

Swartland Final			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	57	57	100.0%	Excellent	P/N	Yes	12.11
pH (at 25°C)		Operational	>5.0 - < 9.7	57	57	100.0%	Excellent	P	Yes	8.80
Turbidity	NTU	Operational	≤ 1	57	53	93.0%	Excellent	P/R	Yes	0.45
		Aesthetic	≤ 5	57	57	100.0%	Excellent	P/N	Yes	
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	44	44	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	44	43	97.7%	Excellent	N	Yes	4.78
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	5	5	100.0%	Excellent	P	Yes	2.02
Free Chlorine	mg/L	Chronic Health	≤ 5	36	36	100.0%	Excellent	N	Yes	0.55
Colour	mg/L	Aesthetic	≤ 15	35	35	100.0%	Excellent		Yes	3.46
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	37	37	100.0%	Excellent	R	Yes	28.75
Sodium (as Na)	mg/L	Aesthetic	≤ 200	9	9	100.0%	Excellent	N	Yes	19.79
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	38	38	100.0%	Excellent	N	Yes	76.70
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	18	18	100.0%	Excellent	N	Yes	6.56
		Aesthetic	≤ 300	18	18	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	18	18	100.0%	Excellent	N	Yes	1.11
		Aesthetic	≤ 100	18	18	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	18	18	100.0%	Excellent		Yes	30.33
Alkalinity (as CaCO ₃)	mg/L		-	24						22.96
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	0	0					
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.90
Potassium (as K)	mg/L	Operational / Health	≤ 50	0	0					
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	0	0			N		
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	0	0			R		
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	0	0			N		
		Aesthetic	≤ 250	0	0			N		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	0	0			N		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	0	0			R		
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	0	0			N		
Bromodichloromethane	ug/L	Chronic Health	≤ 60	0	0			N		
Dibromochloromethane	ug/L	Chronic Health	≤ 100	0	0			N		
Bromoform	ug/L	Chronic Health	≤ 100	0	0			N		
Somatic Coliphages	cfu/10ml	Operational	≤ 0	0	0					
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	0	0			N		
Phenols	ug/L	Aesthetic	≤ 10	0	0			N		
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	0	0			R		
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	0	0			N		
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	0	0			N		
Arsenic (as As)	ug/L	Chronic Health	≤ 10	0	0			N		
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	0	0			N		
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	0	0			N		
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0			N		
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	0	0			N		
Lead (as Pb)	ug/L	Chronic Health	≤ 10	0	0			N		
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	0	0			N		
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	0	0			N		
Selenium (as Se)	ug/L	Chronic Health	≤ 40	0	0			N		
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0			N		
Cyanide	ug/L	Acute Health Chemical	≤ 200	0	0			N		
Total Organic Carbon	mg/L	Chronic Health	≤ 10	0	0					
Uranium (as U)	ug/L	Chronic Health	≤ 30	0	0			N		
Barium (as Ba)	ug/L	Chronic Health	≤ 700	0	0			N		
Boron (as B)	mg/L	Chronic Health	≤ 2.4	0	0			N		
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	0	0					
Monochloramine	mg/L	Chronic Health	≤ 3	0	0			N		

Acute Health Chemical	0	0		
Acute Health Microbiological	46	46	100.0%	Excellent
Chronic Health	72	72	100.0%	Excellent
Aesthetic	270	270	100.0%	Excellent
Operational Efficiency	181	176	97.2%	Excellent

Withoogte Final			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk		Average
Conductivity	mS/m	Aesthetic	≤ 170	57	57	100.0%	Excellent	P/N	Yes	46.38
pH (at 25°C)		Operational	>5.0 - < 9.7	58	58	100.0%	Excellent	P	Yes	8.14
Turbidity	NTU	Operational	≤ 1	57	53	93.0%	Excellent	P/R	Yes	0.61
		Aesthetic	≤ 5	57	57	100.0%	Excellent	P/N	Yes	
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	58	58	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	58	58	100.0%	Excellent	N	Yes	0.00
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	5	5	100.0%	Excellent	P	Yes	1.22
Free Chlorine	mg/L	Chronic Health	≤ 5	38	38	100.0%	Excellent	N	Yes	1.09
Colour	mg/L	Aesthetic	≤ 15	36	36	100.0%	Excellent		Yes	4.17
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	39	33	84.6%	Unacceptable	R	No	135.03
Sodium (as Na)	mg/L	Aesthetic	≤ 200	11	6	54.5%	Unacceptable	N	No	191.80
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	40	40	100.0%	Excellent	N	Yes	326.03
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	20	20	100.0%	Excellent	N	Yes	14.35
		Aesthetic	≤ 300	20	20	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	20	20	100.0%	Excellent	N	Yes	2.60
		Aesthetic	≤ 100	20	20	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	20	20	100.0%	Excellent		Yes	25.15
Alkalinity (as CaCO ₃)	mg/L		-	28						50.58
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	0	0					
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	2	2	100.0%	Excellent		Yes	5.85
Potassium (as K)	mg/L	Operational / Health	≤ 50	0	0					
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	0	0			N		
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	0	0			R		
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	0	0			N		
		Aesthetic	≤ 250	0	0			N		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	0	0			N		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	0	0			R		
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	0	0			N		
Bromodichloromethane	ug/L	Chronic Health	≤ 60	0	0			N		
Dibromochloromethane	ug/L	Chronic Health	≤ 100	0	0			N		
Bromoform	ug/L	Chronic Health	≤ 100	0	0			N		
Somatic Coliphages	cfu/10ml	Operational	≤ 0	0	0					
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	0	0			N		
Phenols	ug/L	Aesthetic	≤ 10	0	0			N		
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	0	0			R		
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	0	0			N		
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	0	0			N		
Arsenic (as As)	ug/L	Chronic Health	≤ 10	0	0			N		
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	0	0			N		
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	0	0			N		
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0			N		
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	0	0			N		
Lead (as Pb)	ug/L	Chronic Health	≤ 10	0	0			N		
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	0	0			N		
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	0	0			N		
Selenium (as Se)	ug/L	Chronic Health	≤ 40	0	0			N		
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0			N		
Cyanide	ug/L	Acute Health Chemical	≤ 200	0	0			N		
Total Organic Carbon	mg/L	Chronic Health	≤ 10	0	0					
Uranium (as U)	ug/L	Chronic Health	≤ 30	0	0			N		
Barium (as Ba)	ug/L	Chronic Health	≤ 700	0	0			N		
Boron (as B)	mg/L	Chronic Health	≤ 2.4	0	0			N		
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	0	0					
Monochloramine	mg/L	Chronic Health	≤ 3	0	0			N		

Acute Health Chemical	0	0	
Acute Health Microbiological	60	60	100.0%
Chronic Health	78	78	100.0%
Aesthetic	282	271	96.1%
Operational Efficiency	198	194	98.0%

Moorreesburg			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241:2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	36	36	100.0%	Excellent	P/N	Yes	43.08
Turbidity	NTU	Operational	≤ 1	36	32	88.9%	Unacceptable	P/R	No	0.48
		Aesthetic	≤ 5	36	36	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	36	36	100.0%	Excellent	P	Yes	8.44
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	36	36	100.0%	Excellent	P	Yes	0.47
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	36	36	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	36	36	100.0%	Excellent	N	Yes	0.22
Free Chlorine	mg/L	Chronic Health	≤ 5	36	36	100.0%	Excellent	N	Yes	0.21
Colour	mg/L	Aesthetic	≤ 15	2	2	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	2						33.30
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	2	2	100.0%	Excellent		Yes	8.55
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	2	2	100.0%	Excellent		Yes	4.00
Sodium (as Na)	mg/L	Aesthetic	≤ 200	2	2	100.0%	Excellent	N	Yes	33.95
Potassium (as K)	mg/L	Operational / Health	≤ 50	2	2	100.0%	Excellent		Yes	3.65
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	2	2	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	2	2	100.0%	Excellent	R	Yes	57.70
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	2	2	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	2	2	100.0%	Excellent	N	Yes	12.45
		Aesthetic	≤ 250	2	2	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	2	2	100.0%	Excellent	N	Yes	205.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	2	2	100.0%	Excellent	N	Yes	0.15
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	2	2	100.0%	Excellent	R	Yes	0.65
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	2	2	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	2	2	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	2	2	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	2	2	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	2	2	100.0%	Excellent		Yes	40.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	2	2	100.0%	Excellent	N	Yes	36.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	2	2	100.0%	Excellent	N	Yes	40.50
Dibromochloromethane	ug/L	Chronic Health	≤ 100	2	2	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	2	2	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	2	2	100.0%	Excellent	N	Yes	1.00
Phenols	ug/L	Aesthetic	≤ 10	2	2	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	2	2	100.0%	Excellent	R	Yes	0.55
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	2	2	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	2	2	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	2	2	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	2	2	100.0%	Excellent	N	Yes	0.50
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	2	2	100.0%	Excellent	N	Yes	21.50
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	2	2	100.0%	Excellent	N	Yes	24.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	2	2	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	2	2	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	2	2	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	2	2	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	2	2	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	2	2	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	2	2	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	2	2	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	2	2	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	2	2	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	2	2	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	10	10	100.0%	Excellent
Acute Health Microbiological	40	40	100.0%	Excellent
Chronic Health	82	82	100.0%	Excellent
Aesthetic	96	96	100.0%	Excellent
Operational Efficiency	152	148	97.4%	Excellent

Koringberg			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241:2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	43	43	100.0%	Excellent	P/N	Yes	40.95
Turbidity	NTU	Operational	≤ 1	43	41	95.3%	Excellent	P/R	Yes	0.50
		Aesthetic	≤ 5	43	43	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	43	43	100.0%	Excellent	P	Yes	8.32
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	29	29	100.0%	Excellent	P	Yes	5.46
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	47	47	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	47	47	100.0%	Excellent	N	Yes	0.09
Free Chlorine	mg/L	Chronic Health	≤ 5	38	38	100.0%	Excellent	N	Yes	0.10
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						32.70
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	7.80
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	3.70
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	35.40
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	3.40
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	52.30
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	10.90
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	190.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.32
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤300	1	1	100.0%	Excellent		Yes	40.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0							
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	37.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	41.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	1.00
Phenols	ug/L	Aesthetic	≤10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	24.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500							
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200							
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	49	49	100.0%	Excellent
Chronic Health	61	61	100.0%	Excellent
Aesthetic	98	98	100.0%	Excellent
Operational Efficiency	166	164	98.8%	Excellent

Malmesbury			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241:2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	129	129	100.0%	Excellent	P/N	Yes	13.14
Turbidity	NTU	Operational	≤ 1	129	118	91.5%	Good	P/R	Yes	0.48
		Aesthetic	≤ 5	129	127	98.4%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	>5.0 - ≤ 9.7	129	128	99.2%	Excellent	P	Yes	8.54
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	112	112	100.0%	Excellent	P	Yes	0.60
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	132	132	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	132	132	100.0%	Excellent	N	Yes	0.05
Free Chlorine	mg/L	Chronic Health	≤ 5	123	123	100.0%	Excellent	N	Yes	0.19
Colour	mg/L	Aesthetic	≤ 15	10	10	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	10						16.64
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	8	8	100.0%	Excellent		Yes	4.13
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	10	10	100.0%	Excellent		Yes	1.45
Sodium (as Na)	mg/L	Aesthetic	≤ 200	10	10	100.0%	Excellent	N	Yes	13.83
Potassium (as K)	mg/L	Operational / Health	≤ 50	8	8	100.0%	Excellent		Yes	1.33
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	8	8	100.0%	Excellent	N	Yes	0.06
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	10	10	100.0%	Excellent	R	Yes	22.11
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	8	8	100.0%	Excellent	R	Yes	0.39
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	8	8	100.0%	Excellent	N	Yes	3.65
		Aesthetic	≤ 250	8	8	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	10	10	100.0%	Excellent	N	Yes	85.80
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	8	8	100.0%	Excellent	N	Yes	0.12
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	8	8	100.0%	Excellent	R	Yes	0.24
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	10	10	100.0%	Excellent	N	Yes	221.00
		Aesthetic	≤ 300	10	8	80.0%	Unacceptable	R	No	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	10	10	100.0%	Excellent	N	Yes	19.70
		Aesthetic	≤ 100	10	10	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	10	10	100.0%	Excellent		Yes	74.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	8	8	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	8	8	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	8	8	100.0%	Excellent	N	Yes	14.25
Bromodichloromethane	ug/L	Chronic Health	≤ 60	8	8	100.0%	Excellent	N	Yes	11.50
Dibromochloromethane	ug/L	Chronic Health	≤ 100	8	8	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	8	8	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	8	8	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	8	8	100.0%	Excellent	N	Yes	0.44
Phenols	ug/L	Aesthetic	≤ 10	8	8	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	8	8	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	8	8	100.0%	Excellent	N	Yes	0.16
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	8	8	100.0%	Excellent	N	Yes	16.25
Arsenic (as As)	ug/L	Chronic Health	≤ 10	8	8	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	8	8	100.0%	Excellent	N	Yes	1.38
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	8	8	100.0%	Excellent	N	Yes	16.50
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0						
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	8	8	100.0%	Excellent	N	Yes	16.50
Lead (as Pb)	ug/L	Chronic Health	≤ 10	8	8	100.0%	Excellent	N	Yes	9.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	8	8	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	8	8	100.0%	Excellent	N	Yes	13.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	8	8	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0						
Cyanide	ug/L	Acute Health Chemical	≤ 200	8	8	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	8	8	100.0%	Excellent		Yes	1.04
Uranium (as U)	ug/L	Chronic Health	≤ 30	8	8	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	8	8	100.0%	Excellent	N	Yes	17.75
Boron (as B)	mg/L	Chronic Health	≤ 2.4	8	8	100.0%	Excellent	N	Yes	0.07
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	8	8	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	8	8	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	40	40	100.0%	Excellent
Acute Health Microbiological	148	148	100.0%	Excellent
Chronic Health	311	311	100.0%	Excellent
Aesthetic	368	364	98.9%	Excellent
Operational Efficiency	536	524	97.8%	Excellent

Darling			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	54	54	100.0%	Excellent	P/N	Yes	13.71
Turbidity	NTU	Operational	≤ 1	54	52	96.3%	Excellent	P/R	Yes	0.49
		Aesthetic	≤ 5	54	53	98.1%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	54	52	96.3%	Excellent	P	Yes	9.21
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	40	40	100.0%	Excellent	P	Yes	4.77
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	59	59	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	59	58	98.3%	Excellent	N	Yes	3.40
Free Chlorine	mg/L	Chronic Health	≤ 5	50	50	100.0%	Excellent	N	Yes	0.11
Colour	mg/L	Aesthetic	≤ 15	2	2	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	2						20.70
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	2	2	100.0%	Excellent		Yes	4.00
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	2	2	100.0%	Excellent		Yes	1.40
Sodium (as Na)	mg/L	Aesthetic	≤ 200	2	2	100.0%	Excellent	N	Yes	31.25
Potassium (as K)	mg/L	Operational / Health	≤ 50	2	2	100.0%	Excellent		Yes	2.80
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	2	2	100.0%	Excellent	N	Yes	0.01
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	2	2	100.0%	Excellent	R	Yes	22.50
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	2	2	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	2	2	100.0%	Excellent	N	Yes	3.55
		Aesthetic	≤ 250	2	2	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	2	2	100.0%	Excellent	N	Yes	97.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	2	2	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	2	2	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	2	2	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	2	2	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	2	2	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	2	2	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	2	2	100.0%	Excellent		Yes	76.50
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	2	2	100.0%	Excellent	N	Yes	24.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	2	2	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	2	2	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	2	2	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	2	2	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	2	2	100.0%	Excellent	N	Yes	0.45
Phenols	ug/L	Aesthetic	≤ 10	2	2	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	2	2	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	2	2	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	2	2	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	2	2	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	2	2	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	2	2	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	2	2	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	2	2	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	2	2	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	2	2	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	2	2	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	2	2	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	2	2	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	2	2	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	2	2	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	2	2	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	2	2	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	2	2	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	10	10	100.0%	Excellent
Acute Health Microbiological	63	63	100.0%	Excellent
Chronic Health	96	96	100.0%	Excellent
Aesthetic	132	131	99.2%	Excellent
Operational Efficiency	215	210	97.7%	Excellent

Riebeek Kasteel			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	47	47	100.0%	Excellent	P/N	Yes	12.91
Turbidity	NTU	Operational	≤ 1	47	46	97.9%	Excellent	P/R	Yes	0.32
		Aesthetic	≤ 5	47	47	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - < 9.7	47	45	95.7%	Excellent	P	Yes	8.93
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	34	34	100.0%	Excellent	P	Yes	36.18
E Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	52	50	96.2%	Good	P	Yes	0.08
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	51	40	78.4%	Unacceptable	N	No	8.57
Free Chlorine	mg/L	Chronic Health	≤ 5	43	43	100.0%	Excellent	N	Yes	0.06
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	
Alkalinity (as CaCO ₃)	mg/L		-	1						19.90
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	3.90
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.40
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	17.70
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	1.60
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.01
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	21.30
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.40
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	90.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤300	1	1	100.0%	Excellent		Yes	79.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0						
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	22.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.44
Phenols	ug/L	Aesthetic	≤10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	54	52	96.3%	Good
Chronic Health	66	66	100.0%	Excellent
Aesthetic	106	106	100.0%	Excellent
Operational Efficiency	183	169	92.3%	Good

Riebeeck Wes			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	24	24	100.0%	Excellent	P/N	Yes	12.46
Turbidity	NTU	Operational	≤ 1	24	24	100.0%	Excellent	P/R	Yes	0.23
		Aesthetic	≤ 5	24	24	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	24	24	100.0%	Excellent	P	Yes	8.65
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	24	24	100.0%	Excellent	P	Yes	3.50
E Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	24	24	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	24	24	100.0%	Excellent	N	Yes	1.33
Free Chlorine	mg/L	Chronic Health	≤ 5	24	24	100.0%	Excellent	N	Yes	0.07
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						17.20
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	3.00
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.60
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	15.60
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	1.40
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	21.30
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.40
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	88.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	1	1	100.0%	Excellent		Yes	69.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0						
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	10.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.40
Phenols	ug/L	Aesthetic	≤ 10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	26	26	100.0%	Excellent
Chronic Health	47	47	100.0%	Excellent
Aesthetic	60	60	100.0%	Excellent
Operational Efficiency	100	100	100.0%	Excellent

Yzerfontein			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	41	41	100.0%	Excellent	P/N	Yes	14.48
Turbidity	NTU	Operational	≤ 1	41	41	100.0%	Excellent	P/R	Yes	0.39
		Aesthetic	≤ 5	41	41	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	41	38	92.7%	Good	P	Yes	9.48
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	28	28	100.0%	Excellent	P	Yes	2.94
E Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	49	49	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	49	48	98.0%	Excellent	N	Yes	0.76
Free Chlorine	mg/L	Chronic Health	≤ 5	37	37	100.0%	Excellent	N	Yes	0.04
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						23.50
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	5.90
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.50
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	16.00
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	1.50
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	22.30
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.50
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	102.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	1	1	100.0%	Excellent		Yes	85.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	17.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.42
Phenols	ug/L	Aesthetic	≤ 10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	51	51	100.0%	Excellent
Chronic Health	60	60	100.0%	Excellent
Aesthetic	94	94	100.0%	Excellent
Operational Efficiency	163	159	97.5%	Excellent

Riverlands			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241:2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	24	24	100.0%	Excellent	P/N	Yes	18.04
Turbidity	NTU	Operational	≤ 1	24	18	75.0%	Unacceptable	P/R	No	0.75
		Aesthetic	≤ 5	24	24	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	24	24	100.0%	Excellent	P	Yes	8.27
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	24	24	100.0%	Excellent	P	Yes	8.04
E Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	24	24	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	24	23	95.8%	Excellent	N	Yes	2.88
Free Chlorine	mg/L	Chronic Health	≤ 5	24	24	100.0%	Excellent	N	Yes	0.08
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						22.40
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	4.80
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.50
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	19.90
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	1.60
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.01
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	28.10
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.50
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	110.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	35.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤300	1	1	100.0%	Excellent		Yes	72.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	18.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	20.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.59
Phenols	ug/L	Aesthetic	≤10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.20
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	26	26	100.0%	Excellent
Chronic Health	47	47	100.0%	Excellent
Aesthetic	60	60	100.0%	Excellent
Operational Efficiency	100	93	93.0%	Excellent

Abbotsdale			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	24	24	100.0%	Excellent	P/N	Yes	13.85
Turbidity	NTU	Operational	≤ 1	24	22	91.7%	Good	P/R	Yes	0.54
		Aesthetic	≤ 5	24	24	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 < 9.7	24	22	91.7%	Good	P	Yes	7.94
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	24	24	100.0%	Excellent	P	Yes	29.00
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	24	24	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	24	24	100.0%	Excellent	N	Yes	0.29
Free Chlorine	mg/L	Chronic Health	≤ 5	24	24	100.0%	Excellent	N	Yes	0.07
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						17.50
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	3.30
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	2.60
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	18.20
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	2.90
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	22.80
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.60
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	90.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤300	1	1	100.0%	Excellent		Yes	80.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	15.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.42
Phenols	ug/L	Aesthetic	≤10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05
Acute Health Chemical				5	5	100.0%	Excellent			
Acute Health Microbiological				26	26	100.0%	Excellent			
Chronic Health				47	47	100.0%	Excellent			
Aesthetic				60	60	100.0%	Excellent			
Operational Efficiency				100	96	96.0%	Excellent			

Chatsworth			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	24	24	100.0%	Excellent	P/N	Yes	17.77
Turbidity	NTU	Operational	≤ 1	24	18	75.0%	Unacceptable	P/R	No	0.75
		Aesthetic	≤ 5	24	24	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - ≤ 9.7	24	24	100.0%	Excellent	P	Yes	7.76
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	24	24	100.0%	Excellent	P	Yes	7.33
E.Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	24	24	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	24	24	100.0%	Excellent	N	Yes	1.75
Free Chlorine	mg/L	Chronic Health	≤ 5	24	24	100.0%	Excellent	N	Yes	0.06
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						21.90
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	3.80
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.70
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	42.40
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	3.70
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	27.90
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.70
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	108.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	38.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤300	1	1	100.0%	Excellent		Yes	79.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	16.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.42
Phenols	ug/L	Aesthetic	≤10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	23.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.50
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	26	26	100.0%	Excellent
Chronic Health	47	47	100.0%	Excellent
Aesthetic	60	60	100.0%	Excellent
Operational Efficiency	100	94	94.0%	Excellent

Kalbaskraal			SANS 241:2015	Compliance Calculations						
Parameter	Unit	Risk	Standard Limits (SANS 241-2011 and SANS 241- 2006 Class I)	Total Number of Samples	Number of Samples Complying	% Compliance Achieved	Performance (Population < 100 000)	Risk Character P = prescribed monitoring R = identified risk N = negligible risk	Compliance Status (Yes / No)	Average
Conductivity	mS/m	Aesthetic	≤ 170	24	24	100.0%	Excellent	P/N	Yes	13.52
Turbidity	NTU	Operational	≤ 1	24	24	100.0%	Excellent	P/R	Yes	0.38
		Aesthetic	≤ 5	24	24	100.0%	Excellent	P/N	Yes	
pH (at 25°C)		Operational	≥5.0 - < 9.7	24	24	100.0%	Excellent	P	Yes	8.59
Heterotrophic Plate Count	cfu/ml	Operational	≤ 1000	24	24	100.0%	Excellent	P	Yes	1.54
E Coli (<1 taken as 0)	cfu/100ml	Acute Health Micro	≤ 0	24	24	100.0%	Excellent	P	Yes	0.00
Total Coliform Count (<1 taken as 0)	cfu/100ml	Operational	≤ 10	24	24	100.0%	Excellent	N	Yes	0.50
Free Chlorine	mg/L	Chronic Health	≤ 5	24	24	100.0%	Excellent	N	Yes	0.08
Colour	mg/L	Aesthetic	≤ 15	1	1	100.0%	Excellent		Yes	4.00
Alkalinity (as CaCO ₃)	mg/L		-	1						19.50
Total Hardness (as CaCO ₃)	mg/L		-	0						
Calcium (as Ca)	mg/L	Aesthetic / Operation	≤ 150	1	1	100.0%	Excellent		Yes	3.60
Magnesium (as Mg)	mg/L	Aesthetic / Health	≤ 70	1	1	100.0%	Excellent		Yes	1.30
Sodium (as Na)	mg/L	Aesthetic	≤ 200	1	1	100.0%	Excellent	N	Yes	25.60
Potassium (as K)	mg/L	Operational / Health	≤ 50	1	1	100.0%	Excellent		Yes	2.30
Zinc (as Zn)	mg/L	Aesthetic	≤ 5	1	1	100.0%	Excellent	N	Yes	0.02
Chloride (as Cl)	mg/L	Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	22.80
Fluoride (as F)	mg/L	Chronic Health	≤ 1.5	1	1	100.0%	Excellent	R	Yes	0.50
Sulphate (as SO ₄ ²⁻)	mg/L	Acute Health Chemical	≤ 500	1	1	100.0%	Excellent	N	Yes	3.70
		Aesthetic	≤ 250	1	1	100.0%	Excellent	N	Yes	
Total Dissolved Solids	mg/L	Aesthetic	≤ 1 200	1	1	100.0%	Excellent	N	Yes	98.00
Ammonia Nitrogen (as N)	mg/L	Aesthetic	≤ 1.5	1	1	100.0%	Excellent	N	Yes	0.10
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health Chemical	≤ 12	1	1	100.0%	Excellent	R	Yes	0.20
Iron (as Fe)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 300	1	1	100.0%	Excellent	R	Yes	
Manganese (as Mn)	ug/L	Chronic Health	≤ 400	1	1	100.0%	Excellent	N	Yes	20.00
		Aesthetic	≤ 100	1	1	100.0%	Excellent	R	Yes	
Aluminium (as Al)	ug/L	Operational	≤ 300	1	1	100.0%	Excellent		Yes	78.00
Cytopathogenic Viruses	cfu/10 l	Acute Health Micro	≤ 0	0	0					
Cryptosporidium Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Giardia Species	cfu/10 l	Acute Health Micro	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Chloroform	ug/L	Chronic Health	≤ 300	1	1	100.0%	Excellent	N	Yes	21.00
Bromodichloromethane	ug/L	Chronic Health	≤ 60	1	1	100.0%	Excellent	N	Yes	10.00
Dibromochloromethane	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Bromoform	ug/L	Chronic Health	≤ 100	1	1	100.0%	Excellent	N	Yes	10.00
Somatic Coliphages	cfu/10ml	Operational	≤ 0	1	1	100.0%	Excellent		Yes	0.00
Combined Trihalomethanes	mg/L	Chronic Health	≤ 1	1	1	100.0%	Excellent	N	Yes	0.44
Phenols	ug/L	Aesthetic	≤ 10	1	1	100.0%	Excellent	N	Yes	0.01
Calcium Hardness (as CaCO ₃)	mg/L		-	0						
Magnesium Hardness (as CaCO ₃)	mg/L		-	0						
Nitrate as N	mg/L	Acute Health Chemical	≤ 11	1	1	100.0%	Excellent	R	Yes	0.20
Nitrite as N	mg/L	Acute Health Chemical	≤ 0.9	1	1	100.0%	Excellent	N	Yes	0.20
Antimony (as Sb)	ug/L	Chronic Health	≤ 20	1	1	100.0%	Excellent	N	Yes	20.00
Arsenic (as As)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Cadmium (as Cd)	ug/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	1.00
Chromium (as Cr)	ug/L	Chronic Health	≤ 50	1	1	100.0%	Excellent	N	Yes	20.00
Cobalt (as Co)	ug/L	Chronic Health	≤ 500	0	0					
Copper (as Cu)	ug/L	Chronic Health	≤ 2000	1	1	100.0%	Excellent	N	Yes	28.00
Lead (as Pb)	ug/L	Chronic Health	≤ 10	1	1	100.0%	Excellent	N	Yes	10.00
Mercury (as Hg)	ug/L	Chronic Health	≤ 6	1	1	100.0%	Excellent	N	Yes	5.00
Nickel (as Ni)	ug/L	Chronic Health	≤ 70	1	1	100.0%	Excellent	N	Yes	20.00
Selenium (as Se)	ug/L	Chronic Health	≤ 40	1	1	100.0%	Excellent	N	Yes	10.00
Vanadium (as V)	ug/L	Chronic Health	≤ 200	0	0					
Cyanide	ug/L	Acute Health Chemical	≤ 200	1	1	100.0%	Excellent	N	Yes	20.00
Total Organic Carbon	mg/L	Chronic Health	≤ 10	1	1	100.0%	Excellent		Yes	0.10
Uranium (as U)	ug/L	Chronic Health	≤ 30	1	1	100.0%	Excellent	N	Yes	15.00
Barium (as Ba)	ug/L	Chronic Health	≤ 700	1	1	100.0%	Excellent	N	Yes	20.00
Boron (as B)	mg/L	Chronic Health	≤ 2.4	1	1	100.0%	Excellent	N	Yes	0.10
CaCO ₃ Precipitation Potential			-	0						
Microcystin (as LR)	ug/L	Chronic Health	≤ 1	1	1	100.0%	Excellent		Yes	0.15
Monochloramine	mg/L	Chronic Health	≤ 3	1	1	100.0%	Excellent	N	Yes	0.05

Acute Health Chemical	5	5	100.0%	Excellent
Acute Health Microbiological	26	26	100.0%	Excellent
Chronic Health	47	47	100.0%	Excellent
Aesthetic	60	60	100.0%	Excellent
Operational Efficiency	100	100	100.0%	Excellent