

# 33 11 Groundwater Sources

## 33 11 13 – Potable Water Supply Wells

33 11 13.10 Wells and Accessories		Daily Crew	Output	Labor- Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	<b>WELLS &amp; ACCESSORIES</b>									
0011	Domestic									
0100	Drilled, 4" to 6" diameter	B-23	120	.333	L.F.		15.35	9.70	25.05	33.50
0200	8" diameter	"	95.20	.420	"		19.35	12.20	31.55	42.50
0400	Gravel pack well, 40' deep, incl. gravel & casing, complete									
0500	24" diameter casing x 18" diameter screen	B-23	.13	.308	Total	40,400	14,200	8,950	63,550	75,500
0600	36" diameter casing x 18" diameter screen	"	.12	.333	"	41,600	15,300	9,700	66,600	79,000
0800	Observation wells, 1-1/4" riser pipe	↓	.163	.245	V.L.F.	18.95	11.30	7.15	37.40	45.50
0900	For flush Buffalo roadway box, add	1 Skwk	16.60	.482	Ea.	54.50	28.50		83	103
1200	Test well, 2-1/2" diameter, up to 50' deep (15 to 50 GPM)	B-23	1.51	26.490	"	935	1,225	770	2,930	3,700
1300	Over 50' deep, add	"	121.80	.328	L.F.	25	15.10	9.55	49.65	60.50
1500	Pumps, installed in wells to 100' deep, 4" submersible									
1510	1/2 HP	Q-1	3.22	4.969	Ea.	575	310		885	1,100
1520	3/4 HP	"	2.66	6.015		795	380		1,175	1,450
1600	1 HP	↓	2.29	6.987		935	440		1,375	1,675
1700	1-1/2 HP	Q-22	1.60	10		1,250	630	1,250	3,130	3,675
1800	2 HP	"	1.33	12.030		1,725	755	1,500	3,980	4,675
1900	3 HP	"	1.14	14.035		2,325	880	1,750	4,955	5,800
2000	5 HP	"	1.14	14.035		2,850	880	1,750	5,480	6,400
3000	Pump, 6" submersible, 25' to 150' deep, 25 HP, 103 to 400 GPM	"	.89	17.978		9,725	1,125	2,225	13,075	14,800
3100	25' to 500' deep, 30 HP, 104 to 400 GPM	↓	.73	21.918	↓	11,400	1,375	2,725	15,500	17,700
8000	Steel well casing	B-23A	3020	.008	Lb.	1.35	.41	.30	2.06	2.43
9950	See Section 31 23 19.40 for wellpoints									
9960	See Section 31 23 19.30 for drainage wells									

## 33 11 13.20 Water Supply Wells, Pumps

0010	<b>WATER SUPPLY WELLS, PUMPS</b>									
0011	With pressure control									
1000	Deep well, jet, 42 gal. galvanized tank									
1040	3/4 HP	1 Plum	.80	10	Ea.	1,175	700		1,875	2,350
3000	Shallow well, jet, 30 gal. galvanized tank									
3040	1/2 HP	1 Plum	2	4	Ea.	945	279		1,224	1,475

# 33 14 Water Utility Transmission and Distribution

## 33 14 13 – Public Water Utility Distribution Piping

### 33 14 13.15 Water Supply, Ductile Iron Pipe

0010	<b>WATER SUPPLY, DUCTILE IRON PIPE</b>	R331113-80								
0020	Not including excavation or backfill									
2000	Pipe, class 50 water piping, 18' lengths									
2020	Mechanical joint, 4" diameter	B-21	200	.140	L.F.	57	7.35	.87	65.22	74.50
2040	6" diameter		160	.175		70	9.20	1.08	80.28	92
2060	8" diameter		133.33	.210		97.50	11.05	1.30	109.85	125
2080	10" diameter		114.29	.245		126	12.85	1.52	140.37	160
2100	12" diameter		105.26	.266		157	13.95	1.65	172.60	196
2120	14" diameter		100	.280		120	14.70	1.73	136.43	156
2140	16" diameter		72.73	.385		122	20	2.38	144.38	167
2160	18" diameter		68.97	.406		163	21.50	2.51	187.01	215
2170	20" diameter		57.14	.490		165	25.50	3.03	193.53	223
2180	24" diameter		47.06	.595		182	31	3.68	216.68	251
3000	Push-on joint, 4" diameter		400	.070		24	3.68	.43	28.11	32.50
3020	6" diameter		333.33	.084		23.50	4.41	.52	28.43	33
3040	8" diameter		200	.140		33	7.35	.87	41.22	48.50