hawera and up to 8m³/t in pit bottom area, high permeability;**
- **Roadway development by Continuous Miner and Roadheader**
- **Coal extraction by Hydro Monitor system**
- **All coal haulage by water**
- **In-seam drilling to define geological structure and limits**
- **Seam-, strata- and fault-originating mine water**
- **Coal products – 1.2 & 1.9% S; both 1% ash**

Cross Section of the Brunner Seam



Hawea Faults

Brunner Seam

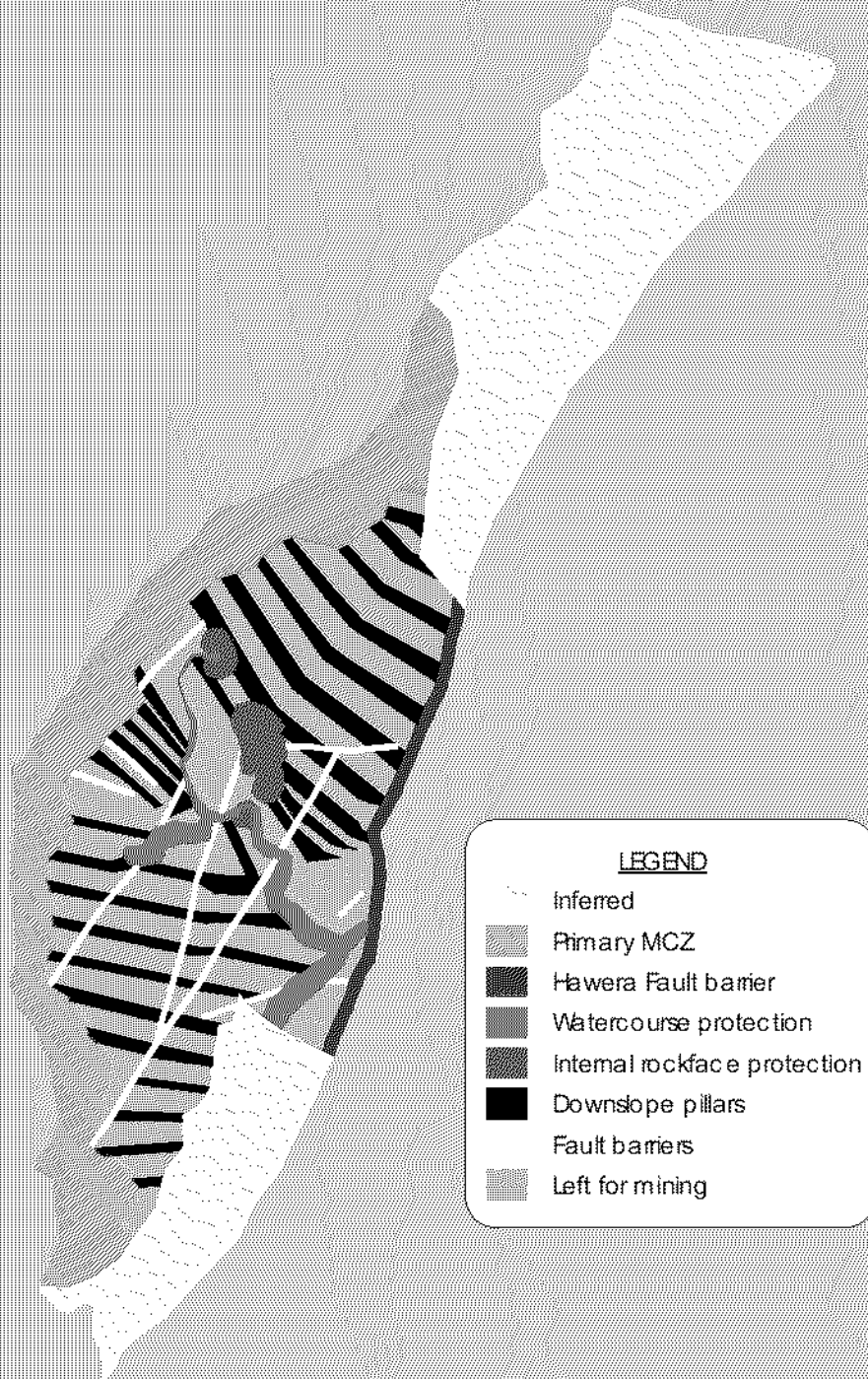
Paparoa Seam
(Inferred)

Faults

Pit Bottom

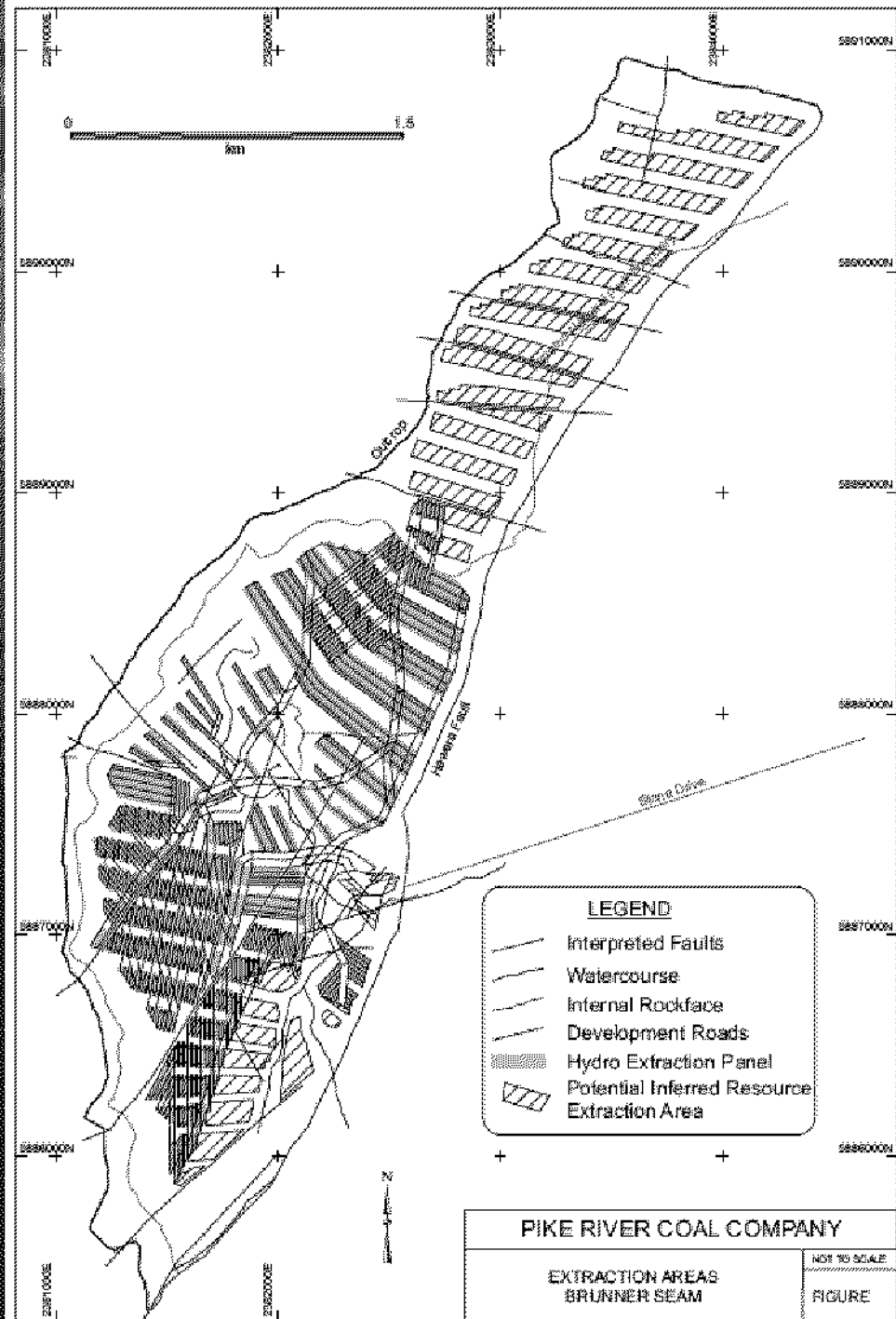
Pike River Tunnel

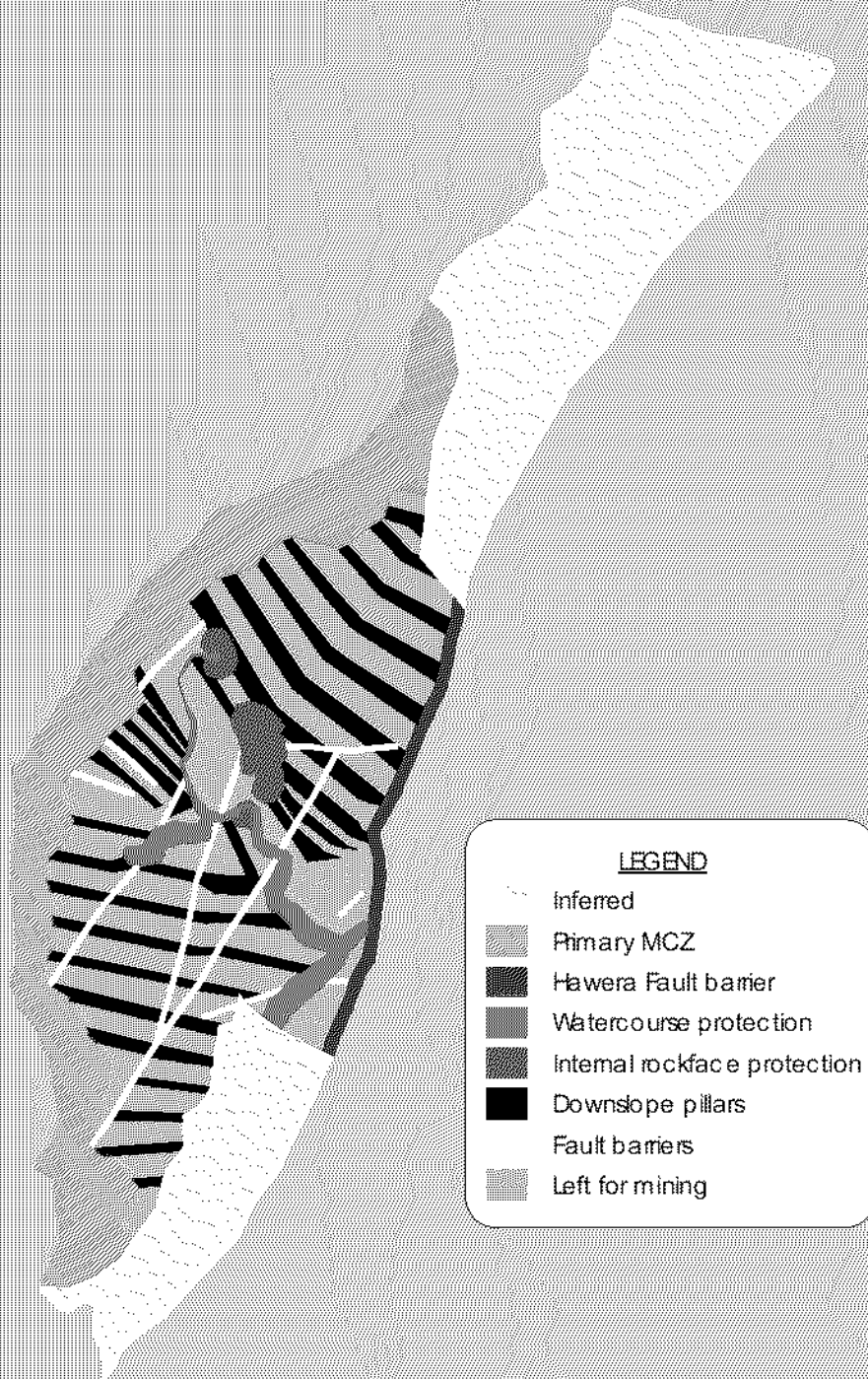
Mining Control Zones



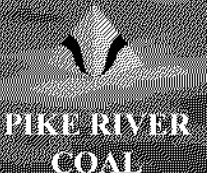
- LEGEND
- Inferred
 - Primary MCZ
 - Hawera Fault barrier
 - Watercourse protection
 - Internal rockface protection
 - Downslope pillars
 - Fault barriers
 - Left for mining

Mine Plan





5 Parameters for Hydro Success

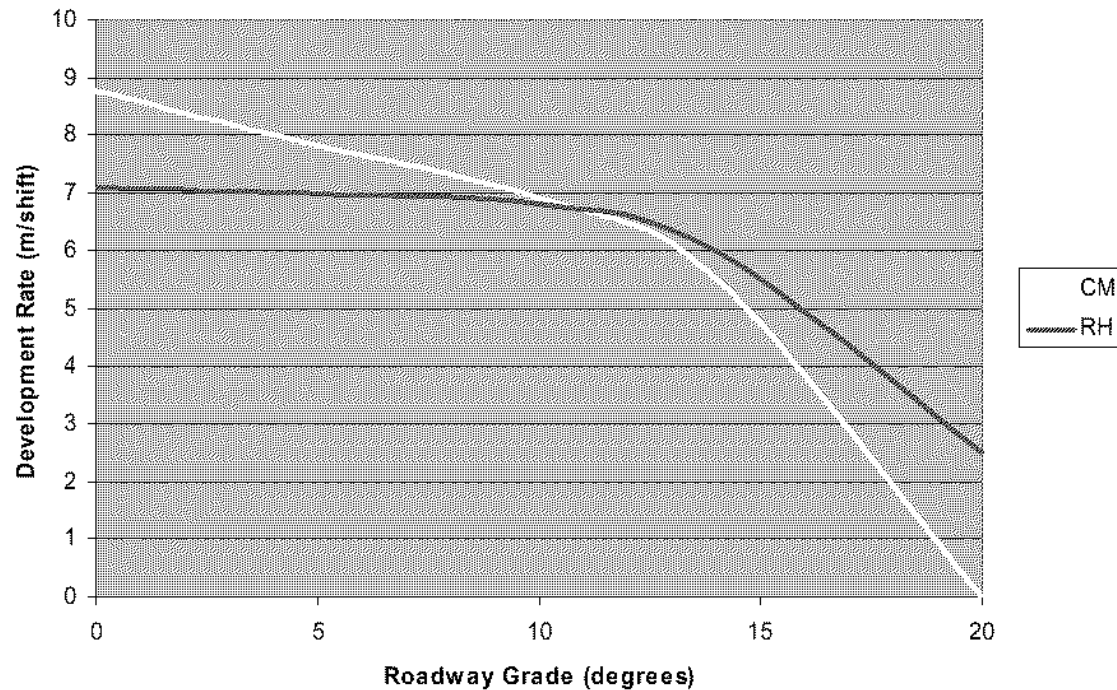
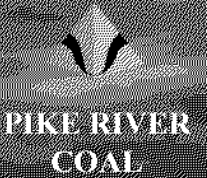


- **Strong roof and floor**
- **Strong but fractured coal**
- **Moderate to thick seam (3 – 13m)**
- **Moderately dipping seam (5° - 30°)**



- **Good supply of water – 6.9m/year**

Roadway and Extraction Productivity



Continuous Miner v Roadheader Productivity

Pike will use 2 x continuous miners (CMs)
+ 1 x roadheader (RH)

Hydro Productivity

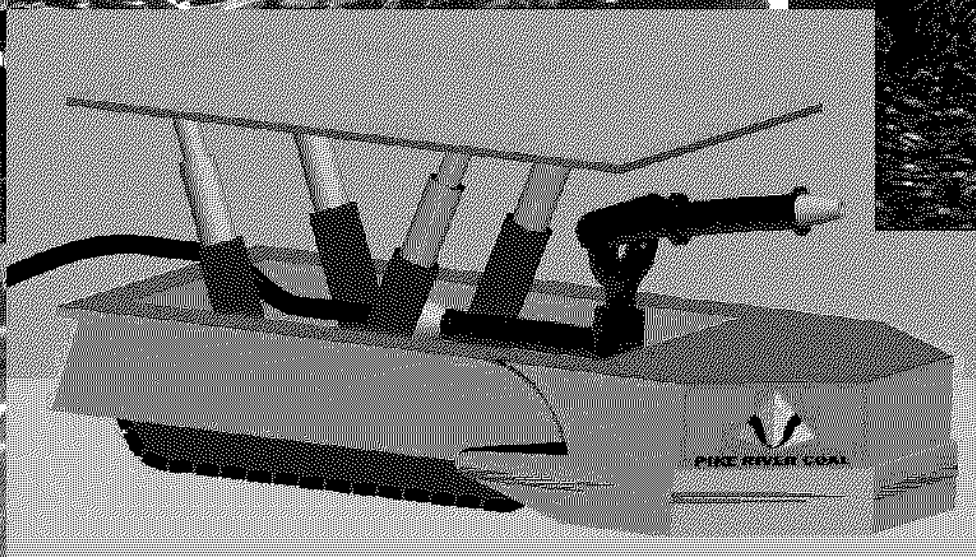
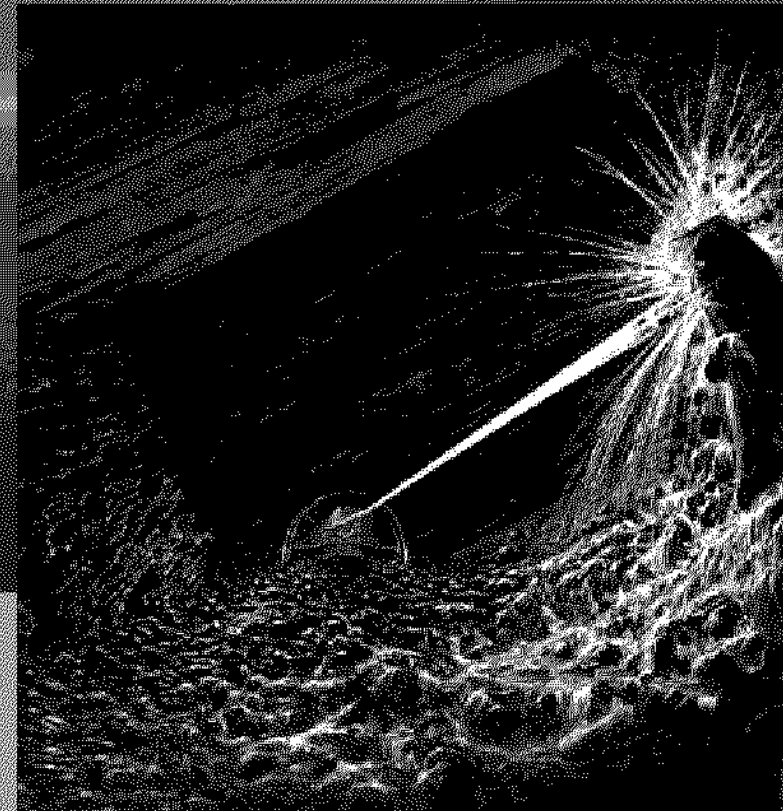
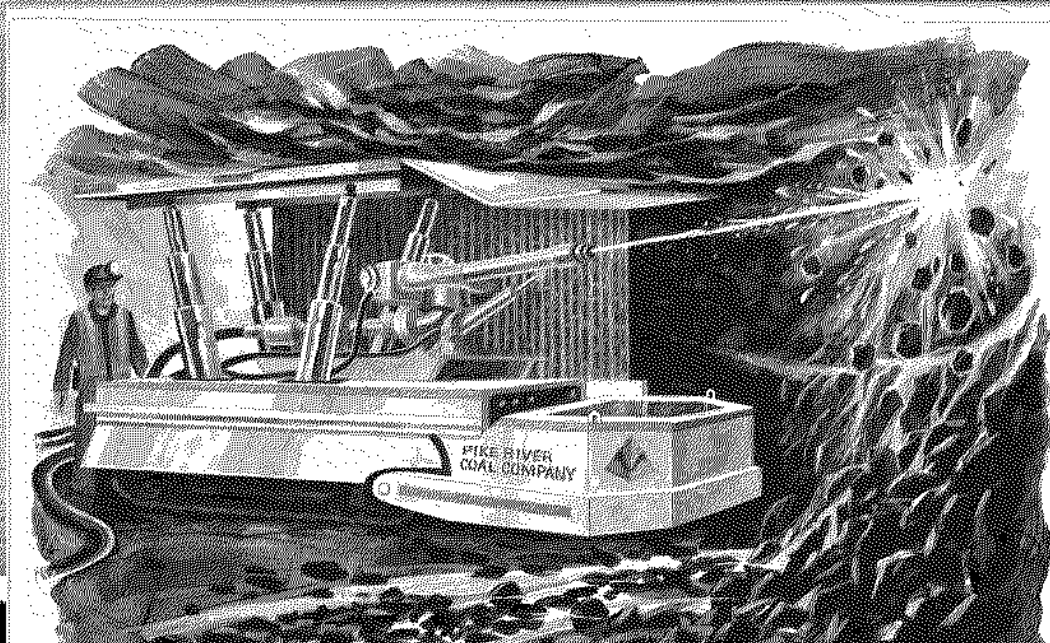
(Excluding continuous miner and roadheader production)

- 9,000 litres water/min
- 3.6 t/min coal cutting rate
- 40% Fluming density
- 61.5% efficiency
- Shift productivity = 1,062t
- Daily productivity = 3,186t
- Annual productivity = 1.1Mt

Hydro Extraction Unit



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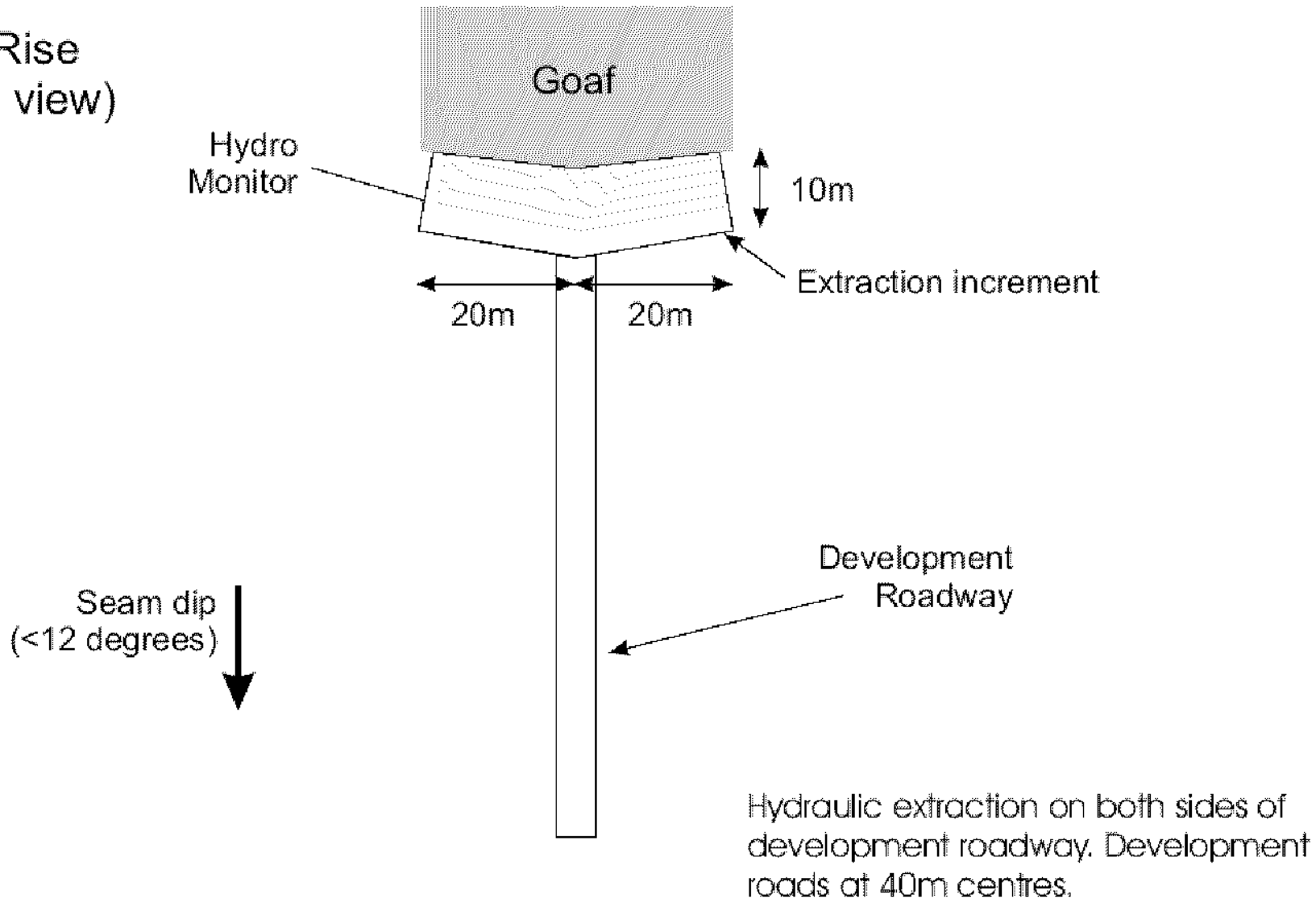


Sub-Rise Extraction



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Sub-Rise
(Plan view)

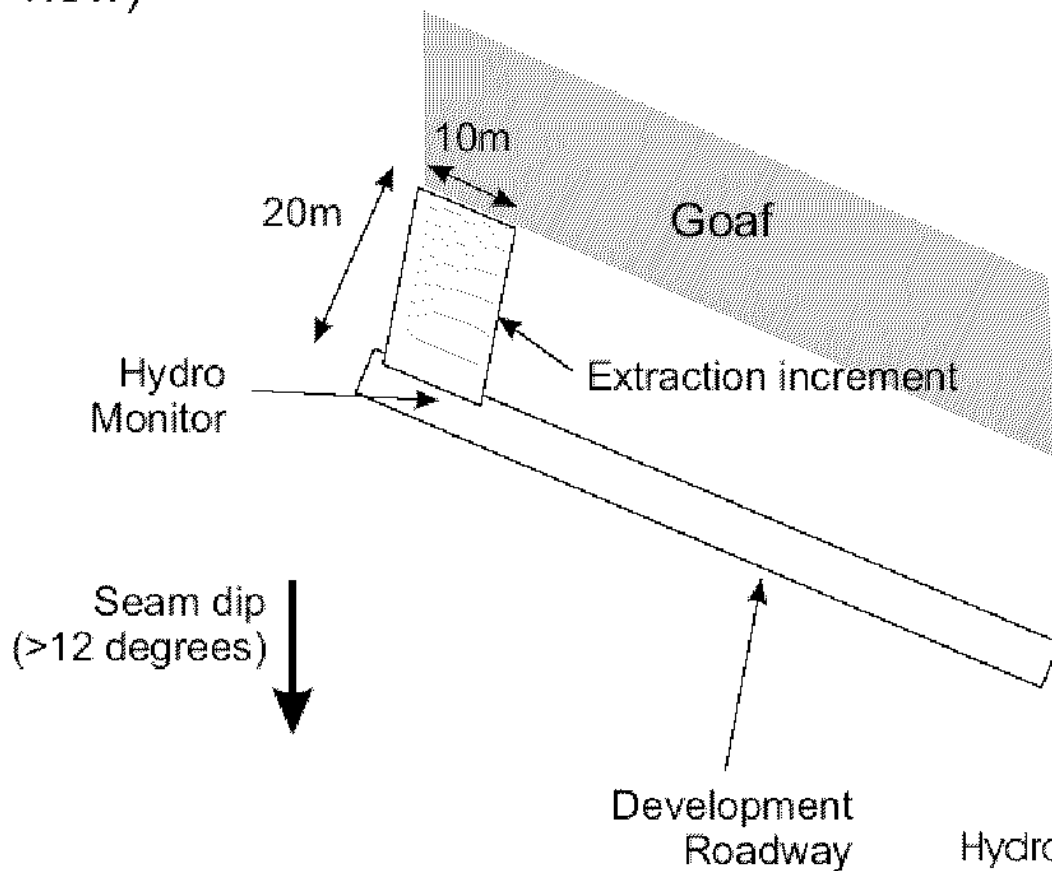


Sub-Level Extraction



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Sub-Level
(Plan view)



Hydraulic extraction on up-dip side of development roadway. Development roads at 20m centres.

Overview of Coal Transport Chain



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Coal Preparation Plant

MINE

Pit Bottom

2km tunnel

10km slurry pipeline

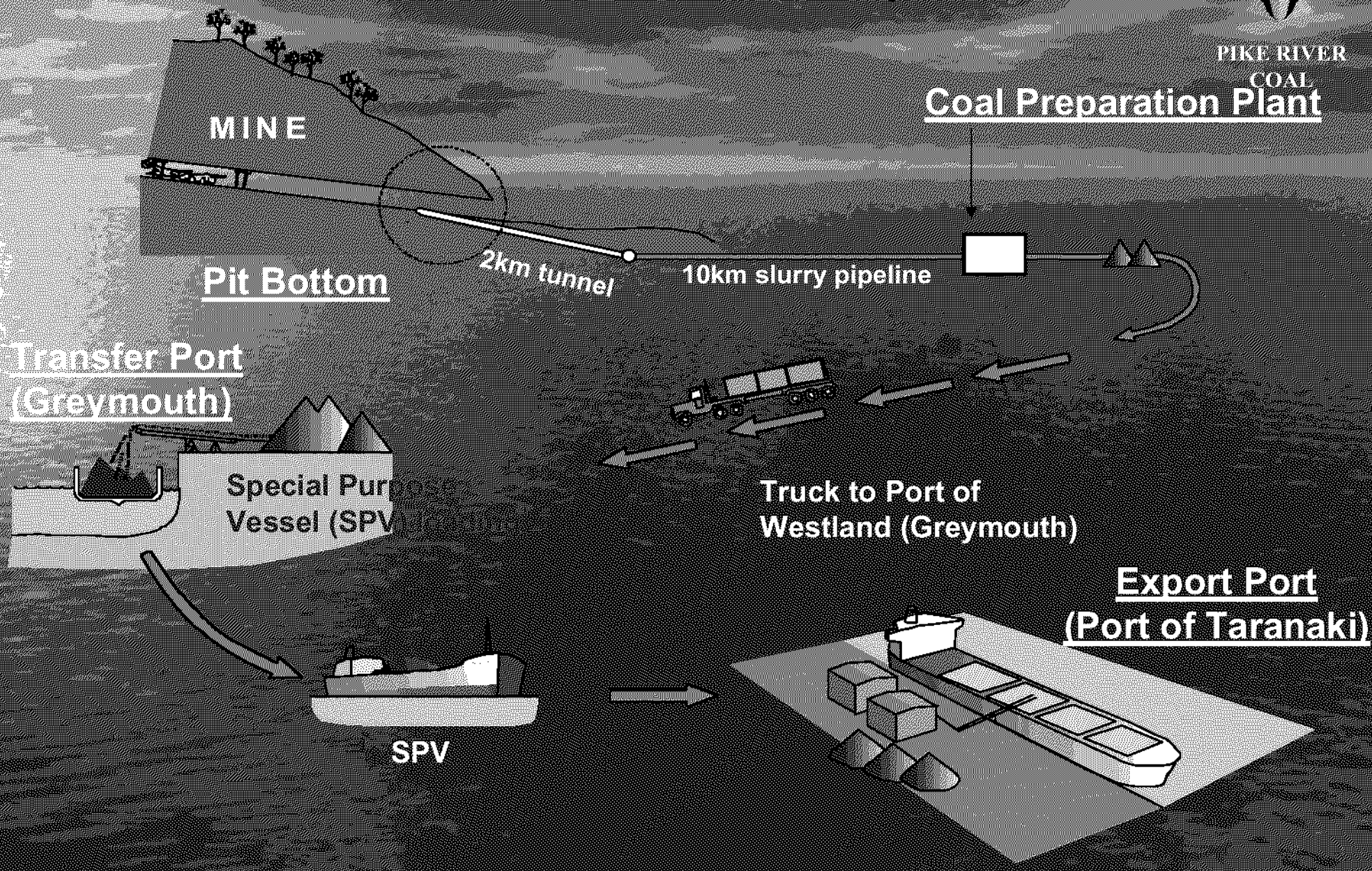
Transfer Port
(Greymouth)

Special Purpose
Vessel (SPV)

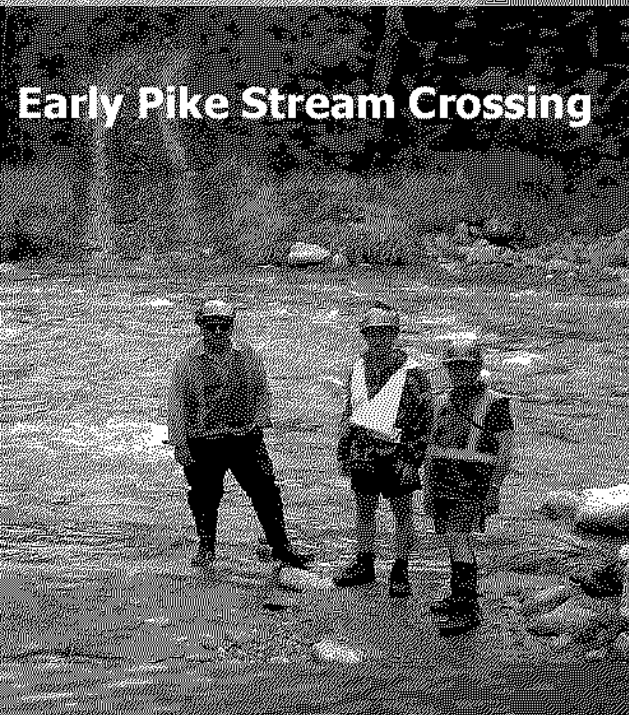
Truck to Port of
Westland (Greymouth)

Export Port
(Port of Taranaki)

SPV



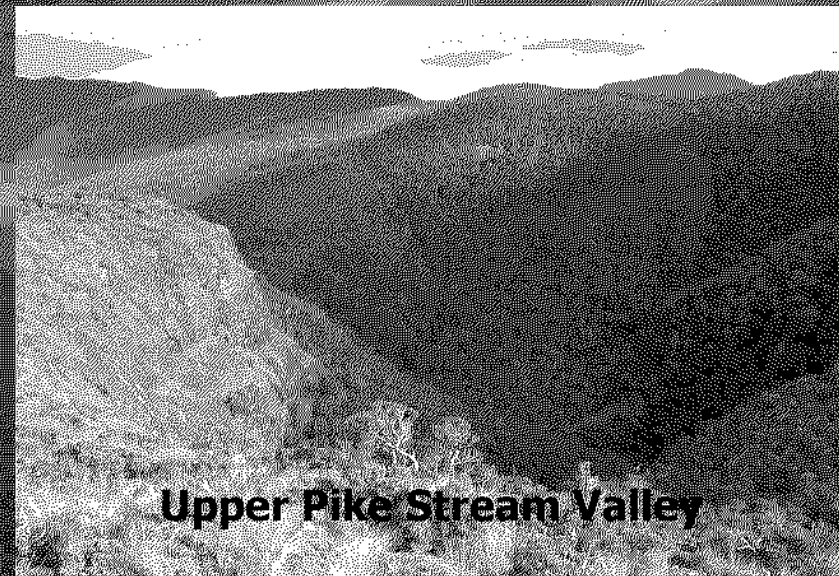
Pike in Progress – 2005/2006



Early Pike Stream Crossing



Iwi blessing ceremony



Upper Pike Stream Valley



First stage of road clearing

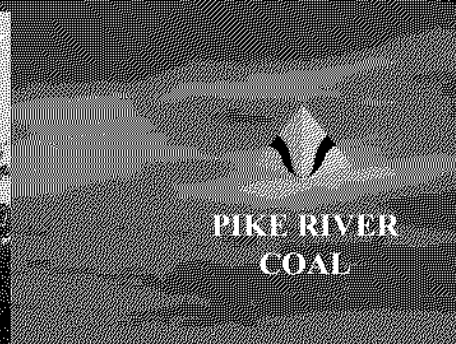
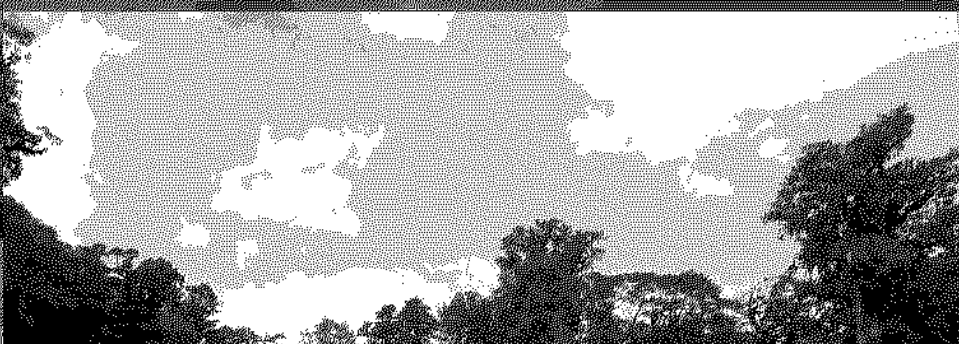
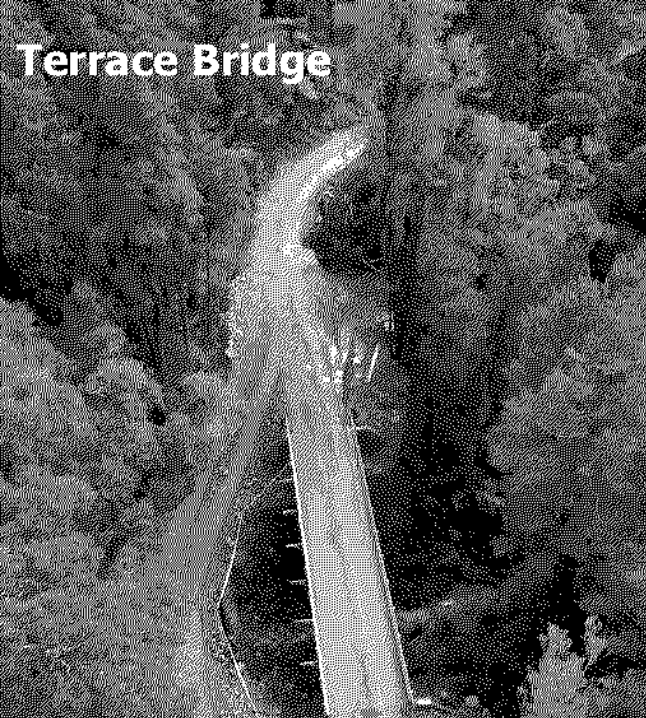


Helicopter access only to tunnel portal site

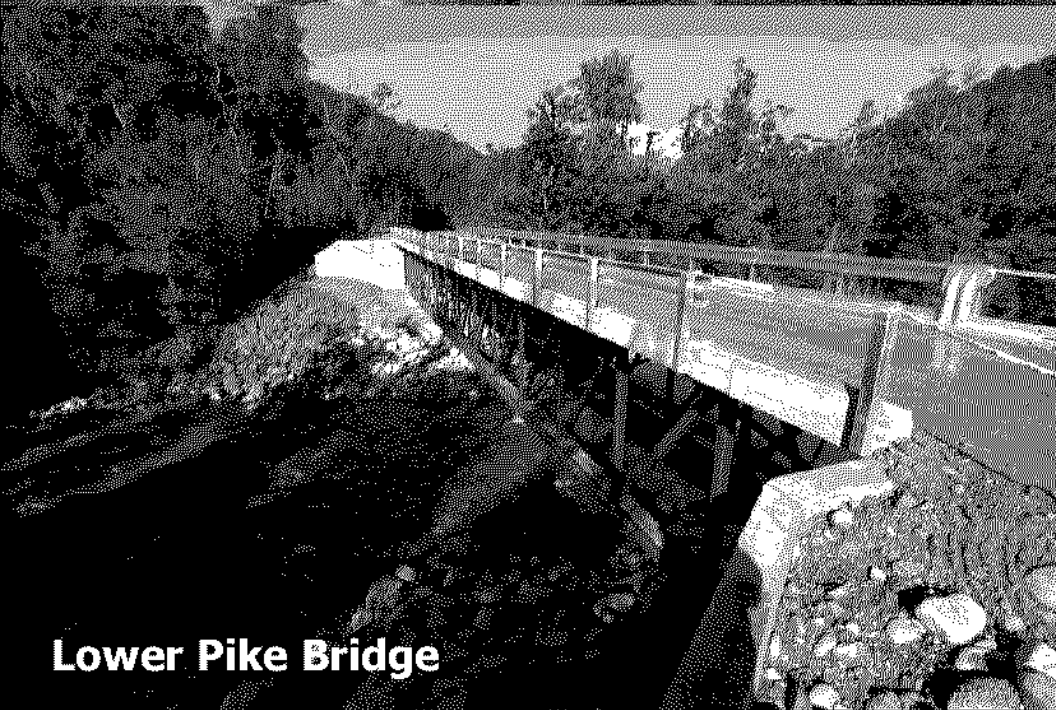


Coal sampling site

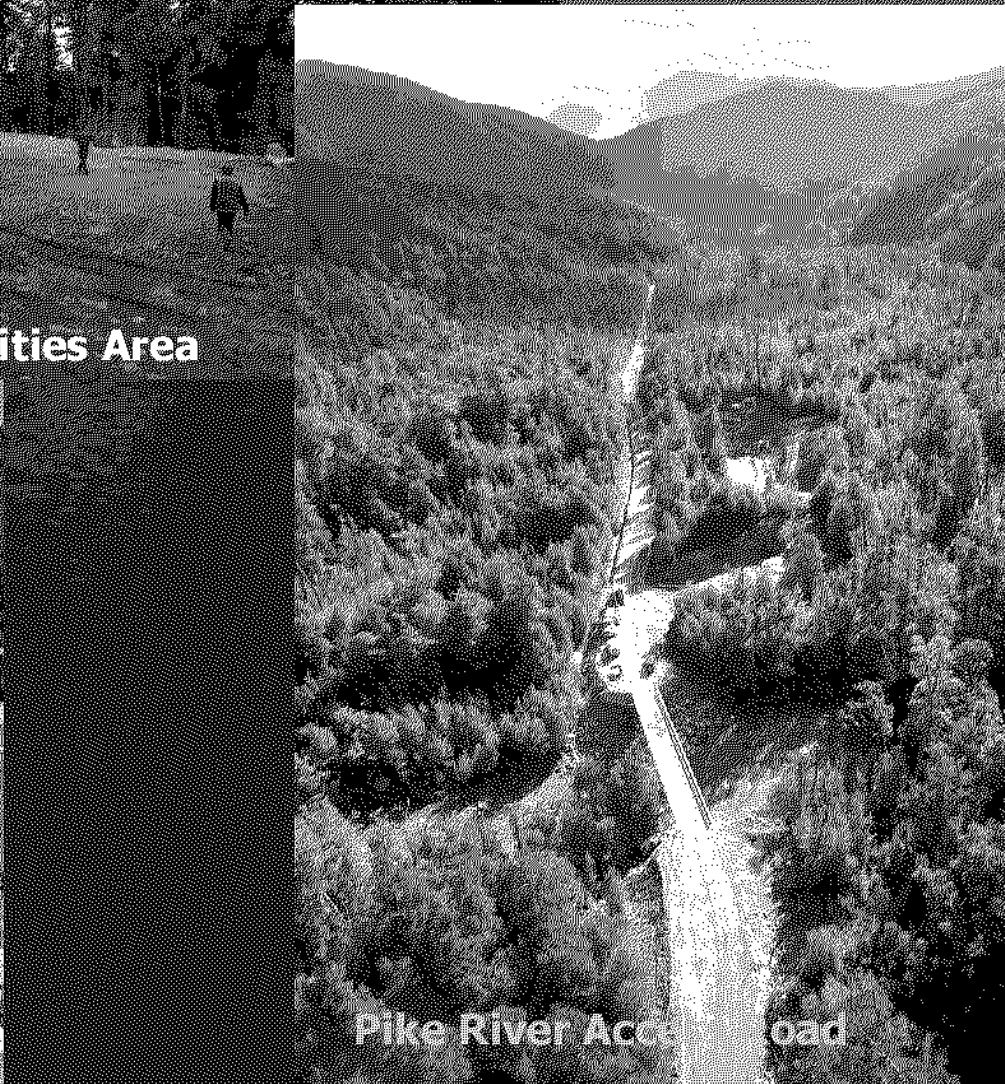
Terrace Bridge



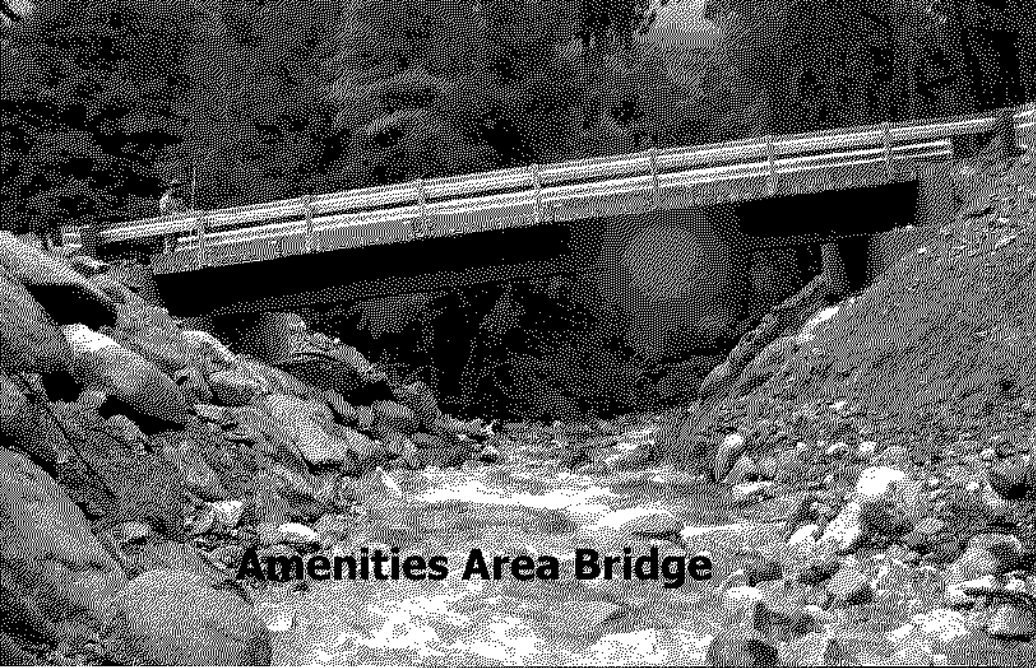
Clearing for Amenities Area



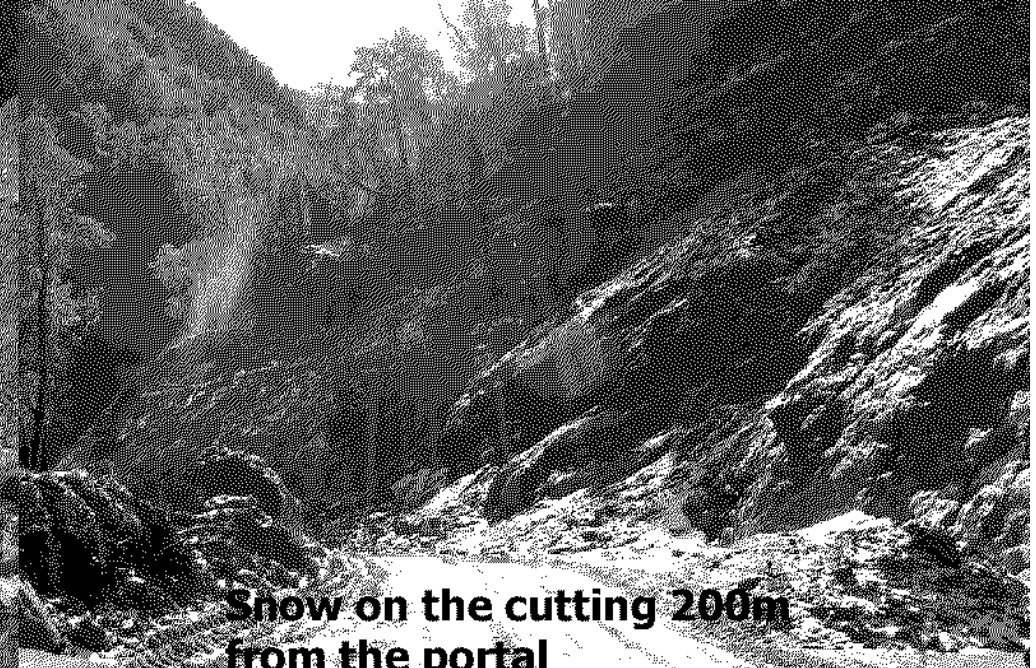
Lower Pike Bridge



Pike River Access Road



Amenities Area Bridge



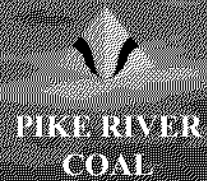
Snow on the cutting 200m from the portal



Cutting and water control



Preparing the Tunnel portal for excavation



Pike and McConnell Dowell crews with new jumbo drill rig



Drainage holes into the cutting

Amenities Area clearing

Opportunities and Challenges



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- **PRCL will have the advantage of not only being a greenfield site but also a greenfield organisation;**
- **Ability to apply best-practice technical and management systems;**
- **Opportunity to recruit and develop a workforce with aligned goals;**
- **Opportunity to achieve benchmark environmental standards for an underground operation.**

- **Good relationship being developed with DOC but steep learning curve (for both);**
- **12 month lead time to coal then 12 month lead time to hydro;**
- **The effective application of the hydraulic mining technique to achieve consistently high output and product quality;**
- **Recruitment and retention; and**
- **Manage the mine's effect on the surface features and general environment from it's operations.**

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