

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

POWER CONSUMPTION COEFFICIENT WORKSHEET

(Revised 6/2006)

District W0D11
 Diversion Name Kent-Larabee pump. (Paul Keetch)
 Inventory Date 6/13/07 Test Date _____
 Inventory Examiner _____ Person performing test _____
 PCC o.k.? ☐ Yes ☒ No Exam complete? ☐ Yes ☐ No

Name:	_____
Water Right No.:	_____
Legal Description:	T _____ R _____ Sec. _____ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$
Site Tag No.:	_____
Diversion Name:	_____

Current Owner

Name Paul Keetch Phone 847-0128
 Address _____ Cell _____
 City _____ St _____ Zip _____ E-mail _____

Operator (if leased or operated by person other than owner)

Name Paul Keetch Phone _____
 Address _____ Cell _____
 City _____ St _____ Zip _____ E-mail _____

Global Positioning System Data:

Data Collection Filename _____ Offset 200'
 IDWR Site Tag Identification No. A001423
 Site Tag Location description: Headgate to the old laarvo ditch
 PLS/USGS LOCATOR _____

For Department/District Use Only

Received by _____ Date _____
 Reviewed by _____ Date _____
 Data Entry By _____ Date _____

Well Pump and Motor Information

Pump Data		Motor Data	
Manufacturer	US Electric	Manufacturer	
Serial Number	R09R1720167R-T	Serial Number	
Model Number	G00851	Rated Horsepower	
Type	40 hp. R-1	Rated Amps	
Impeller Diameter		Rated Volts	
Rated Speed	1770 RPM.	Rated Speed	
Rated Discharge		Phase	
Rated Head		Service Factor	

Booster Pump and Motor Information

Pump Data		Motor Data	
Manufacturer	Century	Manufacturer	
Serial Number		Serial Number	
Model Number		Rated Horsepower	
Type		Rated Amps	
Impeller Diameter		Rated Volts	
Rated Speed	20 hp.	Rated Speed	
Rated Discharge		Phase	
Rated Head		Service Factor	

Power and Water Metering Information

Kilowatt-Hour Meter		Water Measurement Equipment and Pipe Information	
Utility	Rocky Mtn Power	Std. Meter Manufacturer	Pana metrics.
Pole Number	356000	Std. Meter Model No.	
Meter Manufacturer	Sangame Elec.	Std. Meter Type (circle one)	Sonic Pyg Collins Hall Anub Dye/chem. Other
Meter Serial No.	41977796	Std. Meter Confidence (circle one)	Excl Good Fair Poor 2% 5% 10% >10%
Disc Constant (Kh)	28.8	PSI gauge ID location \approx discharge head	District / Owner _____ Yes / No
Rated Voltage	480 V	Pipe Material	Alumn.
Demand	133 33.2	Pipe Outside Diameter	8.02
Multiplier (Mult)	12	Pipe Inside Diameter	8 inch
CTR (Current) PTR (Voltage)		Distance of straight pipe upstream and down	Upstream _____ Downstream _____

Determination of Power Consumption Coefficient

Kilowatts of Energy Consumed

KW = 3.6 × Kh × Multiplier × No. of revolutions (N) ÷ Time (T) in seconds per N

Cond.#1 N = 3 (No. of Disc Rev) **Time (sec) =** (30.78)+(30.63)+(30.69)/3 = 30.7 Ave

(3.6 × 28.8 (Kh) × 12 (Mult) × 3 (N) ÷ 30.7 (T) = * 121.57 KW 28.8

Cond.#2 N = _____ (No. of Disc Rev) **Time (sec) =** (____)+(____)+(____)/3 = _____ Ave

3.6 × _____ (Kh) × _____ (Mult) × _____ (N) ÷ _____ (T) = * _____ KW

Cond.#3 N = _____ (No. of Disc Rev) **Time (sec) =** (____)+(____)+(____)/3 = _____ Ave

3.6 × _____ (Kh) × _____ (Mult) × _____ (N) ÷ _____ (T) = * _____ KW

Measured Flow Rate and Discharge Pressure – Enter flow rate as determined by the "standard" water measurement meter in GPM, and discharge pressure measured in PSI. Attach documentation to support data such as notes, printout tapes, etc.

GPM Cond. #1 * 819 #2 * _____ #3 * _____

PSI Cond. #1 * _____ #2 * _____ #3 * _____

5.35 ft/s 4090 gal

Power Consumption Coefficient (PCC) = KW × 5431 ÷ GPM

PCC Cond #1 = * 121.57 (KW) × 5431 ÷ * _____ (gpm) = _____ (kWh/ac.ft)

Qualifier Condition 1: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

PCC Cond #2 = * _____ (KW) × 5431 ÷ * _____ (gpm) = _____ (kWh/ac.ft)

Qualifier Condition 2: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

PCC Cond #3 = * _____ (KW) × 5431 ÷ * _____ (gpm) = _____ (kWh/ac.ft)

Qualifier Condition 3: 1 2 3 4 5 6 7 8 9 Other

Percent of seasonal use * _____ Description * _____

Is the system operator required to track and report changes in system operation? ~ Yes ~ No (check one)

System Type (circle all that apply): Pivot / linear / Wheel In / Hand In / Gated pipe, flood / Drip / Open Discharge

	Crop Type	Number of Acres
1	<u>alfalfa (pivot)</u>	<u>120 (40hp)</u>
2	<u>wheel lines</u>	<u>30</u>
3		
4		
Total Acres =		

38 in/day

PSI 12.5

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (<i>check one</i>)	
Is this well part of USGS, IDWR, or another <u>network</u> of water level monitoring wells? ~ Yes ~ No ~ Uncertain	
Static Water Level _____ ft Date _____	Pumping Water Level _____ ft at condition # _____) Date _____

Further describe system operating conditions (if necessary) and how percentage of seasonal use was obtained: _____

Sketch of pumping plan layout or photograph of pumping plant and piping:

Notes – Comments – Calculations: _____

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____ Date _____

(person performing measurements)