STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8700
Exam Date: 5/6/2008

1. Current Owner: HORIZONS INC
587 SPRING RIVER RD
BLISS ID 83314
(208) 934-5018

2. Accompanied by: Dawn Lee
Phone No: (208) 934-5018
Address: 587 SPRING RIVER RD
Relationship to Permit Holder: President of Horizons Inc.

3. **SOURCE** **TRIBUTARY**
SPRINGS SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None for aesthetic purposes
2. Other water rights with the same point of diversion: 37-8337, domestic use for home and irrigation of ½ acre

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

SPRINGS L1 (SW¼NE¼NE¼) Sec. 12, Twp 06S, Rge 12E, B.M. GOODING County

Method of Determination: GPS, GIS, Satellite Imagery, Visual Inspection

2.

PLACE OF USE: AESTHETIC

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
06S 12E 12	X																
	L1																

Method of Determination: GPS, GIS, Satellite Imagery, Visual Inspection

3. _X_ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

_X_ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

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

_X_ 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

*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
Bucket	Plastic	Grainger	N/A	N/A	5.5 gallon	05/05/2008

2. Measurements:

I walked on a plank out to the standpipe that drains water from the pond. The standpipe has a notch on one side that maintains the level of the pond. I used a bucket and stopwatch to measure the flow applying the volume-time method. I inserted the bucket into the standpipe to capture all the water draining from the pond which directly correlates to the pond inflow from the spring. After six measurements, the average time to fill the bucket was 5.31 seconds with times ranging from 5.57 seconds to 5.13 seconds. The result is a discharge of 0.14 cfs.

(60 sec / 5.31 sec) x 5.5 gal = 62.15 gpm → 62.15 gpm / 448.83 gpm/cfs = **0.14 cfs**

E. FLOW CALCULATIONS _____Additional Computation Sheets Attached

Measured Method: None

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) =

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

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

2. Volume Calculations for Other Uses: AESTHETIC

0.14 cfs x 1.9835 cf/day/AF x 365 days = **101.4 AFA**

G. NARRATIVE/REMARKS/COMMENTS

Water seeps out of a spring behind the shed (figure 1), flows through an open channel under the shed into the pond (figure 3), drains from the pond into a standpipe (figure 5), then under the road, discharges into the draw, and ultimately drains into the Snake River.

The dimensions of the pond were measured with a fiberglass tape (see attachment illustrating pond dimensions and calculations for volume). Depths were measured using period measurements from bridge with shovel handle and at standpipe. The volume of the pond is estimated at 0.14 acre-feet. The flow rate of 0.14 cfs is adequate to fill and flow through the pond in less than 24 hours (0.14 cfs x 1.9835 = 0.28 acre-feet). Therefore, a storage component for this right is not necessary.

Among few other fish, a young five-foot long sturgeon resides in the pond (figure 6).

Water right no. 37-8337 shares the same point of diversion and is periodically used to divert water from this spring to the house for domestic purposes. This right has other springs serving as the primary sources for domestic water.

A licensing amendment is necessary to accurately reflect the point of diversion legal description.

Have conditions of permit approval been met? _X_ Yes _____ No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
AESTHETIC	01/01 to 12/31	0.140 CFS	101.4 AF
	Totals:	**0.140 CFS**	**101.4 AF**

2. Recommended Amendments

_X_ Change P.D. as reflected above ___ Add P.D. as reflected above ___ None

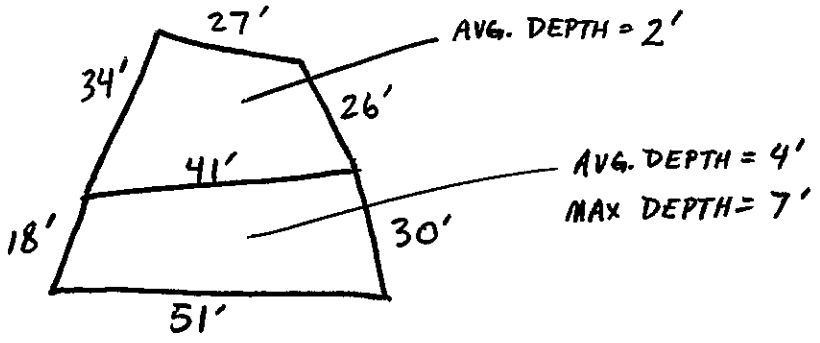
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

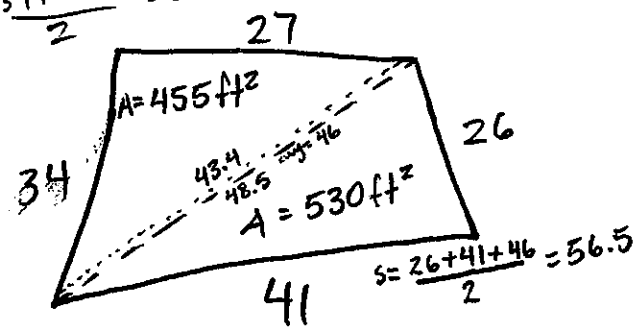
Field Examiner's Name Aaron Marshall Date 06/05/2008

Reviewer _____ Date _____

POND DIMENSIONS & VOLUME



$s = \frac{34+27+46}{2} = 53.5$



$A = \sqrt{s(s-a)(s-b)(s-c)}$ } Heron's Formula

$= \sqrt{53.5(53.5-34)(53.5-27)(53.5-46)}$

$= \sqrt{53.5(19.5)(26.5)(7.5)}$

$= 455 ft^2$

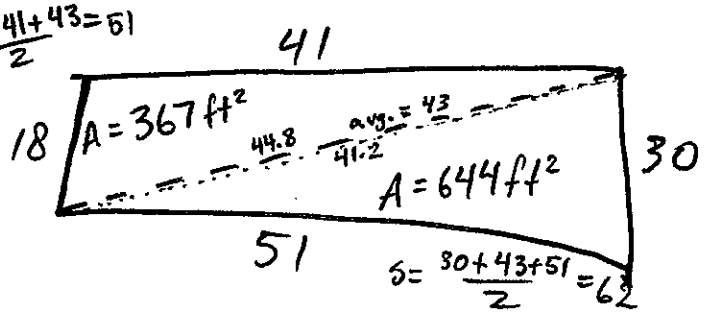
$A = \sqrt{56.5(30.5)(15.5)(10.5)}$

$= 530 ft^2$

$\Sigma = 985 ft^2$

$V = 985 \times 2 ft_{avg\ depth} = 1970 ft^3$

$s = \frac{18+41+43}{2} = 51$



$A = \sqrt{51(33)(10)(8)}$

$= 367 ft^2$

$A = \sqrt{62(32)(19)(11)}$

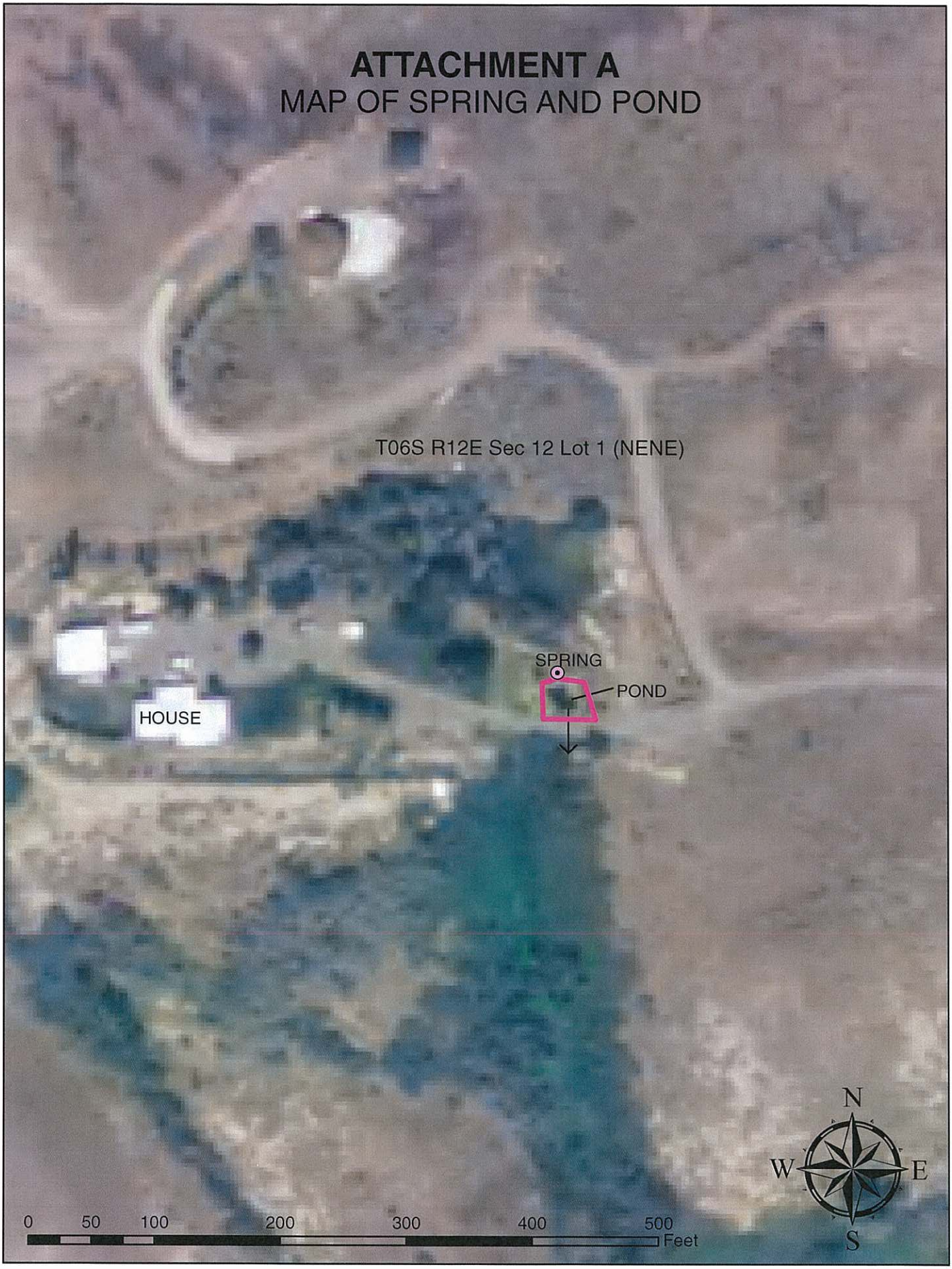
$= 644 ft^2$

$\Sigma = 1011 ft^2$

$V = 1011 \times 4 ft_{avg\ depth} = 4044 ft^3$

TOTAL POND VOLUME $= 6014 ft^3 =$ 0.14 AF

ATTACHMENT A
MAP OF SPRING AND POND



ATTACHMENT B
PHOTOGRAPHS OF SPRING AND POND

FIGURE 1: Spring behind shed

FIGURE 2: Pond with spring behind shed in background

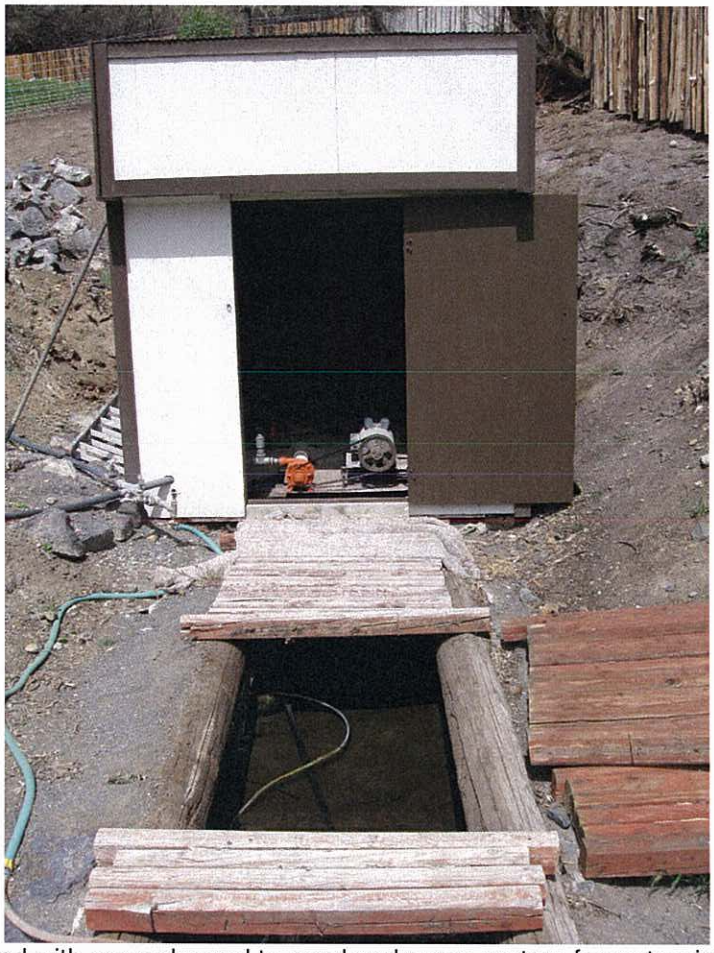


FIGURE 3: Shed with open channel to pond and pump system for water right no. 37-8337

FIGURE 4: Lower end of pond with standpipe

FIGURE 5: Standpipe with notch

FIGURE 6: Deep end of pond