



Scientific Services Department

Preliminary Water Quality Report

Report Number: 69360

Physical Address

Amatola Water
Scientific Services
Nahoon Dam Complex

Postal Address

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Scientific Services Department

Preliminary Water Quality Report

Report Number: 69360

Test List: EFFLUENT
 Scheme: Mayfield Effluent
 Received Date: 01/04/2015

| | | | |
|----------------------------|---------------------------------|--------------|-------------------|
| Sample Number | | | 127235 |
| Sample Description | | | Mayfield Effluent |
| Analysis Start Date | | | 01/04/2015 |
| Analysis End Date | | | 14/04/2015 |
| Comment | | | EMPTY |
| | Test | Units | Method No |
| | Ammonia as N | mg/l | C32 |
| | Chemical Oxygen Demand - DR2800 | mg/l | C50 |
| | Chlorine | mg/l | |
| | E coli waste water (colilert) | CFU/100ml | M01 |
| | EC @ 25°C | mS/m | C15 |
| | Nitrate as N | mg/l | |
| | Nitrite as N | mg/l | C39 |
| | Ortho phosphate - Aquakem | mg/l | C37 |
| | PH @ 25°C | - | C14 |
| | Solids - Total suspended | mg/l | C46 |

Test List: EFFLUENT
 Scheme: Mayfield Effluent
 Received Date: 16/04/2015

| | | | |
|----------------------------|---------------------------------|--------------|-------------------|
| Sample Number | | | 127059 |
| Sample Description | | | Mayfield Effluent |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Ammonia as N | mg/l | C32 |
| | Chemical Oxygen Demand - DR2800 | mg/l | C50 |
| | Chlorine | mg/l | |
| | E coli waste water (colilert) | CFU/100ml | M01 |
| | EC @ 25°C | mS/m | C15 |
| | Nitrite as N | mg/l | C39 |
| | Ortho phosphate - Aquakem | mg/l | C37 |
| | PH @ 25°C | - | C14 |





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Test List: FINAL_MK

Scheme: Alicedale Community Tap WTW

Received Date: 16/04/2015

| Sample Number | 127075 | | |
|---|-----------------------------|-----------|--------|
| Sample Description | Alicedale Community Tap WTW | | |
| Analysis Start Date | 16/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.04 |
| Calcium as Ca | mg/l | C01 | 23.31 |
| Chloride as Cl | mg/l | C34 | 189.12 |
| Chlorine | mg/l | | 1.6 |
| Copper as Cu | µg/l | C02 | 0.65 |
| EC - Autotitrator | mS/m | C29 | 77.03 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.06 |
| Hardness (calcium) | mg/l | | 57.43 |
| Hardness (magnesium) | mg/l | | 57.65 |
| Hardness (total) | mg/l | | 115 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 14.2 |
| Manganese as Mn | µg/l | C02 | 2.11 |
| pH - Autotitrator | - | C30 | 7.5 |
| pH @ Water Treatment Works (Plants) | - | | 8.42 |
| Potassium as K | mg/l | C01 | 5.19 |
| Sodium as Na | mg/l | C01 | 100.28 |
| Sulphate as SO4 | mg/l | C33 | 8.1 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 385.13 |
| Turbidity | NTU | C16 | 1.46 |
| Turbidity @ WTW | NTU | | 1.45 |
| Zinc as Zn | µg/l | C02 | 25.5 |



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



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Report Number: 69360

Test List: FINAL_MK

Scheme: Alicedale Community Tap WTW

Received Date: 21/04/2015

| | | | |
|----------------------------|---|--------------|------------------|
| Sample Number | 127109 | | |
| Sample Description | Alicedale Community Tap WTW | | |
| Analysis Start Date | 21/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0 |
| | Calcium as Ca | mg/l | C01 |
| | | | 22.01 |
| | Chlorine | mg/l | |
| | | | 0.36 |
| | Copper as Cu | µg/l | C02 |
| | | | 1.38 |
| | Autotitrator | mS/m | C29 |
| | | | 75.44 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | | | 0 |
| | Hardness (calcium) | mg/l | |
| | | | 54.93 |
| | Hardness (magnesium) | mg/l | |
| | | | 57.65 |
| | Hardness (total) | mg/l | |
| | | | 113 |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | | | 20 |
| | Lead as Pb | µg/l | C02 |
| | | | 0 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 14.25 |
| | Manganese as Mn | µg/l | C02 |
| | | | 2.8 |
| | pH - Autotitrator | - | C30 |
| | | | 8.16 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 7.8 |
| | Potassium as K | mg/l | C01 |
| | | | 5.22 |
| | Sodium as Na | mg/l | C01 |
| | | | 105.33 |
| | Total coliform bacteria Membrane Filtration | CFU/100ml | M04 |
| | | | 0 |
| | Total Solids - dissolved | mg/l | |
| | | | 377.2 |
| | Turbidity | NTU | C16 |
| | | | 2.21 |
| | Turbidity @ WTW | NTU | |
| | | | 2.71 |
| | Zinc as Zn | µg/l | C02 |
| | | | 19.19 |





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Report Number: 69360

Test List: FINAL_MK

Scheme: Beaufort Str Police Station

Received Date: 01/04/2015

| | | | |
|---|-----------------------------|--------------|------------------|
| Sample Number | 127229 | | |
| Sample Description | Beaufort Str Police Station | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| Alkalinity - Autotitrator | mg/l | C28 | 28.74 |
| Aluminium as Al | µg/l | C09 | 7.87 |
| Ammonia as N | mg/l | C32 | 0.08 |
| Ammonium as Cd | µg/l | C03 | 0.03 |
| Calcium as Ca | mg/l | C01 | 28.83 |
| Chloride as Cl | mg/l | C34 | 62.96 |
| Chlorine | mg/l | | 0.01 |
| Copper as Cu | µg/l | C02 | 1.95 |
| EC - Autotitrator | mS/m | C29 | 28.29 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.02 |
| Hardness (calcium) | mg/l | | 67.42 |
| Hardness (magnesium) | mg/l | | 78.24 |
| Hardness (total) | mg/l | | 145 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 53.81 |
| Lead as Pb | µg/l | C02 | 0.1 |
| Magnesium as Mg | mg/l | C01 | 18.67 |
| Manganese as Mn | µg/l | C02 | 1.11 |
| pH - Autotitrator | - | C30 | 7.1 |
| pH @ Water Treatment Works (Plants) | - | | 7.18 |
| Potassium as K | mg/l | C01 | 3.07 |
| Sodium as Na | mg/l | C01 | 107.29 |
| Sulphate as SO4 | mg/l | C33 | 0.76 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 8 |
| Total Solids - dissolved | mg/l | | 131.45 |
| Turbidity | NTU | C16 | 0.72 |
| Turbidity @ WTW | NTU | | 0.67 |
| Zinc as Zn | µg/l | C02 | 0.34 |



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Report Number: 69360

Test List: FINAL_MK
 Scheme: Beaufort Str Police Station
 Received Date: 16/04/2015

| Sample Number | | | 127072 |
|---|-----------|-----------|-----------------------------|
| Sample Description | | | Beaufort Str Police Station |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0.09 |
| Cadmium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 4.75 |
| Chloride as Cl | mg/l | C34 | 57.64 |
| Chlorine | mg/l | | 0.01 |
| Copper as Cu | µg/l | C02 | 35.43 |
| EC - Autotitrator | mS/m | C29 | 20.96 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.02 |
| Hardness (calcium) | mg/l | | 11.99 |
| Hardness (magnesium) | mg/l | | 16.47 |
| Hardness (total) | mg/l | | 28 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 34 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 3.98 |
| Manganese as Mn | µg/l | C02 | 27 |
| pH - Autotitrator | - | C30 | 6.95 |
| pH @ Water Treatment Works (Plants) | - | | 7.61 |
| Potassium as K | mg/l | C01 | 1.06 |
| Sodium as Na | mg/l | C01 | 29.65 |
| Sulphate as SO4 | mg/l | C33 | 2.69 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 4 |
| Total Solids - dissolved | mg/l | | 104.8 |
| Turbidity | NTU | C16 | 0.68 |
| Turbidity @ WTW | NTU | | 0.99 |
| Zinc as Zn | µg/l | C02 | 4.64 |





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Report Number: 69360

Test List: FINAL_MK

Scheme: Riebeeck Communal Tap

Received Date: 01/04/2015

| Sample Number | | | 127228 |
|---|-----------|-----------|-----------------------|
| Sample Description | | | Riebeeck Communal Tap |
| Analysis Start Date | | | 01/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 97.86 |
| Aluminium as Al | µg/l | C09 | 0.38 |
| Ammonia as N | mg/l | C32 | 0 |
| Ammonium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 9.15 |
| Chloride as Cl | mg/l | C34 | 125.76 |
| Chlorine | mg/l | | 1.05 |
| Copper as Cu | µg/l | C02 | 0.06 |
| EC - Autotitrator | mS/m | C29 | 57.19 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.09 |
| Hardness (calcium) | mg/l | | 22.97 |
| Hardness (magnesium) | mg/l | | 61.77 |
| Hardness (total) | mg/l | | 85 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 0 |
| Lead as Pb | µg/l | C02 | 0.91 |
| Magnesium as Mg | mg/l | C01 | 14.89 |
| Manganese as Mn | µg/l | C02 | 136.19 |
| pH - Autotitrator | - | C30 | 7.09 |
| pH @ Water Treatment Works (Plants) | - | | 8.04 |
| Potassium as K | mg/l | C01 | 1.57 |
| Sodium as Na | mg/l | C01 | 84.46 |
| Sulphate as SO4 | mg/l | C33 | 8.78 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 286 |
| Turbidity | NTU | C16 | 2.82 |
| Turbidity @ WTW | NTU | | 2.63 |
| Zinc as Zn | µg/l | C02 | 34.82 |





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Test List: FINAL_MK

Scheme: Riebeeck Communal Tap

Received Date: 16/04/2015

| Sample Number | | | 127071 |
|---|-----------|-----------|-----------------------|
| Sample Description | | | Riebeeck Communal Tap |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Aluminium as Al | µg/l | C09 | 20.19 |
| Ammonia as N | mg/l | C32 | 0.06 |
| Cadmium as Cd | µg/l | C03 | 0.03 |
| Calcium as Ca | mg/l | C01 | 8.74 |
| Chloride as Cl | mg/l | C34 | 144.71 |
| Chlorine | mg/l | | 0.38 |
| Copper as Cu | µg/l | C02 | 0.99 |
| EC - Autotitrator | mS/m | C29 | 60.3 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.09 |
| Hardness (calcium) | mg/l | | 21.72 |
| Hardness (magnesium) | mg/l | | 61.77 |
| Hardness (total) | mg/l | | 84 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 0 |
| Iron (total) as Fe | µg/l | C02 | 16.6 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 15.26 |
| Manganese as Mn | µg/l | C02 | 17.08 |
| pH - Autotitrator | - | C30 | 7.16 |
| pH @ Water Treatment Works (Plants) | - | | 8.11 |
| Potassium as K | mg/l | C01 | 1.64 |
| Sodium as Na | mg/l | C01 | 94.58 |
| Sulphate as SO4 | mg/l | C33 | 8.87 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 301.53 |
| Turbidity | NTU | C16 | 2.12 |
| Turbidity @ WTW | NTU | | 2.39 |
| Zinc as Zn | µg/l | C02 | 26.63 |



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

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Report Number: 69360

Test List: FINAL_MK

Scheme: Environmental Health Office

Received Date: 01/04/2015

| Sample Number | 127227 | | |
|---|-----------------------------|-----------|--------|
| Sample Description | Environmental Health Office | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 28.82 |
| Aluminium as Al | µg/l | C09 | 18.55 |
| Ammonia as N | mg/l | C32 | 0 |
| Ammonium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 28.59 |
| Chloride as Cl | mg/l | C34 | 64.55 |
| Chlorine | mg/l | | 0.05 |
| Copper as Cu | µg/l | C02 | 4.21 |
| EC - Autotitrator | mS/m | C29 | 27.16 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.02 |
| Hardness (calcium) | mg/l | | 67.42 |
| Hardness (magnesium) | mg/l | | 78.24 |
| Hardness (total) | mg/l | | 145 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 36.1 |
| Lead as Pb | µg/l | C02 | 1.81 |
| Magnesium as Mg | mg/l | C01 | 18.59 |
| Manganese as Mn | µg/l | C02 | 4.83 |
| pH - Autotitrator | - | C30 | 7.07 |
| pH @ Water Treatment Works (Plants) | - | | 7.31 |
| Potassium as K | mg/l | C01 | 3.12 |
| Sodium as Na | mg/l | C01 | 106.84 |
| Sulphate as SO4 | mg/l | C33 | 0.95 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 135.8 |
| Turbidity | NTU | C16 | 1.1 |
| Turbidity @ WTW | NTU | | 1.43 |
| Zinc as Zn | µg/l | C02 | 1.02 |



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Report Number: 69360

Test List: FINAL_MK

Scheme: Environmental Health Office

Received Date: 16/04/2015

| Sample Number | | | 127070 |
|---|-----------|-----------|-----------------------------|
| Sample Description | | | Environmental Health Office |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Aluminium as Al | µg/l | C09 | 21.53 |
| Ammonia as N | mg/l | C32 | 0.2 |
| Cadmium as Cd | µg/l | C03 | 0.02 |
| Calcium as Ca | mg/l | C01 | 3.42 |
| Chloride as Cl | mg/l | C34 | 61.39 |
| Chlorine | mg/l | | 0.01 |
| Copper as Cu | µg/l | C02 | 43.16 |
| EC - Autotitrator | mS/m | C29 | 20.42 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.02 |
| Hardness (calcium) | mg/l | | 8.49 |
| Hardness (magnesium) | mg/l | | 17.3 |
| Hardness (total) | mg/l | | 25.5 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 2 |
| Iron (total) as Fe | µg/l | C02 | 15.02 |
| Lead as Pb | µg/l | C02 | 0.84 |
| Magnesium as Mg | mg/l | C01 | 4.16 |
| Manganese as Mn | µg/l | C02 | 16.16 |
| pH - Autotitrator | - | C30 | 6.66 |
| pH @ Water Treatment Works (Plants) | - | | 7.51 |
| Potassium as K | mg/l | C01 | 1.03 |
| Sodium as Na | mg/l | C01 | 29.6 |
| Sulphate as SO4 | mg/l | C33 | 3.04 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 102.1 |
| Turbidity | NTU | C16 | 1.08 |
| Turbidity @ WTW | NTU | | 1.58 |
| Zinc as Zn | µg/l | C02 | 34.64 |



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



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Report Number: 69360

Test List: FINAL_MK
Scheme: Extension 7 Clinic
Received Date: 01/04/2015

| Sample Number | | | 127226 |
|---|-----------|-----------|--------------------|
| Sample Description | | | Extension 7 Clinic |
| Analysis Start Date | | | 01/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 257 |
| Aluminium as Al | µg/l | C09 | 286.47 |
| Ammonia as N | mg/l | C32 | 0 |
| Arsenium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 6.08 |
| Chloride as Cl | mg/l | C34 | 79.76 |
| Chlorine | mg/l | | 0.25 |
| Copper as Cu | µg/l | C02 | 21.67 |
| EC - Autotitrator | mS/m | C29 | 73 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.35 |
| Hardness (calcium) | mg/l | | 15.23 |
| Hardness (magnesium) | mg/l | | 23.47 |
| Hardness (total) | mg/l | | 38 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 190.84 |
| Lead as Pb | µg/l | C02 | 0.46 |
| Magnesium as Mg | mg/l | C01 | 5.7 |
| Manganese as Mn | µg/l | C02 | 279.72 |
| pH - Autotitrator | - | C30 | 8.43 |
| pH @ Water Treatment Works (Plants) | - | | 7.96 |
| Potassium as K | mg/l | C01 | 1.27 |
| Sodium as Na | mg/l | C01 | 37.56 |
| Sulphate as SO4 | mg/l | C33 | 28.69 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 365 |
| Turbidity | NTU | C16 | 10.6 |
| Turbidity @ WTW | NTU | | 11 |
| Zinc as Zn | µg/l | C02 | 18.7 |



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



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Report Number: 69360

Test List: FINAL_MK

Scheme: Extension 7 Clinic

Received Date: 16/04/2015

| Sample Number | | | 127069 |
|---|-----------|-----------|--------------------|
| Sample Description | | | Extension 7 Clinic |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.05 |
| Calcium as Ca | mg/l | C01 | 27.58 |
| Chloride as Cl | mg/l | C34 | 98.4 |
| Chlorine | mg/l | | 0.01 |
| Copper as Cu | µg/l | C02 | 2.97 |
| EC - Autotitrator | mS/m | C29 | 75.66 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 1 |
| Fluoride as F | mg/l | C35 | 0.33 |
| Hardness (calcium) | mg/l | | 69.92 |
| Hardness (magnesium) | mg/l | | 82.36 |
| Hardness (total) | mg/l | | 152 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 19.93 |
| Manganese as Mn | µg/l | C02 | 0 |
| pH - Autotitrator | - | C30 | 8.83 |
| pH @ Water Treatment Works (Plants) | - | | 8.21 |
| Potassium as K | mg/l | | 3.18 |
| Sodium as Na | mg/l | C01 | 114.03 |
| Sulphate as SO4 | mg/l | C33 | 29.45 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | >2420 |
| Total Solids - dissolved | mg/l | | 378.31 |
| Turbidity | NTU | C16 | 2.79 |
| Turbidity @ WTW | NTU | | 3.81 |
| Zinc as Zn | µg/l | C02 | 0 |



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Report Number: 69360

Test List: FINAL_MK

Scheme: Indoor Sports Centre

Received Date: 01/04/2015

| Sample Number | | | 127225 |
|---|-----------|-----------|----------------------|
| Sample Description | | | Indoor Sports Centre |
| Analysis Start Date | | | 01/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 271 |
| Aluminium as Al | µg/l | C09 | 23.41 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 6.55 |
| Chloride as Cl | mg/l | C34 | 79.82 |
| Chlorine | mg/l | | 0.08 |
| Copper as Cu | µg/l | C02 | 21.52 |
| EC - Autotitrator | mS/m | C29 | 72.7 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.35 |
| Hardness (calcium) | mg/l | | 16.48 |
| Hardness (magnesium) | mg/l | | 21.83 |
| Hardness (total) | mg/l | | 38 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 10.22 |
| Lead as Pb | µg/l | C02 | 0.09 |
| Magnesium as Mg | mg/l | C01 | 5.28 |
| Manganese as Mn | µg/l | C02 | 270.33 |
| pH - Autotitrator | - | C30 | 8.44 |
| pH @ Water Treatment Works (Plants) | - | | 7.94 |
| Potassium as K | mg/l | C01 | 1.2 |
| Sodium as Na | mg/l | C01 | 35.35 |
| Sulphate as SO4 | mg/l | C33 | 29.06 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 363.5 |
| Turbidity | NTU | C18 | 1.08 |
| Turbidity @ WTW | NTU | | 1.32 |
| Zinc as Zn | µg/l | C02 | 6.5 |



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



Scientific Services Department

Preliminary Water Quality Report

Report Number: 69360

Test List: FINAL_MK

Scheme: Indoor Sports Centre

Received Date: 16/04/2015

| | | | |
|---------------------|---|--------------|------------------|
| Sample Number | 127068 | | |
| Sample Description | Indoor Sports Centre | | |
| Analysis Start Date | 16/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Aluminium as Al | µg/l | C09 |
| | Ammonia as N | mg/l | C32 |
| | Cadmium as Cd | µg/l | C03 |
| | Calcium as Ca | mg/l | C01 |
| | Chloride as Cl | mg/l | C34 |
| | Chlorine | mg/l | |
| | Copper as Cu | µg/l | C02 |
| | EC - Autotitrator | mS/m | C29 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | Fluoride as F | mg/l | C35 |
| | Hardness (calcium) | mg/l | |
| | Hardness (magnesium) | mg/l | |
| | Hardness (total) | mg/l | |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | Iron (total) as Fe | µg/l | C02 |
| | Lead as Pb | µg/l | C02 |
| | Magnesium as Mg | mg/l | C01 |
| | Manganese as Mn | µg/l | C02 |
| | 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 | |
| | Zinc as Zn | µg/l | C02 |



Scientific Services Department

Preliminary Water Quality Report

Report Number: 69360

Test List: FINAL_MK

Scheme: J / Kleinshans Final WTW

Received Date: 01/04/2015

| Sample Number | 127233 | | |
|---|--------------------------|-----------|--------|
| Sample Description | J / Kleinshans Final WTW | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | EMPTY | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 314.8 |
| Aluminium as Al | µg/l | C09 | 36.88 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.03 |
| Calcium as Ca | mg/l | C01 | 8.87 |
| Chloride as Cl | mg/l | C34 | 91.26 |
| Chlorine | mg/l | | 0.38 |
| Copper as Cu | µg/l | C02 | 32.3 |
| EC - Autotitrator | mS/m | C29 | 82.5 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.41 |
| Hardness (calcium) | mg/l | | 22.22 |
| Hardness (magnesium) | mg/l | | 16.06 |
| Hardness (total) | mg/l | | 38 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 30.53 |
| Lead as Pb | µg/l | C02 | 1.52 |
| Magnesium as Mg | mg/l | C01 | 3.89 |
| Manganese as Mn | µg/l | C02 | 1.58 |
| pH - Autotitrator | | C30 | 8.51 |
| pH @ Water Treatment Works (Plants) | | | 8.97 |
| Potassium as K | mg/l | C01 | 1.64 |
| Sodium as Na | mg/l | C01 | 13.59 |
| Sulphate as SO4 | mg/l | C33 | 30.26 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 412.49 |
| Turbidity | NTU | C16 | 0.89 |
| Turbidity @ WTW | NTU | | 0.86 |
| Zinc as Zn | µg/l | C02 | 69.02 |



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Preliminary Water Quality Report

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Report Number: 69360

Test List: FINAL_MK
 Scheme: J / Kleinshans Final WTW
 Received Date: 07/04/2015

| | | | |
|---|--------------------------|--------------|------------------|
| Sample Number | 126962 | | |
| Sample Description | J / Kleinshans Final WTW | | |
| Analysis Start Date | 07/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| Alkalinity - Autotitrator | mg/l | C28 | 273.4 |
| Aluminium as Al | µg/l | C09 | 48.78 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 28.19 |
| Chloride as Cl | mg/l | C34 | 83.74 |
| Chlorine | mg/l | | 0.49 |
| Copper as Cu | µg/l | C02 | 1.15 |
| EC - Autotitrator | mS/m | C29 | 71.18 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.38 |
| Hardness (calcium) | mg/l | | 69.92 |
| Hardness (magnesium) | mg/l | | 78.24 |
| Hardness (total) | mg/l | | 148 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 7 |
| Iron (total) as Fe | µg/l | C02 | 27.63 |
| Lead as Pb | µg/l | C02 | 0.51 |
| Magnesium as Mg | mg/l | C01 | 18.94 |
| Manganese as Mn | µg/l | C02 | 0.62 |
| pH - Autotitrator | - | C30 | 8.47 |
| pH @ Water Treatment Works (Plants) | - | | 8.37 |
| Potassium as K | mg/l | C01 | 3.03 |
| Sodium as Na | mg/l | C01 | 109.38 |
| Sulphate as SO4 | mg/l | C33 | 27.22 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 355.9 |
| Turbidity | NTU | C16 | 1.17 |
| Turbidity @ WTW | NTU | | 1.57 |
| Zinc as Zn | µg/l | C02 | 0 |



Report Number: 69360

Test List: FINAL_MK

Scheme: J / Kleinshans Final WTW

Received Date: 16/04/2015

| Sample Number | 127076 | | |
|---|--------------------------|-----------|--------|
| Sample Description | J / Kleinshans Final WTW | | |
| Analysis Start Date | 16/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0.01 |
| Cadmium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 27.27 |
| Chloride as Cl | mg/l | C34 | 96.91 |
| Chromium | mg/l | | 0.14 |
| Copper as Cu | µg/l | C02 | 0.99 |
| EC - Autotitrator | mS/m | C29 | 75.51 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.34 |
| Hardness (calcium) | mg/l | | 67.42 |
| Hardness (magnesium) | mg/l | | 82.36 |
| Hardness (total) | mg/l | | 149 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 19.81 |
| Manganese as Mn | µg/l | C02 | 0 |
| pH - Autotitrator | - | C30 | 8.76 |
| pH @ Water Treatment Works (Plants) | - | | 8.65 |
| Potassium as K | mg/l | C01 | 3.15 |
| Sodium as Na | mg/l | C01 | 113.44 |
| Sulphate as SO4 | mg/l | C33 | 28.82 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | >2420 |
| Total Solids - dissolved | mg/l | | 377.53 |
| Turbidity | NTU | C16 | 2.62 |
| Turbidity @ WTW | NTU | | 4.92 |
| Total Dissolved Solids Zn | µg/l | C02 | 0 |



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Preliminary Water Quality Report

Report Number: 69360

Test List: FINAL_MK

Scheme: J / Kleinshans Final WTW

Received Date: 21/04/2015

| | | | |
|----------------------------|---|--------------|------------------|
| Sample Number | 127110 | | |
| Sample Description | J / Kleinshans Final WTW | | |
| Analysis Start Date | 21/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0.04 |
| | Calcium as Ca | mg/l | C01 |
| | | | 27.87 |
| | Chlorine | mg/l | |
| | | | 2.14 |
| | Copper as Cu | µg/l | C02 |
| | | | 7.29 |
| | Autotitrator | mS/m | C29 |
| | | | 79.04 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | | | 0 |
| | Hardness (calcium) | mg/l | |
| | | | 69.92 |
| | Hardness (magnesium) | mg/l | |
| | | | 82.36 |
| | Hardness (total) | mg/l | |
| | | | 152 |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | | | 5 |
| | Lead as Pb | µg/l | C02 |
| | | | 0.17 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 20.14 |
| | Manganese as Mn | µg/l | C02 |
| | | | 2.04 |
| | pH - Autotitrator | - | C30 |
| | | | 8.52 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 8.78 |
| | Potassium as K | mg/l | C01 |
| | | | 3.15 |
| | Sodium as Na | mg/l | C01 |
| | | | 113.43 |
| | Total coliform bacteria Membrane Filtration | CFU/100ml | M04 |
| | | | 0 |
| | Total Solids - dissolved | mg/l | |
| | | | 395.21 |
| | Turbidity | NTU | C16 |
| | | | 2.43 |
| | Turbidity @ WTW | NTU | |
| | | | 2.45 |
| | Zinc as Zn | µg/l | C02 |
| | | | 2.01 |





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Preliminary Water Quality Report

Report Number: 69360

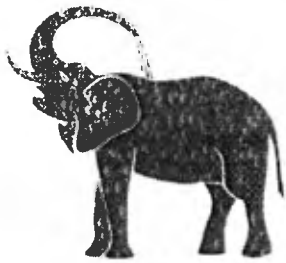
Test List: FINAL_MK

Scheme: J Street Community Tap

Received Date: 01/04/2015

| | | | |
|---------------------|---|-----------|-----------|
| Sample Number | 127224 | | |
| Sample Description | J Street Community Tap | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Alkalinity - Autotitrator | mg/l | C28 |
| | Aluminium as Al | µg/l | C09 |
| | Ammonia as N | mg/l | C32 |
| | Ammonium as Cd | µg/l | C03 |
| | Ammonium as Ca | mg/l | C01 |
| | Chloride as Cl | mg/l | C34 |
| | Chlorine | mg/l | |
| | Copper as Cu | µg/l | C02 |
| | EC - Autotitrator | mS/m | C29 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | Fluoride as F | mg/l | C35 |
| | Hardness (calcium) | mg/l | |
| | Hardness (magnesium) | mg/l | |
| | Hardness (total) | mg/l | |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | Iron (total) as Fe | µg/l | C02 |
| | Lead as Pb | µg/l | C02 |
| | Magnesium as Mg | mg/l | C01 |
| | Manganese as Mn | µg/l | C02 |
| | 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 | |
| | Zinc as Zn | µg/l | C02 |





Report Number: 69360

Test List: FINAL_MK

Scheme: J Street Community Tap

Received Date: 16/04/2015

| Sample Number | | | 127067 |
|---|-----------|-----------|------------------------|
| Sample Description | | | J Street Community Tap |
| Analysis Start Date | | | 16/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Aluminium as Al | µg/l | C09 | 22.94 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.05 |
| Calcium as Ca | mg/l | C01 | 27.47 |
| Chloride as Cl | mg/l | C34 | 92.26 |
| Chlorine | mg/l | | 0.01 |
| Copper as Cu | µg/l | C02 | 1.31 |
| EC - Autotitrator | mS/m | C29 | 75.72 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 1 |
| Fluoride as F | mg/l | C35 | 0.33 |
| Hardness (calcium) | mg/l | | 67.42 |
| Hardness (magnesium) | mg/l | | 82.36 |
| Hardness (total) | mg/l | | 149 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 15.79 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 19.9 |
| Manganese as Mn | µg/l | C02 | 0 |
| pH - Autotitrator | - | C30 | 8.83 |
| pH @ Water Treatment Works (Plants) | - | | 7.98 |
| Potassium as K | mg/l | C01 | 3.13 |
| Sodium as Na | mg/l | C01 | 113.51 |
| Sulphate as SO4 | mg/l | C33 | 28.8 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | >2420 |
| Solids - dissolved | mg/l | | 378.61 |
| Turbidity | NTU | C16 | 1.83 |
| Turbidity @ WTW | NTU | | 2.9 |
| Zinc as Zn | µg/l | C02 | 0 |



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Preliminary Water Quality Report

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Report Number: 69360

Test List: FINAL_MK

Scheme: Nonzwakazi Community Tap in Alicedale

Received Date: 01/04/2015

| Sample Number | 127223 | | |
|---|--------------------------------|-----------|--------|
| Sample Description | Nonzwakazi Community Tap in | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 110.6 |
| Aluminium as Al | µg/l | C09 | 17.92 |
| Ammonia as N | mg/l | C32 | 0 |
| Barium as Cd | µg/l | C03 | 0 |
| Barium as Ca | mg/l | C01 | 30.84 |
| Chloride as Cl | mg/l | C34 | 148.35 |
| Chlorine | mg/l | | 0.1 |
| Copper as Cu | µg/l | C02 | 6.38 |
| EC - Autotitrator | mS/m | C29 | 67.3 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 1 |
| Fluoride as F | mg/l | C35 | 0.08 |
| Hardness (calcium) | mg/l | | 77.41 |
| Hardness (magnesium) | mg/l | | 90.6 |
| Hardness (total) | mg/l | | 168 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 5.38 |
| Lead as Pb | µg/l | C02 | 0.37 |
| Magnesium as Mg | mg/l | C01 | 21.64 |
| Manganese as Mn | µg/l | C02 | 0.58 |
| pH - Autotitrator | - | C30 | 8.03 |
| pH @ Water Treatment Works (Plants) | - | | 7.79 |
| Potassium as K | mg/l | C01 | 3.33 |
| Sodium as Na | mg/l | C01 | 120.86 |
| Sulphate as SO4 | mg/l | C33 | 7.36 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 12 |
| Total Solids - dissolved | mg/l | | 336.51 |
| Turbidity | NTU | C16 | 0.95 |
| Turbidity @ WTW | NTU | | 1.12 |
| Zinc as Zn | µg/l | C02 | 0.34 |



Scientific Services Department

Preliminary Water Quality Report

Report Number: 69360

Test List: FINAL_MK

Scheme: Riebeeck East Network Reservoir

Received Date: 01/04/2015

| Sample Number | 127222 | | |
|---|---------------------------------|-----------|--------|
| Sample Description | Riebeeck East Network Reservoir | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 88.53 |
| Aluminium as Al | µg/l | C09 | 0.31 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.02 |
| Calcium as Ca | mg/l | C01 | 9.84 |
| Chloride as Cl | mg/l | C34 | 124.55 |
| Chlorine | mg/l | | 0.23 |
| Copper as Cu | µg/l | C02 | 5.31 |
| EC - Autotitrator | mS/m | C29 | 56.33 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.07 |
| Hardness (calcium) | mg/l | | 24.47 |
| Hardness (magnesium) | mg/l | | 61.77 |
| Hardness (total) | mg/l | | 86 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 451.52 |
| Lead as Pb | µg/l | C02 | 0.62 |
| Magnesium as Mg | mg/l | C01 | 15.24 |
| Manganese as Mn | µg/l | C02 | 25.76 |
| pH - Autotitrator | - | C30 | 6.88 |
| pH @ Water Treatment Works (Plants) | - | | 7.89 |
| Potassium as K | mg/l | C01 | 1.54 |
| Sodium as Na | mg/l | C01 | 85.71 |
| Sulphate as SO4 | mg/l | C33 | 9.01 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 281.65 |
| Turbidity | NTU | C16 | 3.43 |
| Turbidity @ WTW | NTU | | 3.7 |
| Zinc as Zn | µg/l | C02 | 73.81 |



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Preliminary Water Quality Report

Report Number: 69360

Test List: FINAL_MK

Scheme: Waainek WTW Final

Received Date: 01/04/2015

| Sample Number | 127230 | | |
|---|-------------------|-----------|-------|
| Sample Description | Waainek WTW Final | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 18.27 |
| Aluminium as Al | µg/l | C09 | 17.16 |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.02 |
| Calcium as Ca | mg/l | C01 | 20.52 |
| Chloride as Cl | mg/l | C34 | 60.77 |
| Chlorine | mg/l | | 0.85 |
| Copper as Cu | µg/l | C02 | 2.39 |
| EC - Autotitrator | mS/m | C29 | 24.4 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.02 |
| Hardness (calcium) | mg/l | | 52.44 |
| Hardness (magnesium) | mg/l | | 53.53 |
| Hardness (total) | mg/l | | 106 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 1001 |
| Iron (total) as Fe | µg/l | C02 | 31.22 |
| Lead as Pb | µg/l | C02 | 0.14 |
| Magnesium as Mg | mg/l | C01 | 12.81 |
| Manganese as Mn | µg/l | C02 | 0.38 |
| pH - Autotitrator | - | C30 | 6.59 |
| pH @ Water Treatment Works (Plants) | - | | 5.99 |
| Potassium as K | mg/l | C01 | 5.01 |
| Sodium as Na | mg/l | C01 | 96.45 |
| Sulphate as SO4 | mg/l | C33 | 0.87 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 122 |
| Turbidity | NTU | C16 | 0.7 |
| Turbidity @ WTW | NTU | | 1.15 |
| Zinc as Zn | µg/l | C02 | 17.82 |



Report Number: 69360

Test List: FINAL_MK

Scheme: Waainek WTW Final

Received Date: 07/04/2015

| | | | |
|----------------------------|---|--------------|------------------|
| Sample Number | 126955 | | |
| Sample Description | Waainek WTW Final | | |
| Analysis Start Date | 07/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Alkalinity - Autotitrator | mg/l | C28 |
| | | | 10.92 |
| | Aluminium as Al | µg/l | C09 |
| | | | 227.38 |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0 |
| | Calcium as Ca | mg/l | C01 |
| | | | 30.02 |
| | Chloride as Cl | mg/l | C34 |
| | | | 55.86 |
| | Chlorine | mg/l | |
| | | | 2.69 |
| | Copper as Cu | µg/l | C02 |
| | | | 24.43 |
| | EC - Autotitrator | mS/m | C29 |
| | | | 20.85 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | | | 0 |
| | Fluoride as F | mg/l | C35 |
| | | | 0 |
| | Hardness (calcium) | mg/l | |
| | | | 74.91 |
| | Hardness (magnesium) | mg/l | |
| | | | 86.48 |
| | Hardness (total) | mg/l | |
| | | | 161 |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | | | 3 |
| | Iron (total) as Fe | µg/l | C02 |
| | | | 193.65 |
| | Lead as Pb | µg/l | C02 |
| | | | 0.92 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 21.45 |
| | Manganese as Mn | µg/l | C02 |
| | | | 2.41 |
| | pH - Autotitrator | - | C30 |
| | | | 6.3 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 7.04 |
| | Potassium as K | mg/l | C01 |
| | | | 3.23 |
| | Sodium as Na | mg/l | C01 |
| | | | 119.82 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 2.54 |
| | Total coliform bacteria Membrane Filtration | CFU/100ml | M04 |
| | | | 0 |
| | Solids - dissolved | mg/l | |
| | | | 104.3 |
| | Turbidity | NTU | C16 |
| | | | 3.96 |
| | Turbidity @ WTW | NTU | |
| | | | 4.38 |
| | Zinc as Zn | µg/l | C02 |
| | | | 21.37 |



Report Number: 69360

Test List: FINAL_MK
 Scheme: Waainek WTW Final
 Received Date: 16/04/2015

| | | | |
|---------------------|---|-----------|-----------|
| Sample Number | 127073 | | |
| Sample Description | Waainek WTW Final | | |
| Analysis Start Date | 16/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0 |
| | Calcium as Ca | mg/l | C01 |
| | | | 2.98 |
| | Chloride as Cl | mg/l | C34 |
| | | | 54.19 |
| | Chlorine | mg/l | |
| | | | 1.64 |
| | Copper as Cu | µg/l | C02 |
| | | | 0 |
| | EC - Autotitrator | mS/m | C29 |
| | | | 19.75 |
| | Faecal coliforms count Member Filtration | CFU/100ml | M05 |
| | | | 0 |
| | Fluoride as F | mg/l | C35 |
| | | | 0 |
| | Hardness (calcium) | mg/l | |
| | | | 7.49 |
| | Hardness (magnesium) | mg/l | |
| | | | 16.47 |
| | Hardness (total) | mg/l | |
| | | | 23.5 |
| | Heterotrophic plate count @35°C | CFU/1ml | M03 |
| | | | 1 |
| | Lead as Pb | µg/l | C02 |
| | | | 0 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 4 |
| | Manganese as Mn | µg/l | C02 |
| | | | 26.09 |
| | pH - Autotitrator | - | C30 |
| | | | 6.5 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 7.38 |
| | Potassium as K | mg/l | C01 |
| | | | 0.96 |
| | Sodium as Na | mg/l | C01 |
| | | | 29.16 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 2.54 |
| | Total coliform bacteria Membrane Filtration | CFU/100ml | M04 |
| | | | 0 |
| | Total Solids - dissolved | mg/l | |
| | | | 98.75 |
| | Turbidity | NTU | C16 |
| | | | 0.83 |
| | Turbidity @ WTW | NTU | |
| | | | 0.84 |
| | Zinc as Zn | µg/l | C02 |
| | | | 0.03 |



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Preliminary Water Quality Report

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Report Number: 69360

Test List: FINAL_MK

Scheme: Waainek WTW Final

Received Date: 21/04/2015

| Sample Number | 127107 | | |
|---|-------------------|-----------|--------|
| Sample Description | Waainek WTW Final | | |
| Analysis Start Date | 21/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0 |
| Cadmium as Cd | µg/l | C03 | 0.05 |
| Calcium as Ca | mg/l | C01 | 5.16 |
| Chloride as Cl | mg/l | C34 | 81.5 |
| Chlorine | mg/l | | 0.74 |
| Copper as Cu | µg/l | C02 | 0.38 |
| EC - Autotitrator | mS/m | C29 | 26.49 |
| Faecal coliforms count Member Filtration | CFU/100ml | M05 | 0 |
| Fluoride as F | mg/l | C35 | 0.04 |
| Hardness (calcium) | mg/l | | 12.98 |
| Hardness (magnesium) | mg/l | | 23.47 |
| Hardness (total) | mg/l | | 36 |
| Heterotrophic plate count @35°C | CFU/1ml | M03 | 6 |
| Lead as Pb | µg/l | C02 | 0.83 |
| Magnesium as Mg | mg/l | C01 | 5.73 |
| Manganese as Mn | µg/l | C02 | 16.76 |
| pH - Autotitrator | - | C30 | 7.04 |
| pH @ Water Treatment Works (Plants) | - | | 6.97 |
| Potassium as K | mg/l | C01 | 1.4 |
| Sodium as Na | mg/l | C01 | 36.49 |
| Sulphate as SO4 | mg/l | C33 | 0.98 |
| Total coliform bacteria Membrane Filtration | CFU/100ml | M04 | 0 |
| Total Solids - dissolved | mg/l | | 132.45 |
| Turbidity | NTU | C16 | 2.09 |
| Turbidity @ WTW | NTU | | 2.9 |
| Total Dissolved Solids Zn | µg/l | C02 | 2.76 |



Report Number: 69360

Test List: RAW_AUD_MK
 Scheme: J / Kleinshans Raw WTW
 Received Date: 01/04/2015

| | | | |
|----------------------------|---------------------------|--------------|------------------|
| Sample Number | 127234 | | |
| Sample Description | J / Kleinshans Raw WTW | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | EMPTY | | |
| | Test | Units | Method No |
| | Alkalinity - Autotitrator | mg/l | C28 |
| | | | 286 |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Chloride as Cl | mg/l | C34 |
| | | | 74.66 |
| | Autotitrator | mS/m | C15 |
| | | | 69.6 |
| | Fluoride as F | mg/l | C35 |
| | | | 0.34 |
| | pH - Autotitrator | - | C14 |
| | | | 8.19 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 30 |
| | Total Solids - dissolved | mg/l | |
| | | | 348 |
| | Turbidity | NTU | C16 |
| | | | 73.8 |

Test List: RAW_AUD_MK
 Scheme: J / Kleinshans Raw WTW
 Received Date: 07/04/2015

| | | | |
|----------------------------|-------------------------------------|--------------|------------------|
| Sample Number | 126963 | | |
| Sample Description | J / Kleinshans Raw WTW | | |
| Analysis Start Date | 07/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Alkalinity - Autotitrator | mg/l | C28 |
| | | | 317.5 |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Chloride as Cl | mg/l | C34 |
| | | | 79.31 |
| | E coli waste water (colliert) | CFU/100ml | M01 |
| | | | 20 |
| | EC - Autotitrator | mS/m | C15 |
| | | | 72 |
| | Fluoride as F | mg/l | C35 |
| | | | 0.39 |
| | pH - Autotitrator | - | C14 |
| | | | 8.37 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 8.54 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 28.21 |
| | Turbidity | NTU | C16 |
| | | | 59.1 |
| | Turbidity @ WTW | NTU | |
| | | | 9.99 |



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Report Number: 69360

Test List: RAW_AUD_MK

Scheme: J / Kleinshans Raw WTW

Received Date: 16/04/2015

| | | | |
|---------------------|-------------------------------------|-----------|-----------|
| Sample Number | 127077 | | |
| Sample Description | J / Kleinshans Raw WTW | | |
| Analysis Start Date | 16/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0.08 |
| | Calcium as Ca | mg/l | C01 |
| | | | 27.42 |
| | Chloride as Cl | mg/l | C34 |
| | | | 89.72 |
| | Copper as Cu | µg/l | C02 |
| | | | 1.93 |
| | Coliforms in waste water (colifert) | CFU/100ml | M01 |
| | | | 4 |
| | EC - Autotitrator | mS/m | C15 |
| | | | 72.7 |
| | Fluoride as F | mg/l | C35 |
| | | | 0.32 |
| | Hardness (calcium) | mg/l | |
| | | | 67.42 |
| | Hardness (magnesium) | mg/l | |
| | | | 82.36 |
| | Hardness (total) | mg/l | |
| | | | 149 |
| | Lead as Pb | µg/l | C02 |
| | | | 0 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 20.08 |
| | Manganese as Mn | µg/l | C02 |
| | | | 16.69 |
| | pH - Autotitrator | - | C14 |
| | | | 8.6 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 8.75 |
| | Potassium as K | mg/l | C01 |
| | | | 3.96 |
| | Sodium as Na | mg/l | C01 |
| | | | 113.04 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 28.77 |
| | Total Solids - dissolved | mg/l | |
| | | | 363 |
| | Turbidity | NTU | C16 |
| | | | 56.2 |
| | Turbidity @ WTW | NTU | |
| | | | 9.99 |
| | Zinc as Zn | µg/l | C02 |
| | | | 2.22 |



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Preliminary Water Quality Report

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Report Number: 69360

Test List: RAW_AUD_MK

Scheme: J / Kleinshans Raw WTW

Received Date: 21/04/2015

| | | | |
|---------------------|--------------------------|--------------|------------------|
| Sample Number | 127111 | | |
| Sample Description | J / Kleinshans Raw WTW | | |
| Analysis Start Date | 22/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Cadmium as Cd | µg/l | C03 |
| | Calcium as Ca | mg/l | C01 |
| | Copper as Cu | µg/l | C02 |
| | Autotitrator | mS/m | C15 |
| | Hardness (calcium) | mg/l | |
| | Hardness (magnesium) | mg/l | |
| | Hardness (total) | mg/l | |
| | Lead as Pb | µg/l | C02 |
| | Magnesium as Mg | mg/l | C01 |
| | Manganese as Mn | µg/l | C02 |
| | pH - Autotitrator | - | C14 |
| | Potassium as K | mg/l | C01 |
| | Sodium as Na | mg/l | C01 |
| | Total Solids - dissolved | mg/l | |
| | Turbidity | NTU | C16 |
| | Zinc as Zn | µg/l | C02 |

Test List: RAW_AUD_MK

Scheme: Waainek WTW Raw

Received Date: 01/04/2015

| | | | |
|---------------------|-------------------------------------|--------------|------------------|
| Sample Number | 127231 | | |
| Sample Description | Waainek WTW Raw | | |
| Analysis Start Date | 01/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Alkalinity - Autotitrator | mg/l | C28 |
| | Ammonia as N | mg/l | C32 |
| | Chloride as Cl | mg/l | C34 |
| | E coli waste water (coliert) | CFU/100ml | M01 |
| | EC - Autotitrator | mS/m | C29 |
| | Fluoride as F | mg/l | C35 |
| | pH - Autotitrator | - | C30 |
| | pH @ Water Treatment Works (Plants) | - | |
| | Sulphate as SO4 | mg/l | C33 |
| | Total Solids - dissolved | mg/l | |
| | Turbidity | NTU | C16 |
| | Turbidity @ WTW | NTU | |



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Preliminary Water Quality Report

Report Number: 69360

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 07/04/2015

| Sample Number | | | 126956 |
|---------------------------|-------|-----------|-----------------|
| Sample Description | | | Waainek WTW Raw |
| Analysis Start Date | | | 09/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Alkalinity - Autotitrator | mg/l | C28 | 19.87 |
| Ammonia as N | mg/l | C32 | 0 |
| Chloride as Cl | mg/l | C34 | 47.14 |
| Autotitrator | mS/m | C15 | 19.54 |
| Fluoride as F | mg/l | C35 | 0 |
| pH - Autotitrator | - | C14 | 7.62 |
| Sulphate as SO4 | mg/l | C33 | 2.85 |
| Turbidity | NTU | C16 | 55 |

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 16/04/2015

| Sample Number | | | 127074 |
|----------------------|-------|-----------|-----------------|
| Sample Description | | | Waainek WTW Raw |
| Analysis Start Date | | | 21/04/2015 |
| Analysis End Date | | | |
| Comment | | | |
| Test | Units | Method No | |
| Ammonia as N | mg/l | C32 | 0.01 |
| Cadmium as Cd | µg/l | C03 | 0 |
| Calcium as Ca | mg/l | C01 | 13.09 |
| Chloride as Cl | mg/l | C34 | 54.8 |
| Copper as Cu | µg/l | C02 | 0.92 |
| EC - Autotitrator | mS/m | C15 | 20.9 |
| Fluoride as F | mg/l | C35 | 0 |
| Hardness (calcium) | mg/l | | 32.48 |
| Hardness (magnesium) | mg/l | | 38.71 |
| Hardness (total) | mg/l | | 71 |
| Lead as Pb | µg/l | C02 | 0 |
| Magnesium as Mg | mg/l | C01 | 9.36 |
| Manganese as Mn | µg/l | C02 | 2.83 |
| pH - Autotitrator | - | C14 | 7.46 |
| Potassium as K | mg/l | C01 | 3.3 |
| Sodium as Na | mg/l | C01 | 52.07 |
| Sulphate as SO4 | mg/l | C33 | 2.86 |
| Turbidity | NTU | C16 | 16.4 |
| Zinc as Zn | µg/l | C02 | 0.54 |



Report Number: 69360

Test List: RAW_AUD_MK
 Scheme: Waainek WTW Raw
 Received Date: 21/04/2015

| | | | |
|---------------------|-------------------------------------|-----------|-----------|
| Sample Number | 127108 | | |
| Sample Description | Waainek WTW Raw | | |
| Analysis Start Date | 21/04/2015 | | |
| Analysis End Date | | | |
| Comment | | | |
| | Test | Units | Method No |
| | Ammonia as N | mg/l | C32 |
| | | | 0 |
| | Cadmium as Cd | µg/l | C03 |
| | | | 0.01 |
| | Calcium as Ca | mg/l | C01 |
| | | | 3.79 |
| | Chloride as Cl | mg/l | C34 |
| | | | 66.69 |
| | Copper as Cu | µg/l | C02 |
| | | | 0.19 |
| | E. coli waste water(collert) | CFU/100ml | M01 |
| | | | 40 |
| | EC - Autotitrator | mS/m | C15 |
| | | | 20.5 |
| | Fluoride as F | mg/l | C35 |
| | | | 0 |
| | Hardness (calcium) | mg/l | |
| | | | 9.49 |
| | Hardness (magnesium) | mg/l | |
| | | | 18.94 |
| | Hardness (total) | mg/l | |
| | | | 28.5 |
| | Lead as Pb | µg/l | C02 |
| | | | 0.75 |
| | Magnesium as Mg | mg/l | C01 |
| | | | 4.64 |
| | Manganese as Mn | µg/l | C02 |
| | | | 11.12 |
| | pH - Autotitrator | - | C14 |
| | | | 7.16 |
| | pH @ Water Treatment Works (Plants) | - | |
| | | | 6.72 |
| | Potassium as K | mg/l | C01 |
| | | | 1.44 |
| | Sodium as Na | mg/l | C01 |
| | | | 30.87 |
| | Sulphate as SO4 | mg/l | C33 |
| | | | 1.81 |
| | Total Solids - dissolved | mg/l | |
| | | | 102.2 |
| | Turbidity | NTU | C16 |
| | | | 19.8 |
| | Turbidity @ WTW | NTU | |
| | | | 23.8 |
| | Zinc as Zn | µg/l | C02 |
| | | | 2.78 |