

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-8780

Exam Date: 6/12/2012

1. Current Owner: T H BARNES
5720 US HWY 93
JEROME ID 83338
(208)324-1017

AND */ol*

LARRY COLLINS
5720 US HWY 93
JEROME ID 83338
(208)324-1017

2. Accompanied by: Larry Collins and T H Barnes

Phone No: (208)324-1017

Address: 5720 US HWY 93,
JEROME ID 83338

Relationship to Permit Holder: Permit Holders

3. **SOURCE**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 36-7573
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER

NW1/4SW1/4

Sec. 26, Twp 08S, Rge 17E, B.M.

JEROME County

Method of Determination: Waypoints were collected with a Garmin GPSmap 60CSx receiver and downloaded into an ArcMap shapefile that corresponds with 2009 and 2011 aerial photography and verified the point of diversion to be in Twp 08S Rge 17E Sec 26 NWSW¼. See attached map.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
08S	17E	26										1.0							1.0

Total Acres: 1

DOMESTIC same as IRRIGATION

Method of Determination: Tracks were collected with a Garmin GPSmap 60CSx receiver and downloaded into an ArcMap shapefile that corresponds with 2009 and 2011 aerial photography and verified the place of use to be in Twp 08S Rge 17E Sec 26 NWSW¼. See attached map.

3. ☒ 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>
		5 HP			

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

D. **FLOW MEASUREMENTS** Direct measurement not required for irrigation of up to 5 acres under current beneficial use exam rules.

E. **FLOW CALCULATIONS**

____ Additional Computation Sheets Attached

Measured Method: Theoretical Yield:

$$Q = \frac{8.8 \times (\text{Hp}) \times (\text{Eff})}{H}$$

Where: Hp = 5 Hp (from Proof of Beneficial Use form)

Eff = efficiency = 70% assumed

H = total head = pumping level = (2.31 x system pressure)
 assume pumping level of 401 feet (from Well Drillers Report)
 assume system pressure = 60 psi (from Proof of Beneficial Use form)

$$H = 401 + (60 \times 2.31) = 539.6$$

$$Q = \frac{8.8 \times 5 \times .70}{539.6} = 0.06 \text{ cfs}$$

F. **VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{\text{I.R.}} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.0 \text{ acre} \times 4.0 \text{ afa} = 4.0 \text{ afa}$$

$$V_{\text{D.R.}} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03(214) \times 1.9835 = 12.7 \text{ afa}$$

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = \underline{4.0 \text{ afa}}$$

2. Volume Calculations for Other Uses: Domestic in home for two homes = 1.2 afa

G. NARRATIVE/REMARKS/COMMENTS

Permit 36-8780 was permitted for the diversion of up to 0.04 cfs for domestic use and 0.03 cfs irrigation of 1 acre (1/2 acre per home).

Application for permit submitted by Larry Collins and T.H. Barnes was received July 27, 1998 and proof of beneficial use was submitted June 4, 1999.

The domestic portion of this permit is for culinary use in three separate buildings, 1 home and a small drive through espresso stand owned by Mr. Collins and 1 home owned by Mr. Barnes. According to Mr. Collins his espresso stand (an 8' x 15' building) utilizes an average of 100 gallons of water per day of operation. This amount of water use is minimal and falls within the limitations of Idaho Code 42-111.

The irrigation portion of this permit is for a 1/2 acre lawn area adjacent to each house. On Mr. Barnes lot there is a tree nursery that grows trees for the 93 Golf Ranch that is provided water from the golf course system utilizing water right 36-7573. The lawn areas on both properties are connected to both the domestic well and the golf course system. The domestic connection to the lawn irrigation is used when the golf course system is down. Mr. Collins showed me where all the connections are made and the valves on the line that provide water from the golf course to the nursery and lawn irrigation systems. According to Mr. Collins this arrangement came about because his family originally owned the property where the homes and golf course are located, and Mr. Barnes family purchased the majority of the property to develop the golf course. The Barnes family agreed to provide irrigation water to both homes in order to maintain an attractive landscape adjacent to the golf course. The Barnes family has since sold the golf course to a third party that continues to provide water for landscaping and the lawns. Right 37-7573 authorizes the irrigation of 39.0 acres in the NWSW1/4, and analysis of 2011 aerial imagery indicates that approximately 38.9 acres were actually irrigated in 2011. I have placed condition 041 on the license which states: irrigation use under this right is authorized only in connection with a domestic use. Both Mr. Collins and Mr. Barnes expressed concern about the possibility of losing access to use of the water under right 37-7573, and emphasized that they do irrigate the lawns from the domestic well when needed.

Recommend permitting 0.04 cfs with a volume of 1.2 afa for domestic use and 0.03 cfs irrigation with a volume of 4.0 afa for a total of 0.04 cfs and 5.2 afa.

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>
IRRIGATION	4/01 to 10/31	0.030 CFS	4.0 AFA
DOMESTIC	1/01 to 12/31	0.040 CFS	1.2 AFA
<u>Totals:</u>		0.040 CFS	5.2 AFA

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 Bill Mott Date 6-14-12

Reviewer [Signature] Date 6/25/12



Figure 1: Well head and pump house on Barnes property.



Figure 2: Barnes lawn area.



Figure 3: Collins upper lawn area.