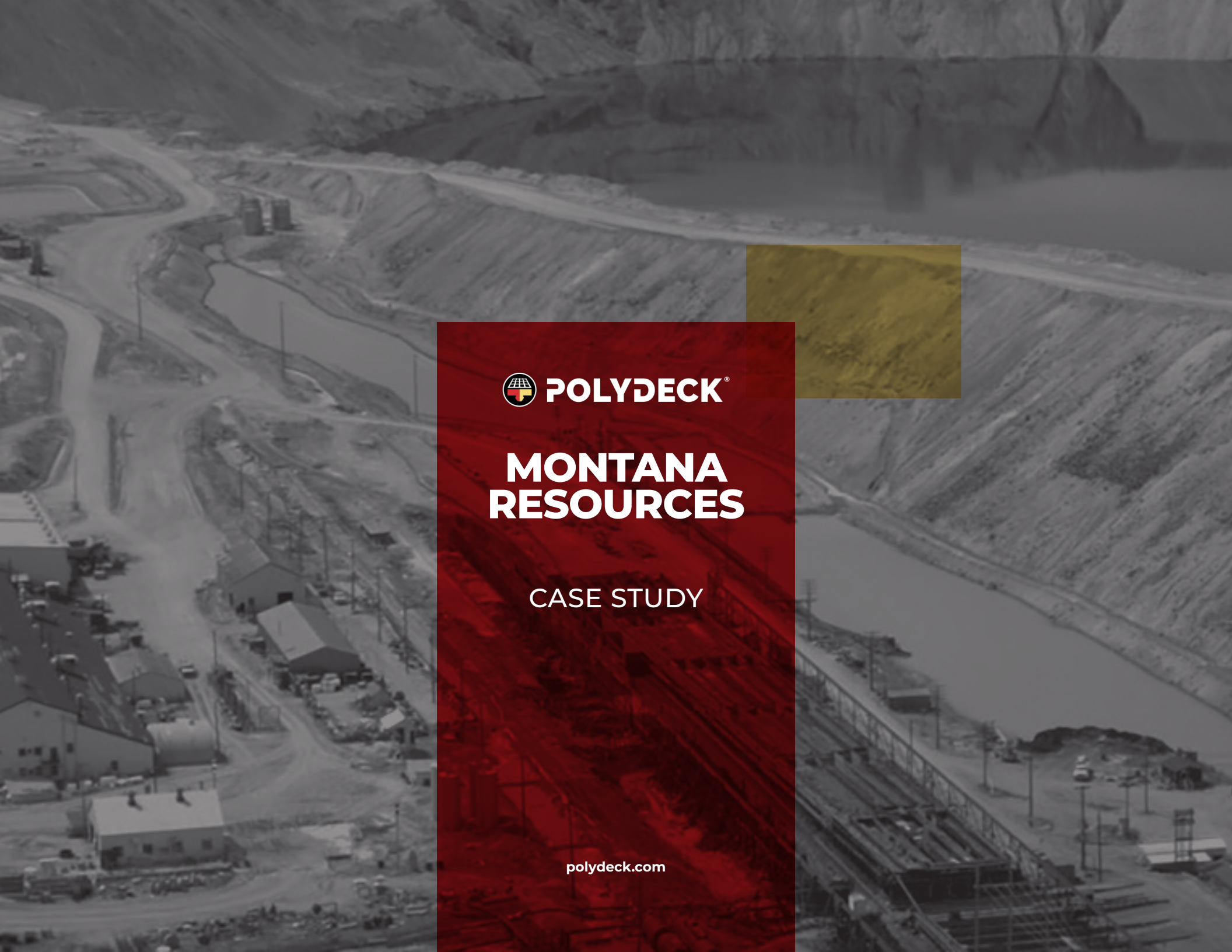


POLYDECK®

MONTANA RESOURCES

CASE STUDY

polydeck.com

CHALLENGE

Montana Resources was experiencing unwanted results with their bolt down rubber screen decks. The ultimate goal for their operation is to deliver a finer product to the grinding mill. Feeding a cone crusher undersized particles results in multiple production efficiency and power use issues.

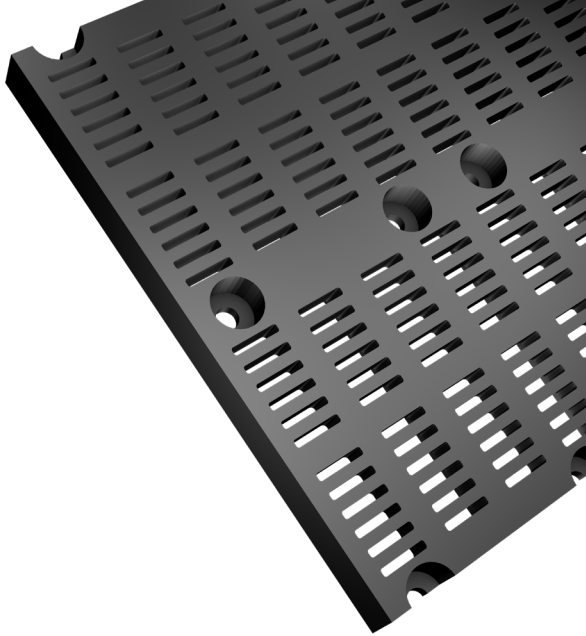
** Image shows competitor bolt down rubber showing pegging/plugging and blinding.*

- Excessive power use
- Fines packing
- Ring bounce
- Damage to brass bushings, including the sockets, socket liner, eccentric bushings and more
- Reduced crushing efficiency

APPLICATION INFORMATION

- **800TPH**
- **Existing bolt-down rubber open area= 20%**
  (calculations do not consider blinding/plugging condition seen in image)

While bolt down rubber screen media is extremely heavy duty for these types of operations and provides excellent wear life, it also provides low open area which creates build up and blinding problems. Panel changeouts are extremely labor intensive, and Montana Resources was ready to explore their options.



SOLUTION

Evaluation discovered that by reducing undersized material in the crusher feed, the crusher can make finer product and have a higher reduction ratio.

This is accomplished by converting the secondary screen to a high open area, modular Polydeck system from the current rubber bolt down system.

** Image shows Polydeck's steel-backed bolt down rubber on Polydeck's jigged Pipetop stringer system. Based on simulation calculations, open area was estimated to increase by 20% compared to competitor media's open area.*

RESULTS

Throughput capacity was increased by 20% by reducing undersized material to the secondary crusher (reduced crusher feed tonnage rate). Secondary crusher could then be operated at a smaller closed side setting. Open area of screens was doubled when conversion was completed.

- Increased screen efficiency
- Increased overall secondary throughput capacity
- Reduction of undersized particles being fed into secondary crushers (coarser crusher feed)
- Finer crusher product & higher reduction ratio
- Decreased more even power consumption
- Elimation of fines packing and tramp condition
- Increased screen product tonnage rate
- Finer mill feed/secondary product

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