

Beaufort West			2014 Blue Drop Limits	Compliance Calculations 2014/2015			
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)
pH (at 25°C)	pH	Operational	$\geq 5.0 - \leq 9.7$	82	81	98.8%	Excellent
Conductivity	mS/m	Aesthetic	$\leq 170$	81	81	100.0%	Excellent
Turbidity	NTU	Operational	$\leq 1$	83	79	95.2%	Excellent
		Aesthetic	$\leq 5$	83	82	98.8%	Excellent
Free chlorine	mg/L	Chronic Health	$\leq 0.5$	81	76	93.8%	Good
Colour (as Pt)	mg/L Pt-Co	Aesthetic	$< 20$	0	0		
Total Alkalinity (as CaCO <sub>3</sub> )			-				
Total Hardness (as CaCO <sub>3</sub> )			-				
Calcium (as Ca)	mg/L	Aesthetic / Operation	$\leq 150$	0	0		
Magnesium (as Mg)	mg/L	Aesthetic / Health	$\leq 70$	0	0		
Sodium (as Na)	mg/L	Aesthetic	$\leq 200$	0	0		
Potassium (as K)	mg/L	Operational / Health	$\leq 50$	0	0		
Zinc (as Zn)	mg/L	Aesthetic	$\leq 5$	0	0		
Chloride (as Cl)	mg/L	Aesthetic	$\leq 300$	0	0		
Fluoride (as F)	mg/L	Chronic Health	$\leq 1.5$	0	0		
Sulphate (as SO <sub>4</sub> )	mg/L	Acute Health - 1	$\leq 500$	0	0		
		Aesthetic	$\leq 250$	0	0		
Total Dissolved Solids	mg/L	Aesthetic	$\leq 1\ 200$	0	0		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	$\leq 1.5$	0	0		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health - 1	$< 10$	0	0		
Iron (as Fe)	ug/L	Chronic Health	$\leq 2\ 000$	81	81	100.0%	Excellent
		Aesthetic	$\leq 300$	81	81	100.0%	Excellent
Manganese (as Mn)	ug/L	Chronic Health	$\leq 500$	81	81	100.0%	Excellent
		Aesthetic	$< 100$	81	81	100.0%	Excellent
Aluminium (as Al)	ug/L	Operational	$\leq 300$	81	81	100.0%	Excellent
Total Coliform Count	cfu/100ml	Operational	$\leq 10$	0	0		
Escherichia Coli Type 1	cfu/100ml	Acute Health - 1	$\leq 0$	144	144	100.0%	Excellent
Chloroform	mg/L	Chronic Health	$\leq 0.3$	0	0		
Bromodichloromethane	mg/L	Chronic Health	$\leq 0.06$	0	0		
Dibromochloromethane	mg/L	Chronic Health	$\leq 0.1$	0	0		
Bromoform	mg/L	Chronic Health	$\leq 0.1$	0	0		
Phenols	ug/L	Aesthetic	$\leq 10$	0	0		

Acute Health - 1 Chemical	0	0		
Acute Health - 1 Microbiological	144	144	100.0%	Excellent
Chronic Health	243	238	97.9%	Excellent
Aesthetic	326	325	99.7%	Excellent
Risk Assessment Defined Health (Acute or Chronic)	387	382	98.7%	Excellent
Operational Efficiency	246	241	98.0%	Excellent

Merweville			2014 Blue Drop Limits	Compliance Calculations 2014/2015			
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)
pH (at 25°C)	pH	Operational	$\geq 5.0 - \leq 9.7$	17	17	100.0%	Excellent
Conductivity	mS/m	Aesthetic	$\leq 170$	17	17	100.0%	Excellent
Turbidity	NTU	Operational	$\leq 1$	17	16	94.1%	Excellent
		Aesthetic	$\leq 5$	17	17	100.0%	Excellent
Free chlorine	mg/L	Chronic Health	$\leq 0.5$	18	16	88.9%	Unacceptable
Colour (as Pt)	mg/L Pt-Co	Aesthetic	$< 20$	0	0		
Total Alkalinity (as CaCO <sub>3</sub> )			-				
Total Hardness (as CaCO <sub>3</sub> )			-				
Calcium (as Ca)	mg/L	Aesthetic / Operation	$\leq 150$	0	0		
Magnesium (as Mg)	mg/L	Aesthetic / Health	$\leq 70$	0	0		
Sodium (as Na)	mg/L	Aesthetic	$\leq 200$	0	0		
Potassium (as K)	mg/L	Operational / Health	$\leq 50$	0	0		
Zinc (as Zn)	mg/L	Aesthetic	$\leq 5$	0	0		
Chloride (as Cl)	mg/L	Aesthetic	$\leq 300$	0	0		
Fluoride (as F)	mg/L	Chronic Health	$\leq 1.5$	0	0		
Sulphate (as SO <sub>4</sub> )	mg/L	Acute Health - 1	$\leq 500$	0	0		
		Aesthetic	$\leq 250$	0	0		
Total Dissolved Solids	mg/L	Aesthetic	$\leq 1\ 200$	0	0		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	$\leq 1.5$	0	0		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health - 1	$< 10$	0	0		
Iron (as Fe)	ug/L	Chronic Health	$\leq 2\ 000$	17	17	100.0%	Excellent
		Aesthetic	$\leq 300$	17	17	100.0%	Excellent
Manganese (as Mn)	ug/L	Chronic Health	$\leq 500$	17	17	100.0%	Excellent
		Aesthetic	$< 100$	17	17	100.0%	Excellent
Aluminium (as Al)	ug/L	Operational	$\leq 300$	0	0		
Total Coliform Count	cfu/100ml	Operational	$\leq 10$	0	0		
Escherichia Coli Type 1	cfu/100ml	Acute Health - 1	$\leq 0$	12	12	100.0%	Excellent
Chloroform	mg/L	Chronic Health	$\leq 0.3$	0	0		
Bromodichloromethane	mg/L	Chronic Health	$\leq 0.06$	0	0		
Dibromochloromethane	mg/L	Chronic Health	$\leq 0.1$	0	0		
Bromoform	mg/L	Chronic Health	$\leq 0.1$	0	0		
Phenols	ug/L	Aesthetic	$\leq 10$	1	1		

Acute Health - 1 Chemical	0	0		
Acute Health - 1 Microbiological	12	12	100.0%	Excellent
Chronic Health	52	50	96.2%	Excellent
Aesthetic	69	69	100.0%	Excellent
Risk Assessment Defined Health (Acute or Chronic)	64	62	96.9%	Excellent
Operational Efficiency	34	33	97.1%	Excellent

Nelspoort			2014 Blue Drop Limits	Compliance Calculations 2014/2015			
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)
pH (at 25°C)	pH	Operational	$\geq 5.0 - \leq 9.7$	16	16	100.0%	Excellent
Conductivity	mS/m	Aesthetic	$\leq 170$	16	2	12.5%	Unacceptable
Turbidity	NTU	Operational	$\leq 1$	16	11	68.8%	Unacceptable
		Aesthetic	$\leq 5$	16	15	93.8%	Excellent
Free chlorine	mg/L	Chronic Health	$\leq 0.5$	16	15	93.8%	Good
Colour (as Pt)	mg/L Pt-Co	Aesthetic	$< 20$	0	0		
Total Alkalinity (as CaCO <sub>3</sub> )			-				
Total Hardness (as CaCO <sub>3</sub> )			-				
Calcium (as Ca)	mg/L	Aesthetic / Operation	$\leq 150$	0	0		
Magnesium (as Mg)	mg/L	Aesthetic / Health	$\leq 70$	0	0		
Sodium (as Na)	mg/L	Aesthetic	$\leq 200$	0	0		
Potassium (as K)	mg/L	Operational / Health	$\leq 50$	0	0		
Zinc (as Zn)	mg/L	Aesthetic	$\leq 5$	0	0		
Chloride (as Cl)	mg/L	Aesthetic	$\leq 300$	0	0		
Fluoride (as F)	mg/L	Chronic Health	$\leq 1.5$	0	0		
Sulphate (as SO <sub>4</sub> )	mg/L	Acute Health - 1	$\leq 500$	0	0		
		Aesthetic	$\leq 250$	0	0		
Total Dissolved Solids	mg/L	Aesthetic	$\leq 1\ 200$	0	0		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	$\leq 1.5$	0	0		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health - 1	$< 10$	0	0		
Iron (as Fe)	ug/L	Chronic Health	$\leq 2\ 000$	16	16	100.0%	Excellent
		Aesthetic	$\leq 300$	16	16	100.0%	Excellent
Manganese (as Mn)	ug/L	Chronic Health	$\leq 500$	16	16	100.0%	Excellent
		Aesthetic	$< 100$	16	16	100.0%	Excellent
Aluminium (as Al)	ug/L	Operational	$\leq 300$	0	0		
Total Coliform Count	cfu/100ml	Operational	$\leq 10$	0	0		
Escherichia Coli Type 1	cfu/100ml	Acute Health - 1	$\leq 0$	25	25	100.0%	Excellent
Chloroform	mg/L	Chronic Health	$\leq 0.3$	0	0		
Bromodichloromethane	mg/L	Chronic Health	$\leq 0.06$	0	0		
Dibromochloromethane	mg/L	Chronic Health	$\leq 0.1$	0	0		
Bromoform	mg/L	Chronic Health	$\leq 0.1$	0	0		
Phenols	ug/L	Aesthetic	$\leq 10$	0	0		

Acute Health - 1 Chemical	0	0		
Acute Health - 1 Microbiological	25	25	100.0%	Excellent
Chronic Health	48	47	97.9%	Excellent
Aesthetic	64	49	76.6%	Unacceptable
Risk Assessment Defined Health (Acute or Chronic)	73	72	98.6%	Excellent
Operational Efficiency	32	27	84.4%	Unacceptable

Murraysburg			2014 Blue Drop Limits	Compliance Calculations 2014/2015			
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)
pH (at 25°C)	pH	Operational	$\geq 5.0 - \leq 9.7$	13	13	100.0%	Excellent
Conductivity	mS/m	Aesthetic	$\leq 170$	13	12	92.3%	Good
Turbidity	NTU	Operational	$\leq 1$	16	14	87.5%	Unacceptable
		Aesthetic	$\leq 5$	16	16	100.0%	Excellent
Free chlorine	mg/L	Chronic Health	$\leq 0.5$	16	16	100.0%	Excellent
Colour (as Pt)	mg/L Pt-Co	Aesthetic	$< 20$	0	0		
Total Alkalinity (as CaCO <sub>3</sub> )			-				
Total Hardness (as CaCO <sub>3</sub> )			-				
Calcium (as Ca)	mg/L	Aesthetic / Operation	$\leq 150$	0	0		
Magnesium (as Mg)	mg/L	Aesthetic / Health	$\leq 70$	0	0		
Sodium (as Na)	mg/L	Aesthetic	$\leq 200$	0	0		
Potassium (as K)	mg/L	Operational / Health	$\leq 50$	0	0		
Zinc (as Zn)	mg/L	Aesthetic	$\leq 5$	0	0		
Chloride (as Cl)	mg/L	Aesthetic	$\leq 300$	0	0		
Fluoride (as F)	mg/L	Chronic Health	$\leq 1.5$	0	0		
Sulphate (as SO <sub>4</sub> )	mg/L	Acute Health - 1	$\leq 500$	0	0		
		Aesthetic	$\leq 250$	0	0		
Total Dissolved Solids	mg/L	Aesthetic	$\leq 1\ 200$	0	0		
Ammonia Nitrogen (as N)	mg/L	Aesthetic	$\leq 1.5$	0	0		
Nitrate & Nitrite Nitrogen (as N)	mg/L	Acute Health - 1	$< 10$	0	0		
Iron (as Fe)	ug/L	Chronic Health	$\leq 2\ 000$	13	13	100.0%	Excellent
		Aesthetic	$\leq 300$	13	13	100.0%	Excellent
Manganese (as Mn)	ug/L	Chronic Health	$\leq 500$	13	13	100.0%	Excellent
		Aesthetic	$< 100$	13	13	100.0%	Excellent
Aluminium (as Al)	ug/L	Operational	$\leq 300$	13	13	100.0%	Excellent
Total Coliform Count	cfu/100ml	Operational	$\leq 10$	0	0		
Escherichia Coli Type 1	cfu/100ml	Acute Health - 1	$\leq 0$	26	26	100.0%	Excellent
Chloroform	mg/L	Chronic Health	$\leq 0.3$	0	0		
Bromodichloromethane	mg/L	Chronic Health	$\leq 0.06$	0	0		
Dibromochloromethane	mg/L	Chronic Health	$\leq 0.1$	0	0		
Bromoform	mg/L	Chronic Health	$\leq 0.1$	0	0		
Phenols	ug/L	Aesthetic	$\leq 10$	0	0		

Acute Health - 1 Chemical	0	0		
Acute Health - 1 Microbiological	26	26	100.0%	Excellent
Chronic Health	42	42	100.0%	Excellent
Aesthetic	55	54	98.2%	Excellent
Risk Assessment Defined Health (Acute or Chronic)	68	68	100.0%	Excellent
Operational Efficiency	42	40	95.2%	Excellent