

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-32899

Exam Date: 10/26/2012

1. Current Owner: STEVEN E TUPPER
16973 S VISTA AVE
KUNA ID 83634
(208)921-8087
2. Accompanied by: Susan Issac
Phone No: Same
Address: Same
Relationship to Permit Holder: Manages boarding stable operations & one of property owners

3. SOURCE TRIBUTARY
GROUND WATER N/A

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None – unrecorded domestic use from same well

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

GROUND WATER SE1/4SE1/4 Sec. 4, Twp 01N, Rge 02E, B.M.
ADA County

Method of Determination: GPS Location N43° 26.833' W116° 12.912' Garmin model GPSmap 76 Datum NAD 83

2. PLACE OF USE: COMMERCIAL

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	02E	4																X	

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	02E	4															X	X	

Method of Determination: Bing (2011) Aerial Photography w/ field verification.

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
WC Tag D0025951 Franklin Electric 5 unknown unknown submersible unknown – 2" discharge

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

D. FLOW MEASUREMENTS1. **Measurement**

Equipment	Type	Make/Model No.	Serial No.	Size	Calib. Date
No physical measurement @ exam	N/A	N/A	N/A	N/A	N/A

See Flow Calculations Section below for Theoretical HP Equation & Pipe Diameter Flow Estimations.

2. Measurements: Pressure reading from gage inside pump house/shed = 34 PSI
Piping from well not suitable (buried) for polysonic measurement.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method: Theoretical HP Equation:

HP = 5

PSI = 34

Z = 430 ft [pump @ 440 ft – est. pumping level 10 ft above pump depth for small (<10 hp) system]

$Q = (8.8 \times 0.7 \times \text{HP}) / [Z + (2.31 \times \text{PSI})] = (8.8 \times 0.7 \times 5) / [430 + (2.31 \times 34)] = \mathbf{0.06 \text{ cfs}}$ est. capacity of pumping system

Measured Method: Pipe Diameter Flow Estimation:

Discharge Pipe Dia = 2 in -> Q = **0.11 cfs** (see attached "Expected Flows For Pipe Diameters" computation sheet)

Theoretical HP Equation est. = **0.06 cfs**

Pipe Diameter Flow Estimation = **0.11 cfs**

Permitted Rate = **0.04 cfs**

Beneficial Use Limit = **0.03 cfs stockwater** (standard rate for 80 horses) + **0.02 cfs commercial** (bathroom with sink + toilet ~ 9 gpm) = **0.05 cfs**

Proof of Beneficial Use fee paid = \$50.00 = up to **0.20 cfs**

Recommend Permitted Rate = 0.02 cfs Stockwater + 0.02 cfs Commercial = 0.04 cfs

Permitted rate recommended as system is capable of producing 0.04 cfs for this permit plus an additional 0.02 cfs to 0.07 cfs for the unrecorded domestic (internal & external) use from the same well for the permit holder's home.

F. VOLUME CALCULATIONS

- Volume Calculations for Irrigation: **N/A**
- Volume Calculations for Domestic & Stockwater Uses: **N/A for I.C. §42-111 type use**

G. NARRATIVE/REMARKS/COMMENTS**SYSTEM DESCRIPTION – WATER USE – POU SHAPES:**

System consists of a 6" dia well with a 2" discharge line piped to a pump room/shed with two 40 gallon pressure tanks from which a 2" line pipes water to a large barn with horse stalls, a main arena area, and a restroom for up to two employees there on a near daily basis. The horse stalls are equipped with unheated automatic watering troughs. The restroom has one sink and one toilet. A garden hose is used occasionally inside the barn's arena area for minimal dust suppression. The 2" line continues past the barn and terminates approximately 250 ft west of the barn. Here there are a few more automatic watering troughs as well as faucets to fill portable water troughs, which are moved around the property to various horse corals surrounding the large barn. Stockwater POU shape drawn to depict area within which stockwater troughs generally placed where horses kept. Commercial POU shape drawn around the barn where the restroom and arena are.

COMPLIANCE WITH PERMIT CONDITIONS:

Permit conditioned that stockwater use is for 136 range cattle. The permit application states stockwater use intended for boarding of 136 horses. Uncertain why permit issued with condition stating stockwater for range cattle versus horses. However, considering the standard amounts (rate and volume) are the same for horses and range cattle and the owner has never had more than 80 horses, the owner has complied with the intent (if not the letter) of the condition. To the best of my knowledge, owner has complied with all other permit conditions.

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>
COMMERCIAL	01/01 to 12/31	0.02 CFS	N/A
STOCKWATER	01/01 to 12/31	0.02 CFS	N/A
<u>Totals:</u>		0.04 CFS	N/A

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

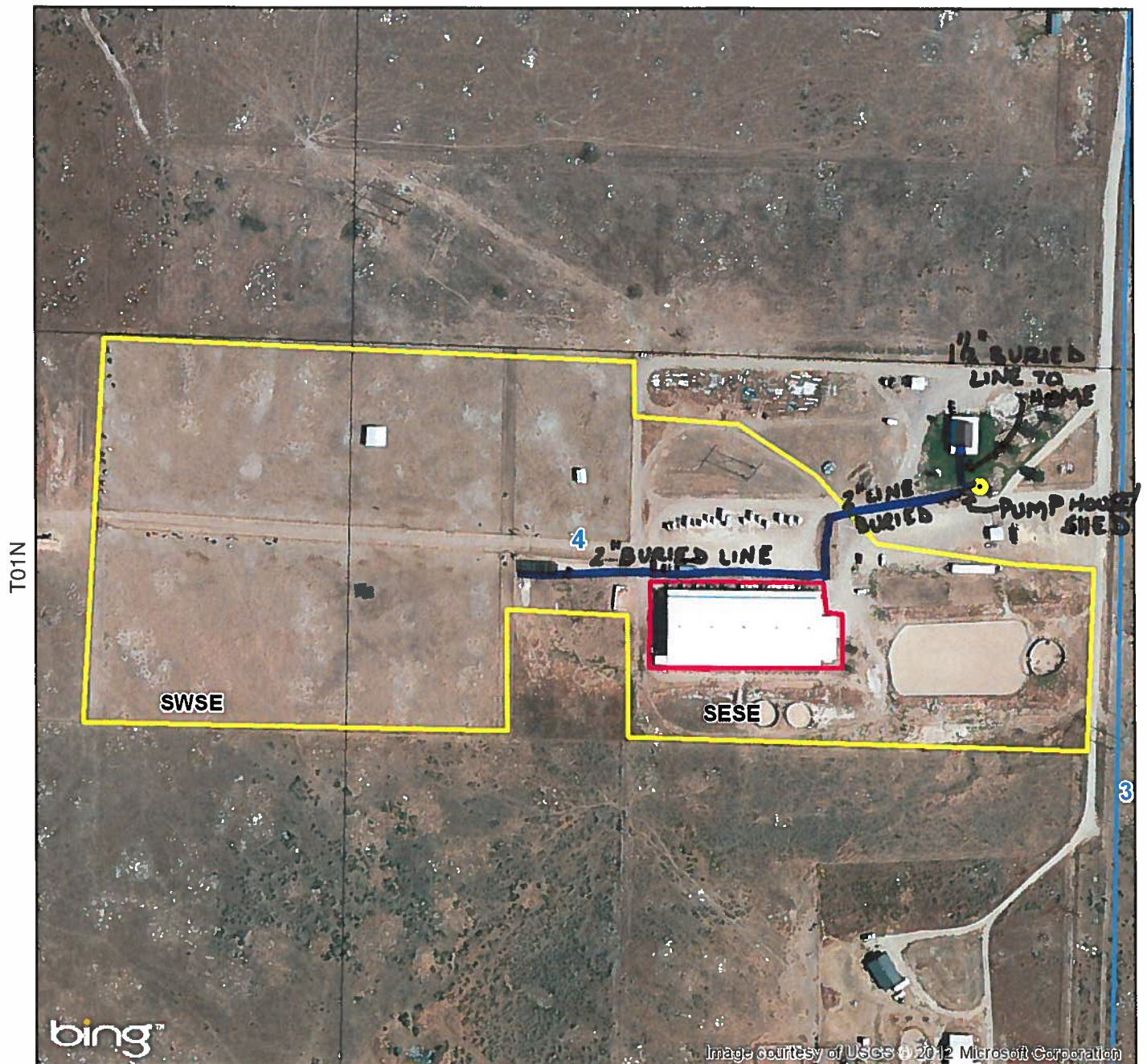
I. AUTHENTICATION

Field Examiner's Name Angela M. Gumm Date 11/28/2012

Reviewer _____ Date _____

63-32899 Beneficial Use Field Report System Diagram & Map

R02E



0 0.075 0.15 0.3 Miles

-  Point of Diversion
-  Commercial POU
-  Stockwater POU
-  Townships
-  PLS Sections
-  Quarter Quarters



EXPECTED FLOWS FOR PIPE DIAMETERS

This is for rough estimate for **pump & closed pipeline** system.

Use to double check other measurements/estimates.

Assumes optimum design.

$$Q = VA \quad \text{where: } V = 5 \text{ ft/sec} \quad A = \pi r^2 \quad (\text{radius in ft.})$$

DIAMETER (INCHES)	RATE (CFS)
01	0.03
02	0.11
03	0.25
04	0.44
06	0.98
08	1.74
10	2.73
12	3.93
14	5.34
16	6.98
18	8.83
20	10.90
22	13.19
24	15.70
36	35.34
48	62.83

63-32899 Beneficial Use Field Report Photos



63-32899 Exam 10/26/2012: POD well with pump house/shed in photo middleground facing west. Portion of large barn (commercial POU) left side of photo.



63-32899 Exam 10/26/2012: Stockwater and Commercial POU (photo middleground) from S. Vista Rd facing southwest. Red building is house, large metal roofed building is large barn and arena, horses and coral areas west of large barn.



State of Idaho

DEPARTMENT OF WATER RESOURCES

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C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

October 16, 2012

Susan Isaac
16973 S. Vista Ave.
Kuna, ID 83634

RE: Scheduling Field Exam for Water Right Permit No. 63-32899

Dear Ms. Isaac:

We are planning to **conduct water right examinations** in the vicinity of the above-referenced permit **during the week of October 22, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that the system will need to be operating under normal conditions during the examination. The permit (owned by Mr. Steven E. Tupper) authorizes use of ground water for commercial and stockwater use.

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 October 22, 2012**. If there is a problem with scheduling or conducting the examination at this time, please call and other arrangements can be made. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, reading 'Angela M. Grimm'. The signature is fluid and cursive, with a large, sweeping 'A' and a long, horizontal flourish at the end.

Angela M. Grimm, P.G.
Water Resource Agent, Sr.