ANALYTICAL DATA AND APPROXIMATE DISTRIBUTION FOR CAPE TOWN DRINKING WATER

Sample period: 1 May 2009 to 30 April 2012

The City of Cape Town has been awarded a 2012 Blue Drop Certificate for the quality of its drinking water by the Department Water Affairs (DWA). This assures Cape Town's residents that their tap water is safe to drink and complies with stringent quality checks. The City of Cape Town obtained the highest score of 98.14% in the Western Cape and is one of ten municipalities in the Western Cape that achieved Blue Drop status. The City of Cape Town also received a Platinum Blue Drop Award for its consistent excellent performance for four years and remains in the top performing group of water service authorities in South Africa.

To qualify for a Blue Drop Certificate a Water Service Authority must score at least 95% in meeting the criteria set by the DWA. These include the maintenance and monitoring of the catchment and storage areas and facilities, the pipeline and distribution systems and the water treatment facilities and processes. The water quality has to meet the standard from where it is stored until it is used by the consumer. Adequate staffing with suitable skills coupled to a training regime also forms part of the certification process which is done annually by virtue of a physical audit conducted by DWA officials.

Below are the average results for the water quality provided across the City of Cape Town for the past three years as well as the distribution areas normally linked to the Water Treatment Plants supplying the City. The annual publication of the water quality results is also a requirement of the Blue Drop certification process.

PARAMETERS	SANS 241: 2011 Specs	BLACKHEATH SUPPLY Typical Analysis (400 Ml/day)	FAURE SUPPLY Typical Analysis (500 Ml/day)	KLOOF NEK SUPPLY Typical Analysis (18 Ml/day)	STEENBRAS SUPPLY Typical Analysis (150 Ml/day)	VOëLVLEI SUPPLY Typical Analysis (273 Ml/day)	WEMMERSHOEK SUPPLY Typical Analysis (270 Ml/day)	BROOKLANDS SUPPLY Typical Analysis (5 Ml/day)	SOMERSET WEST SUPPLY Typical Analysis (12 Ml/day)
PHYSICAL & AESTHETIC DETERMINANTS									
Colour mg/l Pt	≤15	<5	5	6	<5	<5	5	9	<5
Conductivity mS/m	≤170	11.7	14.2	19.9	15.1	14.2	7.7	41.3	14.6
Odour	Inoffensive	1	1	1	1	1	1	1	1
Taste	Inoffensive	1	1	1	1	1	1	1	1
Total Dissolved Solids mg/l	≤1200	79.7	102	137	103	99.4	46.5	350	110
Turbidity NTU	Operational ≤1 Aesthetic ≤5	0.68	0.50	0.52	0.45	1.01	0.65	0.53	1.25
pH (pH units)	≥5.0 to ≤9.7	8.57	8.61	8.51	8.73	8.23	8.44	8.75	8.76
UV 300nm/4cm	-	0.040	0.050	0.070	0.080	0.070	0.060	0.180	0.040
ORGANIC									
PV4 mg/l	-	0.470	0.520	0.680	0.740	0.660	0.560	1.580	0.400
HARDNESS (mg/l)									
Hardness (Total) as $CaCO_3$	-	39	45	59	38	38	26	99	40
CHEMICAL - MACRO DETERMINANTS									
(Nitrate and Nitrite) as N mg/l	≤11.9	0.052	0.042	0.042	0.209	0.054	0.027	0.072	0.084
Nitrate as N mg/l	≤11.0	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Nitrite as N mg/l	≤0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate as $SO4^{2-}$mg/l	Aesthetic ≤250 Acute health ≤500	14.6	24.5	34.9	22.3	19.9	5.4	69.4	10.7
Floride as F^-mg/1	≤1.5	0.07	0.06	0.08	0.07	0.08	0.07	0.07	0.08
Ammonia as N mg/l	≤1.5	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloride as Cl^-mg/l	≤300	12.9	15.9	20.0	19.4	20.0	9.2	70.4	22.8
Sodium as Na mg/l	≤200	6.0	7.3	13.5	11.3	9.4	4.3	36.9	10.2
Zinc as Zn mg/l	≤5	<0.001	0.002	0.003	0.005	0.004	<0.001	0.010	0.004
Alkalinity as $CaCO_3$ mg/l	-	20.6	16.6	26.9	16.9	15.6	17.9	13.0	21.8
Calcium as Ca mg/l	-	13.4	15.3	21.2	12.7	11.7	9.0	31.4	12.8
Potassium as K mg/l	-	0.65	0.77	0.64	0.87	0.82	0.43	1.21	1.02
Magnesium as Mg mg/l	-	1.33	1.53	1.57	1.55	2.25	0.78	4.91	1.96
CHEMICAL - MICRO DETERMINANTS									
Antimony as Sb µg/l	≤20	<1	<1	<1	<1	<1	<1	<1	<1
Arsenic as As µg/l	≤10	10	8	5	5	5	5	5	5
Cadmium as Cd µg/l	≤3	<3	<3	<3	<3	<3	<3	<3	<3
Chromium (Total) as Cr µg/l	≤50	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt as Co µg/l	≤500	<1	<1	<1	<1	<1	<1	<1	<1
Copper as Cu µg/l	≤2000	2	<1	<1	<1	<6	<1	3	<1
Cyanide as CN^-µg/l	≤70	<10	<10	<10	<10	<10	<10	<10	<10
Iron as Fe µg/l	Chronic Health ≤2000 Aesthetic ≤300	20	34	11	9	67	66	13	61
Lead as Pb µg/l	≤10	<10	<10	<10	<10	<10	<10	<10	<10
Manganese as Mn µg/l	Chronic Health ≤500 Aesthetic ≤100	6	2	9	7	<1	16	24	6
Mercury as Hg µg/l	≤6	<5	<5	<5	<5	<5	<5	<5	<5
Nickel as Ni µg/l	≤70	<1	<1	<1	<1	<1	<1	<1	<1
Selenium as Se µg/l	≤10	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium as V µg/l	≤200	<1	<1	<1	<1	<1	<1	<1	<1
Aluminium as Al µg/l	≤300	90	36	274	168	55	130	293	110
CHEMICAL - ORGANIC DETERMINANTS									
Total Organic Carbon mg/l	≤10	2.3	2.2	2.3	2.9	2.3	1.7	6.3	1.6
Microcystin as LR µg/l	≤1	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Phenols µg/l	≤10	<10	<10	<10	<10	<10	<10	<10	<10
MICROBIOLOGICAL DETERMINANTS									
E coli count/100ml	0	<1	<1	<1	<1	<1	<1	<1	<1
Cryptosporidium Count 10L	Not Detected	<1	<1	<1	<1	<1	<1	Not Done	<1
Giardia Count/10L	Not Detected	<1	<1	<1	<1	<1	<1	Not Done	<1

APPROXIMATE AREAS OF WATER DISTRIBUTION (variable due to optimising of raw water resources, seasonal variations, water treatment plant/reservoir serviceability, systems operations, and parameters also variable due to mixing in distribution system)

BLACKHEATH: Cape Flats, Mitchells Plain, Muizenberg, Fish Hoek, Southern Suburbs and Southern Suburbs (high lying areas on mountainside and Constantia Valley), City Bowl, Bellville, Kuils River, Blue Downs, Eerste River, Khayelitsha, Durbanville, Elsies River, Somerset West, Strand, Nyanga/Gugulethu
KLOOF NEK: Camps Bay, Sea Point, Tamboerskloof/Gardens (high lying areas)
STEENBRAS: Southern Suburbs (high lying areas on mountainside and Constantia Valley), Somerset West/Gordon's Bay (high lying areas) Fish Hoek and the Far South Peninsula
VOëLVLEI: Northern Suburbs (Atlantis to Milnerton), Epping, City Bowl, Green Point, Durbanville/Kraaifontein (upper areas)
WEMMERSHOEK: Paarl to Bellville, Northern Suburbs, City Bowl, Durbanville, Kraaifontein
FAURE: Cape Flats, Mitchells Plain, Muizenberg, Fish Hoek, Southern Suburbs, Khayelitsha, Somerset West, Strand, Philippi
BROOKLANDS: Simon's Town
SOMERSET WEST: Somerset West

ACHMAT EBRAHIM
CITY MANAGER
133/2012

CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU