

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8195

Exam Date: May 10, 2012

1. Current Owner: CITY OF KETCHUM
PO BOX 2315
KETCHUM ID 83340
(208)726-3841
2. Accompanied by: Steve Hansen
Phone No: 720-4945
Relationship to Permit Holder: city employee

3. **SOURCE**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: water right portfolio for the city of Ketchum
2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW1/4SE1/4 Sec. 1, Twp 04N, Rge 17E, B.M. BLAINE County

Method of Determination: GPS and field visit (WELL AKA BIGWOOD WELL)

2. **PLACE OF USE:** The service boundary for the city of Ketchum

Method of Determination: service boundary on file with the Department

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. (see the license for the service boundary for the city)
☒ 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>
A0004230	US Motors	125	R-9982-05-063	R3223426	Holloshaft Vertical

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

D. FLOW MEASUREMENTS

1.

Measurement

<u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Polysonic	Flow meter	Tyme Flyte				March 26, 2012

2. Measurements: The diameter of the CS/SS pipe was 10.8' with a thickness of 0.26". I ran the polysonic for 10 minutes for a total of 11 read-outs. The total for the 10 minutes was 742 x 10 gallons or 742 gpm. $742 \text{ gpm} / 448.8 = 1.65 \text{ cfs}$

E. FLOW CALCULATIONS

___x___ Additional Computation Sheets Attached

Measured Method: I attached the polysonic equipment ~20' from the well. The system was not running at the time of the field exam but Steve was able to turn-on the system while I obtained a measurement.

There is an in-line McCrometer on the pipeline that read ~700 gpm while I conducted the polysonic measurement.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA
2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

During the winter months, this well is used for maybe 5-6 hrs per day at the most while in the summer this well is used for 24hrs/day. The well discharges into a 2 million gallon storage tank that is regulated on the reservoir's level. Depending on the demand, the water from the well can be diverted to the storage tank or can be fed directly into the distribution system.

According to Steve there are roughly 1900 connections that receive water from the city of Ketchum.

Have conditions of permit approval been met? ___x___ Yes ___ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	1.650 CFS	NA
<u>Totals:</u>		1.650 CFS	NA

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 ___ Other

I. AUTHENTICATION

Field Examiner's Name Cherie Palmer Date 6/1/12

Reviewer _____ Date _____

Attachment #1 - POLYSONIC TAPE
 Attachment #2 - Water Right Portfolio for the city
 Attachment #3 - Misc. info from the city's website

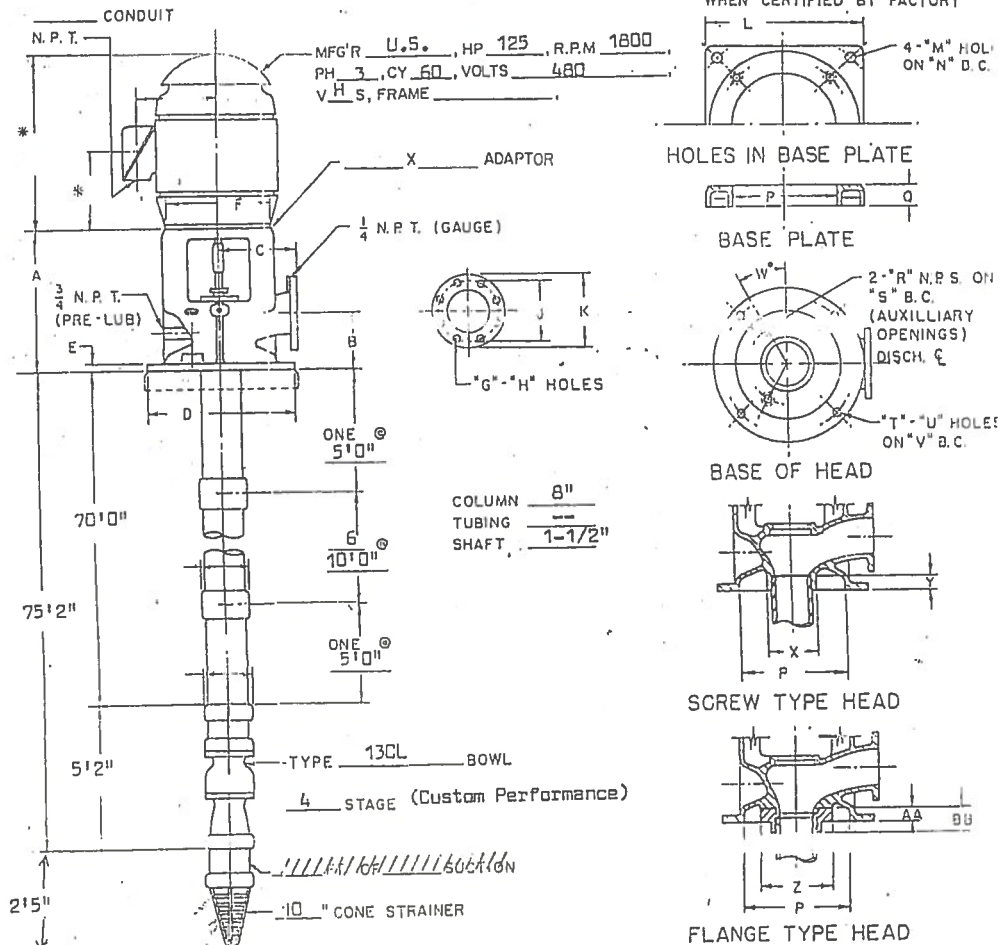
System Description

INSTALLATION PLAN
TYPE RE 50KV DISCHARGE HEAD

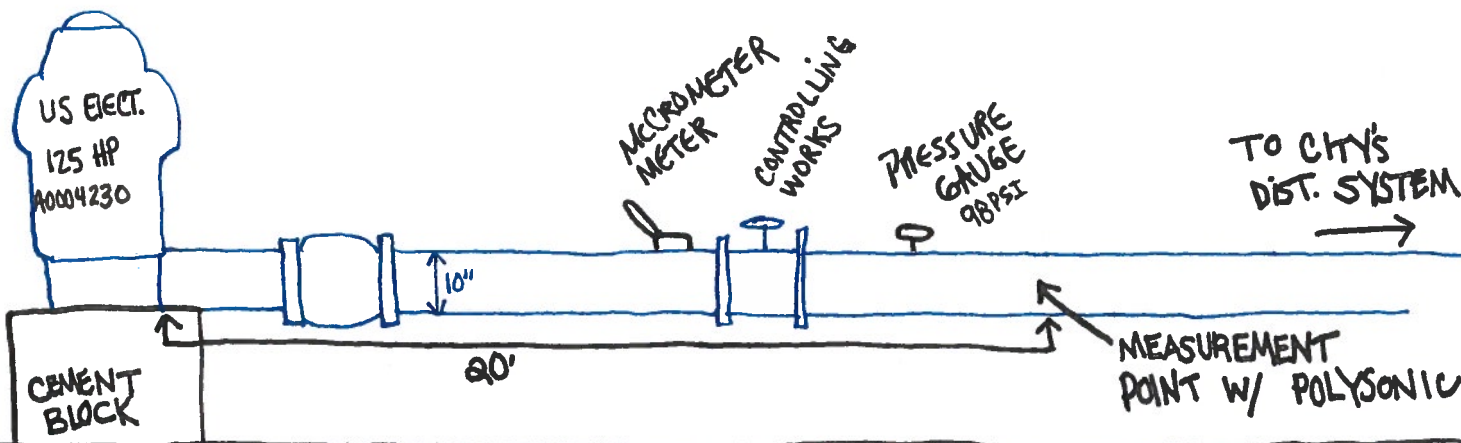


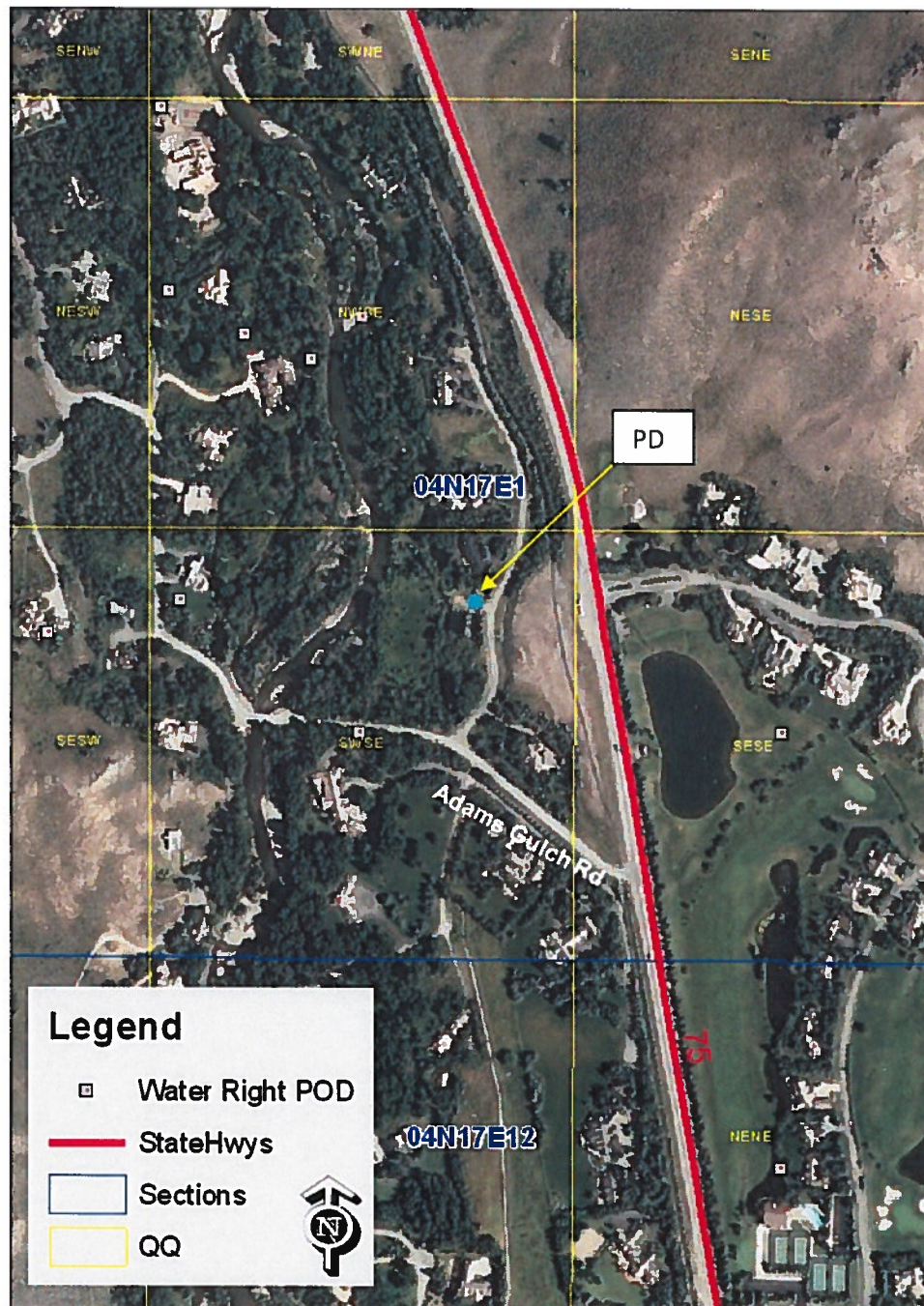
Bigwood WZL

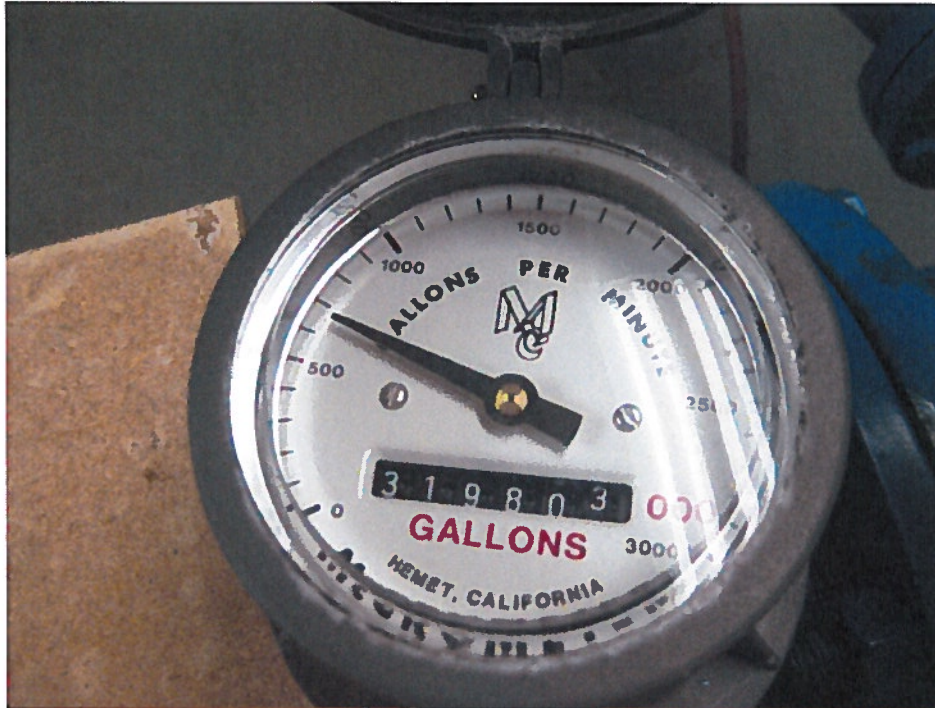
USE THESE DIMENSIONS ONLY
WHEN CERTIFIED BY FACTORY



CUSTOMER: Walker Water Systems	YOUR NO:	G.P.M.: 1300
LOCATION: Natchum, ID	OUR NO:	T.D.H.: 272'
FOR APPROVAL:	PUMP NO:	R.P.M.: 1770
CERTIFIED:	DATE: 9-30-86	B.H.P.: 110







MEASURING DEVICE



PRESSURE GAUGE



WELL MOTOR AND PUMP
KNOWN AS THE
"BIGWOOD WELL"



DISTRIBUTION

05-10 13:3200 *H
+002.30 % HI2

0401.0 MSEC
104.70 A T0

13:40+734.134E 00PM 00R
+ 2.837E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
1
13:41+734.475E 00PM 00R
+ 2.837E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
2
13:42+730.700E 00PM 00R
+ 2.834E 0FPS 00R
+00148 *10 G 00R
-00000 *10 G 00R
3
13:43+730.700E 00PM 00R
+ 2.824E 0FPS 00R
+00221 *10 G 00R
-00000 *10 G 00R
4
13:44+730.146E 00PM 00R
+ 2.837E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
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13:45+739.946E 00PM 00R
+ 2.809E 0FPS 00R
+00300 *10 G 00R
-00000 *10 G 00R
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13:46+738.347E 00PM 00R
+ 2.735E 0FPS 00R
+00445 *10 G 00R
-00000 *10 G 00R
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13:47+738.503E 00PM 00R
+ 2.771E 0FPS 00R
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13:48+739.946E 00PM 00R
+ 2.809E 0FPS 00R
+00300 *10 G 00R
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13:49+767.155E 00PM 00R
+ 2.965E 0FPS 00R
+00668 *10 G 00R
-00000 *10 G 00R
10
13:50+748.399E 00PM 00R
+ 2.897E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
11

05-10 13:3200 *H
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+00445 *10 G 00R
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+ 2.771E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
8
13:48+739.946E 00PM 00R
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+ 2.965E 0FPS 00R
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-00000 *10 G 00R
10
13:50+748.399E 00PM 00R
+ 2.897E 0FPS 00R
+00000 *10 G 00R
-00000 *10 G 00R
11

TOTAL=742 GPM

Attachment #1

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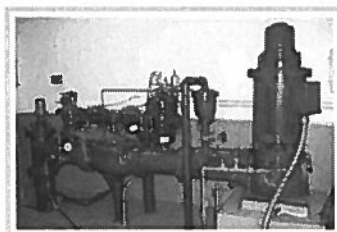
About Our Water

Water Sources

City of Ketchum municipal water originates from six wells that vary in depth from 35 to 110 feet deep. Five of these wells are located in close proximity to the Big Wood River and pump water from the Big Wood aquifer. The remaining sixth well is located near Sun Valley Resort and pumps water from the Trail Creek aquifer. Water pumped from these wells is treated with a light dose of chlorine to sanitize the drinking water against microbial contaminants.

Water is pumped into storage reservoirs daily, with a total capacity of 3 million gallons available for domestic, irrigation and fire protection needs.

All well and reservoir sites are monitored and controlled electronically (SCADA) for flow, pressure and other parameters to ensure efficient and reliable operation.



Typical Municipal Water System Well showing pump control valves and metering accessories.

Water Conservation Schedule

All City water customers are required to comply with Water Conservation Ordinance Number 587 restricting lawn watering as follows:

The sprinkling or watering of outdoor plantings such as grass, lawns, gardens, ground cover, shrubbery, trees or other landscaping shall be prohibited between the hours of 10:00 am and 5:00 pm daily, during the annual time period beginning June 15 and ending September 1.

Exceptions may apply if you are using drip or bubbler style irrigation systems, or if you have new plantings, contact the Utilities Department office at (208) 726-7825 to receive an exemption.

Commercial nurseries are specifically excluded from the prohibitions and restrictions of this ordinance.

Sprinkling Restrictions

Resources

Click on the following links for other useful information:

[Applications](#)

[Rates](#)

[Water Reports](#)

CITY HALL:
P.O. Box 2315
480 East Ave. N.
Ketchum, ID 83340
PH: 208.726.3841
FAX: 208.726.8234

CONTACT US

Steve Hansen

Utilities Manager

shansen@ketchumidaho.org

PO Box 2315

110 River Ranch Rd.

Ketchum, ID 83340

PH: 208.726.7825

FAX: 208.726.7827

Utilities Department

utilities@ketchumidaho.org

Emergency Phone

208.726.7833

FAQS

- How do I report taste and/or odor in my water?
- I have a leak. What do I do?
- If I have questions about wastewater service lines, sewer backups, or grease traps, who do I call?

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Attachment #3

Water Right Portfolio for the City of Ketchum

Basin	Sequence	Suffix	Process	Basis	Status	Draft	Priority	Date	Diversion	Source List	Water Use List	Current Owner	Volume
37	2628		Claim	License	Active			12/10/1959	2.46	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	
37	4413		Water Right	Decreed	Active	N		9/1/1954	2.67	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	
37	4414		Water Right	Decreed	Active	N		8/1/1955	2.23	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	
37	7682		Water Right	Decreed	Active	N		10/7/1977	3.00	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	
37	8195		Water Right	License	Active	Y		10/5/1984	1.65	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	
37	8269		Water Right	License	Active	N		4/28/1986	4.41	GROUND WATER	FIRE PROTECTION, MUNICIPAL	CITY OF KETCHUM	102.2
37	8575 B		Water Right	License	Active	N		12/7/1989	0.80	GROUND WATER	MUNICIPAL	CITY OF KETCHUM	125.9
Total									17.22				

Guidance in App. Processing No. 18 says:
PAST DEPARTMENT POLICY AND PRACTICE

Installed Capacity for Municipalities

An incorporated city or a municipal provider serving an incorporated city could perfect a water right based on the maximum instantaneous diversion rate for the pumping system that was installed and operational during the development period of the permit (limited by the permitted amount), even if the city did not beneficially use the entire capacity during the development period of the permit. Note that even though a municipal system may have included multiple wells and pumps, the Department typically licensed a water right based on the diversion capacity of an individual well and pump listed as a single point of diversion on the water right. The Department typically did not review the overall system capacity and evaluate the new well as an additional increment of diversion capacity or beneficial use under the entire system due to that point of diversion.

When licensing a municipal water right, the Department did not include an annual volume limit on the license. In addition, the place of use was described as the city limits and was allowed to change as the city limits expanded. A city's water use under a license could expand over time as demand for water increased by pumping the maximum rate over longer periods that may have included storage tanks to provide for higher peak demands.

Conclusion: The city of Ketchum has roughly 1900 service connections. No further analysis of the beneficial use is required and the right can be issued for the full diversion rate found at the field exam.

Attachment #2