CHEPKORIO WATER PROJECT

Item	Item description	Qty	Unit	Rate	Amount
A	**DRIVE PIPE**				
A1	Excavate trench for pipeline measuring 600x 750mm deep.Rate to include back filling of trenches	120	m		
A2	Provide and lay 150mm Ø G.I class B	198	m		
A3	Provide and fix 150mm (6") heavy duty drilled flanges using appropriate mild steel bolts and nuts and rubber insertion (gasket)	2	No		
A4	Provide, install and test a recommended self acting hydraulic ram pump(hydram) with the following characteristics.Inlet size 150mmØ (6") minimum fall 6m, delivery pipe 50mmØ, maximum lift 80m, maximum drive(flow) 900 litres/min. All fabricated pipes to the hydram must be G.I flanged class B	1	No		
A5	Provide all materials and construct a 2.5x2.5x1.8m high housing for the hydram in dressed natural stone walling with 1:2:4 reinforced concrete roof cover including 900x1800mm high steel plate door with lockable device and heavy duty buglar prro padlock	1	No		
A6	Provide and install concrete anchor blocks for drive pipe 6" Ø across the river and in swampy area	6	No		
A7	Provide and install standard reinforced concrete marker posts along the pipeline route indicating the pipe size and class as will be directed by the engineer	3	No		
B	**GRAVITY LINE PVC/G.I 100/110mm Ø pipes**				
B1	Clear bushes along the pipeline route 3.0m wide	2577	M		
B2	Excavate trench for pipeline in normal soil measuring 600x 750 mm deep.Rate to include back filling	2577	M		
B3	Ditto in rock (provisional)	150	M		
B4	Provide and lay 110mmØ PVC class c pipe	1429	M		
B5	Ditto 100mmØ G.I pipe class B	204	M		
B6	Transport from the water office and lay the provided 110mm Ø PVC pipe class c	1098	M		
B7	Excavate trench for pipeline in normal soil measuring 450x 600mm deep.Rate to include backfilling from Lelboinet Hospital tank to Chepkorio Yatiane tank junction	852	M		
B8	Provide and lay 63mmØ PVC pipe class c	804	M		
B9	Ditto50mmØ G.I pipe class B	48	M		
B10	Provide 3"x2" G.I Y tee at the chepkorio/yatiane junction	1	No		
	Provide and fix the following fittings as described to the pipeline				
B11	Peglar gate valve 2"	2	No		
B12	G.I socket 2"	1	No		
B13	Valve socket adaptor 2"	2	No		
B14	Construct and complete a valve control chamber 1.2x1.2m				
B15	complete with steel cover plate and padlock	1	No		
	Sub total				

CHEPKORIO WATER PROJECT

Item	Item Description	Qty	Unit	Rate	Amount
	YATIANE LINE				
B18	Provid and lay 63mm pvc pipe class C	570	M		
B19	Ditto 50mm G.I class B	30	M		
B20	Excavate trench for pipeline in normal soil measuring 450x 600mm deep . Rate to inlude backfilling of trenches	600	M		
	Provide and fix the following fitings as described to the pipeline				
B21	G.I equal tee 2"	1	No		
B22	G.I hexagonal nipple 2'	8	No		
B23	G.I union 2"	2	No		
B24	G.I socket 2"	2	No		
B25	Peglar gate valve 2"	2	No		
	Provide all materials and connect the pipeline to Ketibelio and yatiane tanks	1	No		
B26	G.I nipples 2"	2	No		
B27	G.I elbows 2"	3	No		
B28	G.I pipe 2" class B	3	No		
B29	G.I piece 4" threaded one side and one side welded with lugs to roof cover slab for breathers (Yatiane tank)				
B30	G.I nipples 4"	3	No		
B31	G.I elbow 4"	4	No		
B32	Provide all materials and construct valve control chamber 1.2x1.2m complete with steel plate cover including locking device and padlock	3	No		
B33	Provide and install 1" air valve on a 4" Pvc pipeline .rate to include excavation within the affected area and all necessary fittings	3	No		
B34	Provide and install standard reinforced concrete marker posts along the pipeline route indicating the pipe size , type and class as will be directed by the engineer	50	No		
	Sub total				

CHEPKORIO WATER PROJECT

Provide all the required fittings and fix/connect as described the following existing masonry tanks

SECTION	ITEM	QUANTITY	RATE	AMOUNT
CHEPKORIO TANK NO 2	G.1 bend 2”	1		
	PVC adaptor 2”	3		
	G.1 plug	1		
	G.1 Union 2”	1		
	G.1 Nipple	1		
	G.1 Socket 2”	1		
	Gate valve 2”	1		
	Padlock	1		
	Sub total			
KOPTEGA TANK NO 4	Gate valve 2”	2		
	G.1 Union 2”	1		
	Sluice valve 3”	1		
	Red socket 4x3	1		
	G.1 bend 3”	1		
	G.1 tee	2		
	Non return valve 3”	1		
	Gate valve 4”	2		
	PVC adaptor 4”	4		
	Valve chamber1200x1200mm	1		
	Sub total			
SITOTWO TANK NO 5	Gate valve 2”	1		
	Gate valve 3”	1		
	PVC adaptors	2		
	Red socket 4x3	1		

	PVC adaptor 4” G.1 nipple 3”	2 2		
	Sub total			

Item	Item Description	Qty	Unit	Rate	Amount
	Rehabilitation of Ketibelion tank				
A	20mm thick water proof plaster 1:1:2 in two layers to walls internally steel trowelled smooth	45	M^2		
B	Ditto floor and cover slab	80	M^2		
C	25mm thick water proof cement sand, mortar mix 1:1:2 cement and sand screed to the external wall	46	M^2		
D	Place Bondex at wall/slab joint	1	Item		
E	Provide and fix mild steel ladder to the tank internally and externally	2	No		
F	Install 3mm thick steel plate lockable man hole cover to the roof slab 600mmx 600mm	1	No		
	Concrete cover slab				
G	Provide, cut, bend and fix in position Y10 reinforcements bars to the roof slab.	408	m		
H	Ditto Y12 to the column and beam	48	m		
I	Formwork to the soffit of roof slab and column beams	46	m^2		
J	Place 1000 gauge polythene membrane as described to the roof slab	40	m^2		
K	Cast 1:2:4 vibrated reinforced concrete to the roof slab, column and beam.	4.2	m^3		
L	Provide materials and construct in brickwork valve control chamber 1200mmx1200mm including steel plate cover and padlock.	2	No		
	Subtotal				

Item	Item Description	Qty	Unit	Rate	Amount
	Rehabilitation of Lelboinet Hospital tank 50m3				
A	Carefully hack the outside wall plaster and the cover slab and dispose of the waste as directed	90	m^2		
B	Provide materials, handle , mix and apply 1:1:3 cement:				

	water-proof: sand mortar to the external walls and the roof cover.	90	m^2		
C	Provide and fix 300mmx450mmx3mm thick steel cover plate to the roof cover of the tank	1	No		
D	Ditto to the inlet chamber	1	No		
E	Provide all the necessary fittings including 3" G.I nipples, elbow and pipe piece to form breather to cover slab tank	2	No		
	Overflow pipe Provide and fix the following pipes and fittings from the overflow pipe to the outlet pipe				
F	G.I pipe 2" class B	2	No		
G	G.I elbow 2"	2	No		
H	G.I reducing tee 3"x2"	1	No		
	Chain-link Fencing				
I	Supply and erect treated timber posts at 2m c/c using concrete ratio 1:2:4	30	No		
J	Supply and fix heavy gauge chain-link 1.8m high	60	m		
K	Supply and erect 3x2m double swing steel gate	1	No		
L	Supply and fix barbed wire to the installed timber posts 5 strands	300	M		
	Provide and fix the following pipes and fittings as described to the tank				
M	G.I pipe 2"	1	No		
N	G.I elbow 50mm	2	No		
O	Reducing socket 2"x 1"	1	No		
P	Peggler gate valve 2"	3	No		
Q	Ball valve 2"	1	No		
R	Roof slab breathers comprising 3" G.I pipe piece , 2No G.I 3" elbows and 1No 3" G.I nipple	2	No		
S	Peggler gate valve $1\frac{1}{2}$" for outlet pipe	1	No		
T	G.I union $1\frac{1}{2}$"	1	No		
U	G.I nipple $1\frac{1}{2}$"	2	No		
	Sub Total				
V	Publicity Signpost	1	No.		
W	Monitoring and Evaluation	Lump Sum			100,000
Y	Commissioning	Lump Sum			50,000
	Sub Total				

Grand Total= Ksh……