

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**Permit No: 75-14619

Exam Date: 03/26/13

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)?   X  Y   N
- Irrigation of 5 acres or less
  - Storage of up to 14.6 AF for stockwater purposes only
  - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
  - Other <    >

2. Current Owner: Name: Joseph and Patricia Callaghan  
 Owner of Record Correct?   X  Y   N  
 Address of Record Correct?   X  Y   N  
 If No: Address

3. Beneficial Use Fees have been paid:   X  Y   N Receipt No: W036244

4. **SOURCE** **TRIBUTARY**

Salmon River

Snake River

Method of Determination: Pictures of pump and system from Permit Holder.

Change in Source:   Y   X  N**B. OVERLAP REVIEW**

1. Other water rights with the same place of use:   NO Overlap

| Water Right No. | Source       | Purpose of Use | Basis         |
|-----------------|--------------|----------------|---------------|
| 75-7010         | Ground Water | Domestic       | Decreed       |
| 75-7639         | Ground Water | Domestic       | Draft License |
|                 |              |                |               |

Comments: 75-2133- disallowed in SRBA as unclaimed. 75-7010, & 75-7639 for Domestic Use of subdivision, no combined limits. 75-104 & 75-10829 –owners in different taxlot in QQ.

2. Other water rights with the same point of diversion:   X  NO Overlap

| Water Right No. | Source | Purpose of Use | Basis |
|-----------------|--------|----------------|-------|
|                 |        |                |       |
|                 |        |                |       |

Comments: 75-1010 for domestic use of groundwater.

**C. DIVERSION AND DELIVERY SYSTEM**1. **LOCATION OF POINT(S) OF DIVERSION:**

| Source       | Govt. Lot | ¼ | ¼  | ¼  | Sec. | Twp. | Rge. |      | County |
|--------------|-----------|---|----|----|------|------|------|------|--------|
| Salmon River | 1         |   | NW | NE | 10   | 18N  | 21E  | B.M. | Lemhi  |
|              |           |   |    |    |      |      |      | B.M. |        |
|              |           |   |    |    |      |      |      | B.M. |        |

Method of Determination: Pictures of pump and system from Permit Holder.

Change in POD?    X   N Amendment Required?    N

2. **PLACE OF USE:** Use: Irrigation

| TWP           | RGE | Sec   | NE |     |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    | Totals |
|---------------|-----|-------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|               |     |       | NE | NW  | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE |        |
| 18N           | 21E | 10    |    | 0.4 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0.4    |
|               |     | Lot # |    | 1   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |
| Total Acres = |     |       |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0.4    |

Method of Determination: GIS Imagery. Less than permitted because of house. Entire lot 0.6 acres. Per current PLSS, 0.037 AC in NWNE & up to 0.03 AC in NENW - All lot 1.

Change in POU? ☒ X ☐ N Amendment Required? ☒ X ☐ N

☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

☐ Aerial Photo Attached (required for irrigation of 10+ acres).

☐ Photo of Diversion and System Attached

| 4. Well or Diversion Identification No.* | Motor Make | Hp  | Motor Serial No. | Pump Make | Pump Serial No. or Discharge Size |
|------------------------------------------|------------|-----|------------------|-----------|-----------------------------------|
|                                          | Teel       | 0.5 | 2P390            | Dayton    | 1639—097-00                       |

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

#### D. FLOW MEASUREMENTS

| 1.Measurement Equipment | Type | Make | Model No. | Serial No. | Size | Calib. Date |
|-------------------------|------|------|-----------|------------|------|-------------|
|                         |      |      |           |            |      |             |
|                         |      |      |           |            |      |             |

2. Measurements:  $\leq$  \_\_\_\_\_  $>$

#### E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method:

0.02 cfs = 1 inch per acre (IDWR standard) 0.4 acres(0.02 cfs) = 0.008 cfs at 1 inch per acre

Per App. Processing Memo #17, up to 0.03 cfs/acre for irrigation up to 5 acres acceptable. 0.4 acres(0.03 cfs) = 0.012 cfs

Per original application – pump to 0.5" garden hose.  $Q = 5(3.14)((0.5/12)/2)^2 = 0.03$  cfs

Per original application – 0.5 hp pump. Per IDWR standard: Assume pump efficiency = 0.7 (70%) and PSI = 30psi for small irrigation. Lift estimated from Contour Elevations (GIS visual, 40 ft. min. unit) between pump and field = 40.

$Q = (8.8 \times \text{HP} \times \text{EFF}) / (\text{Lift} + (\text{PSI} \times 2.31)) = (8.8 \times 0.5 \times 0.7) / (40 + (30 \times 2.31)) = 0.03$

Measurement = 0.01 cfs

Permit allowed = 0.02 cfs

License recommend for 0.01 cfs.

#### F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.4 \times 3.5 = 1.4$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.01 \times 214 \times 1.9835 = 4.2$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.4$$

## 2. Volume Calculations for Other Uses:

## G. PURPOSE OF USE

Irrigation ☒ Y ☐ N # Stock \_\_\_\_\_ Domestic # of Homes \_\_\_\_\_

Other: &lt; &gt;

Change in Purpose of Use? ☐ Y ☒ X ☐ N

Method of Determination: Irrigated field visible on GIS Imagery.

If Yes: From Use \_\_\_\_\_ To Use \_\_\_\_\_ Amount \_\_\_\_\_ CFS \_\_\_\_\_ AFA \_\_\_\_\_

## H. NARRATIVE/REMARKS/COMMENTS

- In Wild and Scenic Watershed: Salmon River Excluding Middle Fork
- Prior to diversion of water under this right, the right holder shall install a lockable device, subject to the approval of the Department, in a manner that will provide the watermaster suitable control of the diversion.  
**Small pump that is light and portable that can be lifted directly out of the water.**
- The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least ten times the diameter of the conduit and shall be above ground or otherwise easily accessible.  
**In place of a transmission ditch, garden hose used and is accessible.**

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

## I. RECOMMENDATIONS

## 1. Recommended Amounts

| <u>BENEFICIAL USE</u> | <u>PERIOD OF USE</u> | <u>DIVERSION RATE</u> | <u>ANNUAL VOLUME</u> |
|-----------------------|----------------------|-----------------------|----------------------|
| Irrigation            | 04/01 to 10/31       | 0.01 CFS              | 1.4 AF               |
| <u>Totals:</u>        |                      | 0.01 CFS              | 1.4 AF               |

## 2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ X None☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ X None

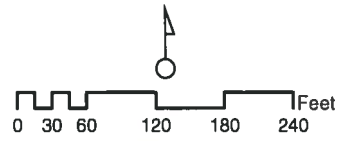
Other: &lt; &gt;

## J. AUTHENTICATION

Field Examiner's Name Danielle Bruno-Tanner Date 05/23/13

Reviewer \_\_\_\_\_ Date \_\_\_\_\_

75-14619



D. Favreau

03/26/13



May 19, 2013

Regarding: Water Appropriation Permit #75-14619

RECEIVED

MAY 22 2013

DEPARTMENT OF  
WATER RESOURCES

To: Danielle Favreau

Attached are the requested photographs of the pump point of diversion and transmission system we use to irrigate our garden, yard and fruit trees.

The foot valve has a screen which was constructed by the "screen shop" at the Idaho Department of Fish and Game to prevent small fish from being harmed by the pump.

The tag on the pump shows 1/2 horsepower Dayton Jet pump motor Model 9K679; 115 volt; serial Number 1639-097-00, using a Teel centrifugal pump model 2P390.

The attached hose is a standard garden hose (3/4"), and there are approximately 15 regulated drip lines to various trees and shrubs. Additionally, there are 2 garden hose-sized soaker hoses laid out in the garden. The drip lines and garden soakers run about 2-3 hours every couple of days on alternating cycles.

I don't believe that the water master would need a lockable device to access our pump, it is light and portable, and if needed could be lifted directly out of the water. In place of a transmission ditch, we have a garden hose lying on top of the ground that is moved often enough to keep the grass from browning underneath.

Your map identifying Place of Use correctly displays the area we own and irrigate with the pump, although we do not generally irrigate the entire lawn area with the water from the Salmon River.

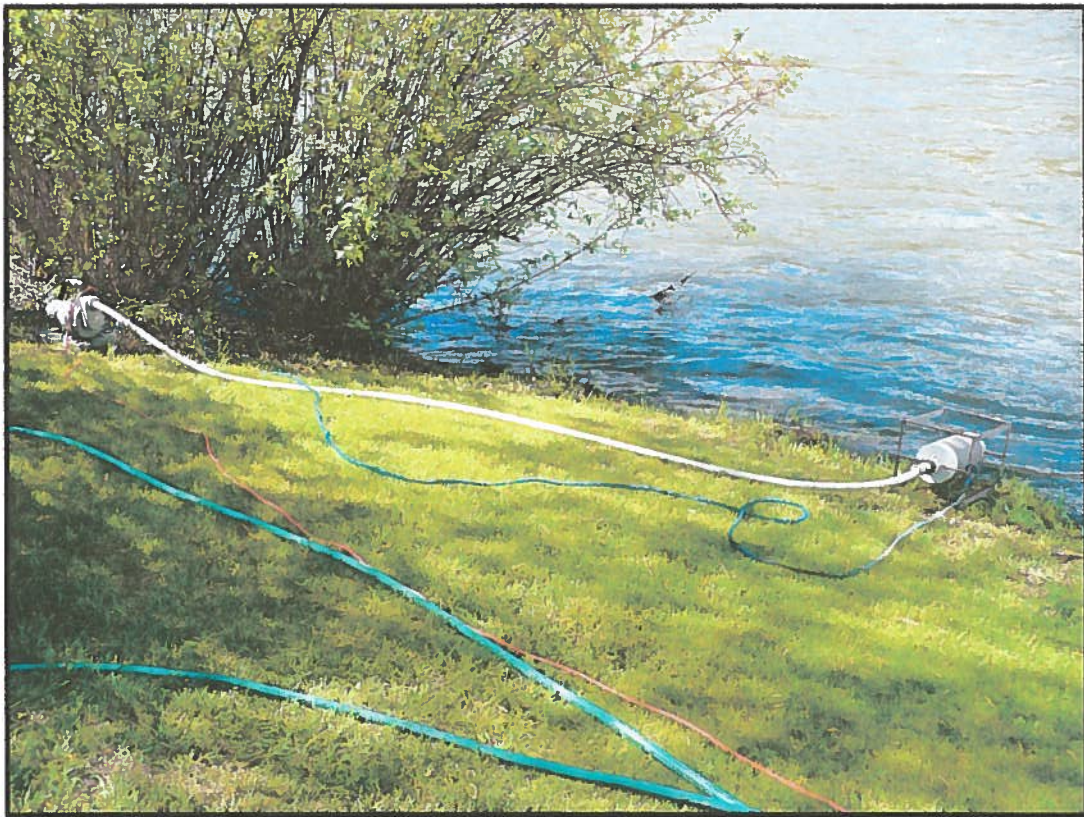
I hope this addresses the requests in your letter.

Thanks,

Patricia Callaghan  
227 South Agate Drive  
Salmon, Idaho 83467  
Phone: 208-894-2420



**Transmission line**



**Pump at point of diversion with footvalve and transmission line**



**Screened foot valve.**



**Pump at point of diversion.**

Pump, Aluminum Utility - Self Priming Portable Utility - 2P390(2P390) - Grainger Industri - Windows Internet Explorer

http://www.grainger.com/Grainger/DAYTON-Utility-Pump-2P390

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DAYTON Pump, ...

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| Tech Specs                       | Additional Information                                                                                                                                                    | Compliance & Restrictions | MSD\$ | Required Accessories | Optional Accessories | Alternate Products | Repair Parts |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------|----------------------|----------------------|--------------------|--------------|
| Item                             | Utility Pump                                                                                                                                                              |                           |       |                      |                      |                    |              |
| Type                             | Self-Priming                                                                                                                                                              |                           |       |                      |                      |                    |              |
| HP                               | 1/2                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Phase                            | 1                                                                                                                                                                         |                           |       |                      |                      |                    |              |
| Voltage                          | 115                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Amps                             | 7.35                                                                                                                                                                      |                           |       |                      |                      |                    |              |
| Hz                               | 60                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Inlet (In.)                      | 1                                                                                                                                                                         |                           |       |                      |                      |                    |              |
| Outlet (In.)                     | 1                                                                                                                                                                         |                           |       |                      |                      |                    |              |
| Motor Enclosure                  | ODP                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| NEMA/IEC Frame                   | 56J                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Motor Type                       | Capacitor Start                                                                                                                                                           |                           |       |                      |                      |                    |              |
| Service Factor                   | 1.0                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Wetted Materials                 | Aluminum, Buna N, Carbon, Ceramic                                                                                                                                         |                           |       |                      |                      |                    |              |
| Housing Material                 | Aluminum                                                                                                                                                                  |                           |       |                      |                      |                    |              |
| Shaft Material                   | 303 Stainless Steel                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Screw Material                   | Plated Steel                                                                                                                                                              |                           |       |                      |                      |                    |              |
| Seal Type                        | 5/8" Type B                                                                                                                                                               |                           |       |                      |                      |                    |              |
| Seal Material                    | Buna-N, Carbon, Ceramic                                                                                                                                                   |                           |       |                      |                      |                    |              |
| Seal Application                 | Nonflammable Liquids Compatible with Pump Components                                                                                                                      |                           |       |                      |                      |                    |              |
| Max. Liquid Temp. (F)            | 180                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Suction Lift (Ft.)               | 6                                                                                                                                                                         |                           |       |                      |                      |                    |              |
| GPM of Water @ 10 Ft. of Head    | 38.0                                                                                                                                                                      |                           |       |                      |                      |                    |              |
| GPM of Water @ 20 Ft. of Head    | 32                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| GPM of Water @ 30 Ft. of Head    | 24                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| GPM of Water @ 40 Ft. of Head    | 15                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| GPM of Water @ 50 Ft. of Head    | 6                                                                                                                                                                         |                           |       |                      |                      |                    |              |
| Max. Head (Ft.)                  | 57                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Max. Pressure (PSI)              | 25                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Cord                             | 8 ft.                                                                                                                                                                     |                           |       |                      |                      |                    |              |
| Best Efficiency GPM @ Head (Ft.) | 17@37                                                                                                                                                                     |                           |       |                      |                      |                    |              |
| Max. Specific Gravity            | 1.0                                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Max. Case Pressure (PSI)         | 75                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Max. Fluid Viscosity             | 31 SSU                                                                                                                                                                    |                           |       |                      |                      |                    |              |
| Inlet Pressure (PSI)             | 50                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Bearing Type                     | Ball                                                                                                                                                                      |                           |       |                      |                      |                    |              |
| Duty                             | Continuous                                                                                                                                                                |                           |       |                      |                      |                    |              |
| Port Rotation                    | No                                                                                                                                                                        |                           |       |                      |                      |                    |              |
| Drain Plug                       | 1/8" NPT                                                                                                                                                                  |                           |       |                      |                      |                    |              |
| Agency Compliance                | Motor Only UL & CSA                                                                                                                                                       |                           |       |                      |                      |                    |              |
| Manufacturers Warranty Length    | 1 Year                                                                                                                                                                    |                           |       |                      |                      |                    |              |
| Application                      | For Irrigation, Dewatering and General Water Transfer; Handles Clear Nonflammable Liquids Compatible with Pump Component Materials and Liquids that Contain some Sediment |                           |       |                      |                      |                    |              |
| Height (In.)                     | 8-3/4                                                                                                                                                                     |                           |       |                      |                      |                    |              |
| Length (In.)                     | 13-3/4                                                                                                                                                                    |                           |       |                      |                      |                    |              |
| Width (In.)                      | 6-1/2                                                                                                                                                                     |                           |       |                      |                      |                    |              |
| Includes                         | Two 1" NPT x 3/4" Garden Hose Adapters Cast Aluminum Casing Adapter and Impeller Mechanical Seal has Stainless Steel, Buna N Parts and Carbon/Ceramic Seats               |                           |       |                      |                      |                    |              |

Price: \$339.00

Qty: [Add to Order](#)



Utility Pump, 1/2 HP, 115V, 6.5A, 1 Inch

Brand: DAYTON

Grainger Item #: 3YU60

Price: \$223.50

Qty: [Add to Order](#)



Pump, Utility, 1/2 HP

Brand: DAYTON

Grainger Item #: 4CB57

Price: \$213.50

Qty: [Add to Order](#)



Pump, Centrifugal, 1/2hp

Brand: LIBERTY

Grainger Item #: 5YU12

Price: \$365.25

Qty: [Add to Order](#)

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mp, Aluminum Utility - Self Priming Portable Utility - 2P390/2P390 - Grainger Industri - Windows Internet Explorer

http://www.grainger.com/Grainger/DAYTON-Utility-Pump-2P390

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### DAYTON Pump, Aluminum Utility

Utility Pump, Self-Priming, 1/2 HP, Capacitor Start, Voltage 115, 7.35 Amps, 60 Hz, Inlet 1 In., Outlet 1 In., Motor Enclosure ODP, Service Factor 1.0, Housing Material Aluminum, Seal Type 5/8 In Type 6, Suction Lift 6 Ft., Max. Head 57 Ft., Max. Pressure 25 PSI, Cord 8, Inlet Pressure 50 PSI, Height 8 3/4 In., Length 13 3/4 In., Width 6 1/2 In.

|                                           |                              |
|-------------------------------------------|------------------------------|
| Grainger Item #                           | 2P390                        |
| Price (ea.)                               | N/A                          |
| Brand                                     | DAYTON                       |
| Mfr. Model #                              | 2P390                        |
| UNSPSC #                                  | 40151503                     |
| Ship Qty. (?)                             | 1                            |
| Sell Qty. (Will-Call) (?)                 | 1                            |
| Ship Weight (lbs.)                        | 23.55                        |
| Availability                              | Item no longer available (?) |
| Catalog Page No.                          | N/A                          |
| Country of Origin                         | Not Available                |
| (Country of Origin is subject to change.) |                              |

**⚠ This item no longer available and cannot be ordered online.**

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Item: Utility Pump

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Grainger Item #: 5PKY0  
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Utility Pump, 1/2 HP, 115V, 6.65 A