

[illegible]

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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 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 Size</u>
<u>D0001587</u>	<u>Unknown</u>	<u>3</u>	<u>Unknown</u>	<u>Red Jacket</u>	<u>2 1/2"</u>
<u>N/A</u>	<u>Unknown</u>	<u>3</u>	<u>Unknown</u>	<u>Berkeley</u>	<u>G050392; 2"</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

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

D. FLOW MEASUREMENTS

1.

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

2. Measurements: No field measurement. Gauge pressure of 50 psi.

E. FLOW CALCULATIONS

 Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 6/130 + (2.31 \times 50) = 36.96/245.50 = 0.15 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.15 \text{ cfs} < 0.38 \text{ cfs } Q(\text{permit})$$

$$HP = 3 + 3 = 6$$

$$Z = 130'$$

$$P = 50 \text{ psi (gauge)}$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.38 cfs. Based on Exhibit 12, which graphically represents the maximum instantaneous domestic use water requirements for a community water system, a diversion rate of 0.20 cfs would be required for 19 homes/cabins. However, the current pumping system cannot attain the 0.20 cfs diversion rate. Recommend the pumping system capacity of 0.15 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

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

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

2. Volume Calculations for Other Uses: (Domestic – 19 homes/cabins)

$$V(\text{home/cabin}) = 0.60 \text{ AF}$$

$$V = 19 \text{ homes/cabins} \times 0.60 \text{ AF/cabin} = 11.4 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 3-hp submersible pump diverts ground water for domestic use to service the KP Cove Association development. The ground water delivery system serves 19 homes within the development.

Ground water is diverted through a 2 ½" galvanized iron pipe to a 2,000 gallon fiberglass water storage tank located in an 'A' frame pump house. A section of 2" galvanized iron pipe discharges water from the water storage tank to a 2" galvanized iron pipe manifold near four (4) pressure tanks. Four (4) 1 ¼" sections of galvanized iron supply convey water to the pressure tanks. A 3-hp centrifugal booster pump, which is connected to the 2" main line to the development, is used to maintain water system pressure when the pressure tanks cannot meet the water system demands for the development.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-13755.

Place of Use: Water Right Permit No. 65-13755 and Water Rights 65-13051 and 65-8030 have overlapping places of use. According to the water right application for Water Right Permit No. 65-13755, the 3" supply line which discharged water from Payette Lake for domestic use (Water Right 65-13051), was to be abandoned when the well drilling was completed. The 3" supply line from Payette Lake was disconnected and capped. Water Right 65-8030 diverts water from Payette Lake for six (6) cabins within the KP Cove Association development. However, according to the association representative, it is not known if this water right is currently in use.

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

CONDITION NO.4 – Two points of diversion are located within Lot 2 (SWNW), S22, T19N, R05E. The second point of diversion is from Payette Lake under Water Right 65-13051. This water right, according to the application for Water Right Permit No. 65-13755, was to be abandoned when the well drilling was completed and the well domestic water supply system was placed into service. According to documents provided by the applicant, the 3" supply line from Payette Lake was disconnected and capped.

Water bearing zone to be appropriated is 50 to 150 feet. The KP Cove Association's engineer, B & A Engineers, Inc., submitted a letter on January 26, 1998, requesting that the condition of approval for the water bearing zone be deleted. The reason for the request was due to the barren solid granite and the lack of water within the 50 to 150 foot water bearing zone. The engineer indicated that the water is to be developed from fractures (faulted areas) extending from about 172 to 222 feet. Due to the location of the well in Basin 65 near Payette Lake, the water bearing zone requirement does not apply in Basin 65 and shall be removed prior to licensing.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.38	&/or	N/A
Beneficial Use Limit	0.20	&/or	N/A
System Measurement	0.15(theoretical)	&/or	N/A
Proof Fee Amount	1.00	&/or	N/A
Recommended Amount	0.15	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	1/01 to 12/31	0.150 CFS	11.4 AFA
<u>Totals:</u>		0.150 CFS	11.4 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 *Rick Collingwood* Date *3/4/14*
 Reviewer _____ Date _____

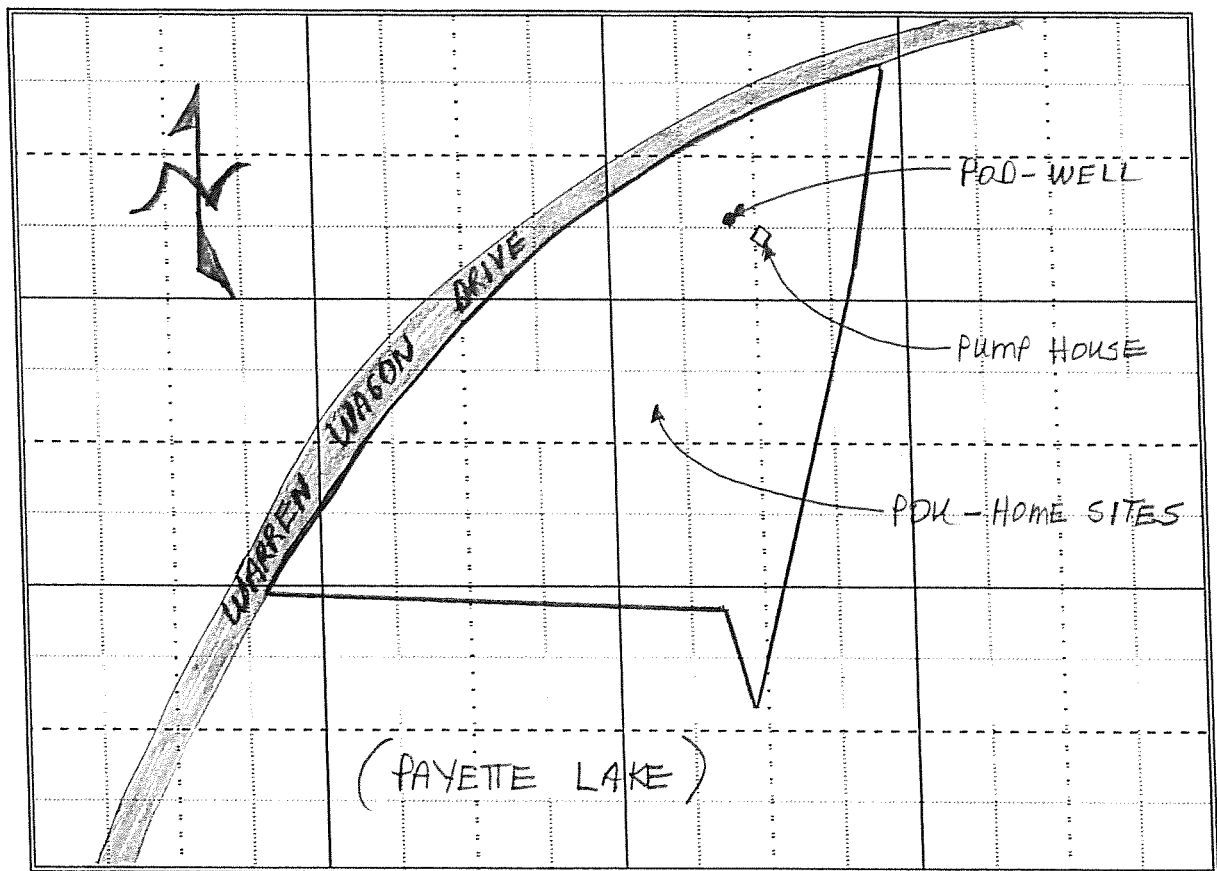
65-13755
GOV'T. LOT 2

ESRI AERIAL PHOTO - 2012



0 110 220 440 660 880
Feet

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only		
Inspected by _____		
Twp _____	Rge _____	Sec _____
1/4	1/4	1/4
Lat. _____	Long _____	

1 DRILLING PERMIT NO 65 97-W 0411 - 000
Other IDWR No 65-13755 TAG No 00001587

2. OWNER

Name KP Cove Association, Inc.
Address P O Box 1693
City Boise State Id Zip 83701

3 LOCATION OF WELL by legal description

Sketch map location must agree with written location

N	
E	
S	
W	

Twp 19 North ☒ or South ☐
Rge 3 East ☒ or West ☐
Sec 22 NE 1/4 SW 1/4 NW 1/4
Gov't Lot 2 County Valley
Lat. _____ Long _____

Address of Well Site EAST Side WARRENWarren Road _____ City MICALL
(If 801 west name of road Distance to Road or Landmark)

Lt _____ Blk _____ Sub Name _____

4 USE

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☒ Other MULT DOMESTIC

5 TYPE OF WORK check all that apply (Replacement etc)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6 DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7 SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Barrels or Pounds		
CEMENT CHIPS	C	19	9 SACKS		CLAMPED TO SEAL
					DEPTH PLACED
					FROM TOP DOWN

130 cm shoe used? ☒ Y ☐ N Shoe Depth's _____
Was shoe seal tested? ☒ Y ☐ N How? _____

8 CASING/LINER

Material	Casing	Inner	Welded	Threaded
6	+1 1/2	22 1/2	250	STEEL

Length of Head pipe _____ Length of Tailpipe _____

9 PERFORATIONS/SCREENS

☐ Perforations Method _____
☐ Screens Screen Type _____

F	To	Screen	Inner	Diameter	Material	Casing	Inner

10 STATIC WATER LEVEL OR ARTESIAN PRESSURE

21 1/2 ft below ground Artesian pressure _____ lb
Depth of penetration _____ ft Describe access port or
_____ 6 UPS SANITARY WELL SEAL

11 WELL TESTS

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
100		290'	1 1/2 hrs
100		330'	45 min

Water Temp 46.1° Bottom hole temp 46.1Water Quality test or comments Iron 6 mg/L PH 7.6Depth first Water Encountered 56

12 LITHOLOGIC LOG (Describe repairs or abandonment)

Core Dia.	From	To	Remarks Lithology Water Quality & Temperature	Y	N
10	0	2	BROWN SAND/CLAY		X
10	2	12	BROWN CEMENTED SAND + Boulders		X
10	12	19	FINE BROWN SAND		X
6	19	32	BROWN SAND + GRAVEL		X
6	32	40	HARD GRAY GRANITE		X
6	40	50	MED HARD GRAY GRANITE		X
6	50	54	HARD GRAY GRANITE		X
6	54	56	BROWN + GRAY FRACTURED GRANITE	47°	X
6	56	90	HARD GRAY GRANITE		X
6	90	92	FRACT GRAY GRANITE WITH BLACK MICA		X
6	92	99	HARD GRAY GRANITE		X
6	99	101	BROWN + GRAY FRACT GRANITE		X
6	101	103	HARD GRAY GRANITE		X
6	103	106	GRAY + GRAY BROWN GRANITE		X
6	106	116	MED HARD GRAY GRANITE		X
6	116	118	BROWN + GRAY BROWN GRANITE		X
6	118	136	HARD GRAY GRANITE		X
6	136	137	GRAY + BLACK BROWN GRANITE	67.0°	X
6	137	159	HARD GRAY GRANITE		X
6	159	162	BLACK GRAY + GREEN FRACT GRANITE		X
6	162	165	MED HARD GRAY GRANITE		X
6	165	172	HARD GRAY GRANITE		X
6	172	186	GRAY + GREEN FRACT GRANITE		X
			WATER AT 186 TO 186' 25 TO 36 90°		
6	186	194	HARD GRAY GRANITE		X
6	194	200	GRAY + GREEN FRACT GRANITE	35 TO 40.9	X
6	200	204	HARD GRAY GRANITE		X
6	204	222	GRAY + GRAY + GREEN GRANITE		X
			101 FRACTURES WATER AT 215' 10.0°		
6	222	225	HARD GRAY + GREEN GRANITE		X
6	225	228	GRAY + GRAY + GREEN FRACT GRANITE		X
6	228	252	BLACK, GRAY + GREEN HARD GRANITE		X
6	252	258	BLACK + LT - F GRANITE (HARD)		X

Completed Depth 330 (Measurable)Date Started 12-15-97 Completed _____

13 DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with the time the log was removed

Firm Name East Side Well Drilling, Inc. Firm No 1108Firm Office at Boise, Idaho Date 12-23-97

and _____

Supervisor or Operator _____ Date _____

Log made by _____

FIELD EXAM PHOTOS

Water Right Permit: 65-13755

Field Exam Date: 8-12-13

PLS: SW1/4, NW1/4 Section 22, T.19N, R.03E.

Field Examiner: RC



Point of Diversion: View southerly of the ground water well which provides water for domestic use for 19 homes.



View southwesterly of the pump house. The ground water well is located approximately 100' westerly of the pump house.



Place of Use: View northwesterly of a few of the 19 homes served by the ground water well.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

July 24, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

KP Cove Association, Inc.
8103 W. Beckton Lane
Boise, ID 83714

RE: Scheduling Field Exam for Water Right Permit No. 65-13755

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 12, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.38 cfs of ground water for domestic use for 19 homes.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 2, 2013, to conduct the exam during the week of August 12, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

Rick Collingwood, P.E.
Water Resource Agent, Sr.