

ALLOY STEEL

I N T E R N A T I O N A L

ARCOPLATE LINER KIT INSPECTIONS CAT AD55 UNDERGROUND TRAY, 24-11-09 – UNIT UT0027



Arcoplate Wear Kit upon completion Nov '08



Arcoplate after 12 months service Nov '09



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Nov '09. A 15mm average thickness remains on the tail end from the original 8/9 Arcoplate (17mm)

Thickness tests were carried out by a site representative on the Arcoplate Wear Kit - unit UT0027. The Arcoplate has now been in service for 3995 hours. Some minor damage from a hydraulic rock breaker was reported early on (noted throughout previous reports) however; there are no significant areas of interest or repairs required on the Arcoplate to date. The Arcoplate kit does require a little extra education in care and preservation however this is well rewarded with longevity of performance and minimum downtime/maintenance.



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Floor Area

Twelve (12) months service from the 20/11/08 to 25/11/09 returned an average of 1.96mm wear in the highest wear area of the tray attaining 3995 hours maintenance free service. The wear rate demonstrates a reasonably constant figure over the three test dates. The thickness test indicates we will receive 10,000 + hours service before any minor maintenance is required. The wear rate indicates we should receive 15,980 hours over a 4 year term before the entire floor kit requires replacement.

Wall Area

The walls and transition liners have no visual wear to date. A recommendation to supply 6/9 material for the walls and transition for any future Arcoplate kits has been made.

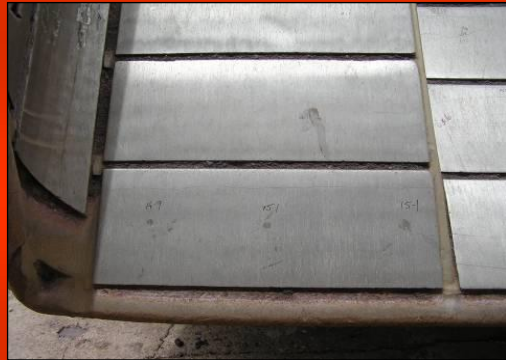
Overall Summary

The Arcoplate in the underground trays have proven to be a successful product and the kit a successful design. The Arcoplate is coping well with the hard rock impact. It has enabled a smooth laminar flow significantly reducing wear on the tail end floor and walls. The design has totally eliminated the need for bulky wear liners in the discharge area, minimizing weight, aiding in material discharge and maximizing productivity. As indicated above; ASI expects to achieve approximately 4 years service with minimum maintenance required.

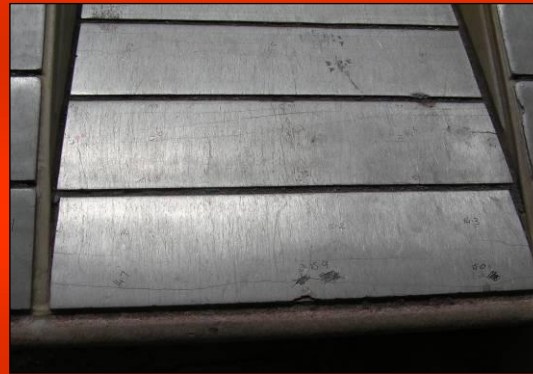
Arcoplate wear rates are very predictable; the forecast wear rate for Arcoplate 8/9 is approximately 1mm wear per 1,997 hours service. Previous quenched and tempered wear materials and designs averaged approximately 1mm wear per 375 hours service attaining approximately 18 months service before repairs were required. The Arcoplate wear rate for this site is well over 5 times greater millimetre for millimetre than previous wear materials which is as per Alloy Steels' marketing literature.



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15.0mm



15.0mm

14.3mm



16.2mm

Arcoplate thickness test results on UT0027 as at **24-11-2009**, hour's service is 3995 over twelve months.

Thickness tests were randomly taken over the entire floor. Results used for all calculations were from an average thickness in the highest wear area; being the final row of Arcoplate 8/9
(Nominal supply thickness; 17mm, Nov 08)

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