

## Challenge

### Issue

Nihard wear plates under discharge cones in hydrocyclone fail and must be scrapped and replaced at high cost with new plates every 15 days.

### Goals

- Increase the life of Nihard wear plates
- Reduce associated maintenance cost and unscheduled downtime

### Root Cause

High velocity impact and abrasive wear from discharge of hydrocyclone.



Discharge cone above wear plate

## Solution

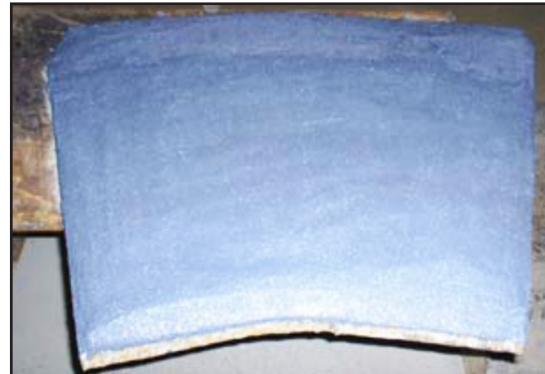
### Preparation

- Pressure wash and decontaminate surfaces
- Abrasive blast to Sa 2.5 with 3 mil (75 µm) angular profile

### Application

1. Coat worn wear plates with **ARC BX1\*** to .25-.375" (6,4-9.8 mm) layer

*\*ARC BX1 is the "Bulk" package size of ARC 890*



Freshly coated wear plate

## Results

### Client Reported

- 100% improvement in wear life of plates
- Plates are no longer scrapped and repurchased on a 15 day cycle
- ARC functions as "sacrificial coating" preserving original substrate
- Ability to repair and exchange reduced spare parts inventory of new wear plates by 90%
- As a result of success, client is standardizing **ARC BX1\*** in plant



ARC coated wear plate after 30 days