

IDAHO DEPARTMENT OF WATER RESOURCES  
Water Measurement Program**POWER CONSUMPTION COEFFICIENT WORKSHEET**

(Revised 6/2006)

District 11  
Diversion Name James Hardcastle ~~Flintaker~~  
Inventory Date \_\_\_\_\_ Test Date 7/30/07  
Inventory Examiner \_\_\_\_\_ Person performing test \_\_\_\_\_  
PCC o.k.? ☐ Yes ☐ No Exam complete? ☐ Yes ☐ No

Name:	_____
Water Right No.:	<u>11-1103</u>
Legal Description:	T _____ R _____ Sec. _____ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$
Site Tag No.:	_____
Diversion Name:	_____

**Current Owner**

Name Leon Hardcastle Phone 847-2281  
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 N 42° 19.799' W 111° 21.191'

**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	Monarch.	Manufacturer	Deutz.
Serial Number	3679	Serial Number	4/cy.
Model Number	20 3 HP 3.	Rated Horsepower	20 hp
Type		Rated Amps	
Impeller Diameter		Rated Volts	
Rated Speed		Rated Speed	2400.
Rated Discharge		Phase	
Rated Head		Service Factor	

Same  
as  
Calleman  
Pump

**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	Prisel.	Std. Meter Manufacturer	Fuji
Pole Number		Std. Meter Model No.	S 1012
Meter Manufacturer		Std. Meter Type (circle one)	Sonic Pyg Collins Hall Anub Dye/chem. Other
Meter Serial No.		Std. Meter Confidence (circle one)	Exc 2% <input checked="" type="radio"/> Good 5% <input type="radio"/> Fair 10% <input type="radio"/> Poor >10%
Disc Constant (Kh)		PSI gauge ID location = discharge head	District / Owner _____ Yes / No
Rated Voltage		Pipe Material	alum.
Demand		Pipe Outside Diameter	8.03.
Multiplier (Mult)		Pipe Inside Diameter	
CTR (Current) PTR (Voltage)		Distance of straight pipe upstream and down	Upstream _____ Downstream _____

# Determination of Power Consumption Coefficient

## Kilowatts of Energy Consumed

$$KW = 3.6 \times Kh \times \text{Multiplier} \times \text{No. of revolutions (N)} \div \text{Time (T) in seconds per N}$$

Cond.#1 N = \_\_\_\_\_ (No. of Disc Rev) Time (sec) = (\_\_\_\_) + (\_\_\_\_) + (\_\_\_\_) / 3 = \_\_\_\_\_ Ave

$$3.6 \times \text{_____} (Kh) \times \text{_____} (\text{Mult}) \times \text{_____} (N) \div \text{_____} (T) = * \text{_____} KW$$

Cond.#2 N = \_\_\_\_\_ (No. of Disc Rev) Time (sec) = (\_\_\_\_) + (\_\_\_\_) + (\_\_\_\_) / 3 = \_\_\_\_\_ Ave

$$3.6 \times \text{_____} (Kh) \times \text{_____} (\text{Mult}) \times \text{_____} (N) \div \text{_____} (T) = * \text{_____} KW$$

Cond.#3 N = \_\_\_\_\_ (No. of Disc Rev) Time (sec) = (\_\_\_\_) + (\_\_\_\_) + (\_\_\_\_) / 3 = \_\_\_\_\_ Ave

$$3.6 \times \text{_____} (Kh) \times \text{_____} (\text{Mult}) \times \text{_____} (N) \div \text{_____} (T) = * \text{_____} KW$$

**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 \* 499.3 #2 \* \_\_\_\_\_ #3 \* \_\_\_\_\_

PSI Cond. #1 \* 38 #2 \* \_\_\_\_\_ #3 \* \_\_\_\_\_

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

$$PCC \text{ Cond \#1} = * \text{_____} (KW) \times 5431 \div * \text{_____} (gpm) = \text{_____} (kWh/ac.ft)$$

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

Percent of seasonal use \* \_\_\_\_\_ Description \* \_\_\_\_\_

$$PCC \text{ Cond \#2} = * \text{_____} (KW) \times 5431 \div * \text{_____} (gpm) = \text{_____} (kWh/ac.ft)$$

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

Percent of seasonal use \* \_\_\_\_\_ Description \* \_\_\_\_\_

$$PCC \text{ Cond \#3} = * \text{_____} (KW) \times 5431 \div * \text{_____} (gpm) = \text{_____} (kWh/ac.ft)$$

**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		
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 <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:

*Rock measured the pressure at the sprinklers.  
Portable pump.*

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)