

WELLS 28 & 29 DRILLING, DEVELOPMENT, AND TESTING PROJECT

Engineers Estimate \$1,270,000 - \$1,460,000
July 21, 2016

ZIM INDUSTRIES, INC. - FRESNO, CA

ITEM NO.	ITEM DESCRIPTION	BID QTY	UNIT	UNIT COST	TOTAL COST
1	Mobilization / Demobilization	1	LS	\$186,000.00	\$186,000.00
2	All-weather pad and site access provisions	1	LS	\$15,000.00	\$15,000.00
3	Furnish/install 44-inch conductor casing (including sanitary seal)	200	VF	\$520.00	\$104,000.00
4	Drill test borehole (Well 28)	1,000	VF	\$80.00	\$80,000.00
5	Discrete zone sampling (Well 28)	3	EA	\$7,600.00	\$22,800.00
6	Ream test borehole to 34-inch borehole (Well 28)	600	VF	\$70.00	\$42,000.00
7	Drill 34-inch borehole (Well 29)	600	VF	\$150.00	\$90,000.00
8	Geophysical survey	2	EA	\$3,000.00	\$6,000.00
9	Caliper survey	2	EA	\$2,200.00	\$4,400.00
10	Furnish/install 18-inch copper bearing steel casing	380	VF	\$171.00	\$64,980.00
11	Transition coupling	2	EA	\$1,750.00	\$3,500.00
12	Furnish/install 18-inch stainless steel casing	800	VF	\$410.00	\$328,000.00
13	Furnish/install 18-inch stainless steel wire wrap screen	250	VF	\$272.00	\$68,000.00
14	Furnish/install 3-inch gravel pipe	430	VF	\$13.00	\$5,590.00
15	Furnish/install 3-inch camera port	430	VF	\$43.00	\$18,490.00
16	Furnish/install 2-inch sounding tube	430	VF	\$19.00	\$8,170.00
17	Furnish/install gravel pack	590	VF	\$87.00	\$51,330.00
18	Furnish/install annular seal	380	VF	\$64.00	\$24,320.00
19	Furnish/install intermediate bentonite/cement seals	190	VF	\$80.00	\$15,200.00
20	Transition sand seal	15	VF	\$70.00	\$1,050.00
21	Well development with rig	64	HR	\$450.00	\$28,800.00
22	Install/remove test pump	2	EA	\$12,000.00	\$24,000.00
23	Well development with test pump	120	HR	\$350.00	\$42,000.00
24	Step drawdown pump tests	20	HR	\$350.00	\$7,000.00
25	Continuous pump tests	52	HR	\$300.00	\$15,600.00
26	Mud/cuttings disposal	2	EA	\$15,000.00	\$30,000.00
27	Disinfection	2	EA	\$1,300.00	\$2,600.00
28	Plumbness test, alignment test, and video logs	2	EA	\$3,800.00	\$7,600.00
29	Tree and stump removal	1	LS	\$6,500.00	\$6,500.00
30	Well destruction (Wells 28 and 29 if necessary)	2	EA	\$4,000.00	\$8,000.00
31	Destruction of test borehole (Well 28)	400	VF	\$20.00	\$8,000.00
32	Well destruction (Wells 8 and 10)	2	EA	\$40,000.00	\$80,000.00
33	Well destruction (3 WQCF Wells)	3	EA	\$4,900.00	\$14,700.00
34	Class 200 1-inch irrigation piping	125	LF	\$24.00	\$3,000.00
35	Class 200 1¼-inch irrigation piping	295	LF	\$25.00	\$7,375.00
36	Class 200 1½-inch irrigation piping	60	LF	\$25.00	\$1,500.00
37	Class 200 2-inch irrigation piping	60	LF	\$25.00	\$1,500.00
38	Class 200 2½-inch irrigation piping	60	LF	\$26.00	\$1,560.00
39	Reroute 4-inch class 315 mainline and wiring	210	LF	\$84.00	\$17,640.00
40	Install Rainbird Falcon with swing joint and stainless steel riser	20	EA	\$150.00	\$3,000.00
41	Remove existing heads	15	EA	\$30.00	\$450.00
42	Remove existing valves and boxes	3	EA	\$120.00	\$360.00
43	Install splice boxes	2	EA	\$1,400.00	\$2,800.00
44	Install new valves and boxes	3	EA	\$900.00	\$2,700.00
45	Cap existing irrigation pipes	6	EA	\$120.00	\$720.00
46	Sodding	830	SF	\$3.30	\$2,739.00
TOTAL BASE BID ITEMS 1 - 46					\$1,458,974.00

ADDITIVE BID ITEM A

ITEM NO.	ITEM DESCRIPTION	BID QTY	UNIT	UNIT COST	TOTAL COST
1A	Ream test borehole below 600 ft bgs to 34-inch borehole (Well 28)	400	VF	\$80.00	\$32,000.00
2A	Furnish/install 18-inch stainless steel casing below 600 ft bgs (Well 28)	400	VF	\$450.00	\$180,000.00
3A	Furnish/install gravel pack below 600 ft bgs (Well 28)	400	VF	\$92.00	\$36,800.00
4A	Deduct for Base Bid Item 30, Destruction of test borehole (Well 28)	400	VF	-\$10.00	-\$4,000.00
5A	Containment and disposal of water from development and pump testing	1	LS	\$875,000.00	\$875,000.00
TOTAL ADDITIVE BID ITEMS 1A - 5A					\$1,119,800.00
TOTAL BID ITEMS 1 - 46 AND 1A - 5A					\$2,578,774.00