

MEMORANDUM

Date: September 07, 2007
To: Water Right File 31-7655
From: narave
Re: Amended Exam

Due to personal circumstances the applicants were unable to attend during the field exam. During the first visit only one point of diversion was located. After further telecommunication I was told that this permit had been developed with two points of diversion from two adjacent springs within the drainage. A second visit was made to GPS the location of the second point of diversion. An amended field exam was prepared pursuant to this change.

[illegible]

Method of Determination: GPS

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>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

*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>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements:

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

Hazen Williams analysis used $Q = 0.11$ cfs limited to 0.04 cfs by permit

F. 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: 1 house no irrigation = 0.6 afa

20 livestock = 0.4 afa for 1 afa total

G. NARRATIVE/REMARKS/COMMENTS

Spring piped into 2 inch diameter pipe from point of diversion to the place of use

Have conditions of permit approval been met? ☒ Yes ☐ No**H. RECOMMENDATIONS**

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	01/01 to 12/31	0.020 CFS	0.60 AF
STOCKWATER	01/01 to 12/31	0.020 CFS	0.40 AF
<u>Totals:</u>		0.040 CFS	1.00 AF

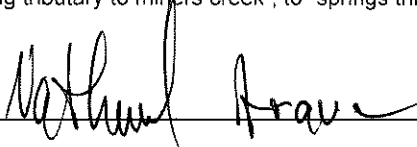
2. Recommended Amendments

☐ 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

Source changed from "spring tributary to miners creek", to "springs tributary to miners creek"

I. AUTHENTICATION

Field Examiner's Name



Date

9/7/07

Reviewer

Date

Hazen-Williams Equation for Closed Pipe Flow

Assumptions: Head Loss due to bends, couplings, & valves is negligible

$$Q_{cfs} = 1.318 C_h (\pi D^2/4) \times (D/4)^{0.63} \times (H/L)^{0.54}$$

Q = Discharge (cfs)

D = Pipe Diameter (ft) = 0.17 ft

L = Pipe Length (ft) = 3100 ft

H = Elevation Drop (ft) = 136 ft

C_h = Values for Types of Pipe = 150

150	-Plastic (PVC)	110	-Riveted Steel
140	-Very Smooth	100	-Old Cast Iron
130	-Cast Iron	80	-Badly Corroded Cast Iron
120	-Wood, Concrete		

$$Q_{cfs} = 1.318 \left(\frac{150}{C_h} \right) \left[\pi \left(\frac{0.17}{D} \right)^2 / 4 \right] \times \left(\frac{0.17}{D} \right)^{0.63} \times \left(\frac{136}{H} / \frac{3100}{L} \right)^{0.54}$$

$$Q_{cfs} = \underline{0.11} \text{ cfs}$$

Permit # 31-7655

[illegible]

Comment Report

31-7655

1. narave 9/4/2007 Field Report Narrative

Comment: Spring piped into 2 inch diameter pipe from point of diversion to the place of use

2. narave 9/4/2007 POD

Comment: Updated shape

3. narave 9/4/2007 POU

Comment: Updated Shape

4. narave 9/4/2007 POU

Comment: Updated Shape

5. narave 9/4/2007 overlap analysis

Comment: No water rights over lap with this place of use, or point of diversion











