



United Pump Testing
(559) 930-4674
Pump Test Report

S-13-25

v.6.0 9/2014

Customer and Facility Data

Pump/Location: 7826 & 7782 Rd 28-AG/	HP: 30	Utility: PG&E
GPS Coord.: Long -120.0382 Lat 36.86348	Pump Make: No Name Plate	
Motor Make: U.S. Type Turbine	Meter Number: 1010280630	
Customer Addr: Mark Delano	Serial Number: 878642	
7826 Rd 28	Voltage: 230 Amps: 75	
Madera, CA 93637	Our Test #: 051325PC2	
Contact: Mark Delano		
Phone: (559) 289-7384 Fax: (000) 000-0000 Cell: (000) 000-0000		

Test Results

Test Date: 5/13/2025 **Tester:** Pedro Castro Jr.

Run Number ('E' = used for cost anal):	1	E-2
1. Pumping Water Level (ft):	159	154
2. Standing Water Level (ft):	145	145
3. Draw Down (ft):	14	9
4. Recovered Water Level (ft):	145	145
5. Discharge Pressure at Gauge (psi):	2	30
6. Total Lift (ft):	164	223
7. Flow Velocity (ft/sec):	3.3	1.9
8. Measured Flow Rate (gpm):	514	302
9. Customer Flow Rate (gpm):	490	250
10. Specific Capacity (gpm/ft draw):	36.7	33.6
11. Acre Feet per 24 Hr:	2.3	1.3
Million Gallons per 24 Hr:	0.740	0.435
12. Cubic Feet per Second (cfs):	1.1	0.7
13. Horsepower Input to Motor:	34	33
14. Percent of Rated Motor Load (%):	102	98
15. Kilowatt Input to Motor:	25	24
16. Kilowatt Hours per acre-foot:	268	438
17. Cost to Pump an acre-foot:	\$58.93	\$96.38
18. Energy Cost (\$/hour)	\$5.58	\$5.36
19. Base Cost per Kwh:	\$0.220	\$0.220
20. Nameplate rpm:	1,800	1,800
21. rpm at Gearhead:	0	0
22. Overall Pumping Efficiency (%):	62	52

If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.

Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).

Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Unable to use water level sounder line.
 Water levels determined using customers air line. Air line length is 182 feet.

BOWLS
 @ 182 FT

Estimated savings of 68 kWh/AF and \$1,243.31 annual energy costs from a retrofit
 Current OPE of 52% and estimated potential OPE of 62%

**CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST
ANALYSIS FROM: United Pump Testing**

MARK DELANO
MARK DELANO
7826 RD 28
MADERA, CA 93637

Test Date: 5/13/2025
Pump: 7826 & 7782 RD 28-AG
Nameplate HP: 30.0
Our Pump Test Number: 5703807

This is a Turbine pump used for Irrigation - Agriculture and assumed to be operated 1500 hours/year.

The following Pumping Cost Analysis is presented as an estimate prepared from data acquired from the pump test performed 5/13/2025 and information provided by you. Please pay careful attention to the assumptions. The estimated savings are only valid for the assumptions made and conditions measured during the pump test. Note that many numbers are rounded during calculations.

<i>NOTE: * denotes a value that was Assumed or Provided by Customer</i>	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	52 %	62 %	
2. Nameplate Horsepower:	30.0 hp	30.0 hp	
3. Motor Efficiency:	90 %	90 %	
4. Actual Motor Input Horsepower:	32.7 hp	31.0 hp	
5. Motor loaded at:	98 %	93 %	
6. Flow rate (gpm):	302 gpm	339 gpm	
7. Pumping Level (ft):	154 ft	155 ft	
8. Discharge Pressure (psi):	30 psi	30 psi	
9. Total Dynamic Head (feet):	223 ft	224 ft	<i>Rounded TDH = line 7. + (2.31 x line 8.)</i>
10. Acre-feet Pumped/yr:	83.41 af/yr*	83.41 af/yr*	<i>Same af/yr AFTER</i>
11. Average Cost per kWh:	\$0.220 /kWh*	\$0.220 /kWh*	<i>Same \$/kWh AFTER</i>
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	36,540 kWh/yr	30,889 kWh/yr	5,651 kWh/yr
13. Hours of Operation/yr:	1,500 hr/yr*	1,335 hr/yr	165 hr/yr
14. Kilowatt-hours per acre-foot:	438 kWh/af	370 kWh/af	68 kWh/af
15. Average Cost Per acre-foot:	\$96.38 /af	\$81.47 /af	\$14.91/af = 15.47%
- Estimated savings = \$14.91/af = 15.47% of energy costs - If pumping 83.41 af/year this equals about \$1,243 annual savings			

**Analysis
Remarks:**

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Pedro Castro Jr. at 5599304674.

Regards,

Pedro Castro Jr.

INVOICE

United Pump Testing
6241 N Locan Ave
Clovis, CA 93619-8510

pedro@unitedpt.org
+1 (559) 930-4674
www.unitedpt.org



Bill to
Mark Delano
7826 Rd 28
Madera, CA 93637 USA

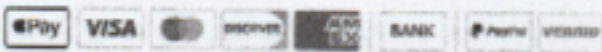
Invoice details

Invoice no.: 02277
Invoice date: 05/14/2025

#	Date	Product or service	Description	Qty	Rate	Amount
1.	05/13/2025	Pump Testing	Testing Pump for Efficiency and Additional Information. Pump: 7826 & 7782 Rd 28-AG 30hp Turbine Meter # 1010280630	1	\$300.00	\$300.00

Total **\$300.00**

Ways to pay



[View and pay](#)

PAID
CK. NO. 3760
DATE 5-19-25