



**CONFIDENTIAL/PROPRIETARY INFORMATION**

Ralph Heringer  
Rec Dist 2028 Bacon Island  
P O Box 4005  
Stockton, CA 95204

Thursday, Oct 03, 2024

SUBJECT: PUMPING COST ANALYSIS  
HP: 125.00 Plant: North Pump 3  
PUMP TEST REFERENCE NUMBER: PT-28970  
PUMP TEST RUN: Run 1

The following Pumping Cost Analysis is presented as an aid to your cost accounting. This analysis is an estimate prepared from operating criteria supplied from the pump test performed Sep 30 2024 and information provided by you during the pump test.

It is recommended and assumed that:

- Overall plant efficiency can be improved to: 68%
- Water requirements will be the same as for the past year
- All operating conditions (annual hours of operation, discharge head, and water pumping level) will remain the same as they were at the time of the pump test

	EXISTING PLANT EFFICIENCY	IMPROVED PLANT EFFICIENCY	SAVINGS
kWh/AF	49.7	41.7	8.10
Estimated Total kWh	73,602	61,672	11,930
Average Cost per kWh	\$0.18	\$0.18	
Average Cost per hour	\$13.59	\$20.81	*
Cost Per Acre Ft.	\$9.18	\$7.7	\$1.49
Estimated Acre Ft. Per Year	1,479.51	1,479.51	
Run Hours	1,000.00	1,000.00	
Overall Plant Efficiency	57%	68%	
Estimated Total Annual Cost	\$13,588.41	\$11,385.96	\$2,202.45

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will be continued. If you have any questions, please contact Bill Power at (209) 527-2908.

Regards,

William Thomas Power, III

Enclosures

## Agricultural and Domestic Pump Test Report

### Rec Dist 2028 Bacon Island - North Pump 3 - Run 1

 Latitude: 38.435  
 Test Date: Sep 30 2024

 Longitude: -121.54816  
 Tester: Devin Power

 Elevation: 0  
 Nameplate HP: 125.00

Customer Information	Power Company Data	Equipment Data
<b>Rec Dist 2028 Bacon Island</b>  P O Box 4005 Stockton, CA 95204  Contact: Ralph Heringer Cell: 916-777-6091	<b>PG&amp;E</b>  Meter #: <b>1010055722</b> Rate Schedule: <b>AG5B</b> Average Cost: <b>\$0.18</b>	Motor Make: <b>U.S.</b> Volts/Amps: <b>460V/150.00A</b> Serial #: <b>C51805384-14986-473</b> Pump Make: <b>No Name Plate</b> Pump Type: <b>Mix Flow</b> Drive Type: <b>Electric Motor</b> Gearhead Make:

Hydraulic Data	Flow Data
Pumping Water Level (PWL): 15.00 ft Discharge Pressure: 5.50 PSI Discharge Level: 12.71 ft Total Lift: 27.71 ft Water Source: Canal	Run Number: 1 of 1 Measured Flow: 8035 gpm Customer Flow: 0 gpm Flow Velocity: 6.13 ft/sec Acre Feet per 24 Hr: 35.55 Cubic Feet Per Second (CFS): 17.9 ft

Power Data	
Horsepower Input to Motor: 98.66 hp Brake Horsepower: 89.78 hp Kilowatt Input to Motor: 73.6 kW Energy Cost: \$13.59/hr Nameplate RPM: 890 rpm VFD: 0 hz	Percent of Rated Motor Load: 72% Kilowatt Hours per Acre Foot: 49.75 Cost to Pump an Acre Foot: \$9.18 <b>Overall Plant Efficiency: 56.98%</b> Water Horsepower: 56.21 hp Run Hours: 1000

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.

Ralph Heringer  
 Rec Dist 2028 Bacon Island  
 P O Box 4005  
 Stockton, CA 95204

**Pump Name:** North Pump 3

**HYDRAULIC TEST RESULTS**

PT-28970

**Test Date:** Sep 30 2024

**Tester:** Devin Power  
**Meter #:** 1010055722  
**Annual Run Hrs:** 1000

**Utility:** PG&E  
**Rate Sched:** AG5B  
**Avg Cost kWh:** \$0.18

**Meter kWh:** 4.80  
**Meter Const:** 80

**Motor Make:** U.S.  
**Volts:** 460  
**Gearhead Make:**  
**Pump Make:** No Name Plate  
**Water Source:** Canal

**Motor Serial:** C51805384-14986-473  
**Amps:** 150.00  
**NameplateRPM:** 890  
**Pump Type:** Mix Flow

**Horsepower:** 125.00  
**Drive Type:** Electric Motor  
**Pipe Diameter:** 23.13

<b>Results</b>	<b>Test 1</b>
Discharge Pressure, PSI	5.50
Standing Water Level, Feet	0
Recovered Water Level	0.00
Drawdown, Feet	15
Discharge Head, Feet	12.71
Pumping Water Level, Feet	15.00
Total Measured Head, Feet	27.705
Measured GPM	8035.00
Customer Meter, GPM	
Well Yield, GPM/ft Drawdown	535.67
Acre Feet Pumped in 24 Hours	35.55
kW Input to Motor	73.6
HP Input to Motor	98.66
Motor Load %	71.8
Measured Speed of Pump, RPM	
VFD, Hz:	
<b>kWh per Acre Foot</b>	<b>49.75</b>
<b>Overall Plant Efficiency (%)</b>	<b>57</b>
Energy Cost per Hour	13.59
Water Horsepower, hp	56.21
Flow Velocity, ft/sec	6.13