

REHABILITATION OF KARANA DOWNS RESERVOIR (R060) INTERNAL WALL

PROJECT SUMMARY

Client: Queensland Urban Utilities
(QUU)

Location: Karana Downs, Mount
Crosby

Duration: 3 weeks

Value: \$ 100,000

Major Challenges Overcome:

- Integrity of the reservoir
- Access



Karana Downs Reservoir, Mount Crosby

The repairs were part of the five yearly maintenance program.

Program

The Reservoir rehabilitation works commenced in April 2016 and was substantially completed on 1st July 2016 as repairs (done by others) were required to the internal ringbeam.

Project Scope

The project included the following repairs/works:

- Grinding off the existing internal coating from the wall panels.
- Fill bug holes, remove high points and sharp edges in the internal wall panels
- Apply a polyurea coating (Tufflon – P90) as per the manufacturer’s recommendation

The Project

Karana Downs reservoir is located on Lake Manchester Road, Mount Crosby. The Reservoir capacity is approximately 1.448ML. The reservoir was originally constructed in 1979 and comprises a reinforced concrete floor slab, 3 reinforced concrete columns, 31 pre-cast concrete wall panels with external post-tensioning, and a galvanised steel roof structure with aluminum purlins and roof sheeting.

The reservoir was recently rehabilitated including floor and wall joint sealing using a joint bandage system (Sika Combiflex SG). Upon refilling the reservoir, leaks were identified externally around the base of the wall / ring beam, and through cracks in the wall panels.

including surface preparation and primer application to the walls.

- Carry out acceptance testing (Spark and coating thickness testing) during the installation of the application.
- Clean the reservoir internally on completion of the construction work.

Completed Works

The following work was successfully carried out:

Remove existing coatings (Before)



Remove existing coatings (After)



Reservoir walls and ringbeam coated with Tufflon P-90 (Polyurea coating).

