

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 96-9243

Exam Date:

1. Current Owner: TERESA A DAY
2413 TWIN CREEK RD
CLARK FORK ID 83811
(208)266-0315

2. Accompanied by:

Phone No:

Address:

Relationship to Permit Holder:

- | 3. <u>SOURCE</u> | <u>TRIBUTARY</u> |
|------------------|------------------|
| DELYLE CREEK | TWIN CREEK |

B. OVERLAP REVIEW

1. Other water rights with the same place of use: **NONE**
2. Other water rights with the same point of diversion: **NONE**

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

DELYLE CREEK L4 NW1/4NW1/4 Sec. 1, Twp 54N, Rge 02E, B.M.
BONNER County

Method of Determination:

- 2.

PLACE OF USE: POWER

[illegible]

PLACE OF USE: DOMESTIC

[illegible]

96-9243

Examiner: Greg Taylor

10-18-05

There is a rock diversion dam in creek with square notch in middle of dam. Large rocks are placed in notch during low flows to pool water at the screened pipe. Water is diverted through a 4" pvc pipe in Delyle Creek 800' to power house. There is 45 feet of drop from p.d. to Pelton Wheel. The wheel is turned by 4-3/8" nozzles and the pressure gage in the powerhouse read 20 psi.

There is a 1 1/4" pipe that tees from the 4" main approximately 200' upstream from the powerhouse. This pipe supplies water to the home. The elevation at the p.d. is equal to the elevation of the basement of the house and the water is gravity fed to basement and then pumped to the two upper floors.

Method of Determination:

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2 Measurements:

Pressure gage @ Peltan wheel read 20 psi

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

Power

4- 3/8" nozzles @ 20 psi = 18.78 gpm/nozzle x 4 = 75 gpm =

.17 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

$$\text{Power } .17 \text{ cfs} \times 1.9835 \times 365 \text{ days} = 123.1 \text{ AF}$$

Dom. - water is used in home and used to irrigate landscaping and greenhouse.

1.2 AF

124.3 AFA Total

G. NARRATIVE/REMARKS/COMMENTS

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
POWER	01/01 to 12/31	0.170 CFS	123.10 AF
DOMESTIC	01/01 to 12/31	0.020 CFS	1.20 AF
<u>Totals:</u>		0.180 CFS	124.30 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Amy Taylor Date 10-19-05

Reviewer _____ Date _____

Idaho Department of Water Resources
Estimated Pumping Rate Documentation Form

ed 1/6/2000

Flow Analysis Performed by: [REDACTED]

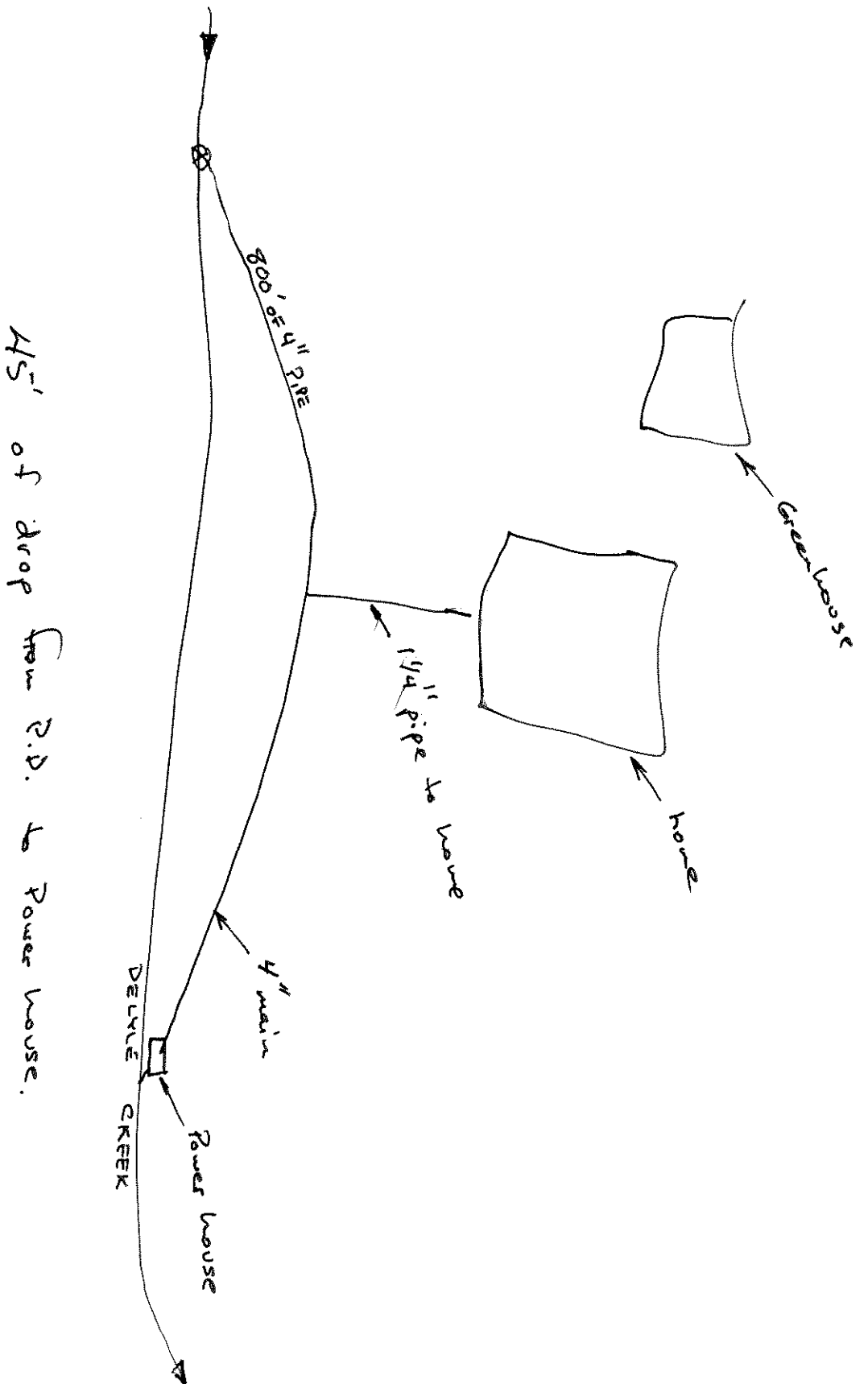
Date: [REDACTED]

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Record ID			Measured Flow:		
Water Right No.			Designed Flow:		
Name			HP/Eff Flow:		
pod			Sprinkler Flow:	0.17 cfs	<<--Max
year:			Pivot/System Flow:		
Flow Measurement:	[REDACTED] gpm	=			
Curve/Pump Design:	[REDACTED] gpm	=			
Horsepower / Efficiency Method					
Horsepower	[REDACTED] hp				
PWL	[REDACTED] ft				
Disch Psi	[REDACTED] psi				
PUMP Eff Estimate	%				
TDH	0 ft				
OHP	hp				
Flow	gpm	=			
System Method:					
No Lines	[REDACTED] 1	Nozzle Equation: $Q = C \cdot A \cdot \sqrt{2 \cdot g \cdot h} / \sqrt{1 - r^4}$			
Birds per line	[REDACTED] 4	C= 1.00 Nozzle coefficient; typical 0.97 to 1.00			
Ttl no nozzles	[REDACTED] 4	r= 0.0156 ft Nozzle radius			
Nozzle size	[REDACTED] 3/8 in	A= 0.00077 ft^2 Nozzle area			
Nozzle pressure	[REDACTED] 20 psi	h= 46 ft Head			
Flow per nozzle	18.78 gpm	g= 32.2 ft/sec^2 Gravitational constant			
Sprinkler Flow	75 gpm	Q= 0.042 cfs Flow per nozzle			
Percent Leaks	[REDACTED] %	= 18.776 gpm Flow per nozzle			
Total Flow	75 gpm	=	0.17 cfs		
Pivot / System rating	[REDACTED] gpm	=			

Comments / Data Supplied:

QC-9243



NOT TO SCALE

Point of Diversion



Powerhouse and pressure gage



Shutoff valve nr. P.D.

10-18-05
A.T.



96-9243



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T54N R2E Section 1



Place of Use



Point of Diversion

