



BOKKIE LOMBAARD

P O BOX 187 DESPATCH

041-9333338 CELL 0832706552

bokkie@karookaya.co.za

STATEMENT

REINSTATING a BOREHOLE CONTAINING HIGH LEVELS OF, Iron as in Fe & manganese as in Mn

I acquired a plot near Cape St Frances on the Kromme River in the Eastern Cape in the latter of 2014.

The previous owner pumped water from the river and desalinated same via a RO System for domestic use. The financial institution financing the deal required as precondition a sustainable source of other than the river eg. a Well or bore hole.

We inspected one of 3 existing bore holes on the plot. I contracted Mr Frik Barkhuizen owner of Chlorine Free water Systems to inspect and analyse the water from the bore holes. A Hydro Drilling Company was approached to re bore and sleeve one specific borehole (AH 0481) after the aforementioned was completed C L Free took a water sample (labeled AH 0481) for analyses at a water analyses laboratory. The water was clear as it was pumped from the bore-hole but left in a closed clear 5 lit container, the container soon was near explosion as it bulged and the water turned chocolate brown smelling like rotten eggs.

The water analyses dated 18/11/2014 of sampling point AH0481 forms part of this statement.

The result was that the water was not fit for domestic use. The water had a distinct sulphureous smell and the Iron as Fe levels tested at 1779.8mg/l, Manganese as Mn tested 1851.70mg/l.

All indications were that this water was never going to be potable. C. L. Free assured me. That they will with there treatment remove the smell and lower the FE & Mn to acceptable levels for use domestically (excluding for human consumption)

I was hesitant at first but after a demonstration performed by the company and taking into consideration capitol already spent on the borehole I agreed to install a system supplied and installed by C& Free at a reasonable and affordable cost.

C L Free installed the system and performed there different procedures and after three weeks of operation I was astonished at the visible change and the bore hole delivering water with no smell at all.

I erected a system with 3 X 5000 lit tanks to serve as settling tanks and for refined treatment of the water with an inline multimedia filter for final treatment.

A water sample was taken of the final water and the results which forms part of this statement dated 14 may 2015 of water sampling points AH 522A & AH 522B. The results speak for it self.

I Run a guest house on the Plot and clients has to date used the water domestically (rain water tanks is used to supply water for human consumption)

I can confidently recommend the C L FREE treatment for the removal of Fe, Mn, Bacteria and sulphureus gasse from bore holes. Feel free to contact me for any details I may have not mentioned in my statement

BOKKIE LOMBAARD DATE 05/07/2015

Rietvlei Laboratory

Rietvlei Laboratory P.O. Box 997

Tel: 012 358 1803/6/8

Rietvlei Dam Irene

Fax: 012 358 1820

BTW Boeing &
Nelmapius Drive 0062



CERTIFICATE OF ANALYSIS

Customer: Rietvlei Laboratory

Address: Rietvlei Dam
BTW Boeing & Nelmapius Drive

Date: 2014-11-18

Sampling Point: AH0481 Frik Barkhuizen			
Sample Date: 2014-11-10			
Analysis	Unit of measurement	Limit(s)	Result
Aluminium as Al	µg/L	> 0.0 to < 300.0	4,224.63
Ammonia as N	mg/L	> 0.0 to < 1.5	0.25
Antimony as Sb	µg/L	> 0.0 to < 20.0	<2.7
Arsenic as As	µg/L	> 0.0 to < 10.0	14.17
Cadmium as Cd	µg/L	> 0.0 to < 5.0	1.82
Calcium as Ca	mg/L	> 0.0 to < 150.0	85.63
Calcium Hardness as CaCO ₃	mg/L	> 0.0 to < 370.0	213.82
Chloride as Cl	mg/L	> 0.0 to < 300.0	302.40
Cobalt as Co	µg/L	> 0.0 to < 499.0	133.06
Colour	mg/L	> 0.0 to < 15.0	48.00
Conductivity	mS/m	> 0.0 to < 170.0	234.00
Copper as Cu	µg/L	> 0.0 to < 2000.0	295.59
Iron as Fe	µg/L	> 0.0 to < 300.0	17,719.80
Lead as Pb	µg/L	> 0.0 to < 20.0	11.93

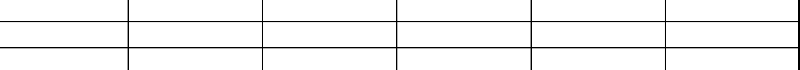
Sampling Point: AH0481 Frik Barkhuizen			
Sample Date: 2014-11-10			
Analysis	Unit of measurement	Limit(s)	Result
Magnesium as Mg	mg/L	> 0.0 to < 70.0	72.64
Magnesium Hardness as CaCO ₃	mg/L	> 0.0 to < 280.0	299.13
Manganese as Mn	µg/L	> 0.0 to < 100.0	1,851.70
Nickel as Ni	µg/L	> 0.0 to < 70.0	206.38
Nitrate as N	mg/L	> 0.0 to < 11.0	0.17
Nitrite as N	mg/L	> 0.0 to < 0.9	0.00
Orthophosphate as PO ₄	mg/L		0.04
pH at 25°C	pH units	> 5.0 to < 9.7	3.13
Pottasium as K	mg/L	> 0.0 to < 50.0	5.13
Selenium as Se	µg/L	> 0.0 to < 40.0	37.09
Silica as Si	mg/L	> 0.0 to < 100.0	18.13
Sodium as Na	mg/L	> 0.0 to < 200.0	215.58
Sulphate as SO ₄	mg/L	> 0.0 to < 250.0	298.04
Temperature (field test)	°C		20.60
Total Chromium as Cr	µg/L	> 0.0 to < 50.0	<0.7
Total Dissolved Solids	mg/L	> 0.0 to < 999.0	1,567.80
Total Hardness as CaCO ₃	mg/L	> 0.0 to < 660.0	512.95
Total Oxidised Nitrogen as N	mg/L	> 0.0 to < 10.0	0.17
Turbidity Operational NTU <1	NTU	> 0.0 to < 1.0	64.40
Uranium as U	µg/L	> 0.0 to < 30.0	319.56
Vanadium as V	µg/L	> 0.0 to < 200.0	<0.4
Zinc as Zn	mg/L	> 0.0 to < 5.0	0.66
Alkalinity as CaCO ₃			
Barium as Ba			
Boron as B			
C.C.P.P. @ 25°C			
Chemical Oxygen Demand			
Fluoride as F			
pH (field test)			

Sampling Point: AH0481 Frik Barkhuizen			
Sample Date: 2014-11-10			
Analysis	Unit of measurement	Limit(s)	Result
UV 254			

for General Manager: Rietvlei Laboratory

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