

Sl. no	Ref. Section	Ref. Clause No/ Sl. No. and page no	Provision as existing	Provision as amended
1	<b>Section 5</b> PRICE SCHEDULE FOR GOODS AND RELATED SERVICES ( <b>FORM- 4 A</b> )	Item Sl No 01 Page: 78 of 95	Antiscalant- Geopure 520	Antiscalant- Geopure 520 or Equivalent suitable to treat water having parameters as attached ( <b>Annexure-I</b> )
2	<b>Section 5</b> (Technical Specification and Compliance Sheet) ( <b>Form -5</b> )	Sl No 01 Page: 80 of 95	Antiscalant- Geopure 520	Antiscalant- Geopure 520 or Equivalent suitable to treat water having parameters as attached ( <b>Annexure-I</b> )
3	<b>SECTION- 6</b> SCHEDULE OF REQUIREMENTS/ BILL OF QUANTITY FOR GOODS AND RELATED SERVICES.	Sl No 01 Page: 92 of 95	Antiscalant- Geopure 520	Antiscalant- Geopure 520 or Equivalent suitable to treat water having parameters as attached ( <b>Annexure-I</b> )
4	<b>SECTION-7</b> TECHNICAL SPECIFICATION AND SCOPE OF WORK	Sl No 01 Page: 95 of 95	Antiscalant- Geopure 520	Antiscalant- Geopure 520 or Equivalent suitable to treat water having parameters as attached ( <b>Annexure-I</b> )

*Sanjay*  
25.10.22

## ANNEXURE\_I

Main Control Panel (MCP) along with Instruments & controls are envisaged for safe operation.

The process scheme and mass balance details are indicated in the PFD.

### 3.0 INLET WATER ANALYSIS

The feed water constituents considered for Design of UF-RO-MB Plant is as given below is based on the clarified water.

The RO performance depends on the TDS, temperature, physical, chemical and biological constituents in the clarified water.

Sl.No	Description	Unit	Value
<b>1.</b>	<b>General</b>		
a)	pH	---	6.5 – 8.9
b)	Conductivity	µS / cm	270 - 29200
c)	Temperature range	Deg C	20 – 35
d)	Turbidity	NTU	10 (max) - after PT clarifier
e)	TSS	mg/l	10 (max) - after PT clarifier
f)	TDS	mg/l	112 - 17712
g)	Free residual chlorine	mg/l	1.0
<b>2.</b>	<b>Cations</b>		
a)	Calcium (as ion)	mg/l	60 – 842
b)	Magnesium (as ion)	mg/l	6.8 – 737
c)	Sodium (as ion)	mg/l	29.11 - 8505
d)	Potassium (as ion)	mg/l	3.58 – 244.3
e)	Ammonia (as ion)	mg/l	0 - 0.7
f)	Barium (as ion)	mg/l	0.005 – 0.2
g)	Aluminium (as ion)	mg/l	0.01 - 10 (refer note-3)
h)	Manganese (as ion)	mg/l	0 – 0.2
i)	Total Iron (as ion)	mg/l	< 0.3 (refer note-3)
j)	Ammonical Nitrogen (as ion)	mg/l	0 – 1.8
k)	Total Kjeldahl nitrogen (as ion)	mg/l	0 – 2.0
l)	Boron	mg/l	0.02 – 1.5
<b>3.</b>	<b>Anions</b>		
a)	Chloride (as ion)	mg/l	43 - 10794
b)	Sulphate (as ion)	mg/l	3 - 1840
c)	Nitrate (as ion)	mg/l	0.1 - 10
d)	Nitrite (as ion)	mg/l	0 – 0.23

SI.No	Description	Unit	Value
e)	m-alkalinity (as CaCO <sub>3</sub> )	mg/l	75 – 145
f)	p-alkalinity	mg/l	nil
g)	Bi-carbonates	Mg/l	136.6
h)	Fluoride (as ion)	mg/l	0 – 0.5
i)	Phosphate (as ion)	mg/l	0.1 – 10
j)	Total Silica (as SiO <sub>2</sub> )	mg/l	0 – 17.51
k)	Reactive Silica (as SiO <sub>2</sub> )	Mg/l	0 – 17.32
4.	Other Heavy Metals / Ions (As, Hg, Cd, Co, Cu, Cr, Mo, Ni, Ti, V, Zn, B, Br, Pb, Sr.)		Very low & negligible
5	BOD <sub>5</sub>	mg/l	0.7 – 40
6	COD	mg/l	6 – 496
7	MPN Fecal Coliforms /100ml		-
8	MPN Coliforms /100ml		-
9	TOC	mg/l	2 – 21.3
10	Oil and Grease	mg/l	≤ 2.0
11	Total Bacteria Count	Count/ml	-
12	Dissolved Oxygen	mg/l	3.93 – 7.6