

## GANALA STW PHASE 2

SUMMARY OF WORKS	
Type of Works	Waste Water Treatment Works
Location of Works	Mpumalanga
Size of Works (Mℓ/D)	6.6 ML/D
Date of Award	22 January 2009
Date Completed	1 July 2012
Completion Value (Including VAT)	R 65 017 563.04
Client	Emalahleni Local Municipality
Conditions of Contract	GCC 2004

Ganala STW Phase 2 is PCI AFRICA's greenfield project for the new 6.6Ml/day sewage treatment plant at Ganala (formerly Kriel) near Witbank in Mpumalanga and the Client is Emalahleni Local Municipality. PCI's full scope of works includes the provision of the mechanical, electrical and instrumentation equipment. The contract includes the earthworks and civil works, which was carried out by Dip Civils under a Joint Venture arrangement with – and project managed by – PCI AFRICA.



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## **GENERAL DESCRIPTION AND EXTENT OF MECHANICAL WORK**

### **RAW SEWAGE**

- 2 – FLYGT 30kW submersible raw sewage pumps with associated valves and pipework.

### **INLET TO WORKS**

- One – MEVA mechanical stepped screen, 600mm wide.
- One – PCI hand raked screen
- One – MEVA screenings' compactor
- One – PCI 2.5m diameter vortex grit trap

### **PRIMARY SETTLING TANK**

- One – PCI 15m diameter primary settling tank with rotating half bridge, floor scraper, overflow weirs.

### **PRIMARY THICKENED SLUDGE PUMP STATION**

- 2 – MONO 11kW progressing cavity pumps with associated valves and pipework.

### **14m DIAMETER DIGESTER**

- One – FLYGT 13kW digester mixing pump with associated valves and pipework.
- One set – digester gas wasting equipment.

### **AERATION REACTOR**

- One – FLUID MIXERS 11KW Anoxic mixer
- One – FLUID MIXERS 11KW Anaerobic mixer
- 3 – PCI 45kW surface aerators
- One – PCI aeration weir and baffle
- 2 – PCI 3kW 'R' recycle propeller pumps

### **SECONDARY SETTLING TANKS**

- Two – PCI 15m diameter secondary settling tanks with rotating half bridge, floor scraper, overflow weirs and scum removal.

### **RETURN ACTIVATED PUMP STATION**

- 3 – FLYGT 30kW submersible pumps with associated valves and pipework.

### **DISINFECTION**

- One set – Wallace and Tiernan 12kg/h chlorination equipment.
- One set – Wallace and Tiernan sulphur dioxide 5kg/h equipment.
- One set – chlorine drum handling equipment.
- One set – SO<sub>2</sub> cylinder handling equipment.

### **ELECTRICAL AND INSTRUMENTATION**

- The complete electrical, automation and control works was subcontracted by PCI SA to Electron in Johannesburg. PCI SA provided all dissolved oxygen and flow metering equipment.

