



TİRE LİNYİT SANAYİ ve TİCARET A. Ş.

Tic. Sic. No. 22622 San. Oda No. 450 İzmir Tic. Oda No. 38114

October 12, 1998

CARDOX INTERNATIONAL LIMITED
Unit A, Roe Cross Industrial park,
Old Road, Mottram,
Cheshire SK14 6NB.

F.A.O. Mr. John Hodson

TESTIMONIAL LETTER

Dear Mr- Hodson

Re: The Cardox System

With reference to your request for brief details of how our mining operation works and how it has benefited from using the Cardox System, we have pleasure in replying as follows:

The Tire Linyit Coal Mine has been in operation for 50 years during which time it has served a demand for domestic coal.

Our mine produced coal from hand worked 50m longwall faces on a retreat system; our development headings were also hand worked,

For our transportation system we use a shots and locomotive whilst we use timber for our roof supports.

As there was no demand for 'fine product' of which we produced 25%, we undertook trials with a view to improving product size. The outcome of these trials was the introduction to the mine of the Cardox system.

Since the introduction of Cardox the mine has not only solved the 'fine product' problem, which has been reduced to just 5% but the production has also increased significantly. On the longwall faces, from 3 to 9 tonnes per man and in the development headings from 3 to 6 tonnes per man.

The advance per heading has also increased from 0.75 to 3.0 meters per shift.

The mine currently uses between 100 and 200 consumables per day, the figure varies according to the seasonal demand and in the near future we are planning to increase the longwall faces to 100m.

The benefits we have achieved by using Cardox are considerable say the least and we would not hesitate in recommending its use to other coal mines.

Yours Sincerely,

Atilla YILMAZ
General Manager

PRODUCTION DATA

Coal Type: Lignite

Mine Production: Tire Linyit Colliery utilises Cardox to mine Lignite coal on longwall faces and headings.

Longwall face:

Length:	50.0 metres
Seam Height:	2.0 metres
Cardox Tube Type:	F57-L
Tube Length:	1.8 metres
Average Yield per Tube:	5 Tonnes
Advance per round:	1.6 metres

Headings:

Base Width:	2.5 metres
Roof Width:	1.3 metres
Height:	2.0 metres
Cardox Tube Type:	F57
Tube Length:	1.3 metres
Average Yield per Tube:	3.0 Tonnes
Advance per round:	1.1 metres

Effects of Cardox on Product: Prior to deploying Cardox as a production tool, the mine was operating at between 20% ~ 25% fines. This figure has now been reduced to 5% ~ 10% thus representing a dramatic improvement in revenue. Cardox has thus improved the product and increased revenue without the strain on the transport system required by an increase in production rates.