Sample site -	BUBUB	U	Source: MAIN FOR PUBLIC US
Vater: Not to	cated/Finered/Chlorinated		1 - 1- 222
Sampling Time	8:48 A.I	27	Sampling Date 4/12/2002
	Chemical and Physica	l Quality:	Clear
	 Appearance 		
	- Odour	mg/Pt	odour less 29.5
	- Temperature	oC	************************************
	- pH		7.4
	- Conductivity	Hs/cm	457
	- Total		
	- Dissolved		229
	- Solids	mg/1	
	- Hardness	mg/1CaCo ₃	85
	- Chloride	mg/1 Cl	45.38
	- Salinity	ppt	74 75
	- Turbidity	ppr	No turbidity (clear)
	- Fluoride	mg/1 F	0.23
	and the second s		0.05 25.8
	- Iron. Total	mg/1 Fc	
	- Sulphate	mg/1 SO ₄	0-374
	- Nitrate	mg/1 NO ₃	0.0528
	- Nitrite	mg/1/NO ₂	3 4
	- Calcium	mg/1 Ca	120
	 Magnesium 	mg/1 Mg	0.585
	- Ammonium	mg/l NH ₄	289.7
	 Bicarbonate 	mg/l HCO	6
	- Carbonate	mg/l CO ₃	Trace (<0.1)
	- Chromium	mg/l Cr	60
	- Sodium	mg/l Na	4.4
	 Potassium 	mg∕l K	
-	Bacteriological Quali	ty:	5
	Total Coliforms		
	Fecal Coliforms		/ 1/// 1111
	Becteriological	Qua	lity
	Potable/suspicious/pot	Huted	
		/	Vater has some bacterial
Rem	arks and Action recommen		
which	show that it	is Contami	nated so it should be
trantar	Let Chamical	and Phy	recal water is good.
recelly	Reco Diameter	7	1

Sampling Time-	8:40 Chemical and Physica	MARK SOURCE AND ADDRESS OF THE SOURCE STATES.	Sampling Date 4/12/2002
Sampling Time-	Chemical and Physica		Sampling Date 4/12/2002
,			
			2:
	Annonman	d Quality:	Clear
	- Appearance	100	· Odowerless
	- Odour	mg/Pt	30.8
	 Temperature 	oC	7. 0
	- pH		468
	 Conductivity 	Hs/cm	
	- Total		
	- Dissolved		234
	- Solids	mg/l	95
	- Hardness	mg/1CaCo ₃	40.413
	- Chloride	mg/1 Cl	71.02
	- Salinity	ppt	NOT turbid (clear)
	 Turbidity 		0.73
	- Fluoride	mg/l F	0.05
	 Iron. Total 	mg/1 Fc	31
	 Sulphate 	mg/1 SO ₄	0.748
	- Nitrate	mg/1 NO ₃	0.0231
	 Nitrite 	mg/1/NO ₂	3.8
	- Calcium	mg/1 Ca	120
	 Magnesium 	mg/1 Mg	
	 Ammonium 	mg/l NH ₄	0.26
	 Bicarbonate 	mg/I HCO	274.5
	- Carbonate	mg/I CO ₃	
	- Chromium	mg/l Cr	Trace (20.1)
	- Sodium	mg/l Na	80
	- Potassium	mg/l K	1.8
	Bacteriological Qualit		A +
	Total Coliforms		65 /100 ml
	Fecal Coliforms		/100 ml
	Becteriological	Quali	
	Potable/suspisious/poll		
	1.1	14	later seemed to be Conta-
, Remark	s and Action recommend		
minated	in both flear	e and lot	al Coliform so it should
			& Chemical quality is 7000

ample site -	WEZEZO		Source: FOR PUBLIC USE
ater: Not tr	eated/Filtered/Chlorinated		29/11/2002
mpling Time	9:48 an	7	Sampling Date
-	Chemical and Physical	l Quality:	Clear
	 Appearance 		Odourless
	- Odour	mg/Pt	33.2
	 Temperature 	oC	6.6
	- pH		422
	 Conductivity 	Hs/cm	
	- Total		
	 Dissolved 		212
	- Solids	mg/l	36
	 Hardness 	mg/1CaCo ₃	2.9
	- Chloride	mg/1 Cl	68.53
	 Salinity 	ppt	Not turbed
	 Turbidity 		0.02
	 Fluoride 	mg/1 F	Trace (20.05)
	- Iron. Total	mg/1 Fc	
	 Sulphate 	mg/1 SO ₄	48
	- Nitrate	mg/1 NO ₃	0:176
	- Nitrite	mg/1/NO	0.007
	- Calcium	mg/1 Ca	90
	- Magnesium	mg/1 Mg	100
	- Ammonium	mg/l NH ₄	0.00
	 Bicarbonate 	mg/I HCO	274.5
	- Carbonate	mg/I CO ₃	3
	- Chromium	mg/l Cr	Trace (< 0.1)
	- Sodium	mg/l Na	90
	- Potassium	mg/l K	2.3
	Bacteriological Quality		
-	Total Coliforms	y.	
	Fecal Coliforms		/100 ml
	Becteriological	Quali	
	Potable/suspicious/polls		
	. outple susperous poin	Fin	- H- war It water manal
Rema	arks and Action recommend	ied:	m the result water seemed
obe Com	taminated by	both Brole	and total Coliform, so it
o se Con	war will sty	Jone Jecres	or of contract of the contract
will b	e reacco pegore	e usua, bu	t Chemical and Physical is of

***	LANZIBA KIJANGW		Source: PUBLIC USE
ample site	NIJANGIN	ANI	Source: PUBLIC USE
ater: Not tre	sated/Filtered/Chlorinated		
	@1282	00	2/12/2002
impling Time	0:309		Sampling Date 2/12/2002
	Chemical and Physical	Quality:	Clear
	- Appearance	Committee.	
	- Odour	mg/Pt	0 dour less 30.5
	- Temperature	oC	30.5
	- pH	00	7.2
	- Conductivity	Hs/cm	467
	- Total	113/6111	
	- Dissolved		0.0.0
	- Solids	ma/1	233
	- Hardness	mg/1 mg/1CaCo3	8.5
			39.7
	- Chloride	mg/1 Cl	69.8
	- Salinity	ppt	Not turbid (Clear)
	- Turbidity		0.10
	- Fluoride	mg/1 F	Trace (60.05)
	- Iron. Total	mg/1 Fc	36.4
	 Sulphate 	mg/1 SO4	0.3/68
	- Nitrate	mg/1 NO3	0.0363
	 Nitrite 	mg/1/NO2	0.000
	- Calciun	mg/1 Ca	3.4
	 Magnesium 	mg/1 Mg	170
	Bacteriological Quality		22
	Total Coliforms		22 /100 ml
	Fecal Coliforms		6 /100 ml
	Becteriological	Quali	
	Potable/suspicious/pollu		**
	i otalider suspicious porte	//	Vater seemed to be
Rema	rks and Action recommend	ed: , - 10 0	Town seeining to se
ontamin	rated by Heal	and to	tab Coliform so treatme
		,	and at a
Should	be done befor	e used 1	for domestical o
II	12/2002		alyst AMEM AMPallage
ite	-1200-	Name of Ana	alvst - Streetings

	CHUMBUI		-Source PUBLIC	1155
ample site	CHAMBA	*/	Source:	
ater: Not tr	cated/Filtered/Chlorinated			
	9:12 9.10	2	2/12/5	2002
mpling Time	7,720,70		Sampling Date 2/12/2	
	Chemical and Physical	Quality		
-	- Appearance	Quanty.	Clear	
	- Appearance	may/Dt	Odour less	
	50.00.00	mg/Pt	33.3	
	- Temperature	оС	7.2	
	- pH	Us/am	429	
	- Conductivity	Hs/cm		
	- Total		0.7	
	- Dissolved - Solids	ma/1	215	
	- Hardness	mg/1 mg/1CaCo3	115	
	- Chloride	mg/1 Cl	35.45	
		-	62.3	
	- Salinity	ppt	Not turbid	Clear
	- Turbidity	ma/1 F	0.23	
	- Fluoride	mg/1 F	0.05	
	- Iron. Total	mg/1 Fc	3.4	
	- Sulphate	mg/1 SO4	0.66	
	- Nitrate	mg/1 NO3	0.0732	
	- Nitrite	mg/1/NO2	46	
	- Calcium	mg/I Ca	60	
	 Magnesium 	mg/1 Mg		
-	Bacteriological Quality	r:	16	
	Total Coliforms		/10	() ml
	Fecal Coliforms		/10	() ml
	Becteriological	Quali	ty	
	Potable/suspicious/pollu	ited		
		/	Nater seemed to	Tho
Rema	rks and Action recommend	ed:	The second of th	10
ontan	inated by both	Lecal an	rel total Estiform	SO 10
		1	nel total Coliform	
Thould	treated before	e lesed.		

	KWAMTIK	UKA	Source: PUBLIC USE
mple site			
ter: Not tre	cated/Filtered/Chlorinated		- 1 - 1
	10:08 gim		Sampling Date 2/12/2002
npling Time	***************************************		Sampling Date
	Chemical and Physica	d Quality:	Clear
	- Appearance	. Cumina,	
	- Odour	mg/Pt	Odour less
	- Temperature	oC	29.7
	- pH	00	7.2
	- Conductivity	Hs/cm	432
	- Total	A SAC WALL	
	- Dissolved		216
	- Solids	mg/l	216
	- Hardness	mg/1CaCo3	70
	- Chloride	mg/1 Cl	36.2
	- Salinity	ppt	63.54
	- Turbidity		Not teirbid (clear)
	- Fluoride	mg/1 F	0.00
	 Iron, Total 	mg/1 Fc	Trace (20.05)
	 Sulphate 	mg/1 SO4	32.5
	- Nitrate	mg/1 NO3	0.1881 0.2596
	- Nitrite	mg/1/NO2	0.1881
	- Calcium	mg/1 Ca	36
	 Magnesium 	mg/1 Mg	5.0
	Bacteriological Qualit	v:	8
	Total Coliforms	***************************************	/100 ml
	Fecal Coliforms	******	/100 ml
	Becteriological	Qualit	V
	Potable/suspicious/poll		
			om the result of analys
Rema	rks and Action recommen	ded:	om me react to coractys
water	seemed good	en Chemil	al and Physical quality b
4			
bacter	cological wa	ler shoul	ld be treated.

ater: Not tre	sated/Filtered/Chlorinat		2	112/2002	
ampling Time	1:45 9.	7/	Sampling Date 2/	12/2002	
	Chemical and Phys	ical Quality:	Clear		
	 Appearance 				
	- Odour	mg/Pt	Odourless 30.7		
	 Temperatur 	e oC	7.1		
	- pH				
	- Conductivit	y Hs/cm	465		
	- Total				
	 Dissolved 		232		
	- Solids	mg/1	75	76	
	 Hardness 	mg/1CaCo3	t2		
	 Chloride 	mg/1 Cl	36.16		
	- Salinity	ppt	63.54	oldy (clear)	
	- Turbidity	92	Not turk	stay (caur)	
	- Fluoride	mg/1 F	0.08		
	- Iron. Total	mg/1 Fe	Trace		
	 Sulphate 	mg/1 SO4	3.5 0.2992		
	- Nitrate	mg/1 NO3			
	- Nitrite	mg/1/NO2	0.4455		
	- Calcium	mg/1 Ca	3.0		
	- Magnesium		110		
-	Bacteriological Qua	ality:	56		
	Total Coliforms			/100 ml	
	Fecal Coliforms		2	/100 ml	
	Becteriological	Quality	v.		
	Potable/suspicious/p	olluted ,	1 .		
		1/1	later result	show the	
, Rema	rks and Action recomm				
there	are Contam	insteel so	it should be	o trealed	

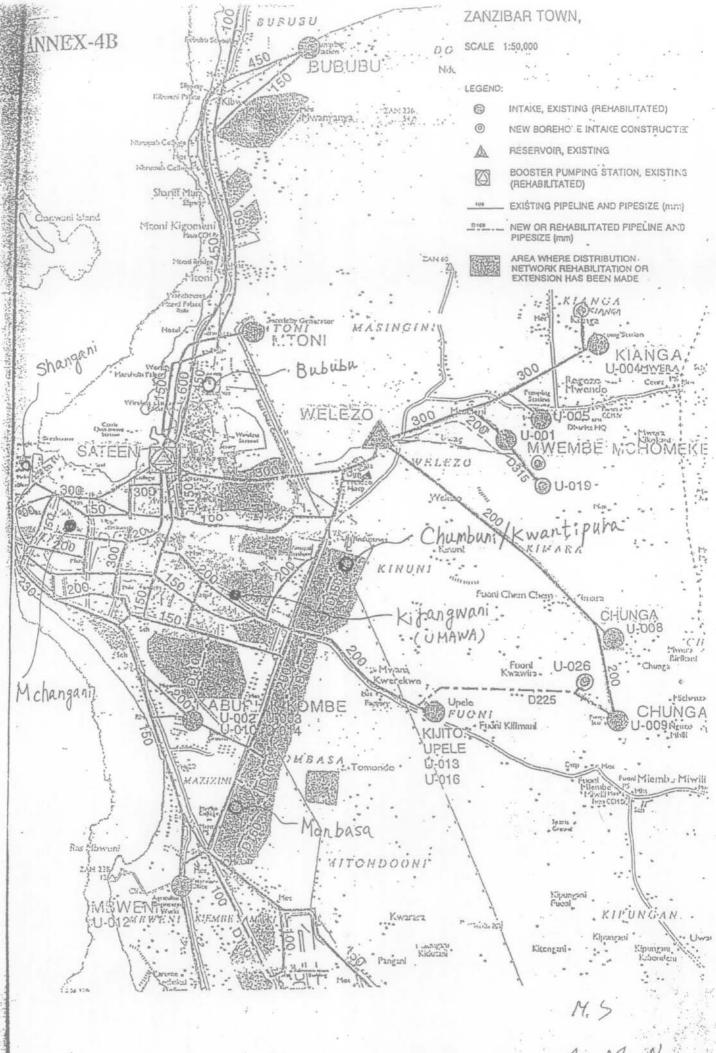
	MALIN	01	-Source: FOR PERSONAL USE
imple site			Source:
ater Notte	eated/Filtered/Chlorinated		
1101.	8:029		2/12/2002
mpling Time	C	777	Sampling Date 2/12/2002
		-	
-	Chemical and Physical	Quality:	Clear
	 Appearance 		Odour Less
	- Odour	mg/Pt	32.4
	 Temperature 	oC	
	- pH		
	 Conductivity 	Hs/cm	T. 5. T.
	- Total		
	 Dissolved 		234
	- Solids	mg/1	
	 Hardness 	mg/1CaCo3	130
	 Chloride 	mg/1 Cl	32
	- Salinity	ppt	56.1
	- Turbidity		Not turbid (clear)
	- Fluoride	mg/1 F	0.08
	- Iron. Total	mg/1 Fc	Trace (20.05)
	- Sulphate	mg/1 SO4	41.2
	- Nitrate	mg/1.NO3	0.352
	- Nitrite	mg/1/NO2	0.00
		mg/1 Ca	52
	- Calcium		. 110
	- Magnesium	mg/1 Mg	
_	Bacteriological Qualit	v:	59
	Total Coliforms		/ [] []
	Fecal Coliforms	*****	22 /100 ml
	Becteriological	Quali	tv
	Potable/suspicious/polls	uted	1./
		//	Valer seemed to be
Rema	arks and Action recommend	(2()	
ontam	inated bus both	h telal a	ud total Coliform so
	()	,	,
transform	ant marieral La	Pro Ileino	, but Chemical quality is
11 UULKONIL	or of equited to	you wish	1 1000 00000000000000000000000000000000

Location	ZANZIE		-Source TAP (HOUSE AT END)
Sample site	SHANGA	N/	Source: FOR PERSONAL USE
Water: Not tre	sted/Filtered/Chlorinated		1 /
	8:25	9·M	2/12/2002
Sampling Time-		*********	Sampling Date 2/12/2002
	Chemical and Physical	Quality	Chan
-	- Appearance	Quanty.	Clear
	- Odour	mg/Pt	odourless
	- Temperature	oC	31.9
	- pH	00	6.6
	- Conductivity	Hs/cm	483
	- Total	113/5/11	
	- Dissolved		2 4 2
	- Solids	mg/l	242
	- Hardness	mg/1CaCo3	135
	- Chloride	mg/1 Cl	34.03
			60
	- Salinity	ppt	Not turbid (clear)
	- Turbidity	mg/1 F	0.06
	- Fluoride	mg/1 Fc	Trace (L0.05)
	- Iron. Total - Sulphate	mg/1 SO4	0.66
		mg/1 NO3	
	- Nitrate		1.1649
	- Nitrite	mg/1/NO2	54
	- Calcium	mg/1 Ca	110
	- Magnesium	mg/1 Mg	**************************************
21	Bacteriological Qualit	v:	19
	Total Coliforms		/100 ml
	Fecal Coliforms		/100 ml
	Becteriological	Qualit	y
	Potable/suspicious/polls		
		//	later seemed to be Contamin
Remar	ks and Action recommend		
by both	fecal and lota	l Coleform.	so that required treatment
		9	- /
before us	sing beet Cher	neal ang	Physical quality is good.
/			
7	12/2002		INST AMEIR AMERICAS

nple site -	MOMBASA)	-Source: PERSONAL USE
ter: Not tr	cated/Filtered/Chlorinated		
npling Time	8:549.1	7	Sampling Date 2/12/2002
	Chemical and Physical	Quality:	Clear
	- Appearance	(a) //De	Odourless
	- Odour	mg/Pt	32.9
	- Temperature	оС	7.5
	- pH	11-/	572
	- Conductivity	Hs/cm	
	- Total		222
	- Dissolved		290
	- Solids	mg/l	130
	- Hardness	mg/1CaCo3	88.62
	- Chloride	mg/1 C1	155.75
	 Salinity 	ppt	
	 Turbidity 		Not turbed (Clear)
	 Fluoride 	mg/1 F	0.08
	- Iron. Total	mg/1 Fc	31.8
	 Sulphate 	mg/1 SO4	0.528
	- Nitrate	mg/1 NO3	0.0825
	- Nitrite	mg/1/NO2	
	- Calcium	mg/1 Ca	52
	 Magnesium 	mg/1 Mg	100
-	Bacteriological Quality	/2	32
	Total Coliforms		/100 ml
	Fecal Coliforms		/100 ml
	Becteriological	Quali	
	Potable/suspisious/pollu		×
	1 ottade suspieseus porte		100 11 1 0 1 1 4
Rema	rks and Action recommend	ed Myau	er seemed to be Contaminate
	l and total of	Form so 12	should be treated
/ /			
10	11000 d / 4 0/0	· 100 0 -1	Physical quality water is go

ample site	BUBUBU		-Source PERSONAL USE
			Source:
otam Not to	cated/Filtered/Chlorinated		
ater. Not tre			2/12/2002
mpling Time	9:48:9.1	Y7	Sampling Date
			0
-	Chemical and Physical	Quality:	Clear
	 Appearance 		Odour less
	- Odour	mg/Pt	33.3
	- Temperature	оС	6.8
	- pH		454
	 Conductivity 	Hs/cm	
	- Total		
	 Dissolved 		227
	 Solids 	mg/1	735
	 Hardness 	mg/1CaCo3	
	- Chloride	mg/1 Cl	46.1
	 Salinity 	ppt	81
	- Turbidity		Not turbed (clear)
	- Fluoride	mg/1 F	0.05
	- Iron, Total	mg/1 Fc	0.08
	- Sulphate	mg/1 SO4	44
	- Nitrate	mg/1 NO3	0.484
	- Nitrite	mg/1/NO2	0:0693
	- Calcium	mg/1 Ca	5.4
	- Magnesium	mg/1 Mg	130
	The Street and		
-	Bacteriological Quality	7:	54
	Total Coliforms		/100 ml
	Fecal Coliforms		/100 ml
	Becteriological	Quali	ty
	Potable/suspicious/pollu	ited ,	
		11	ater seemed to be Confamu
Rema	rks and Action recommend	ed:	2 / 2
by both	feeal and to	tal Colefor	m , So treat ment should
0	/		
he done	before drinke	ing but 1	Chemical is good,
00	, ,)	- /
7	112/2002		AMEIR Attahood

Lab No:



A. M. N.

Photograph of Water Quality Survey



Collection of Water Samples at Dinami Cave Spring



Collection of Water Samples in the Existing Pipelines



Collection of Water Samples at Mtoni Spring



Water Quality Test at Saateni Water Laboratory



Water Quality Test at Saateni Water Laboratory