



Pitab Wa Sari-e- Toop village, Community water supply network project, Sang e Takht Wa bandar district, Daikundi province
Bill of Quantity for Gravity Water supply Network with Surface Water Reservoir

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
1	Mobilization and Demobilization					
1	Mobilization - Compensation in full for the cost for transport of equipment, materials and personnel on the project site	LS	1.00			
2	Demobilization - Compensation in full for the cost of removing and cleaning of the construction site, equipment, facilities and personnel from the site	LS	1.00			
Sub Total for Mobilization and Demobilization Works (1.2)						
BoQ for Spring Protection						
1	Excavation for Spring protection laying in ground type 3-4	m3	12			
2	Back filling of spring trench by excavated material.	m3	4			
3	Gravel filling in floor of structures .	m3	0.2			
4	Stone masonry with cement- sand mortar M: 1:4.	m3	7.7			
5	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) .	m3	0.1			
6	Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3 Note: the RCC slab of main hole must has handle	m3	0.6			
7	Plaster work with cement-sand + padlow powder M: 1:3 .	m2	5			
8	Pointing work with cement-sand mortar outside of protection for spring M: 1:3 .	m2	6.00			
9	Galvanized Iron (GI) pipe, inside diameter (1 1/2 ")	M	10			Outlet Pipe,drain Pipe & overflow Pipe
10	Galvanized Iron (GI) pipe, inside diameter (1 ")	M	1			Airvent Pipe
11	Supply and installation of good quality Gate valve Dia =1 1/2" for drain of spring protection, best quality	No	2			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
12	Supply and installation of Galvanized Iron Socket, diameter 1 1/2"	No	4			
13	Supply and installation of Galvanized Iron Nipple, diameter 1 1/2"	No	4			
14	Supply and installation of Galvanized Iron Union, diameter 1 1/2"	No	2			
15	Supply and installation of Galvanized Iron Union, diameter 1 "	No	1			
16	Supply and installation of Galvanized Iron Socket, diameter 1"	No	2			
17	Supply and installation of Galvanized Iron Nipple, diameter 1"	No	2			
18	Supply and installation of Galvanized Iron Elbow, diameter 1"	No	2			
19	Supply and installaiton of Mail threaded Adopter (MTA), Size (50x1 1/2")	No	1			
20	Supply and installation of Galvanized Tee, Size 1(1 1/2"x1"x1 1/2")mm	No	1			
Sub-Total Cost for one Spring Protection Chamber (Afs)						
BoQ for One Break Pressur Tank (This project has 3 three Break pressur tanks)						
1	Excavation for Spring protection laying in ground type 3-4	m3	10			
2	Stone masonry with cement- sand mortar M: 1:4.	m3	3.4			
3	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4)	m3	0.39			
4	Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings.	m3	0.16			
5	Plaster work with cement-sand + padlow powder M: 1:3 .	m2	1.1			
6	Back filling of pipe trench by excavated material.	No	1			
7	Galvanized Iron (GI) pipe, inside diameter (1 1/2 ")	M	12			
8	Galvanized Iron (GI) pipe, inside diameter (1")	M	1			
9	Supply and installation of Galvanized Iron Bend, diameter 1 1/2"	No	1			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
10	Supply and installation of Galvanized Iron Bend, diameter 1"	No	2			
11	Supply and installation of Galvanized Iron Socket, diameter 1 1/2"	No	2			
12	Supply and installation of Galvanized Iron Socket, diameter 1 "	No	2			
13	Supply and installation of Gate valve (good quality) Nominal Diameter =1 1/2" best quality	No	1			
14	Supply and installation of Galvanized Iron Nipple, diameter 1 1/2"	No	2			
15	Supply and installation of Galvanized Iron Nipple, diameter 1"	No	2			
16	Supply and installation of Galvanized Iron Union, diameter 1 1/2"	No	1			
17	Supply and installation of Galvanized Iron Union, diameter 1 "	No	1			
18	Supply and installaiton of Mail threaded Adopter (MTA), Size (50x1 1/2")	No	2			
19	Supply and installation of Galvanized Tee, Size (1 1/2"x1"x1 1/2")mm	No	1			
Sub-Total Cost for One Break Pressure Tank (Afs)						
Sub-Total Cost for Three (3) Break Pressure Tank (Afs)			No	3		Cost for three BPT
BoQ for 20 m3 Ground Reservoir Tank						
1	Excavation of earth for water reservoir tank with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer	m3	38.72			
2	Back filling from excavated earth around of the water reservoir tank with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer	m3	11.20			
3	Gravel floor, with Compacted 90% thickness 100 mm with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer	m3	1.43			
4	PCC M150 with (100) mm thickness, under the water reservoir tank, with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer	m3	2.1			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
5	RCC M250 for Foundation, walls and slab of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer	m3	13.34			
6	Plaster with cement motar 1:3 and with water proof powder for inside walls of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer. (Note: 2kg high quality powder per 1 bage cement)	m2	43.52			
7	Plaster with cement motar 1:3 for outside walls of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer.	m2	48.4			
8	Cement whitewash, maxed with water proof powder, inside of RCC walls over plastering of water reservoir tank, All task for this item to be under full approval and satisfaction of Engineer.	m2	43.52			
10	Pointing, with high quality green oil color outside of RCC walls of water reservoir tank, All task for this item to be under full approval and satisfaction of Engineer.	m2	44.2			
11	Prepare and instalition high quality metallic gate (with stainless and pointing) over the water reservoir tank main hole according to technical drawing with all requeriment activities, All task for this item to be under full approval and satisfaction of Engineer.	m2	0.64			
12	Prepare and instalition wire mesh on the head of outlet pipe of water reservoir tank according to technical drawing with all requeriment activities, All task for this item to be under full approval and satisfaction of Engineer.	m2	0.5			
13	Supply and installation of 1 1/4" Galvanised Iron Ladder for reservoir with all required activites according to drawings. Note : the ladder must be removeable	No	1			
14	Supply and installaiton of Galvanized Iron (GI) pipe, inside diameter 2"	m	6			Overflow & Drain pipes
15	Supply and installaiton of Galvanized Iron (GI) pipe, inside diameter 1 1/2"	m	6			Outlet pipe
16	Supply and installation of Galvanized Iron Elbow, diameter 2"	No	2			
17	Supply and installation of Galvanized Iron Elbow, diameter 1 1/2"	No	2			
18	Supply and installation of Galvanized Iron Nipple, diameter 2"	No	2			
18	Supply and installation of Galvanized Iron Nipple, diameter 1 1/2"	No	2			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
19	Supply and installation of Gate valve (good quality) Nominal Diameter =2" best quality	No	1			
20	Supply and installation of Gate valve (good quality) Nominal Diameter =1 1/2" best quality	No	1			
21	Supply and installation of Galvanized Iron Socket, diameter 2"	No	2			
22	Supply and installation of Galvanized Iron Socket, diameter 1 1/2"	No	2			
23	Supply and installation of Galvanized Iron Union, diameter 2"	No	1			
24	Supply and installation of Galvanized Iron Union, diameter 1 1/2"	No	1			
25	Supply and installaiton of Male threaded Adopter (MTA), Size (63x2")	No	1			
Sub-Total Cost for 20 m3 Ground Reservoir tank (Afs.)						
BoQ for One Stand Tap (This project has twenty seven stand tap)						
1	Excavation for Stand Tap in ground type 3-4 with all required activities, All task for this item to be under full approval and satisfaction of Engineer.	m3	1.2			
2	Back filling of around stand tap by excavated material.with all required activities, All task for this item to be under full approval and satisfaction of Engineer.	m3	0.15			
3	Gravel filling in floor of structures .with all required activities, All task for this item to be under full approval and satisfaction of Engineer.	m3	0.12			
4	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) . with all required activities, All task for this item to be under full approval and satisfaction of Engineer. Note: Instal flat stone under under Tap during the build stand tap.	m3	0.17			
5	Plaster with cement motar 1:3 for stand tap with all required activities, All task for this item to be under full approval and satisfaction of Engineer. (Note: 2kg high quality powder per 1 bage cement)	m2	1.9			
6	Galvanized Iron (GI) pipe, inside diameter (3/4 ")	M	2			
7	Supply and installation of good quality Tap (valve) Dia =3/4" for stand tap, best quality	No	1			
8	Supply and installation of Galvanized Iron Socket, diameter 3/4"	No	2			
9	Supply and installation of Galvanized Iron Nipple, diameter 3/4"	No	1			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
10	Supply and installation of Galvanized Iron Union, diameter 3/4"	No	2			
11	Supply and installation of Galvanized Iron Elbow, diameter 3/4"	No	2			
12	Supply and installation of Polyethylene Reducer, Size (40x25)mm	No	1			
13	Supply and installaiton of Mail threaded Adopter (MTA), Size (25x 3/4")	No	1			
Sub-Total Cost for one Stand Tap (Afs)						
Sub-Total Cost for Twenty seven Stand Tap (Afs)			No	27		
BoQ for One one Break Pressure Reducer Valve and Valve Box,						
1	Excavation for valve box laying in ground type 3-4	m3	4.00			
2	Stone masonry with cement- sand mortar M: 1:4.	m3	1.33			
3	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4)	m3	0.10			
4	Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3	m3	0.15			
5	Back filling of pipe trench by excavated material.	No	0.50			
6	Pointing work with cement-sand mortar outside of protection for spring M: 1:3 .	m2	3.50			
7	Supply and installation of Break Pressure Reducing Vale (good quality) Nominal Diameter =2" best quality	No	1			
Sub-Total Cost for One Break Pressure Reducer Valve and Valve Box (Afs)						
BoQ for One Gate Vale Bos (This Project has 3 three Gate Vale boxes)						
1	Excavation for valve box laying in ground type 3-4	m3	3.00			
2	Stone masonry with cement- sand mortar M: 1:4.	m3	1.00			
3	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4)	m3	0.10			
4	Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3	m3	0.15			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
5	Back filling of pipe trench by excavated material.	No	0.50			
6	Pointing work with cement-sand mortar outside of protection for spring M: 1:3 .	m2	3.50			
Sub-Total Cost for One Gate Vale Box (Afs)						
Sub-Total Cost for 3 Three Gate Vale Boxes (Afs)			No	3		
BoQ for Transmission & Distribution line						
1	Excavation for Spring protection laying in ground type 3-4	m ³	2347			
2	Back filling of pipe trench by excavated material.	m ³	1878			
3	Back filling of pipe trench by Seived Soil .	m ³	470			
4	Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 40 mm, wall thickness 2.4 mm ,weight 0.29 kg/m, Best quality.	M	381			
5	Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 50 mm, wall thickness 3 mm ,weight 0.45 kg/m, Best quality.	M	5119			
6	Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 63 mm, wall thickness 3.8 mm ,weight 0.72 kg/m, Best quality.	M	367			
7	Supply and installation of Polyethylene Straight Coupler, diameter (50x50) mm	No	46			
8	Supply and installation of Polyethylene Straight Coupler, diameter (63x63) mm	No	3			
9	Supply and installation of Polyethylene Reducer, Size (63x50)mm	No	1			
10	Supply and installation of Polyethylene Reducer, Size (50x40)mm	No	2			
11	Supply and installation of Polyethylene Tee, Size (40x40x40)mm	No	2			
12	Supply and installation of Polyethylene Tee, Size (50x50x50)mm	No	4			
13	Supply and installation of Polyethylene Tee, Size (50x40x50)mm	No	3			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
14	Supply and installation of Polyethylene Tee, Size (63x50x63)mm	No	1			
15	Supply and installaiton of Male threaded Adopter (MTA), Size (50x1 1/2")	No	13			
16	Supply and installaiton of Male threaded Adopter (MTA), Size (63x2")	No	1			
17	Supply and installation of Galvanized Iron Nipple, diameter 50mm	No	6			
18	Supply and installation of Gate valve (good quality) Nominal Diameter =1 1/2" best quality	No	3			
19	Supply and installation of End cup for the pipe 40mm	No	7			
20	Supply and installation of End cup for the pipe 50mm	No	4			
21	Tools for pipe scheme care taker (valve man): threading machine (dye), threading machine tripod With vice and blades, pipe cutter, pipe wrench, chain wrench, screw wrench (shifting spanner), metal file, pliers,Screw driver, hacksaw, hacksaw blades, lever arm, and meter.	L/S	1			
Sub-Total Cost for Transmission & Distribution line						
BoQ for Sign Board of project						
1	Sign Board for project .	No	1			
Grand Total Cost (Afs.)						

Some of prices and volumes are estimated approximately and the actual price is paid according to the work done and the excavated volumes

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