

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 75-14734
Exam Date: 7/20/2016

1. Current Owner:
MILTON KIRK EBERHARD PO BOX 251 CARMEN ID 83462-0251 (208)756-4137 And
GLORIA H EBERHARD PO BOX 251 CARMEN ID 83462 (208)756-4137

2. Accompanied by: Kirk Eberhand
Phone No: (208)756-4137
Address: PO BOX 251; 7 Austin Rd Carmen Idaho
Relationship to Permit Holder: Permit holder

3. **SOURCE:**
WASTE WATER

TRIBUTARY:**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: NA
2. Other water rights with the same point-of-diversion: NA

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

WASTE WATER NW¼NE¼ Sec. 17, Twp 22N, Rge 22E, B.M. LEMHI County

Method of Determination: site visit and GPS

2.

PLACE OF 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	
22N	22E	8															1.7		1.7

Total Acres: 1.7

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
NA					

*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
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NA						
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2. Measurements: There was no wastewater in the system during the field exam

E. FLOW CALCULATIONS

Measured Method: NA

☒ Additional Computation Sheets Attached

According to the Manning's Equation the pipe is capable of delivering up to 3.73 cfs, a significantly greater rate than allowed on the permit. However, the headgate allows the Eberhards to regulate the flow of water that comes through the ditch to the pipe.

1.7 acre X 0.03 cfs = 0.05

Recommended Flow 0.05 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1 \times 3.5 = 5.95 \text{ AF}$

$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 214 \times 1.9835 = 12.7 \text{ AF}$

$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 5.95 \text{ AF}$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

Intermittent wastewater originates to the south and east of Gloria and Kirk Eberhard's. During the irrigation season, a ditch (orange line) drains excess flood irrigation. Water flows from east to west to the southeast corner of the property and flows under a short access road. From there the ditch turns north. Approximately 10 feet from the property line there is a lockable metal headgate.

Roughly 75 feet from the headgate the ditch turns west and flows approximately 400 feet before water is channeled into a 6 inch pipe. Small dams in the ditch and a second headgate allow water to be turned out on to the hillside directly north of the ditch. The pipe flows down the hill, across Carmen Creek. The water flood irrigates the orchard and lawn. According to Kirk Eberhard wastewater flows to their property for approximately 2.5 days a month during the irrigation season.

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	04/01 to 10/31	0.05 CFS	
<u>Totals:</u>		0.050 CFS	

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 ☒ None

I. AUTHENTICATION

Field Examiner's Name Samuel T. Paul Date 8/26/2016

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Water Right License
75-14734

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R22E

T22N



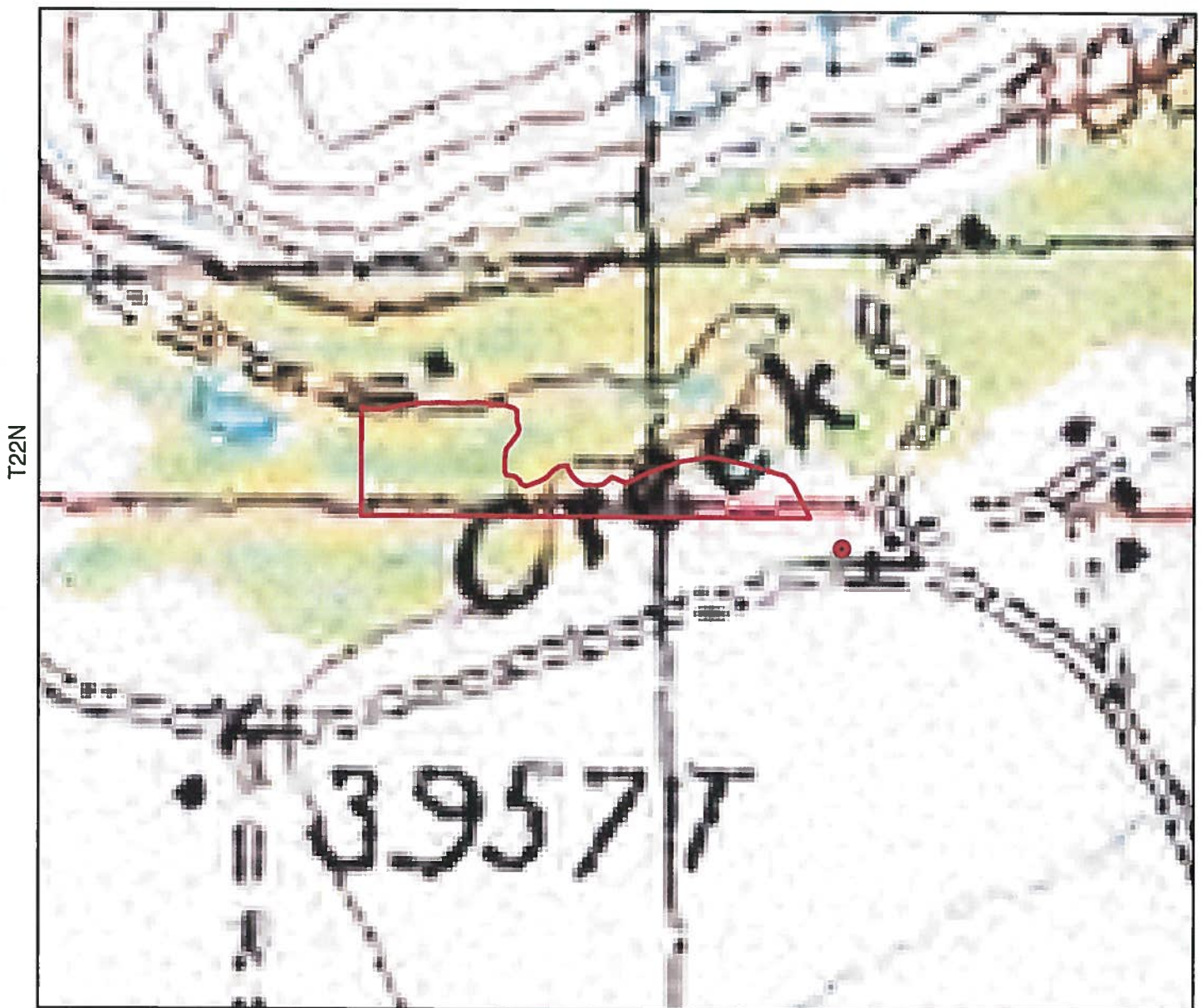
- Point of Diversion
- Place Of Use Boundary

0 500 1,000 Feet

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R22E



- Point of Diversion
- Place Of Use Boundary

0 500 1,000 Feet

Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full

S = 0.2143 ft/ft
n = 0.009 manning's coefficient
d = 6.0 pipe diameter (inches)
D = 0.50 pipe diameter (feet)
r = 0.25 pipe radius (feet)
A = 0.20 area (ft²)
WP = 1.57 wetted perimeter (ft)
R = 0.13 hydraulic radius (ft)

Q = 3.73 flow rate (CFS)

Channel Slope

Slope Options

☐ Manual Entry ☒ Slope Calculator

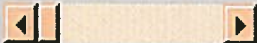
Slope Calculator

Rise = 15 feet

Run = 70 feet

Slope, S = 0.2143 ft/ft

Pipe Material, (n):



plastic (pvc, abs)

Pipe Diameter (inches)



6.0 inches

Water Distribution System Water Right 75-14734



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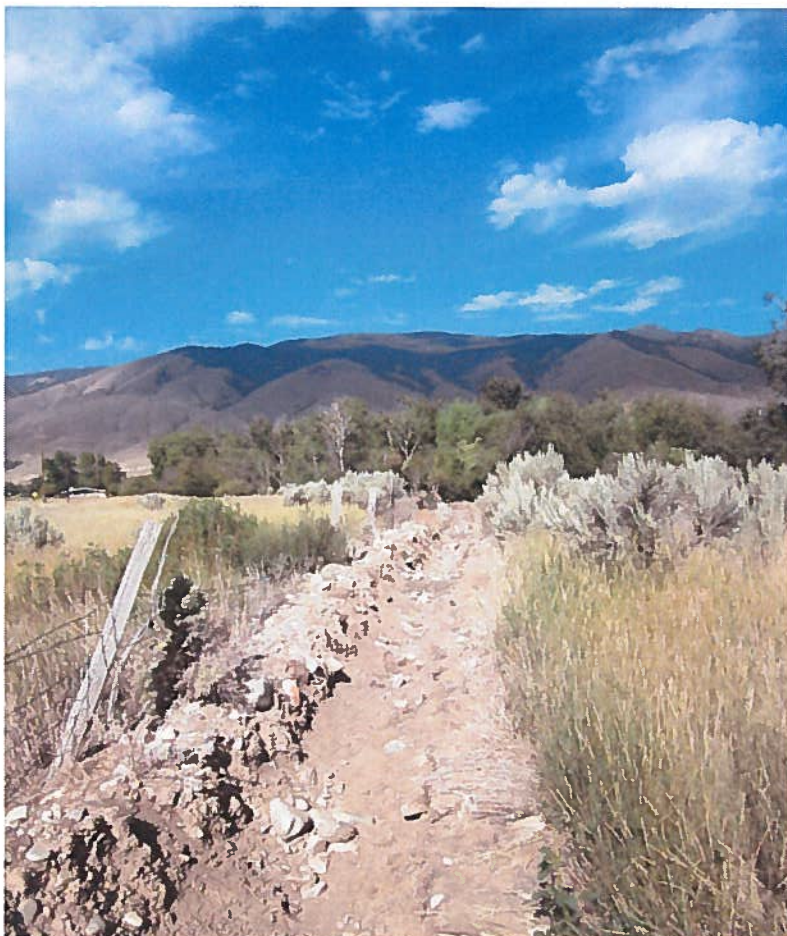
Roughly 75 feet from the headgate the ditch turns west and flows approximately 400 feet before water is channeled into a 6 inch pipe (black line). Small dams in the ditch and a second headgate allow water to be turned out on to the hillside directly north of the ditch. The pipe flows down the hill, across Carmen Creek. The water flood irrigates the orchard and lawn. According to Kirk Eberhard wastewater flows to their property for approximately 2.5 days a month during the irrigation season.

PHOTOGRAPHER AND DATE OF PHOTOS: Sandy Thiel, July 19, 2016
FILE NUMBER 75-14734



The arrow above shows the flow of wastewater from properties to the south and east.

The photo above shows the headgate used to control waste water which flows onto the property from the right, outside the photo. Water can be diverted into the field to the left of the headgate.



These photos show the route wastewater takes along the property line, delineated by the fence.

The image below shows the end of the open ditch, where the water flows into a 6-inch pipe.





The top photograph shows the pipe that originates at the ditch.



The photo the left shows the pipe laying in the bed of Carmen Creek carrying water to flood irrigate the field shown through the trees in the center of the image.

MEMORANDUM

TO: FILES 75-14735 AND 75-14735
FROM: DANIELLE FAVREAU
SUBJECT: COMMUNICATION MEMORADUM
DATE: AUGUST 19, 2014
CC:

On August 19, 2014, Mr. Eberhard contacted me to request a field exam on his water permits; 75-14734 and 75-14735. Mr. Eberhard indicated that there was a great deal of overlap with the rights and it would be better if someone from the department came to look at the system rather than have him describe it. I told Mr. Eberhard that a field examiner from the IDWR will be in touch with him to schedule the exam. Mr. Eberhard confirmed his telephone number of 208-756-4137 and that mornings between 8 and 9 am are the best time to reach him. Mr. Eberhard will be on vacation September 2 -10, 2014 but should otherwise be available.