

# Schedules

Hydraulic Services Specification

## REPLACEMENT OF THE REVERSE OSMOSIS PLANT AND CHLORINATOR SYSTEM

Building Management and Works

CONFIDENTIAL

Revision: T04  
Description: Tender Issue  
Issued: 09 May 2018  
Ref: SP004800H



**Norman  
Disney &  
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A TETRA TECH COMPANY

## NDY

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### NDY QA SYSTEM

Revision No: T04  
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Job Number: p63969\015  
Client Name: Building Management and Works  
Client Contact: Robert Tagliaferri  
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**0800S EQUIPMENT SCHEDULES****1 FEED WATER QUALITY**

Quality parameters of feedwater (bore water) sample tested in May 2017 from downstream of aeration are tabulated below:

Source	Ground water
Alkalinity as CaCO <sub>3</sub> (mg/L)	200
Arsenic (mg/L)	<0.05
Bicarbonate as CaCO <sub>3</sub> (mg/L)	200
Cadmium – Total (mg/L)	<0.002
Calcium – Filterable (mg/L)	260
Carbonate as CaCO <sub>3</sub> (mg/L)	<1
Chloride (mg/L)	3200
Conductivity at 25°C (uS/cm)	10900
Copper – Total (mg/L)	0.014
Chlorine – Free (mg/L)	<0.02
Hardness as CaCO <sub>3</sub> (mg/L)	1600
Iron – Total (mg/L)	0.51
Langelier Saturation Index	0.9
Lead – Total (mg/L)	<0.01
Magnesium – Filterable (mg/L)	230
Manganese – Total (mg/L)	0.10
Nitrate as NO <sub>3</sub> -N (mg/L)	0.02
pH	7.9
Phosphorus – Total (mg/L)	<0.1
Potassium – Filterable (mg/L)	61
Silica as Si (mg/L)	6.3
Sodium – Filterable (mg/L)	1900
Sulfate (mg/L)	760
Total Dissolved Solids (Evap) (mg/L)	6730
TOC as NPOC (mg/L)	<1
Chlorine – Total (mg/L)	<0.02
Turbidity (NTU)	4.4

**2 PRODUCT WATER REQUIREMENTS**

System Capacity	
Minimum Production Volume (kL/day)	50
Average Day Peak Week Demand (kL/day)	15.4
Peak Hour Demand (kL/h)	2.89

Quality Requirements	
Suitable for drinking	
Comply with Australian Drinking Water Guidelines (ADWG)	
Total Dissolved Solids (TDS) (mg/L)	< 600
TSS (mg/L)	< 1
Turbidity (NTU)	< 0.2
Hardness (mg/L of CaCO <sub>3</sub> )	>25 and < 50
Chlorides (mg/L)	< 120
Iron (mg/L)	< 0.1
Manganese (mg/L)	< 0.05
pH	7.0-7.5
Odour	Odourless
Colour	Colourless
Dissolved Oxygen	>85%
Cl <sub>2</sub> residual (mg/L)	0.2 – 0.5 ability to dose to 1.0 mg/L
Heterotrophic Colony Count (HCC)	< 1 per mL
E Coli	NIL in 100 mL sample

**Notes:**

Average Day Peak Week and Peak Hour demand based on Eucla Water Infrastructure Review prepared by Pritchard Francis Project No 16-050

The operator (Maintenance Contractor) is to select and advise the chlorine residual set-point and advise the Superintendent's Representative at Practical Completion.

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