BURMEISTER & PARTNERS (PTY) LTD
CONSULTING ENGINEERS

MINE INFRASTRUCTURE SOLUTIONS

# TSCHUDI COPPER MINE DEWATERING

Tsumeb

The open pit mine requires constant dewatering at a rate of about 800m³/h / hour.

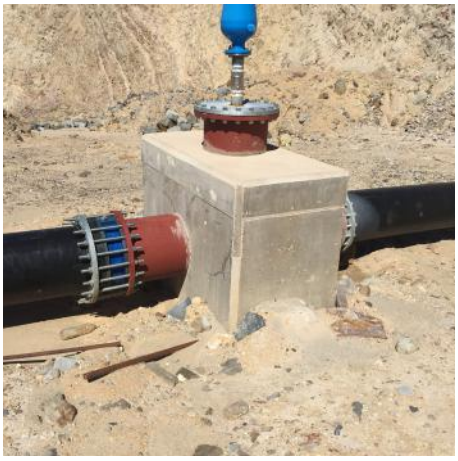
B&P was appointed to prepare designs & documents for dewatering pump mains from the mine pit discharging into a retention pond.

500mm HDPE class 6& 16 pipes, flanged and welded, were installed for dewatering purposes.

The bottom of the pit is dynamic and the design had to be flexible. From the bottom of the pit the pipeline follows the haul road before traversing the steep pit sides, climbing 55m to a mid-landing area and then another 25m to the top of the pit.

## PROJECT STATS

**Value** NAD 6.99 million
USD 0.43 million (ROE 16.24)
**Location** Tsumeb, Namibia
**Client** Weatherly Mining Namibia
**Start** 06/2016
**Finish** 04/2017



Thereafter the pipe followed a combined above- and below ground installation of another 2300m. The design had to take into consideration the rapidly varying pressure head, pipe transients (Water Hammer), air valve design and pipe restraints challenges in the pit and along the steep embankments.

Other design challenges included accommodating the high thermal expansion properties of the HDPE material.

## SERVICES

Preliminary & detail designs
Contract documents

Project Management

Civil

Structural

Ref. W1429

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