



**Parwan-Mirghulam village, Community Water Supply network Project, Ashtarlay 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
<b>1</b>	<b>Mobilization and Demobilization</b>					
1	<b>Mobilization</b> - Compensation in full for the cost for transport of equipment, materials and personnel on the project site	LS	1.00			
2	<b>Demobilization</b> - Compensation in full for the cost of removing and cleaning of the construction site, equipment, facilities and personnel from the site	LS	1.00			
<b>Sub Total for Mobilization and Demobilization Works (1.2)</b>						
<b>BoQ for Spring Protection</b>						
1	Excavation for Spring protection laying in ground type 3-4	m3	12.00			
2	Back filling of spring trench by excavated material.	m3	4.00			
3	Gravel filling in floor of structures .	m3	0.20			
4	Stone masonry with cement- sand mortar M: 1:4.	m3	7.70			
5	Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) .	m3	0.10			
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 be removeable slab	m3	1.30			
7	Plaster work with cement-sand + padlow powder inside of protection for spring M: 1:3 .	m2	5.00			
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 (2 ")	M	12.00			
10	Galvanized Iron (GI) pipe, inside diameter ( 1 ")	M	1.00			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
11	Supply and installation of good quality Gate valve Dia =2" for drain and washing of spring protection, best quality	No	2.00			
12	Supply and installation of Galvanized Iron Socket, diameter 2"	No	4.00			
13	Supply and installation of Galvanized Iron Socket, diameter 1"	No	2.00			
14	Supply and installation of Galvanized Iron Nipple, diameter 2"	No	4.00			
15	Supply and installation of Galvanized Iron Nipple, diameter 1"	No	2.00			
16	Supply and installation of Galvanized Iron Union, diameter 2"	No	2.00			
17	Supply and installation of Galvanized Iron Union, diameter 1"	No	1.00			
18	Supply and installation of Galvanized Iron Elbow, diameter 1"	No	2.00			
19	Supply and installation of Galvanized Tee, Size (2"x1"x/2")mm	No	1.00			
20	Supply and installaiton of Male threaded Adopter (MTA), Size (63x2")	No	1.00			
<b>Sub-Total Cost for one Spring Protection Chamber (Afs)</b>						
<b>BoQ for One Break Pressure Tank ( This water supply networking project has 8 break pressure tank )</b>						
1	Excavation for Spring protection laying in ground type 2-3-4-5	m3	10.00			
2	Stone masonry with cement- sand mortar M: 1:4.	m3	3.50			
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	0.15			
5	Plaster work with cement-sand + padlow powder M: 1:3 .	m2	5.00			
6	Back filling of pipe trench by excavated material.	m3	1.50			
7	Galvanized Iron (GI) pipe, inside diameter ( 2 ")	M	12.00			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
8	Galvanized Iron (GI) pipe, inside diameter ( 1" )	M	1.00			
9	Supply and installation of Gate valve (Best quality) Nominal Diameter =( 2" ) best quality	No	1.00			
10	Supply and installation of Galvanized Iron Socket, diameter ( 2" )	No	2.00			
11	Supply and installation of Galvanized Iron Socket, diameter ( 1" )	No	2.00			
12	Supply and installation of Galvanized Iron Nipple, diameter ( 2" )	No	2.00			
13	Supply and installation of Galvanized Iron Nipple, diameter ( 1" )	No	2.00			
14	Supply and installation of Galvanized Iron Union, diameter ( 2" )	No	1.00			
15	Supply and installation of Galvanized Iron Union, diameter ( 1" )	No	1.00			
16	Supply and installation of Galvanized Iron Bend, diameter ( 1" )	No	2.00			
17	Supply and installation of Galvanized Tee, Size ( 2"x1"x2" )mm	No	1.00			
18	Supply and installaiton of Male threaded Adopter (MTA), Size ( 63x2" )	No	2.00			
<b>Sub-Total Cost for one Break Pressure Tank (Afs.)</b>						
<b>Sub-Total Cost for eight Break Pressure Tanks (Afs.)</b>			<b>No</b>	<b>8</b>		
<b>BoQ for One Valve Box for Pressurer Reducing Valve ( This water supply networking project has 2 Vale box for Pressurer Reducing Vale )</b>						
1	Excavation for valve box laying in ground type 4-5	m3	9.00			
2	Stone masonry with cement- sand mortar M: 1:4.	m3	2.60			
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	1.00			
6	Pointing work with cement-sand mortar outside of protection for spring M: 1:3 .	m2	4.00			
7	Galvanized Iron (GI) pipe, inside diameter ( 2 ")	M	3.00			
8	Supply and installaiton of Male threaded Adopter (MTA), Size ( 63x2" )	No	2.00			
9	Supply and installation of Galvanized Iron Union, diameter ( 2" )	No	2.00			
10	Supply and installation of Pressure Reducing valve (good quality) Nominal Diameter =2" best quality.	No	1.00			
<b>Sub-Total Cost for One Valve Boxes, for Pressurer Reducing Valve (Afs.)</b>						
<b>Sub-Total Cost for 2 Valve Boxes for Pressurer Reducing Valve (Afs.)</b>			<b>No</b>	<b>2</b>		
<b>BoQ for 30 m3 Ground Reservoir Tank</b>						
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 ( 3-4-5 )	M3	35.00			
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	12.00			
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	2.15			
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	15.60			
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	38.20			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
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	60.00			
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	38.20			
9	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	44.20			
10	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.	No	1.00			
11	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	0.50			Outlet pipe
12	Supply and installation GI pipe =1 1/4" for removeable ladder for reservoir tank	No	1.00			
13	Supply and installation of best quality Gate valve Dia = 3" for drain and washing of spring protection, best quality	No	2.00			
14	Supply and installation of Polyethylene Straight Coupler, diameter (90x90) mm	No	2.00			
15	Galvanized Iron (GI) pipe, inside diameter ( 3 ")	M	6.00			
16	Galvanized Iron (GI) pipe, inside diameter ( 2 ")	M	12.00			
17	Supply and installation of Galvanized Iron Socket, diameter ( 3" )	No	2.00			
18	Supply and installation of Galvanized Iron Socket, diameter ( 2" )	No	2.00			
19	Supply and installation of Galvanized Iron Nipple, diameter ( 3" )	No	2.00			
20	Supply and installation of Galvanized Iron Nipple, diameter ( 2" )	No	2.00			
21	Supply and installation of Galvanized Iron Union, diameter ( 3" )	No	1.00			
22	Supply and installation of Galvanized Iron Union, diameter ( 2" )	No	1.00			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
23	Supply and installation of Galvanized Iron Elbow, diameter ( 3" )	No	1.00			
24	Supply and installation of Galvanized Iron Elbow, diameter ( 2" )	No	4.00			
25	Supply and installaiton of Male threaded Adopter (MTA), Size ( 90x3")	No	1.00			
26	Supply and installaiton of Male threaded Adopter (MTA), Size ( 40 x1 1/4")	No	2.00			
27	Supply and installation of Galvanized Saddle Clamp ( 90x1 1/4")mm	No	2.00			
<b>Sub-Total Cost for 30 m3 Ground Reservoir tank (Afs.)</b>						
<b>BoQ for One Stand Tap ( This project has 60 Stand Tap or house connection )</b>						
1	Excavation for Stand Tap in ground type 4-5-6 with all required activities, All task for this item to be under full approval and satisfaction of Engineer.	m3	1.20			
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 the Tap during 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	1.90			
6	Galvanized Iron (GI) pipe, inside diameter ( 3/4 ")	M	2.00			
7	Supply and installation of good quality Tap Dia =3/4" for stand tap, best quality	No	1.00			
8	Supply and installation of Galvanized Iron Socket, diameter 3/4"	No	2.00			
9	Supply and installation of Galvanized Iron Nipple, diameter 3/4"	No	1.00			
10	Supply and installation of Galvanized Iron Union, diameter 3/4"	No	2.00			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
11	Supply and installation of Galvanized Iron Elbow, diameter 3/4"	No	2.00			
12	Supply and installation of Polyethylene Reducer, Size (40x25)mm	No	1.00			
13	Supply and installaiton of Mail threaded Adopter (MTA), Size (25x 3/4")	No	1.00			
<b>Sub-Total Cost for One Stand Tap (Afs.)</b>						
<b>Sub-Total Cost for Sixty Stand Tap (Afs.)</b>			<b>No</b>	<b>60</b>		
<b>BoQ for One Gate Vale box ( This project has 3 Gate Vale Box )</b>						
1	Excavation for valve box laying in ground type 4-5 -6	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			
5	Back filling of pipe trench by excavated material.	No	0.25			
6	Pointing work with cement-sand mortar outside of protection for spring M: 1:3 .	m2	3.20			
<b>Sub-Total Cost for One Gate Vale Box (Afs.)</b>						
<b>Sub-Total Cost for Two Gate Vale Box (Afs.)</b>			<b>No</b>	<b>3</b>		
<b>BoQ for Transmission &amp; Distribution line</b>						
1	Excavation for Spring protection laying in ground type ( Type of earth 4-5 -6 )	m <sup>3</sup>	2707.0			
2	Back filling of pipe trench by excavated material.	m <sup>3</sup>	2165.0			
3	Back filling of pipe trench by Seived Soil .	m <sup>3</sup>	542.0			
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	1568.0			

S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
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	688.0			
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	3659.0			
7	Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 75 mm, wall thickness 4.5 mm ,weight 1.01 kg/m, Best quality.	M	348.0			
8	Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 90 mm, wall thickness 4.5 mm ,weight 1.01 kg/m, Best quality.	M	503.0			
9	Supply and installation of Gate valve (good quality) Nominal Diameter = 2 1/2" best quality	No	1.0			
10	Supply and installation of Gate valve (good quality) Nominal Diameter = 2" best quality	No	1.0			
11	Supply and installation of Gate valve (good quality) Nominal Diameter = 1 1/2" best quality	No	1.0			
12	Supply and installation of Polyethylene Straight Coupler, diameter (50x50) mm	No	3.0			
13	Supply and installation of Polyethylene Straight Coupler, diameter (63x63) mm	No	31.0			
14	Supply and installation of Polyethylene Straight Coupler, diameter (75x75) mm	No	4.0			
15	Supply and installation of Polyethylene Straight Coupler, diameter (90x90) mm	No	6.0			
16	Supply and installation of Galvanized Iron Nipple, diameter ( 2 1/2" )	No	2.0			
17	Supply and installation of Galvanized Iron Nipple, diameter ( 2 " )	No	2.0			
18	Supply and installation of Galvanized Iron Nipple, diameter ( 1 1/2" )	No	2.0			
19	Supply and installation of Polyethylene Reducer, Size (50x40)mm	No	2.0			
20	Supply and installation of Polyethylene Reducer, Size (63x50)mm	No	1.0			



S/NO	Discriptions	Unit	Quantity	Cost/Unit (Afs.)	Total Cost (Afs.)	Remarks
21	Supply and installation of Polyethylene Reducer, Size (75x63)mm	No	1.0			
22	Supply and installation of Polyethylene Reducer, Size (90x75)mm	No	1.0			
23	Supply and installation of Polyethylene Tee, Size (40x40x40)mm	No	2.0			
24	Supply and installation of Polyethylene Tee, Size (50x40x50)mm	No	9.0			
25	Supply and installation of Polyethylene Tee, Size (63x40x63)mm	No	6.0			
26	Supply and installation of Polyethylene Tee, Size (75x50x75)mm	No	2.0			
27	Supply and installaiton of Male threaded Adopter (MTA), Size (40x1 1/4")	No	17.0			
28	Supply and installaiton of Male threaded Adopter (MTA), Size (50x1 1/2")	No	2.0			
29	Supply and installaiton of Male threaded Adopter (MTA), Size ( 63x2" )	No	4.0			
30	Supply and installaiton of Male threaded Adopter (MTA), Size ( 75x2 1/2" )	No	2.0			
31	Supply and installation of Galvanized Saddle Clamp ( 75x1 1/4")mm	No	6.0			
32	Supply and installation of Galvanized Saddle Clamp ( 90x1 1/4")mm	No	11.0			
33	Supply and installation of End cup for the pipe 40mm	No	36.0			
34	Supply and installation of End cup for the pipe 50mm	No	1.0			
35	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	1.0			
<b>Sub-Total Cost for distribution line (Afs.)</b>						
1	Sign Board for project	No	1			
<b>Grand Total Cost (Afs.)</b>						

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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