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MAY 13 2015

DEPARTMENT OF
WATER RESOURCES

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

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MAY 11 2015

DEPT OF WATER RESOURCES
SOUTHERN REGION

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATION

Permit No. 37-22838

1. Owner 2007 Terence J. Creighton Revocable Trust Phone No. _____
 Current address 1177 California St #825, San Francisco, CA
2. Examiner's name Charles G. Brockway EXAM DATE May 5, 2015
3. Accompanied by _____ Email _____
 Address _____
 Relationship to permit holder _____ Phone No. _____
4. Source Big Wood River tributary to Malad River

B. OVERLAP REVIEW

1. Other water rights with the same place of use 37-28841
2. Other water rights with the same source and point of diversion 37-28841

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
		NE	SW	SE	32	3N	18E	Blaine	GIS / GPS

2. Place(s) of Use: Method of determination GIS / GPS

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
3N	18E	32															X		

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" = _____

- ☒ 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

4.

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

*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
GPS with EPE approx. 9 feet, and aerial photo analysis						

2. **Measurements:** _____
 Pond area was measured by traversing the pond edge and importing the track into Arcmap. With the 2013 aerial photo as a base map, the track overlays the pond with good accuracy. Surface area of the pond is 0.19 acres.

E. NARRATIVE/REMARKS/COMMENTS

This permit authorizes storage of 0.6 acre-feet in a pond for aesthetic purposes. The pond is located on the Purdum Slough, which has been officially designated by IDWR as the Big Wood River; therefore the pond is an on-stream pond and no diversion to storage is necessary. The pond is regulated by an adjustable sharp-crested weir on the outlet, which serves both as a check and a flow measuring device. This weir is has a crest length of 1.5 feet, a notch depth of 9 inches, and has more than adequate side and bottom contractions making it a standard device according to USBR criteria. A Type C staff gauge is affixed to the sliding weir plate. The Watermaster of District 37 has viewed and approved the device. The pond surface area was calculated to be 0.19 acres. The pond was waded and an the average depth found to be 2.5 feet. The check device allows the pond level to increase 0.5 feet above this level, making the total developed capacity of the storage pond equal to 0.57 acre-feet. At the time of the exam, the head on the weir was 0.07 feet. Using the Francis formula for a sharp-crested weir, the pond outflow was 0.092 cfs or 41 gpm, which is very low compared to historical conditions: Brockway Engineering measured the natural flow at this location on July 18, 2013 and found 0.57 cfs or 257 gpm. Evaporative losses due to the pond are covered by 37-28841, created by Transfer No. 78777. Therefore, the usage authorized by 37-22838 is non-consumptive.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

Condition #1: Proof date extension was granted to April 1, 2016. Condition #2: Informational only. Conditions #3 and # 4: Since all evaporative losses are mitigated by 37-28841, the non-consumptive requirement has been met.

Condition #5: Informational only. Condition #6: The outflow measuring device is in place as described above, and IDWR waived the inflow device by letter dated September 15, 2014 contained in the IDWR for 37-22838. Condition #7: The staff gauge on the weir serves as the pond level measuring device. The Watermaster of District 37 has reviewed and approved the measuring device and level measurement provisions. Condition #8: Informational only.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

 $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$ _____

2. Volume Calculations for Other Uses:

Storage capacity: $V = 0.19 \text{ acres surface area} \times 2.5 \text{ ft average depth} = 0.57 \text{ acre-feet.}$ **H. RECOMMENDATIONS****1. Recommended Amounts**

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Aesthetic Storage	1/1	12/31		0.6
Totals:				0.6

2. Recommended Amendments

- ☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☒ None
☐ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☐ Other

I. AUTHENTICATION

Field Examiner's Signature

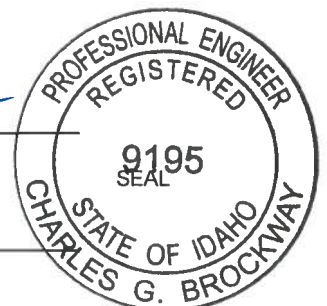


Date

5/7/2015

Reviewer

Date





Lower end of pond showing check / measurement device



Pond looking northwest



Outlet structure and flow measurement weir



Upper end of pond, looking east toward house



Staff gauge on weir showing $H = 0.07$ feet.



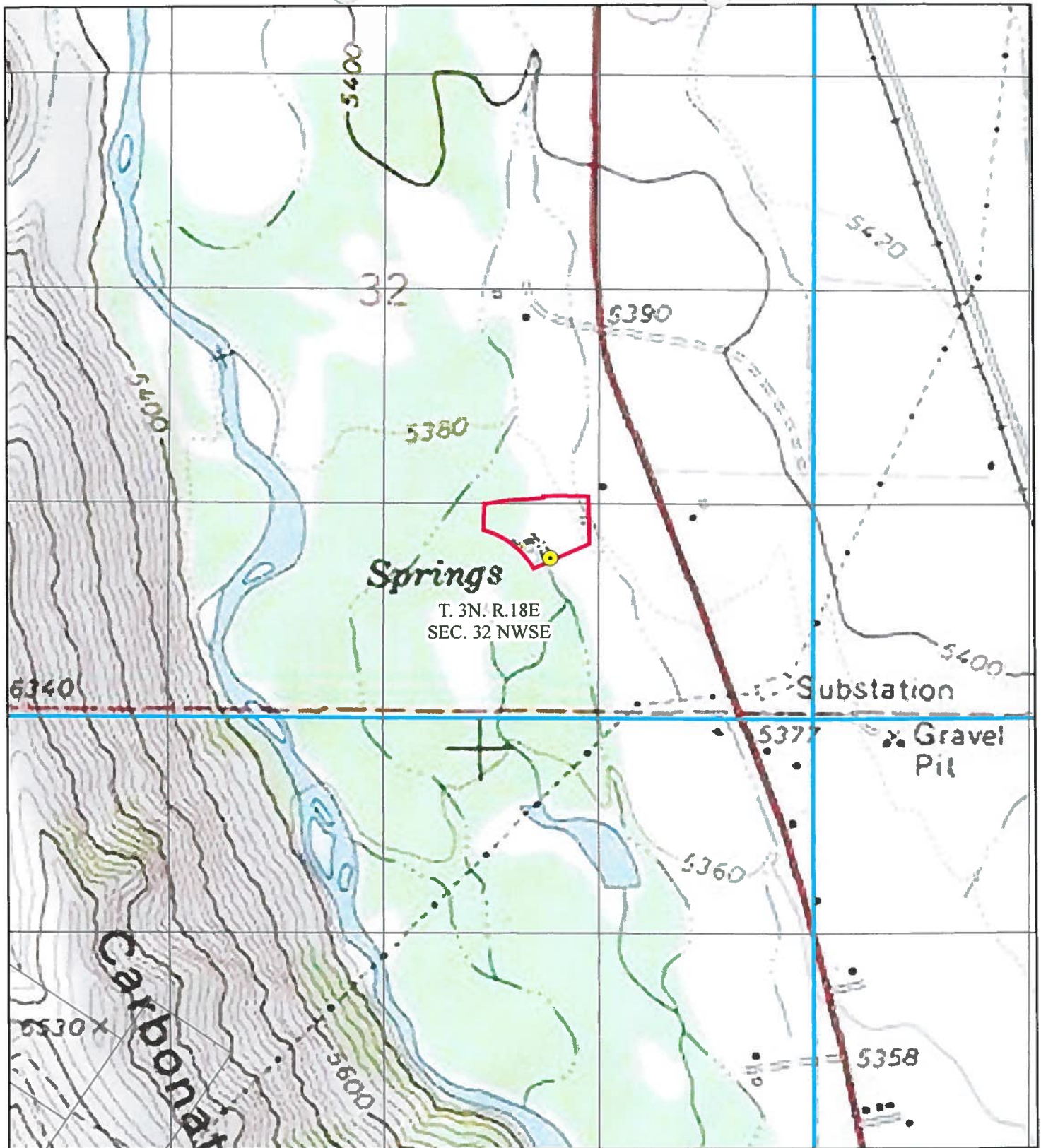
**CREIGHTON, TERRY
FIELD EXAM 37-22838
NAIP 2011 AERIAL**

0 25 50 100 Feet

Legend

-  Point of Diversion
-  Flying_Heart Ranch_LOT_21A
-  Pond Surface Area 0.2 Ac.
-  QQ Lines





**CREIGHTON, TERRY
FIELD EXAM 37-22838
NAIP 2011 AERIAL**

0 312.5 625 1,250 Feet

Legend

- Point of Diversion
- Flying_Heart Ranch_LOT_21A
- Pond Surface Area 0.2 Ac.
- Section_Lines
- QQ Lines

