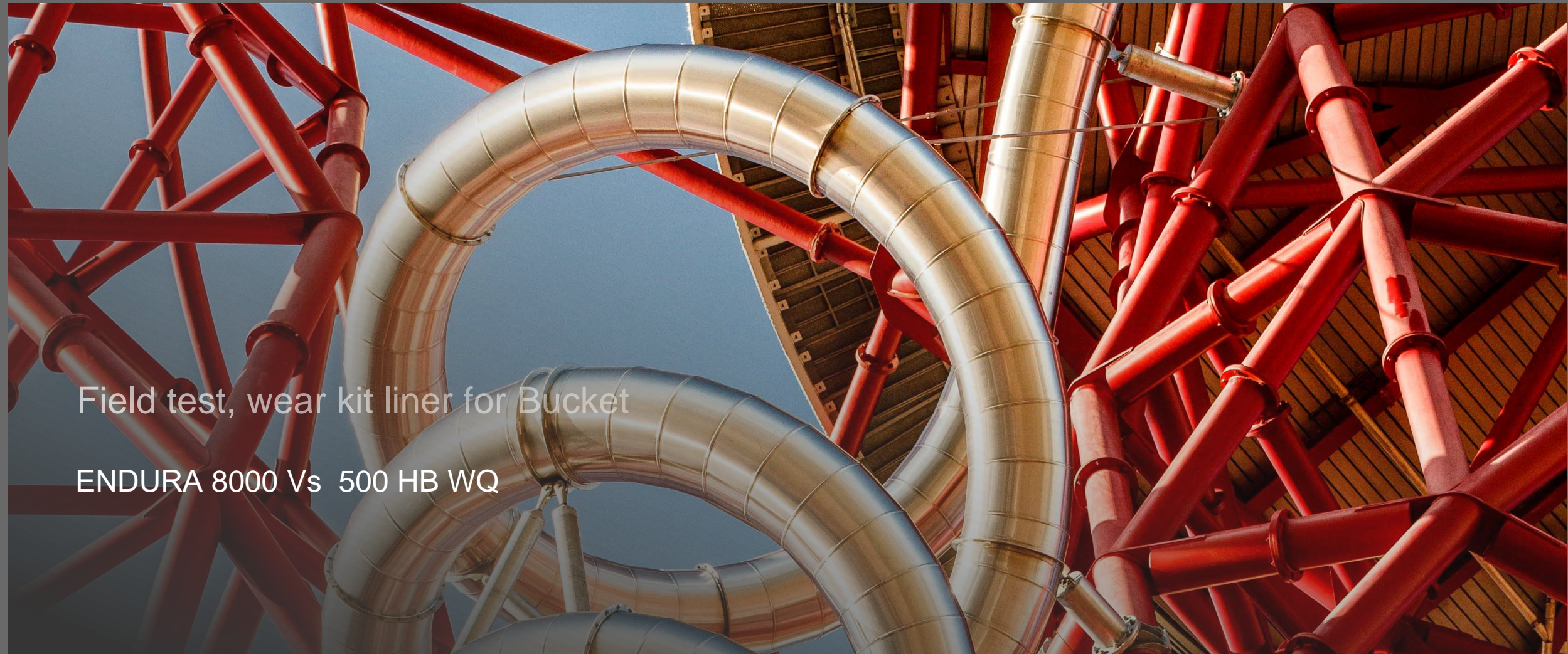


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Field test, wear kit liner for Bucket

ENDURA 8000 Vs 500 HB WQ

# Field test, wear kit liner for Bucket – ENDURA

## Target:

Suggest an alternative solution for extreme service wear conditions

## Steps:

Monitoring of the comparative wear of 2 identical buckets:

Bucket standard: WQ 500 premium brand (wear kit)

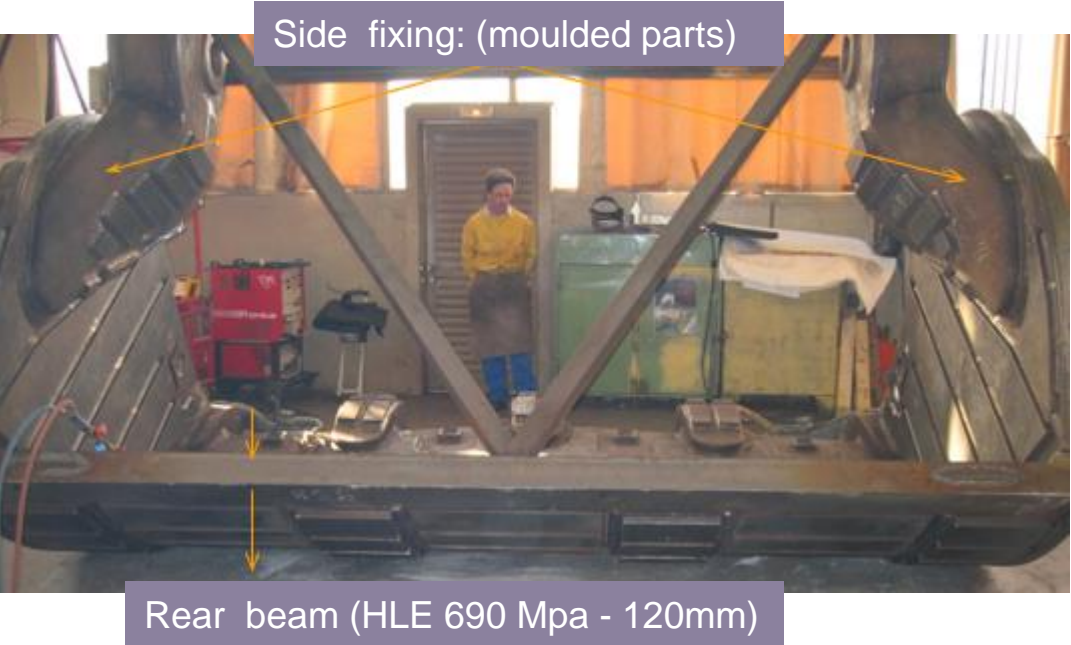
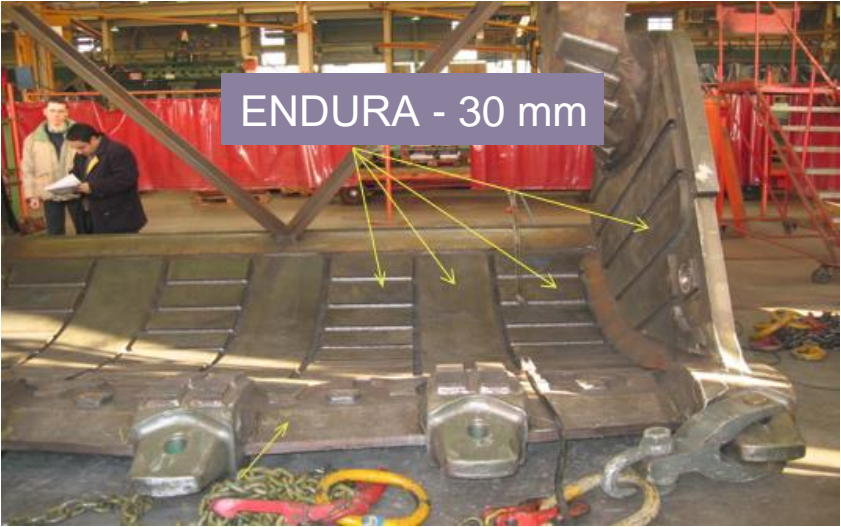
Reinforced bucket: ENDURA (wear kit)

Place: (Assarel - Bulgaria)

Copper mine, altitude > 1500m, was chosen because of the exceptional aggressiveness of its ore ...

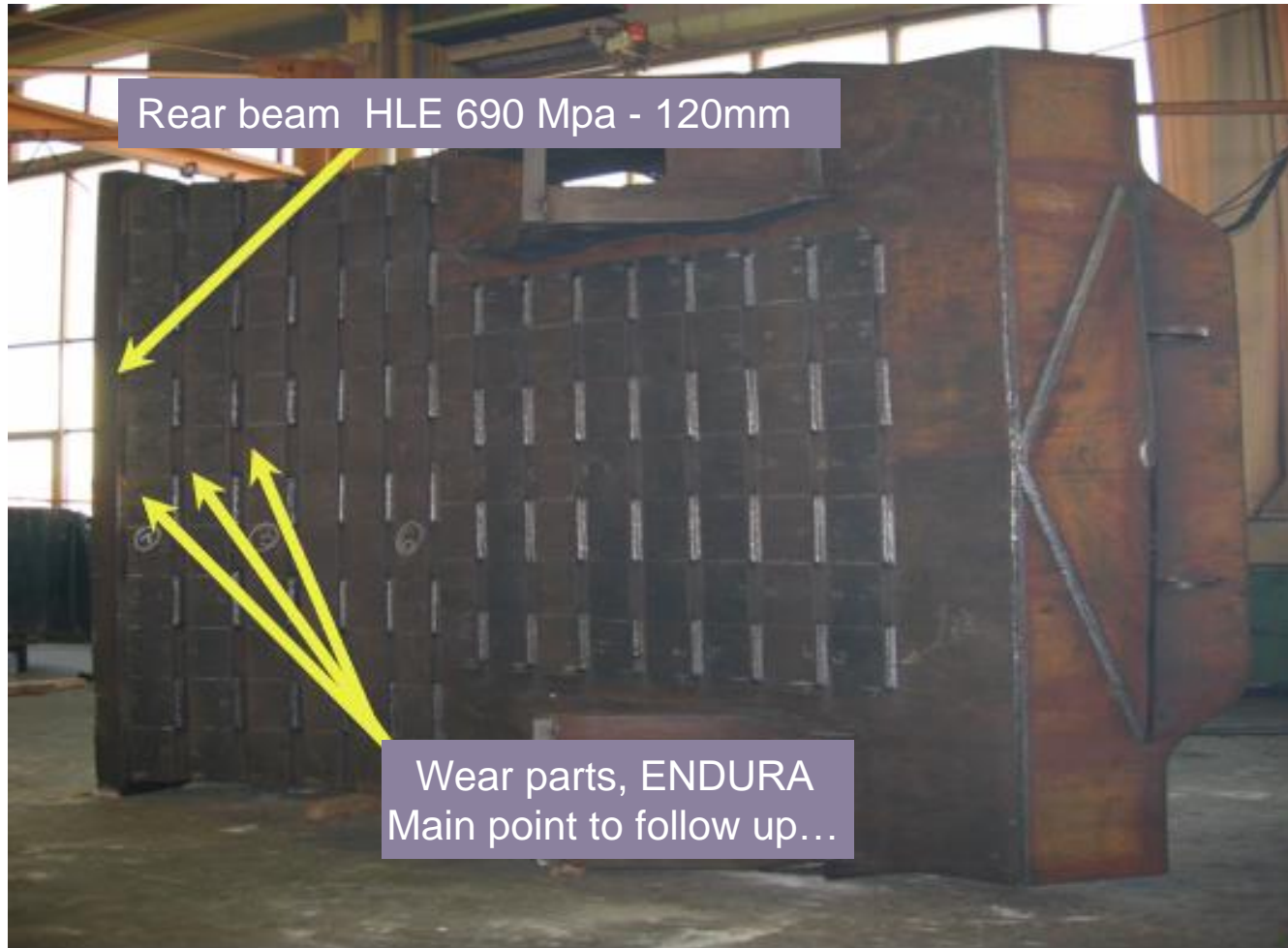


# Field test, wear kit liner for Bucket – ENDURA



## Field test, wear kit liner for Bucket – ENDURA

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service conditions:

Direct extraction (via bucket)

Work rate: 23H / 24H throughout the week

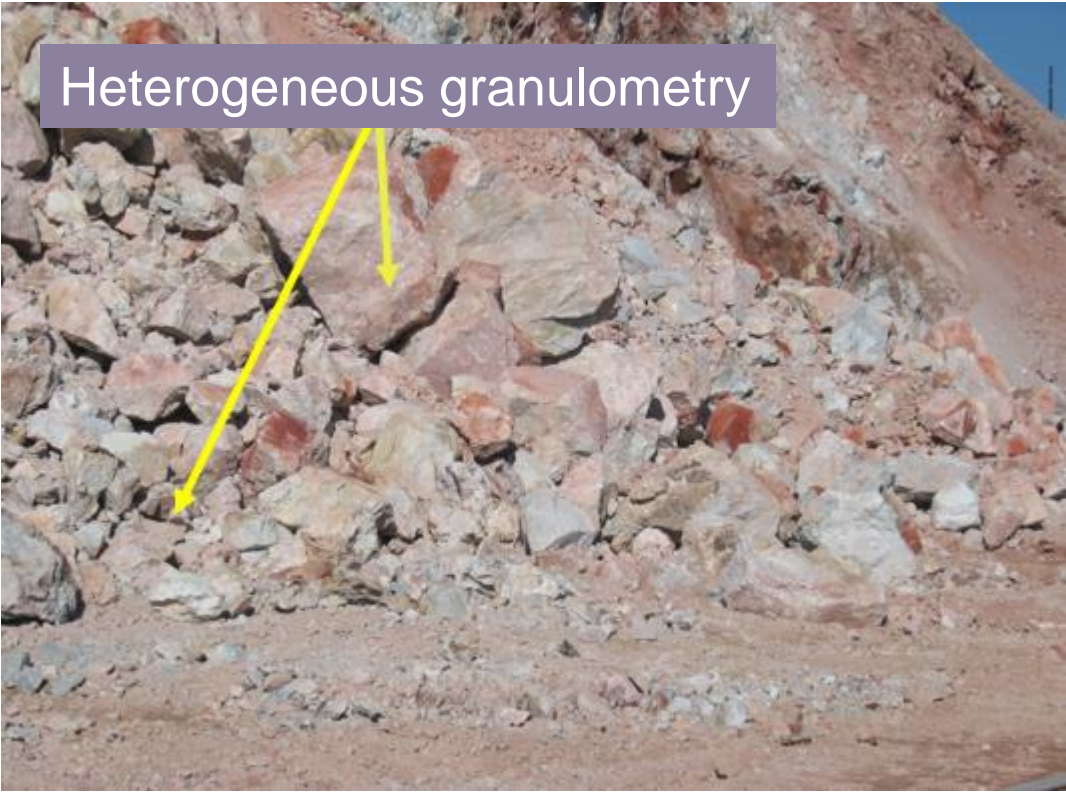
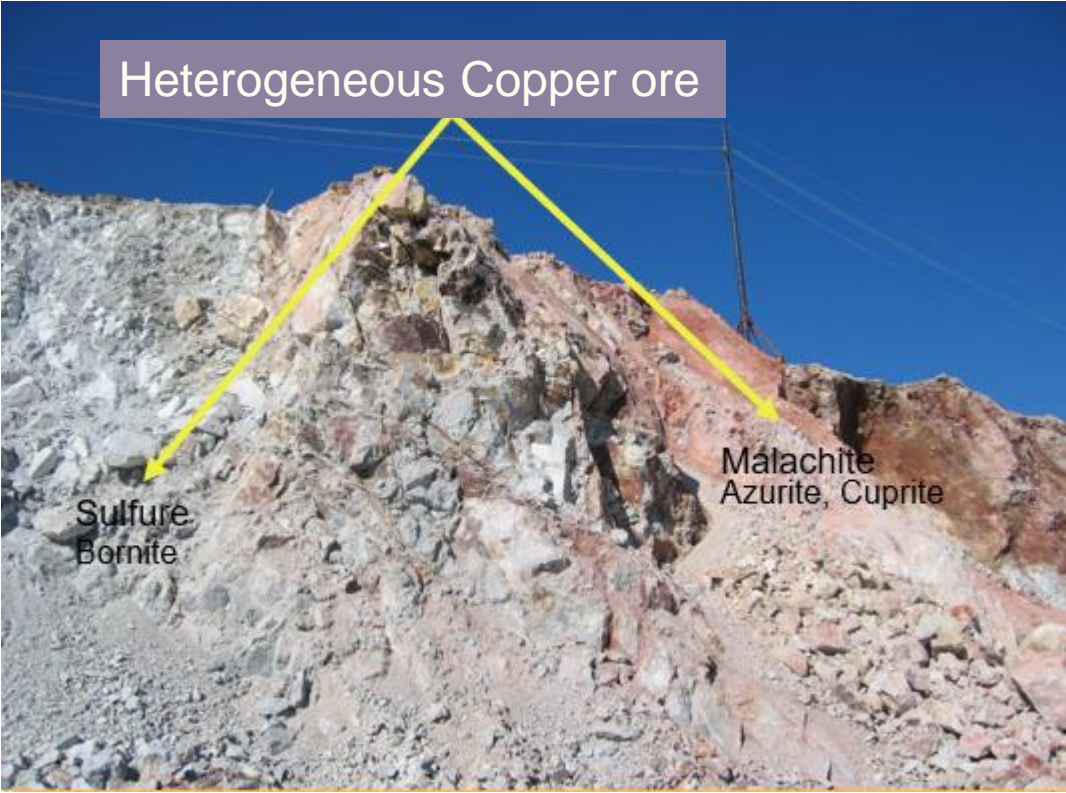
Service period:

- Standard bucket (N ° 2), WQ 500: April - October 2005 ( dry period)
- Optional bucket (N ° 1), ENDURA 8000: October 2005 - March 2006 (wet period)

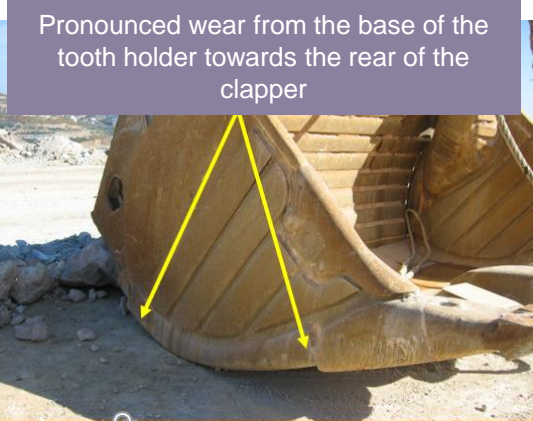
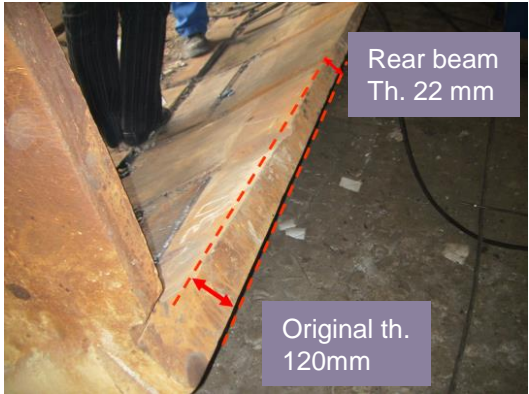
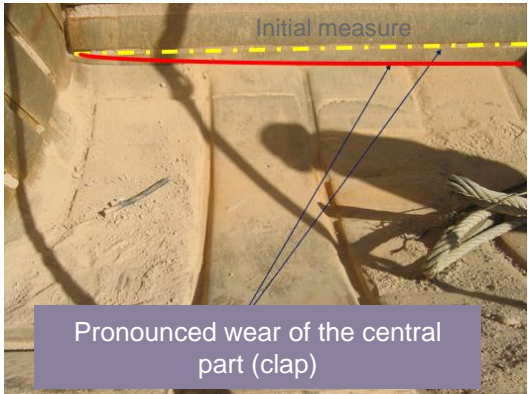
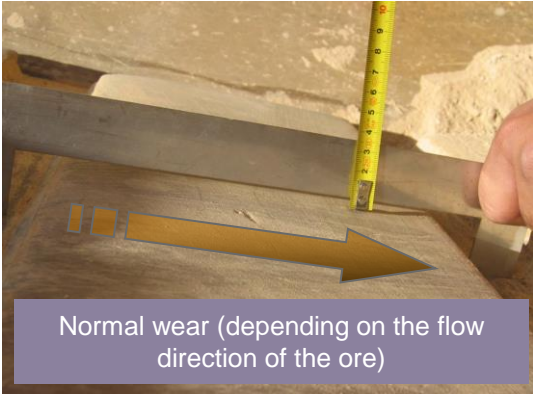
# Field test, wear kit liner for Bucket – ENDURA



# Field test, wear kit liner for Bucket – ENDURA



# Field test, wear kit liner for Bucket – WQ 500 HB bucket



Bucket N ° 2  
abrasion kit – WQ 500  
**Shutdown for repair after 2540 H**  
Service period April - October 2005 (dry period)

# Field test, wear kit liner for Bucket – ENDURA bucket



clean up necessity



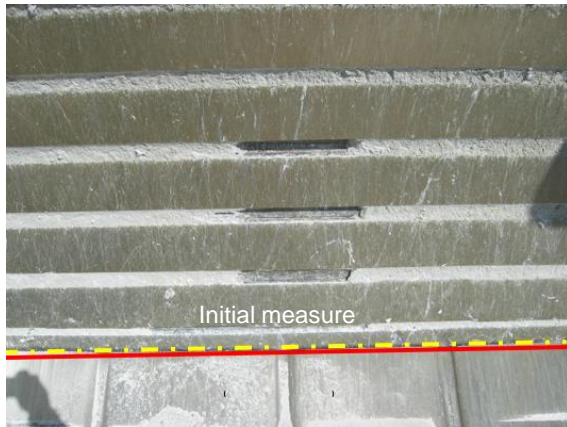
the improved wear resistance of the ENDURA parts limits the loss of sealing in the rear part. However, the unprotected areas (HLE structure) continue to undergo pronounced wear (digging in the direction of flow of the material).



Although the wear is less pronounced, we find the whistle shape imposed by the design and mode of use of the bucket ...



The protective plates located in the lower part of the rear hatch show no visible wear ...



Initial measure

There is no visible wear at the back (trapdoor - caps junction)

Bucket N° 1  
abrasion kit – ENDURA  
**inspection carried out at 2600 H (still in service)**  
total duration before repair estimated at 3800/3900 H  
Service period October - March 2006 (wet period: rain, snow, frost)



The upper surface of bucket N° 1, subjected to tangential abrasion under very high pressure, does not show any pronounced wear ..

## Field test, wear kit liner for Bucket – ENDURA

Standard bucket N ° 2 equipped with the WQ 500HB abrasion kit was stopped for repair after a service life of **2540 H**

The optional bucket N ° 1 equipped with the **ENDURA** abrasion kit was checked at 2600 H and it was decided to continue to operate until **3700 H** hours before shutdown for repair

$$\frac{3700 \text{ H} - 2540 \text{ H}}{2540 \text{ H}}$$

**+ 46% lifetime** with the **ENDURA** option

