PROJECT PROFILE

BELTANA FLARING FACILITY

LOCATION/SITE	CLIENT	DATE	DURATION
Hunter Valley, NSW	Xstrata	2009	24 Weeks

HUNTER VALLEY, NEW SOUTH WALES

PROJECT/OVERVIEW

Gas drainage and flaring project; creating safe work environment and reducing the carbon footprint was the key reasons for pre-draining gas from coal prior to mining. Gas that isn't drained could cause a safety hazard for underground employees and cause delays in production.

OUR INVOLVEMENT

Eneraque was responsible for the design, supply, installation, commissioning and on-going support for a 10,000 m³/hr flaring facility. The gas flares are flaring off the pre-drainage gas from an underground coal mine. The gas quality is in the vicinity of 90–98% CH4 and approaching the flares at a flow rate of 10,000 m³/hr. In the gas header before the flares, there is a gas filter system for removing any dust or foreign particles from the gas supply and a pressure reduction system for bringing the gas pressure down to a required flare inlet pressure.

OUTCOME/BENEFITS

Once the methane is drained and captured, the gas is burnt at a flaring facility, reducing the CO_2 footprint by 21 times compared to free venting. The flares installed were a fully enclosed type flare with emissions monitoring complying to the European emissions standards.

GENERAL SPECIFICATIONS

Gas flow rate	700 - 3,400Nm³/h
Gas inlet pressure at full load	300 - 1500mbar
Burner capacity up to	32,000kW
Turn down ratio	1:5
Methane concentration	90 - 98vol.%
Combustion temperature	900 - 1,200°C
Residence time	0.3s
Expected sound pressure level at full load (at 15m distance and 2m height)	<69dB(A)
Electronic supply	415v/50hZ

SAFETY FEATURES

Flame arrester
Double block and prove
Burner control unit with UV detection

SITE PREPARATION

Preparation of location
Foundation design and construction
Gas filter skid
Pipeline interface to mine

OPTIONS

Extended turn down ratio up to 1:20
Painting of stacks
More options are available on request.