PCC W 7-02

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

POWER CONSUMPTION COEFFICIENT WORKSHEET

(Revised 7/2002)

District 11

Diversion Name Kent - Larocco Pump

Inventory Date _____ Test Date 11/13/07

Inventory Examiner _____ Person performing test C. Knowles, Bird

PCC o.k.? ☐ Yes ☐ No Exam complete? ☐ Yes ☐ No

Name: _____

Water Right No.: _____

Legal Description: T____ R____ Sec.____ ____¼ ____¼ ____¼

Site Tag No.: A0011423

Diversion Name: _____

Current Owner

Name Paul Keeteh Phone _____

Address _____ Cell _____

City _____ St _____ Zip _____ E-mail _____

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

Name _____ Phone _____

Address _____ Cell _____

City _____ St _____ Zip _____ E-mail _____

Global Positioning System Data:

Data Collection Filename _____ Offset _____

IDWR Site Tag Identification No. _____

Site Tag Location description: _____

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	Vertiline.	Manufacturer	Hegoman Leftline
Serial Number	D27107	Serial Number	~~X1010403~~ B1707
Model Number	14RL	Rated Horsepower	75
Type		Rated Amps	87
Impeller Diameter		Rated Volts	440.
Rated Speed	1770	Rated Speed	1789
Rated Discharge	2000 GPM	Phase	3
Rated Head		Service Factor	1.15.

Booster Pump and Motor Information

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

Power and Water Metering Information

Kilowatt-Hour Meter		Water Measurement Equipment and Pipe Information	
Utility	Pacificorp	Std. Meter Manufacturer	Panametric
Pole Number	026901	Std. Meter Model No.	
Meter Manufacturer	GE KV2c	Std. Meter Type (circle one)	(Sonic) Pyg Collins Hall Anub Dye/chem. Other
Meter Serial No.	28742097	Std. Meter Confidence (circle one)	Excl (2%) Good (5%) Fair (10%) Poor (>10%)
Disc Constant (Kh)	21.6	PSI gauge ID location ≅ discharge head	District / Owner _____ Yes / No
Rated Voltage	480V	Pipe Material	Steel.
Demand	78.127	Pipe Outside Diameter	10.0
Multiplier (Mult)	1	Pipe Inside Diameter	
CTR (Current) PTR (Voltage)	1	Distance of straight pipe upstream and down	Upstream _____ Downstream _____

.095 pipe thickness

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 = 30 (No. of Disc Rev) **Time** (sec) = (31.68)+(31.13)+(31.17)/3 = 31.33 Ave

3.6 × 21.6 (Kh) × 1 (Mult) × 30 (N) ÷ 31.33 (T) = * 74.47 KW BHP 99.78

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 * 1794 #2 * 819 (6/13/07) #3 * _____

PSI Cond. #1 * 55 #2 * _____ #3 * _____

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

PCC Cond #1 = * 74.47 (KW) × 5431 ÷ * 1794 (gpm) = 225.43 (kWh/ac.ft)

Percent of seasonal use * _____ Description * _____

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

Percent of seasonal use * _____ Description * _____

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

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 ln / Hand ln / Gated pipe, flood / Drip / Open Discharge

	Crop Type	Number of Acres
1		
2		
3		
4		
	Total Acres =	

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (*check one*)	
Is this well part of USGS, IDWR, or another network 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)