



145

Amatola Water Amanzi - *Water is life*
Scientific Services Department
Preliminary Water Quality Report

Report Number: 69546

Physical Address

Amatola Water
Scientific Services
Nahoon Dam Complex

Postal Address

Private Bag X2
East London
5247

Samples Submitted By: Ntombi Tshicilela
Makana Municipality
P.O.BOX 176
Grahamstown
6139

Reported Date: 12/08/2015

Enquiries: Mrs. N. Jiya

Tel No: (043) 709 3769
Fax No: (043) 745 9044



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: EFFLUENT
 Scheme: Delmontvalley WWTW
 Received Date: 02/07/2015

Sample Number			128712
Sample Description			Delmontvalley WWTW
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Ammonia as N	mg/l	C32
	Chemical Oxygen Demand - DR2800	mg/l	3.43
	Chlorine	mg/l	115
	E coli waste water (colilert)	CFU/100ml	0.1
	EC @ 25°C	mS/m	M01
	Nitrite as N	mg/l	8
	Ortho phosphate - Aquakem	mg/l	C15
	PH @ 25°C	-	C39
	Solids - Total suspended	mg/l	C37
			6.59
			7.67
			0

Test List: EFFLUENT
 Scheme: Delmontvalley WWTW
 Received Date: 16/07/2015

Sample Number			128925
Sample Description			Delmontvalley WWTW
Sample Received Date			16/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Ammonia as N	mg/l	C32
	Chemical Oxygen Demand - DR2800	mg/l	C50
	E coli waste water (colilert)	MPN/100ML	M01
	EC @ 25°C	mS/m	C15
	Nitrate as N	mg/l	(T) 5.88
	Nitrite as N	mg/l	C39
	Ortho phosphate - Aquakem	mg/l	C37
	PH @ 25°C	-	C14
	Solids - Total suspended	mg/l	13
			11.86
			57
			>2420
			113.2
			8.27
			4.46
			7.15

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated

147



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: EFFLUENT
 Scheme: Delmontvalley WWTW
 Received Date: 30/07/2015

Sample Number			129063
Sample Description			Delmontvalley WWTW
Sample Received Date			30/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Ammonia as N	mg/l	C32 (T) 4.56
	Chemical Oxygen Demand - DR2800	mg/l	C50 57
	Coli waste water (colilert)	MPN/100ML	M01 >2420
	Conductivity @ 25°C	mS/m	C15 127.2
	Nitrate as N	mg/l	(T) 9.6
	Ortho phosphate - Aquakem	mg/l	(T) 2.13
	PH @ 25°C	-	C14 7.52
	Solids - Total suspended	mg/l	C46 8

Test List: EFFLUENT
 Scheme: Mayfield Effluent
 Received Date: 02/07/2015

Sample Number			128710
Sample Description			Mayfield Effluent
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Ammonia as N	mg/l	C32 37.11
	Chemical Oxygen Demand - DR2800	mg/l	105
	Coli waste water (colilert)	CFU/100ml	M01 >2420
	Conductivity @ 25°C	mS/m	C15 132.8
	Nitrite as N	mg/l	C39 0.48
	Ortho phosphate - Aquakem	mg/l	C37 4.95
	PH @ 25°C	-	C14 7.54
	Solids - Total suspended	mg/l	24

Key: (S) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: EFFLUENT
 Scheme: Mayfield Effluent
 Received Date: 16/07/2015

Sample Number	128923		
Sample Description	Mayfield Effluent		
Sample Received Date	16/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Ammonia as N	mg/l	C32	31.97
Chemical Oxygen Demand - DR2800	mg/l	C50	99
E. coli waste water (colilert)	MPN/100ML	M01	(T) >2420
EC @ 25°C	mS/m	C15	139.7
Nitrate as N	mg/l		(T) 0.34
Nitrite as N	mg/l	C39	0.14
Ortho phosphate - Aquakem	mg/l	C37	5.33
PH @ 25°C	-	C14	7.2
Solids - Total suspended	mg/l		28

Test List: EFFLUENT
 Scheme: Mayfield Effluent
 Received Date: 30/07/2015

Sample Number	129061		
Sample Description	Mayfield Effluent		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Ammonia as N	mg/l	C32	(T) 28.9
Chemical Oxygen Demand - DR2800	mg/l	C50	83
Chlorine	mg/l		0.1
E. coli waste water (colilert)	MPN/100ML	M01	172
EC @ 25°C	mS/m	C15	138.1
Nitrate as N	mg/l		(T) 0.5
Ortho phosphate - Aquakem	mg/l	C37	(T) 4.02
PH @ 25°C	-		7.87
Solids - Total suspended	mg/l	C46	16

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



149

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Alicedale Community Tap WTW

Received Date: 02/07/2015

Sample Number			128707
Sample Description			Alicedale Community Tap WTW
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	107.2
Ammonia as N	mg/l	C32	0.04
Calcium as Ca	mg/l	C01	45.62
Chloride as Cl	mg/l	C34	160.78
Chlorine	mg/l		0.12
EC - Autotitrator	mS/m	C29	70.64
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.18
Hardness (calcium)	mg/l		(T) 114.86
Hardness (magnesium)	mg/l		(T) 90.6
Hardness (total)	mg/l		(T) 206
Heterotrophic plate count @35°C	CFU/1ml	M03	1
Magnesium as Mg	mg/l	C01	21.57
pH - Autotitrator	-	C30	7.92
pH @ Water Treatment Works (Plants)	-		9.07
Potassium as K	mg/l	C01	1.49
Sodium as Na	mg/l	C01	59.43
Sulphate as SO4	mg/l	C33	18.25
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		353.2
Turbidity	NTU	C16	2.4
Turbidity @ WTW	NTU		2.51

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated

140



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Alicedale Community Tap WTW
 Received Date: 09/07/2015

Sample Number	129186		
Sample Description	Alicedale Community Tap WTW		
Sample Received Date	09/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	111.8
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	40.4
Chloride as Cl	mg/l	C34	158.86
Chlorine	mg/l		1.2
EC - Autotitrator	mS/m	C29	71.74
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.18
Hardness (calcium)	mg/l		(T) 99.88
Hardness (magnesium)	mg/l		(T) 140.01
Hardness (total)	mg/l		(T) 240
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	34.48
pH - Autotitrator	-	C30	7.83
pH @ Water Treatment Works (Plants)	-		9.09
Potassium as K	mg/l	C01	1.92
Sodium as Na	mg/l	C01	163.2
Sulphate as SO4	mg/l	C33	18.92
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Turbidity	NTU	C16	1.78
Turbidity @ WTW	NTU		2.06

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated

X

141



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Alicedale Community Tap WTW
 Received Date: 21/07/2015

Sample Number			128950
Sample Description			Alicedale Community Tap WTW
Sample Received Date			21/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Alkalinity - Autotitrator	mg/l	C28 114.2
	Ammonia as N	mg/l	C32 0.14
	Calcium as Ca	mg/l	C01 22.44
	Chloride as Cl	mg/l	C34 170.43
	Chlorine	mg/l	0.78
	EC - Autotitrator	mS/m	C29 71.44
	Faecal coliforms count Member Filtration	CFU/100ml	M05 0
	Fluoride as F	mg/l	C35 0.21
	Hardness (calcium)	mg/l	(T) 54.93
	Hardness (magnesium)	mg/l	(T) 57.65
	Hardness (total)	mg/l	(T) 113
	Heterotrophic plate count @35°C	CFU/1ml	M03 5
	Magnesium as Mg	mg/l	C01 13.92
	pH - Autotitrator	-	C30 7.8
	pH @ Water Treatment Works (Plants)	-	7.83
	Potassium as K	mg/l	C01 3.16
	Sodium as Na	mg/l	C01 66.71
	Sulphate as SO4	mg/l	C33 21.57
	Total coliform bacteria Membrane Filtration	CFU/100ml	M04 0
	Total Solids - dissolved	mg/l	357.19
	Turbidity	NTU	C16 0.58
	Turbidity @ WTW	NTU	0.67

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated





142

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Alicedale Community Tap WTW
 Received Date: 30/07/2015

Sample Number		129058	
Sample Description		Alicedale Community Tap WTW	
Sample Received Date		30/07/2015	
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	94.92
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 1.28
Chloride as Cl	mg/l	C34	(T) 185.72
Chlorine	mg/l		0.07
EC - Autotitrator	mS/m	C29	82.64
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	(T) 0.15
Hardness (calcium)	mg/l		(T) 3.25
Hardness (magnesium)	mg/l		(T) 11.53
Hardness (total)	mg/l		(T) 15.3
Heterotrophic plate count @35°C	CFU/1ml	M03	12
Magnesium as Mg	mg/l	C01	(T) 2.81
pH - Autotitrator	-	C30	7.77
pH @ Water Treatment Works (Plants)	-		7.72
Potassium as K	mg/l	C01	(T) 2.05
Sodium as Na	mg/l	C01	(T) 46.5
Sulphate as SO4	mg/l	C33	(T) 21.87
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		413.19
Turbidity	NTU		3.01
Turbidity @ WTW	NTU		3.54

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



143

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Beaufort Str Police Station
 Received Date: 02/07/2015

Sample Number	128704		
Sample Description	Beaufort Str Police Station		
Sample Received Date	02/07/2015		
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	11.36
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	10.04
Chloride as Cl	mg/l	C34	43.56
Chlorine	mg/l		0.05
EC - Autotitrator	mS/m	C29	18.19
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.03
Hardness (calcium)	mg/l		(T) 24.97
Hardness (magnesium)	mg/l		(T) 24.71
Hardness (total)	mg/l		(T) 50
Heterotrophic plate count @35°C	CFU/1ml	M03	2
Magnesium as Mg	mg/l	C01	6.01
pH - Autotitrator	-	C30	6.77
pH @ Water Treatment Works (Plants)	-		7.07
Potassium as K	mg/l	C01	1.29
Sodium as Na	mg/l	C01	22.96
Sulphate as SO4	mg/l	C33	10.25
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		91
Turbidity	NTU	C16	1.1
Turbidity @ WTW	NTU		1.29

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



144

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Beaufort Str Police Station

Received Date: 16/07/2015

Sample Number	128917		
Sample Description	Beaufort Str Police Station		
Sample Received Date	16/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	18.02
Ammonia as N	mg/l	C32	0.02
Calcium as Ca	mg/l	C01	21.06
Chloride as Cl	mg/l	C34	44
Chlorine	mg/l		0.14
EC - Autotitrator	mS/m	C29	19.64
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.04
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 53.53
Hardness (total)	mg/l		(T) 106
Heterotrophic plate count @35°C	CFU/1ml	M03	1
Magnesium as Mg	mg/l	C01	13.32
pH - Autotitrator	-	C30	7.41
pH @ Water Treatment Works (Plants)	-		9.29
Potassium as K	mg/l	C01	3.06
Sodium as Na	mg/l	C01	63.83
Sulphate as SO4	mg/l	C33	9.88
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		98.2
Turbidity	NTU	C16	1.2
Turbidity @ WTW	NTU		1.49

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



145
175
50

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Beaufort Str Police Station

Received Date: 30/07/2015

Sample Number	129055		
Sample Description	Beaufort Str Police Station		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	14.5
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 21.72
Chloride as Cl	mg/l	C34	(T) 46.13
Chlorine	mg/l		0.12
EC - Autotitrator	mS/m	C29	20.67
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	(T) 0.08
Hardness (calcium)	mg/l		(T) 54.93
Hardness (magnesium)	mg/l		(T) 49.42
Hardness (total)	mg/l		(T) 104
Heterotrophic plate count @35°C	CFU/1ml	M03	13
Magnesium as Mg	mg/l	C01	(T) 11.63
pH - Autotitrator	-	C30	7.19
pH @ Water Treatment Works (Plants)	-		6.84
Potassium as K	mg/l	C01	(T) 2.31
Sodium as Na	mg/l	C01	(T) 47.56
Sulphate as SO4	mg/l	C33	(T) 8.25
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		103.35
Turbidity	NTU		2.78
Turbidity @ WTW	NTU		2.86

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



146

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Riebeeck Communal Tap
 Received Date: 02/07/2015

Sample Number			128703
Sample Description			Riebeeck Communal Tap
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	78.38
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	72.59
Chloride as Cl	mg/l	C34	121.28
Chlorine	mg/l		0.48
EC - Autotitrator	mS/m	C29	53.7
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.21
Hardness (calcium)	mg/l		(T) 182.28
Hardness (magnesium)	mg/l		(T) 131.78
Hardness (total)	mg/l		(T) 314
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	32.36
pH - Autotitrator	-	C30	7.04
pH @ Water Treatment Works (Plants)	-		6.69
Potassium as K	mg/l	C01	2.97
Sodium as Na	mg/l	C01	252.37
Sulphate as SO4	mg/l	C33	17.34
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		268.5
Turbidity	NTU	C16	1.32
Turbidity @ WTW	NTU		1.67

Loaded on reservoir as well

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Riebeeck Communal Tap
 Received Date: 30/07/2015

Sample Number	129054		
Sample Description	Riebeeck Communal Tap		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	89.01
Ammonia as N	mg/l	C32 (T)	0
Calcium as Ca	mg/l	C01 (T)	21.79
Chloride as Cl	mg/l	C34 (T)	122.18
Chlorine	mg/l		0.71
EC - Autotitrator	mS/m	C29	57.9
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35 (T)	0.23
Hardness (calcium)	mg/l	(T)	54.93
Hardness (magnesium)	mg/l	(T)	45.3
Hardness (total)	mg/l	(T)	100
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01 (T)	11.42
pH - Autotitrator	-	C30	7.12
pH @ Water Treatment Works (Plants)	-		6.75
Potassium as K	mg/l	C01 (T)	2.26
Sodium as Na	mg/l	C01 (T)	46.21
Sulphate as SO4	mg/l	C33 (T)	17.47
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		289.51
Turbidity	NTU		2.6
Turbidity @ WTW	NTU		3.7

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



148

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Environmental Health Office
 Received Date: 02/07/2015

Sample Number			128702
Sample Description			Environmental Health Office
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	11.01
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	21.94
Chloride as Cl	mg/l	C34	43.27
Chlorine	mg/l		0.1
EC - Autotitrator	mS/m	C29	17.96
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.02
Hardness (calcium)	mg/l		(T) 54.93
Hardness (magnesium)	mg/l		(T) 57.65
Hardness (total)	mg/l		(T) 113
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	14.24
pH - Autotitrator	-	C30	6.75
pH @ Water Treatment Works (Plants)	-		6.42
Potassium as K	mg/l	C01	4.68
Sodium as Na	mg/l	C01	95.28
Sulphate as SO4	mg/l	C33	9.05
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		89.8
Turbidity	NTU	C16	0.75
Turbidity @ WTW	NTU		0.96

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



149

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Extension 7 Clinic
 Received Date: 02/07/2015

Sample Number			128701
Sample Description			Extension 7 Clinic
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	274.8
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	6.91
Chloride as Cl	mg/l	C34	87.21
Chlorine	mg/l		1.48
EC - Autotitrator	mS/m	C29	78.86
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.65
Hardness (calcium)	mg/l		(T) 17.23
Hardness (magnesium)	mg/l		(T) 25.94
Hardness (total)	mg/l		(T) 43
Heterotrophic plate count @35°C	CFU/1ml	M03	1
Magnesium as Mg	mg/l	C01	6.28
pH - Autotitrator	-	C30	8.29
pH @ Water Treatment Works (Plants)	-		7.97
Potassium as K	mg/l	C01	1.18
Sodium as Na	mg/l	C01	35.25
Sulphate as SO4	mg/l	C33	59.35
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	2
Total Solids - dissolved	mg/l		394.29
Turbidity	NTU	C16	3.33
Turbidity @ WTW	NTU		4.62

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



150

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Extension 7 Clinic
 Received Date: 16/07/2015

Sample Number	128914		
Sample Description	Extension 7 Clinic		
Sample Received Date	16/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	280.6
Ammonia as N	mg/l	C32	0.01
Calcium as Ca	mg/l	C01	21.62
Chloride as Cl	mg/l	C34	83.94
Chlorine	mg/l		0.91
EC - Autotitrator	mS/m	C29	77.66
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.65
Hardness (calcium)	mg/l		(T) 54.93
Hardness (magnesium)	mg/l		(T) 57.65
Hardness (total)	mg/l		(T) 113
Heterotrophic plate count @35°C	CFU/1ml	M03	4
Magnesium as Mg	mg/l	C01	13.59
pH - Autotitrator	-	C30	8.36
pH @ Water Treatment Works (Plants)	-		9.47
Potassium as K	mg/l	C01	3.15
Sodium as Na	mg/l	C01	65.02
Sulphate as SO4	mg/l	C33	61.61
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		388.2
Turbidity	NTU	C16	6.68
Turbidity @ WTW	NTU		7.88

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



151

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Extension 7 Clinic
 Received Date: 30/07/2015

Sample Number		129052	
Sample Description		Extension 7 Clinic	
Sample Received Date		30/07/2015	
Sample Completed Date			
Comment			
	Test	Units	Method No
	Alkalinity - Autotitrator	mg/l	C28
	Ammonia as N	mg/l	C32 (T) 0
	Calcium as Ca	mg/l	C01 (T) 22.24
	Chloride as Cl	mg/l	C34 (T) 113.97
	Chlorine	mg/l	1.05
	EC - Autotitrator	mS/m	C29 95.45
	Faecal coliforms count Member Filtration	CFU/100ml	M05 0
	Fluoride as F	mg/l	C35 (T) 0.68
	Hardness (calcium)	mg/l	(T) 54.93
	Hardness (magnesium)	mg/l	(T) 49.42
	Hardness (total)	mg/l	(T) 104
	Heterotrophic plate count @35°C	CFU/1ml	M03 1
	Magnesium as Mg	mg/l	C01 (T) 12.1
	pH - Autotitrator	-	C30 8.27
	pH @ Water Treatment Works (Plants)	-	8.63
	Potassium as K	mg/l	C01 (T) 2.34
	Sodium as Na	mg/l	C01 (T) 50.94
	Sulphate as SO4	mg/l	C33 (T) 67.26
	Total coliform bacteria Membrane Filtration	CFU/100ml	M04 0
	Total Solids - dissolved	mg/l	477.25
	Turbidity	NTU	5.87
	Turbidity @ WTW	NTU	6.39

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



152

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Indoor Sports Centre

Received Date: 02/07/2015

Sample Number			128700																																																																																												
Sample Description			Indoor Sports Centre																																																																																												
Sample Received Date			02/07/2015																																																																																												
Sample Completed Date																																																																																															
Comment																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Test</th> <th style="width: 10%;">Units</th> <th style="width: 10%;">Method No</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Alkalinity - Autotitrator</td> <td>mg/l</td> <td>C28</td> <td>247.7</td> </tr> <tr> <td>Ammonia as N</td> <td>mg/l</td> <td>C32</td> <td>0</td> </tr> <tr> <td>Calcium as Ca</td> <td>mg/l</td> <td>C01</td> <td>44.7</td> </tr> <tr> <td>Chloride as Cl</td> <td>mg/l</td> <td>C34</td> <td>86.42</td> </tr> <tr> <td>Chlorine</td> <td>mg/l</td> <td></td> <td>1.29</td> </tr> <tr> <td>EC - Autotitrator</td> <td>mS/m</td> <td>C29</td> <td>78.96</td> </tr> <tr> <td>Faecal coliforms count Member Filtration</td> <td>CFU/100ml</td> <td>M05</td> <td>0</td> </tr> <tr> <td>Fluoride as F</td> <td>mg/l</td> <td>C35</td> <td>0.64</td> </tr> <tr> <td>Hardness (calcium)</td> <td>mg/l</td> <td></td> <td>(T) 112.36</td> </tr> <tr> <td>Hardness (magnesium)</td> <td>mg/l</td> <td></td> <td>(T) 86.48</td> </tr> <tr> <td>Hardness (total)</td> <td>mg/l</td> <td></td> <td>(T) 198</td> </tr> <tr> <td>Heterotrophic plate count @35°C</td> <td>CFU/1ml</td> <td>M03</td> <td>0</td> </tr> <tr> <td>Magnesium as Mg</td> <td>mg/l</td> <td>C01</td> <td>21.24</td> </tr> <tr> <td>pH - Autotitrator</td> <td>-</td> <td>C30</td> <td>8.24</td> </tr> <tr> <td>pH @ Water Treatment Works (Plants)</td> <td>-</td> <td></td> <td>7.93</td> </tr> <tr> <td>Potassium as K</td> <td>mg/l</td> <td>C01</td> <td>0.85</td> </tr> <tr> <td>Sodium as Na</td> <td>mg/l</td> <td>C01</td> <td>52.93</td> </tr> <tr> <td>Sulphate as SO4</td> <td>mg/l</td> <td>C33</td> <td>58.21</td> </tr> <tr> <td>Total coliform bacteria Membrane Filtration</td> <td>CFU/100ml</td> <td>M04</td> <td>0</td> </tr> <tr> <td>Total Solids - dissolved</td> <td>mg/l</td> <td></td> <td>394.79</td> </tr> <tr> <td>Turbidity</td> <td>NTU</td> <td>C16</td> <td>2.03</td> </tr> <tr> <td>Turbidity @ WTW</td> <td>NTU</td> <td></td> <td>2.91</td> </tr> </tbody> </table>				Test	Units	Method No		Alkalinity - Autotitrator	mg/l	C28	247.7	Ammonia as N	mg/l	C32	0	Calcium as Ca	mg/l	C01	44.7	Chloride as Cl	mg/l	C34	86.42	Chlorine	mg/l		1.29	EC - Autotitrator	mS/m	C29	78.96	Faecal coliforms count Member Filtration	CFU/100ml	M05	0	Fluoride as F	mg/l	C35	0.64	Hardness (calcium)	mg/l		(T) 112.36	Hardness (magnesium)	mg/l		(T) 86.48	Hardness (total)	mg/l		(T) 198	Heterotrophic plate count @35°C	CFU/1ml	M03	0	Magnesium as Mg	mg/l	C01	21.24	pH - Autotitrator	-	C30	8.24	pH @ Water Treatment Works (Plants)	-		7.93	Potassium as K	mg/l	C01	0.85	Sodium as Na	mg/l	C01	52.93	Sulphate as SO4	mg/l	C33	58.21	Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0	Total Solids - dissolved	mg/l		394.79	Turbidity	NTU	C16	2.03	Turbidity @ WTW	NTU		2.91
Test	Units	Method No																																																																																													
Alkalinity - Autotitrator	mg/l	C28	247.7																																																																																												
Ammonia as N	mg/l	C32	0																																																																																												
Calcium as Ca	mg/l	C01	44.7																																																																																												
Chloride as Cl	mg/l	C34	86.42																																																																																												
Chlorine	mg/l		1.29																																																																																												
EC - Autotitrator	mS/m	C29	78.96																																																																																												
Faecal coliforms count Member Filtration	CFU/100ml	M05	0																																																																																												
Fluoride as F	mg/l	C35	0.64																																																																																												
Hardness (calcium)	mg/l		(T) 112.36																																																																																												
Hardness (magnesium)	mg/l		(T) 86.48																																																																																												
Hardness (total)	mg/l		(T) 198																																																																																												
Heterotrophic plate count @35°C	CFU/1ml	M03	0																																																																																												
Magnesium as Mg	mg/l	C01	21.24																																																																																												
pH - Autotitrator	-	C30	8.24																																																																																												
pH @ Water Treatment Works (Plants)	-		7.93																																																																																												
Potassium as K	mg/l	C01	0.85																																																																																												
Sodium as Na	mg/l	C01	52.93																																																																																												
Sulphate as SO4	mg/l	C33	58.21																																																																																												
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0																																																																																												
Total Solids - dissolved	mg/l		394.79																																																																																												
Turbidity	NTU	C16	2.03																																																																																												
Turbidity @ WTW	NTU		2.91																																																																																												

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



153

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Indoor Sports Centre
 Received Date: 16/07/2015

Sample Number			128913
Sample Description			Indoor Sports Centre
Sample Received Date			16/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Alkalinity - Autotitrator	mg/l	C28
	Ammonia as N	mg/l	C32
	Calcium as Ca	mg/l	C01
	Chloride as Cl	mg/l	C34
	Chlorine	mg/l	
	EC - Autotitrator	mS/m	C29
	Faecal coliforms count Member Filtration	CFU/100ml	M05
	Fluoride as F	mg/l	C35
	Hardness (calcium)	mg/l	(T) 52.44
	Hardness (magnesium)	mg/l	(T) 57.65
	Hardness (total)	mg/l	(T) 110
	Heterotrophic plate count @35°C	CFU/1ml	M03
	Magnesium as Mg	mg/l	C01
	pH - Autotitrator	-	C30
	pH @ Water Treatment Works (Plants)	-	
	Potassium as K	mg/l	C01
	Sodium as Na	mg/l	C01
	Sulphate as SO4	mg/l	C33
	Total coliform bacteria Membrane Filtration	CFU/100ml	M04
	Total Solids - dissolved	mg/l	
	Turbidity	NTU	C16
	Turbidity @ WTW	NTU	

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: J / Kleinshans Final WTW

Received Date: 07/07/2015

Sample Number	128818		
Sample Description	J / Kleinshans Final WTW		
Sample Received Date	07/07/2015		
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	271.4
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	20.73
Chloride as Cl	mg/l	C34	83.97
Chlorine	mg/l		0.18
EC - Autotitrator	mS/m	C29	77.21
Faecal coliforms count Member Filtration	CFU/100ml		0
Fluoride as F	mg/l	C35	0.65
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 45.3
Hardness (total)	mg/l		(T) 97
Heterotrophic plate count @35°C	CFU/1ml	M03	462
Magnesium as Mg	mg/l	C01	10.7
pH - Autotitrator	-	C30	8.09
pH @ Water Treatment Works (Plants)	-		8
Potassium as K	mg/l	C01	2.32
Sodium as Na	mg/l	C01	43
Sulphate as SO4	mg/l	C33	58.28
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	10
Total Solids - dissolved	mg/l		386.04
Turbidity	NTU	C16	0.47
Turbidity @ WTW	NTU		1.71

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: J / Kleinshans Final WTW
 Received Date: 21/07/2015

Sample Number			128951
Sample Description			J / Kleinshans Final WTW
Sample Received Date			21/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	283.6
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	21.27
Chloride as Cl	mg/l	C34	84.38
Chlorine	mg/l		0.08
EC - Autotitrator	mS/m	C29	78.96
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.62
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 57.65
Hardness (total)	mg/l		(T) 110
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	13.5
pH - Autotitrator	-	C30	8.26
pH @ Water Treatment Works (Plants)	-		8.12
Potassium as K	mg/l	C01	3.14
Sodium as Na	mg/l	C01	65.55
Sulphate as SO4	mg/l	C33	57.78
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		394.8
Turbidity	NTU	C16	1.81
Turbidity @ WTW	NTU		2.21

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: J / Kleinshans Final WTW
 Received Date: 30/07/2015

Sample Number			129059
Sample Description			J / Kleinshans Final WTW
Sample Received Date			30/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	290.9
Ammonia as N	mg/l	C32	0 (T)
Calcium as Ca	mg/l	C01	20.62 (T)
Chloride as Cl	mg/l	C34	83.17 (T)
Chlorine	mg/l		0.05
EC - Autotitrator	mS/m	C29	81.66
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.63 (T)
Hardness (calcium)	mg/l		52.44 (T)
Hardness (magnesium)	mg/l		49.42 (T)
Hardness (total)	mg/l		101 (T)
Heterotrophic plate count @35°C	CFU/1ml	M03	>1000
Magnesium as Mg	mg/l	C01	11.63 (T)
pH - Autotitrator	-	C30	8.23
pH @ Water Treatment Works (Plants)	-		7.66
Potassium as K	mg/l	C01	2.3 (T)
Sodium as Na	mg/l	C01	47.47 (T)
Sulphate as SO4	mg/l	C33	56.86 (T)
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		408.31
Turbidity	NTU		1.7
Turbidity @ WTW	NTU		1.68

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: J Street Community Tap
 Received Date: 02/07/2015

Sample Number	128699		
Sample Description	J Street Community Tap		
Sample Received Date	02/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	727.6
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	7.81
Chloride as Cl	mg/l	C34	88.71
Chlorine	mg/l		1.53
EC - Autotitrator	mS/m	C29	78.86
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.66
Hardness (calcium)	mg/l		(T) 19.48
Hardness (magnesium)	mg/l		(T) 14.41
Hardness (total)	mg/l		(T) 33
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	3.5
pH - Autotitrator	-	C30	8.27
pH @ Water Treatment Works (Plants)	-		7.97
Potassium as K	mg/l	C01	0.93
Sodium as Na	mg/l	C01	9.45
Sulphate as SO4	mg/l	C33	58.16
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		394.3
Turbidity	NTU	C16	6.14
Turbidity @ WTW	NTU		4.93



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: J Street Community Tap

Received Date: 16/07/2015

Sample Number		126912	
Sample Description		J Street Community Tap	
Sample Received Date		16/07/2015	
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	277.6
Ammonia as N	mg/l	C32	0.01
Calcium as Ca	mg/l	C01	8.59
Chloride as Cl	mg/l	C34	83.55
Chlorine	mg/l		0.91
EC - Autotitrator	mS/m	C29	78.56
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.64
Hardness (calcium)	mg/l		(T) 21.47
Hardness (magnesium)	mg/l		(T) 17.3
Hardness (total)	mg/l		(T) 38
Heterotrophic plate count @35°C	CFU/1ml	M03	1
Magnesium as Mg	mg/l	C01	4.17
pH - Autotitrator	-	C30	8.25
pH @ Water Treatment Works (Plants)	-		9.55
Potassium as K	mg/l	C01	1.21
Sodium as Na	mg/l	C01	12.95
Sulphate as SO4	mg/l	C33	59.73
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		392.8
Turbidity	NTU	C16	3.04
Turbidity @ WTW	NTU		3.61

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Nonzwakazi Community Tap in Alicedale

Received Date: 02/07/2015

Sample Number			128698
Sample Description			Nonzwakazi Community Tap in
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	41.46
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	7.32
Chloride as Cl	mg/l	C34	165.4
Chlorine	mg/l		0.11
EC - Autotitrator	mS/m	C29	71.88
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.18
Hardness (calcium)	mg/l		(T) 18.23
Hardness (magnesium)	mg/l		(T) 18.53
Hardness (total)	mg/l		(T) 37
Heterotrophic plate count @35°C	CFU/1ml	M03	11
Magnesium as Mg	mg/l	C01	4.49
pH - Autotitrator	-	C30	7.88
pH @ Water Treatment Works (Plants)	-		9.15
Potassium as K	mg/l	C01	1.01
Sodium as Na	mg/l	C01	16.37
Sulphate as SO4	mg/l	C33	17.79
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		359.4
Turbidity	NTU	C16	1.58
Turbidity @ WTW	NTU		1.88



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Nonzwakazi Community Tap in Alicedale

Received Date: 16/07/2015

Sample Number			128911
Sample Description			Nonzwakazi Community Tap in
Sample Received Date			16/07/2015
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	112.6
Ammonia as N	mg/l	C32	0.02
Calcium as Ca	mg/l	C01	27.5
Chloride as Cl	mg/l	C34	156.13
Chlorine	mg/l		0.23
EC - Autotitrator	mS/m	C29	70.3
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.17
Hardness (calcium)	mg/l		(T) 69.92
Hardness (magnesium)	mg/l		(T) 78.24
Hardness (total)	mg/l		(T) 148
Heterotrophic plate count @35°C	CFU/1ml	M03	3
Magnesium as Mg	mg/l	C01	19.12
pH - Autotitrator	-	C30	8.05
pH @ Water Treatment Works (Plants)	-		7.88
Potassium as K	mg/l	C01	2.69
Sodium as Na	mg/l	C01	101.4
Sulphate as SO4	mg/l	C33	19.59
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		351.51
Turbidity	NTU	C16	3.18
Turbidity @ WTW	NTU		3.75

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Nonzwakazi Community Tap in Alicedale

Received Date: 30/07/2015

Sample Number			129049
Sample Description			Nonzwakazi Community Tap in
Sample Received Date			30/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	99.18
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 22.43
Chloride as Cl	mg/l	C34	(T) 172.82
Chlorine	mg/l		0.05
EC - Autotitrator	mS/m	C29	78.74
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	(T) 0.16
Hardness (calcium)	mg/l		(T) 54.93
Hardness (magnesium)	mg/l		(T) 45.3
Hardness (total)	mg/l		(T) 100
Heterotrophic plate count @35°C	CFU/1ml	M03	8
Magnesium as Mg	mg/l	C01	(T) 11.36
pH - Autotitrator	-	C30	7.91
pH @ Water Treatment Works (Plants)	-		7.77
Potassium as K	mg/l	C01	(T) 2.25
Sodium as Na	mg/l	C01	(T) 46.16
Sulphate as SO4	mg/l	C33	(T) 21.03
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		393.71
Turbidity	NTU	C16	2.32
Turbidity @ WTW	NTU		3



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Riebeeck East Network Reservoir
 Received Date: 02/07/2015

Sample Number			128697
Sample Description			Riebeeck East Network Reservoir
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	76.2
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	52.88
Chloride as Cl	mg/l	C34	119.41
Chlorine	mg/l		0.71
EC - Autotitrator	mS/m	C29	52.36
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.23
Hardness (calcium)	mg/l		(T) 132.34
Hardness (magnesium)	mg/l		(T) 78.24
Hardness (total)	mg/l		(T) 210
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	19.06
pH - Autotitrator	-	C30	7.01
pH @ Water Treatment Works (Plants)	-		6.58
Potassium as K	mg/l	C01	1.31
Sodium as Na	mg/l	C01	69.8
Sulphate as SO4	mg/l	C33	16.4
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		261.82
Turbidity	NTU	C16	2.33
Turbidity @ WTW	NTU		2.81



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Riebeeck East Network Reservoir

Received Date: 16/07/2015

Sample Number	128910		
Sample Description	Riebeeck East Network Reservoir		
Sample Received Date	16/07/2015		
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	78.26
Ammonia as N	mg/l	C32	0.01
Calcium as Ca	mg/l	C01	14.7
Chloride as Cl	mg/l	C34	119.81
Chlorine	mg/l		0.9
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.18
Hardness (calcium)	mg/l		(T) 37.45
Hardness (magnesium)	mg/l		(T) 35.83
Hardness (total)	mg/l		(T) 73
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	8.67
pH @ Water Treatment Works (Plants)	-		7.32
Potassium as K	mg/l	C01	2.35
Sodium as Na	mg/l	C01	40.82
Sulphate as SO ₄	mg/l	C33	19.95
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Turbidity	NTU	C16	1.45
Turbidity @ WTW	NTU		1.73



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Riebeeck East Network Reservoir
 Received Date: 30/07/2015

Sample Number	129048		
Sample Description	Riebeeck East Network Reservoir		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	77.77
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 22.81
Chloride as Cl	mg/l	C34	(T) 123.45
Chlorine	mg/l		1.08
EC - Autotitrator	mS/m	C29	56.69
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	(T) 0.23
Hardness (calcium)	mg/l		(T) 57.43
Hardness (magnesium)	mg/l		(T) 49.42
Hardness (total)	mg/l		(T) 106
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	(T) 12.04
pH - Autotitrator	-	C30	6.99
pH @ Water Treatment Works (Plants)	-		6.66
Potassium as K	mg/l	C01	(T) 2.39
Sodium as Na	mg/l	C01	(T) 54
Sulphate as SO4	mg/l	C33	(T) 17.25
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		283.44
Turbidity	NTU		2.02
Turbidity @ WTW	NTU		2.21



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Waainek WTW Final
 Received Date: 02/07/2015

Sample Number	128705		
Sample Description	Waainek WTW Final		
Sample Received Date	02/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	7.77
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	15.48
Chloride as Cl	mg/l	C34	44.35
Chlorine	mg/l		1.71
EC - Autotitrator	mS/m	C29	18.1
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.01
Hardness (calcium)	mg/l		(T) 37.45
Hardness (magnesium)	mg/l		(T) 45.3
Hardness (total)	mg/l		(TT) 82
Heterotrophic plate count @35°C	CFU/1ml	M03	292
Magnesium as Mg	mg/l	C01	10.53
pH - Autotitrator	-	C30	6.27
pH @ Water Treatment Works (Plants)	-		6
Potassium as K	mg/l	C01	3.35
Sodium as Na	mg/l	C01	53.27
Sulphate as SO4	mg/l	C33	8.55
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	2
Total Solids - dissolved	mg/l		90.5
Turbidity	NTU	C16	0.71
Turbidity @ WTW	NTU		0.95



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Waainek WTW Final
 Received Date: 09/07/2015

Sample Number	129186		
Sample Description	Waainek WTW Final		
Sample Received Date	08/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	9.72
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	14.25
Chloride as Cl	mg/l	C34	45.35
Chlorine	mg/l		0.94
EC - Autotitrator	mS/m	C29	18.64
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0.02
Hardness (calcium)	mg/l		(T) 34.96
Hardness (magnesium)	mg/l		(T) 34.59
Hardness (total)	mg/l		(T) 70
Heterotrophic plate count @35°C	CFU/1ml	M03	0
Magnesium as Mg	mg/l	C01	8.41
pH - Autotitrator	-	C30	6.21
pH @ Water Treatment Works (Plants)	-		5.77
Potassium as K	mg/l	C01	4.13
Sodium as Na	mg/l	C01	49.93
Sulphate as SO4	mg/l	C33	10.1
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Turbidity	NTU	C16	2.11
Turbidity @ WTW	NTU		3

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated





Amatola Water Amanzi - Water is life
Scientific Services Department
Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK

Scheme: Waainek WTW Final

Received Date: 16/07/2015

Sample Number	128918		
Sample Description	Waainek WTW Final		
Sample Received Date	16/07/2015		
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	9.3
Ammonia as N	mg/l	C32	0.03
Calcium as Ca	mg/l	C01	21.43
Chloride as Cl	mg/l	C34	42.62
Chlorine	mg/l		0.41
EC - Autotitrator	mS/m	C29	18.37
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	0
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 57.65
Hardness (total)	mg/l		(T) 110
Heterotrophic plate count @35°C	CFU/1ml	M03	1
Magnesium as Mg	mg/l	C01	13.56
pH - Autotitrator	-	C30	6.74
pH @ Water Treatment Works (Plants)	-		6.31
Potassium as K	mg/l	C01	3.12
Sodium as Na	mg/l	C01	65.5
Sulphate as SO4	mg/l	C33	9.95
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		91.85
Turbidity	NTU	C16	1.29
Turbidity @ WTW	NTU		1.35

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Waainek WTW Final
 Received Date: 21/07/2015

Sample Number			128948
Sample Description			Waainek WTW Final
Sample Received Date			21/07/2015
Sample Completed Date			
Comment			
	Test	Units	Method No
	Alkalinity - Autotitrator	mg/l	C28 9.48
	Calcium as Ca	mg/l	C01 8.92
	Chlorine	mg/l	1.43
	EC - Autotitrator	mS/m	C29 18.61
	Faecal coliforms count Member Filtration	CFU/100ml	M05 0
	Hardness (calcium)	mg/l	(T) 22.22
	Hardness (magnesium)	mg/l	(T) 18.12
	Hardness (total)	mg/l	(T) 40
	Heterotrophic plate count @35°C	CFU/1ml	M03 0
	Magnesium as Mg	mg/l	C01 4.4
	pH - Autotitrator	-	C30 6.42
	pH @ Water Treatment Works (Plants)	-	5.8
	Potassium as K	mg/l	C01 1.28
	Sodium as Na	mg/l	C01 13.9
	Total coliform bacteria Membrane Filtration	CFU/100ml	M04 2
	Total Solids - dissolved	mg/l	93.05
	Turbidity	NTU	C16 0.96
	Turbidity @ WTW	NTU	1.09

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: FINAL_MK
 Scheme: Waainek WTW Final
 Received Date: 30/07/2015

Sample Number	129056		
Sample Description	Waainek WTW Final		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	7.28
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 21.28
Chloride as Cl	mg/l	C34	(T) 36.73
Chlorine	mg/l		0.91
EC - Autotitrator	mS/m	C29	16.35
Faecal coliforms count Member Filtration	CFU/100ml	M05	0
Fluoride as F	mg/l	C35	(T) 0.02
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 49.42
Hardness (total)	mg/l		(T) 101
Heterotrophic plate count @35°C	CFU/1ml	M03	5
Magnesium as Mg	mg/l	C01	(T) 12.03
pH - Autotitrator	-	C30	6.29
pH @ Water Treatment Works (Plants)	-		6.2
Potassium as K	mg/l	C01	(T) 2.43
Sodium as Na	mg/l	C01	(T) 50.85
Sulphate as SO4	mg/l	C33	(T) 8.7
Total coliform bacteria Membrane Filtration	CFU/100ml	M04	0
Total Solids - dissolved	mg/l		81.75
Turbidity	NTU		3.19
Turbidity @ WTW	NTU		3.98

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK

Scheme: J / Kleinshans Raw WTW

Received Date: 07/07/2015

Sample Number	128819		
Sample Description	J / Kleinshans Raw WTW		
Sample Received Date	07/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
	Alkalinity - Autotitrator	mg/l	C28
			275.2
	Ammonia as N	mg/l	C32
			0
	Calcium as Ca	mg/l	C01
			21.43
	Chloride as Cl	mg/l	C34
			80.62
	E coli waste water (colifert)	MPN/100ML	M01
			1
	EC - Autotitrator	mS/m	C15
			78.6
	Fluoride as F	mg/l	C35
			0.77
	Hardness (calcium)	mg/l	(T) 52.44
	Hardness (magnesium)	mg/l	(T) 49.42
	Hardness (total)	mg/l	(T) 101
	Magnesium as Mg	mg/l	C01
			12.29
	pH - Autotitrator	-	C14
			7.87
	pH @ Water Treatment Works (Plants)	-	
			8.22
	Potassium as K	mg/l	C01
			2.47
	Sodium as Na	mg/l	C01
			51.45
	Sulphate as SO4	mg/l	C33
			59.29
	Total Solids - dissolved	mg/l	
			383
	Turbidity	NTU	C16
			44
	Turbidity @ WTW	NTU	
			9.99

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
Scheme: J / Kleinshans Raw WTW
Received Date: 21/07/2015

Sample Number	128852		
Sample Description	J / Kleinshans Raw WTW		
Sample Received Date	21/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	287.7
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	5.51
Chloride as Cl	mg/l	C34	80.61
E coli waste water(colifert)	MPN/100ML	M01	10
EC - Autotitrator	mS/m	C15	80.5
Fluoride as F	mg/l	C35	0.71
Hardness (calcium)	mg/l		(T) 13.73
Hardness (magnesium)	mg/l		(T) 8.24
Hardness (total)	mg/l		(T) 22.2
Magnesium as Mg	mg/l	C01	1.99
pH - Autotitrator	-	C14	7.83
pH @ Water Treatment Works (Plants)	-		8.22
Potassium as K	mg/l	C01	3.4
Sodium as Na	mg/l	C01	6.79
Sulphate as SO4	mg/l	C33	59.69
Total Solids - dissolved	mg/l		402
Turbidity	NTU	C16	58.5
Turbidity @ WTW	NTU		9.99

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated





Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
 Scheme: J / Kleinshans Raw WTW
 Received Date: 30/07/2015

Sample Number	129060		
Sample Description	J / Kleinshans Raw WTW		
Sample Received Date	30/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	302.9
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 47.65
Chloride as Cl	mg/l	C34	(T) 84.28
EC - Autotitrator	mS/m	C29	82.7
Fluoride as F	mg/l	C35	(T) 0.73
Hardness (calcium)	mg/l		(T) 119.86
Hardness (magnesium)	mg/l		(T) 226.49
Hardness (total)	mg/l		(T) 346
Magnesium as Mg	mg/l	C01	(T) 54.82
pH - Autotitrator	-	C14	7.9
Potassium as K	mg/l	C01	(T) 18.23
Sodium as Na	mg/l	C01	(T) 287.62
Sulphate as SO4	mg/l	C33	(T) 59.14
Total Solids - dissolved	mg/l		414
Turbidity	NTU		53.8

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - Water is life
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK

Scheme: Waainek WTW Raw

Received Date: 02/07/2015

Sample Number			128706
Sample Description			Waainek WTW Raw
Sample Received Date			02/07/2015
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	13.01
Ammonia as N	mg/l	C32	0.01
Calcium as Ca	mg/l	C01	3.71
Chloride as Cl	mg/l	C34	42.12
E coli waste water (colilert)	CFU/100ml	M01	13
EC - Autotitrator	mS/m	C15	17.59
Fluoride as F	mg/l	C35	0.1
Hardness (calcium)	mg/l		(T) 9.24
Hardness (magnesium)	mg/l		(T) 7.82
Hardness (total)	mg/l		(T) 17
Magnesium as Mg	mg/l	C01	1.87
pH - Autotitrator	-	C14	6.76
pH @ Water Treatment Works (Plants)	-		7.01
Potassium as K	mg/l	C01	0.75
Sodium as Na	mg/l	C01	11.41
Sulphate as SO4	mg/l	C33	11.11
Total Solids - dissolved	mg/l		88
Turbidity	NTU	C16	25.2
Turbidity @ WTW	NTU		26.6

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 09/07/2015

Sample Number			129187
Sample Description			Waainek WTW Raw
Sample Received Date			09/07/2015
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	13.43
Ammonia as N	mg/l	C32	0
Calcium as Ca	mg/l	C01	14.11
Chloride as Cl	mg/l	C34	41.86
E coli waste water(colilert)	MPN/100ML	M01	10
EC - Autotitrator	mS/m	C15	18.11
Fluoride as F	mg/l	C35	0.11
Hardness (calcium)	mg/l		(T) 34.96
Hardness (magnesium)	mg/l		(T) 34.18
Hardness (total)	mg/l		(T) 69
Magnesium as Mg	mg/l	C01	8.34
pH - Autotitrator	-	C14	6.84
pH @ Water Treatment Works (Plants)	-		5.44
Potassium as K	mg/l	C01	3.9
Sodium as Na	mg/l	C01	47.23
Sulphate as SO4	mg/l	C33	12.27
Turbidity	NTU	C16	22.6
Turbidity @ WTW	NTU		22.6



175

Amatola Water Amanzi - *Water is life*

Scientific Services Department

Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 16/07/2015

Sample Number			128919
Sample Description			Waainek WTW Raw
Sample Received Date			16/07/2015
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	12.78
Ammonia as N	mg/l	C32	0.02
Calcium as Ca	mg/l	C01	21.13
Chloride as Cl	mg/l	C34	41.56
EC - Autotitrator	mS/m	C15	18.58
Fluoride as F	mg/l	C35	0.07
Hardness (calcium)	mg/l		(T) 52.44
Hardness (magnesium)	mg/l		(T) 53.53
Hardness (total)	mg/l		(T) 106
Magnesium as Mg	mg/l	C01	13.29
pH - Autotitrator	-	C14	5.6
pH @ Water Treatment Works (Plants)	-		6.44
Potassium as K	mg/l	C01	3.03
Sodium as Na	mg/l	C01	63.78
Sulphate as SO4	mg/l	C33	11.55
Total Solids - dissolved	mg/l		92.9
Turbidity	NTU	C16	20.2
Turbidity @ WTW	NTU		9.99

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



176

Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 21/07/2015

Sample Number	128949		
Sample Description	Waainek WTW Raw		
Sample Received Date	21/07/2015		
Sample Completed Date			
Comment			
	Test	Units	Method No
Alkalinity - Autotitrator	mg/l	C28	13.84
Ammonia as N	mg/l	C32	0.01
Calcium as Ca	mg/l	C01	8.84
Chloride as Cl	mg/l	C34	41.15
E coli waste water(coliert)	MPN/100ML	M01	19
EC - Autotitrator	mS/m	C15	18.43
Fluoride as F	mg/l	C35	0.09
Hardness (calcium)	mg/l		(T) 21.97
Hardness (magnesium)	mg/l		(T) 18.12
Hardness (total)	mg/l		(T) 40
Magnesium as Mg	mg/l	C01	4.42
pH - Autotitrator	-	C14	6.85
pH @ Water Treatment Works (Plants)	-		5.5
Potassium as K	mg/l	C01	1.19
Sodium as Na	mg/l	C01	13.95
Sulphate as SO4	mg/l	C33	10.81
Total Solids - dissolved	mg/l		92.1
Turbidity	NTU	C16	19.7
Turbidity @ WTW	NTU		19.9

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated



Amatola Water Amanzi - *Water is life*
Scientific Services Department
 Preliminary Water Quality Report

Report Number: 69546

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 30/07/2015

Sample Number		129057	
Sample Description		Waainek WTW Raw	
Sample Received Date		30/07/2015	
Sample Completed Date			
Comment			
Test	Units	Method No	
Alkalinity - Autotitrator	mg/l	C28	11.01
Ammonia as N	mg/l	C32	(T) 0
Calcium as Ca	mg/l	C01	(T) 21.76
Chloride as Cl	mg/l	C34	(T) 33.16
E coli waste water(collert)	MPN/100ML	M01	115
EC - Autotitrator	mS/m	C15	15.53
Fluoride as F	mg/l	C35	(T) 0.14
Hardness (calcium)	mg/l		(T) 54.93
Hardness (magnesium)	mg/l		(T) 53.53
Hardness (total)	mg/l		(T) 109
Magnesium as Mg	mg/l	C01	(T) 12.56
pH - Autotitrator	-	C14	6.82
pH @ Water Treatment Works (Plants)	-		6.31
Potassium as K	mg/l	C01	(T) 2.45
Sodium as Na	mg/l	C01	(T) 55.49
Sulphate as SO4	mg/l	C33	(T) 14.49
Total Solids - dissolved	mg/l		77.6
Turbidity	NTU		61.5
Turbidity @ WTW	NTU		9.99

Key: (s) - Subcontracted | (T) - New result | (TT) - Result updated