

# Bradken WRP Undercarriage for 6090/RH400

<b>Location</b>	Alberta, Canada
<b>Platform</b>	6090/RH400 Face Shovel
<b>Conditions</b>	Oil Sands
<b>Solution</b>	Bradken's 6090 Wide Roller Path (WRP)

## Situation

Due to a relatively short undercarriage run-life and a higher Total Cost of Ownership (TCO), the majority of 6090/RH400 machines for the Alberta mine site were retired.

The benchmark for the standard 6090 OEM undercarriages in the Oil Sands is about 13k-15k machine hours, whilst machines from other OEMs were achieving approximately 18K hours.

The 1,000 tonne (2,204,262 lbs) weight of the 6090/RH400 machine generates high roller path contact pressures relative to its peers which resulted in higher wear rates of the roller path and cracking of shoes near end of life.

## Solution

To reduce the wear rate on the shoe roller path, Bradken redesigned the tracks to widen the shoe roller path and improve strength to support the larger machine.

This increase in roller path width, increased the contact area between the load roller wheel and the shoe roller path, reducing the contact pressure and the wear rates on the shoe roller path. The load rollers, carrier rollers, idlers and tumblers were also redesigned to suit the dimensional changes made to the shoe roller path.

## Results

Bradken's new wide path undercarriage was installed in February 2022. The wear life of this new installation has been tracked against a standard undercarriage and is showing wear rates in line with the expected performance improvement of 30%.

After one year of service the roller path is approximately 40% worn, in comparison to the standard undercarriage having a wear of 67% performing in the same conditions.

Wear on all UC components has been assessed and based on this the projected life of the wide path undercarriage is 18,000 hrs.

## Results Overview

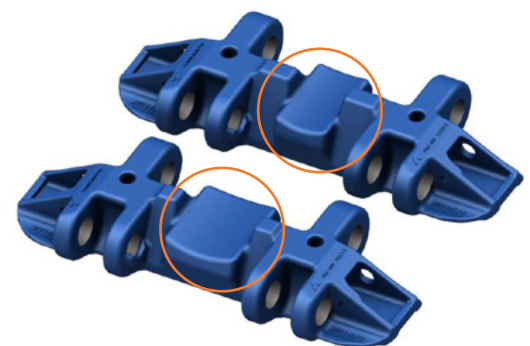
- Reduce changeouts and downtime
- Reduce the Total Cost of Ownership (TCO) with an anticipated increase of wear life of up to 30%\*
- Launch retired machines back into service



Bradken's Wide Roller Path (WRP) Installed



Lasts up to  
**30%  
longer\***



Bradken's DRP Shoe (OEM or Equivalent)  
vs Bradken's Wide Roller Path



**Our Innovation. Your Advantage.**

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