STATE OF IDAHO DEPARTMENT OF WATER RESOURCES **BENEFICIAL USE FIELD REPORT**

GENERAL INFORMATION Α.

- 1. Current Owner: KARL GEORGE PO BOX 163 HARRISON ID 83833
- 2. Accompanied by: Permission granted by Karl George to be Un-Accompanied Phone No: 509-290-0602 Address: Same as above Relationship to permit Holder: Permit Holder

3. SOURCE: GROUND WATER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use:

Water Right No.	Source	Purpose of Use	Basis	

NO Overlap

Comments: _____

Other water rights with the same point-of-dive	rsion:
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Water Right No.	Source	Purpose of Use	Basis

Comments:

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER L6 (SW1/4 SE1/4), Sec. 17, Twp 48N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. POD located at -116º4,597, 47º29.909. Well D0056468.

PLACE OF USE: IRRIGATION

Turn	Dea	Sec		N	E			N١	N			SV	N			S	Ę		Totals
Iwp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	03W	17															1.4 L6		1.4

Total Acres: 1.4

PLACE OF USE: DOMESTIC and STOCKWATER

Tum	Dna	Sec		N	IE			N١	Ν			S	N			SI	E.		Totals
Iwp	Rng	Sec	NE	NW	SW	SE													
48N	03W	17															X		
														_			L6		

Permit No: 95-17301 Exam Date: 06/08/2020

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Method of Determination: Field Exam and Arcmap

3.

- Delivery System Diagram Attached (required). Indicate all major components and distances between components. X 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.
- 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	Нр	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0056468	UNKOWN	2			

D. FLOW MEASUREMENTS

Measurement Equipment
Type
Make
Model No.
Serial No.
Size
Calib. Date

5 GAL BUCKET TEST
Image: Constraint of the second secon

2. Measurements: Three 5 gallon bucket tests were completed from frost free hydrant, with average of three resulting in diversion flow rate = 21,78 gpm = 0.05 cfs.

E. FLOW CALCULATIONS

Measured Method: Measured Method: 5 GAL Bucket	t Test = (5 gal / 14.01 sec) x 60 sec/min = 21.41 gpm
	= (5 gal / 13.70 sec) x 60 sec/min = 21.90 gpm
	= (5 gal / 13.61 sec) x 60 sec/min = 22.04 gpm
Average of 3ea 5 GAL Bucket Tests = (21.41 gpm	+ 21.90 gpm + 22.04 gpm) / 3 = 21.78gpm = 0.05 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

 V_{LR} = (Acres Irrigated) x (Irrigation Requirement) = 1.4 ac x 3.0 afa = 4.2 af

V_{D.R} = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.05 x 246 x 1.9835 = 24.4

V = Smaller of V_{IR} and V_{DR} = 4.2 af

2. Volume Calculations for Other Uses:

Stockwater component annual volume = 15 goats x 2 gpd x 365 days = 10,950 gal & 10 chickens x 0.1 gpd x 365 = 365 gal

Combined total Stockwater Annual Volume = 10,950 gal (goats) + 365 gal (chickens) = 11,315 gal / 325,850 gal per af = 0.03 af which defaults to **0.1 af** considering this is the minimum volume the Department can apply to volume computations.

Domestic component annual volume (without irrigation included) = 0.6 af.

Maximum diversion volume = 0.6 af (domestic) + 4.2 af (irrigation) + 0.1 af (stockwater) = 4.9 af.

Permit No 95-17301

G. NARRATIVE/REMARKS/COMMENTS

Un-accompanied field exam conducted on 6/8/2020, permission granted by property owner Karl George, showed a well being used for domestic, irrigation, and stockwater purposes. The well, D0056468, has a 2 HP pump that diverted water into two 1200 gal storage tanks and into a pressure tank. A frost free hydrant was located at the well, which was piped direct from well, and 5 gal bucket tests were completed to determine the maximum diversion rate with the average of three flow measurements equaling 21.78 gpm = **0.05 cfs**. The irrigation beneficial use diversion rate equals 1.4 ac x .03 cfs = **0.04 cfs**; the domestic beneficial use diversion rate for 1 home without irrigation = **0.04 cfs**; the stockwater beneficial use diversion rate equals **0.02 cfs**, which is the department standard for 25 head mixed stock. The three beneficial use diversion rates are not additive beyond 0.05 cfs, which is the diversion rate limiter based on applicant's pump performance.

One home was identified being connected to the applicant's well at time of field exam. As there is an irrigation component to this water right, the domestic annual volume equals **0.6 af**. Applicant had permitted for 25 head of mixed stock, and during field exam goats and chickens were observed on the property. The stockwater annual volume is equal to 15 goats x 2 gpd x 365 days = 10,950 gal & 10 chickens x 0.1 gpd x 365 = 365 gal; the combined total Stockwater Annual Volume = 10,950 gal (goats) + 365 gal (chickens) = 11,315 gal / 325,850 gal per af = 0.03 af which defaults to **0.1 af** considering this is the minimum volume the Department can apply to volume computations, and will be applied to license.

During field exam, above ground sprinklers serviced by frost free hydrants and hoses were observed on the applicant's property. Irrigated acreage was sketched out, and during licensing review Arcmap aerial imagery was used to trace out irrigation acreage equaling 1.4 acres. The irrigation component annual volume equals $1.4 \text{ acr} \times 3.0 \text{ afa} = 4.2 \text{ af}$, which is applied at time of licensing. The combined maximum diversion volume for this water right equals the sum of the three beneficial use components and equals 0.6 af (domestic) + 4.2 af (irrigation) + 0.1 af (stockwater) = 4.9 af.

Conditions 046, 26A, and X02 were removed from permit at time of licensing. All other conditions remain on license. There are no overlap concerns for this water right.

Have conditions of	permit approval been me	et? X	Yes	No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
IRRIGATION	03/15 to 11/15	0.04 CFS	4.2 AF
STOCKWATER	01/01 to 12/31	0.02 CFS	0.1 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF

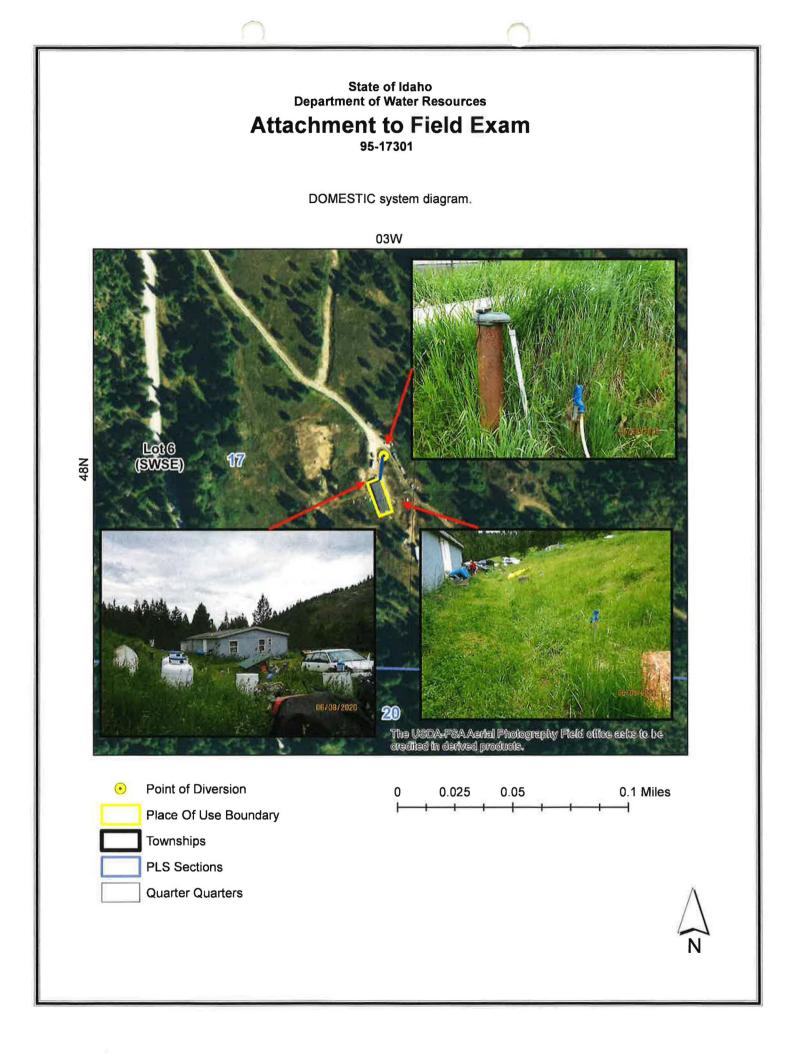
2. Recommended Amendments

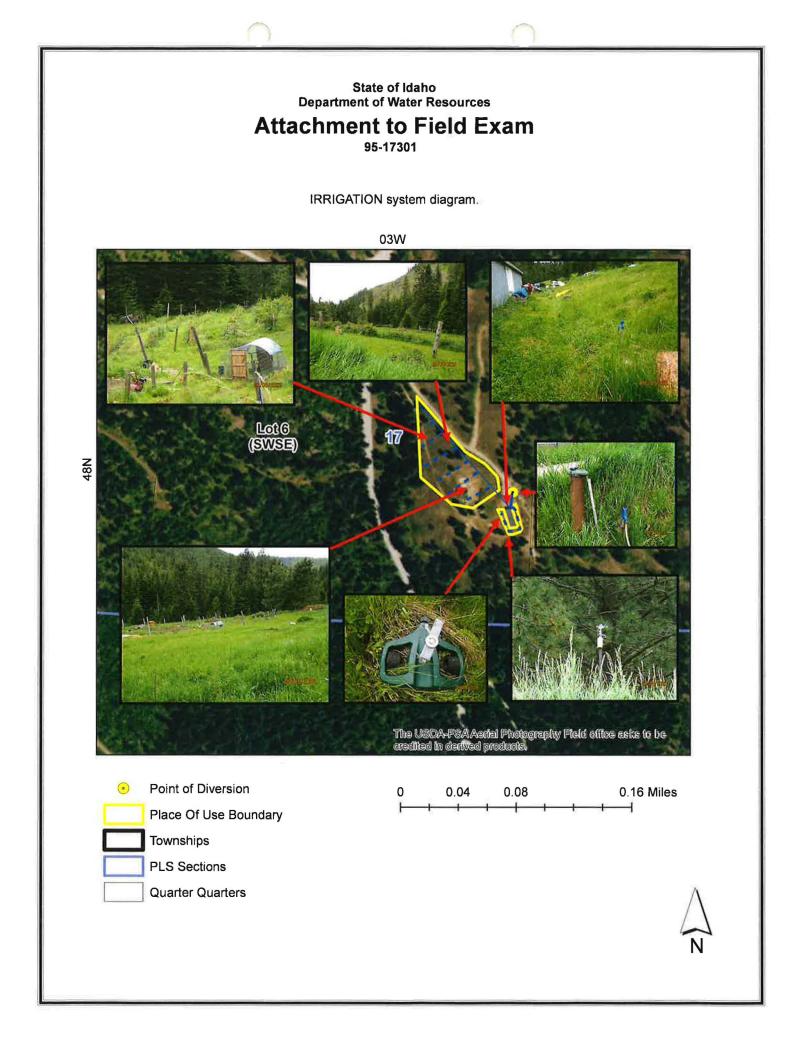
 Change P.D. as r	eflected above	 Add P.D. as	reflected above	_X_	None

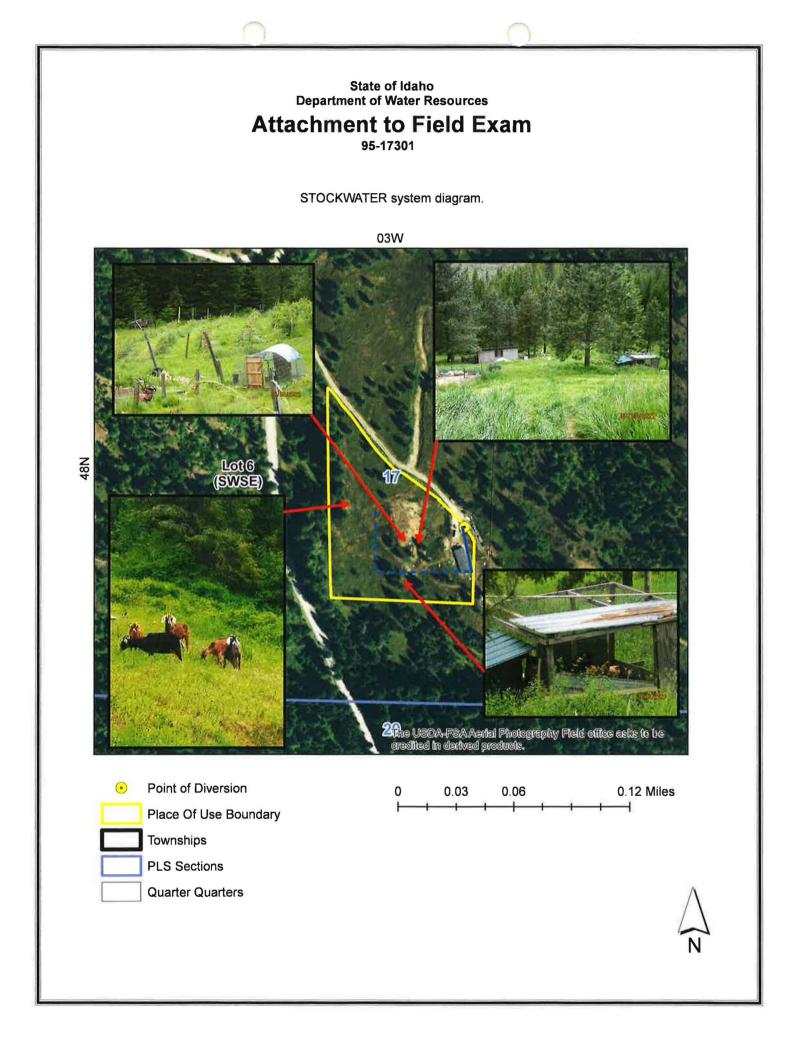
Change P.U. as reflected above	Add P.U. as reflected above	X	None

L	AUTHENTICATION	Luke Bates - Water Resource Agent	
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Field Examiner's Name	Date 8/13/2020
Reviewer ad France	Date 8/13/2020











POD - WELL D0056468



WELL D0056468



DOMESTIC POU



IRRIGATION POU





FROST FREE HYDRANT



IRRIGATION POU



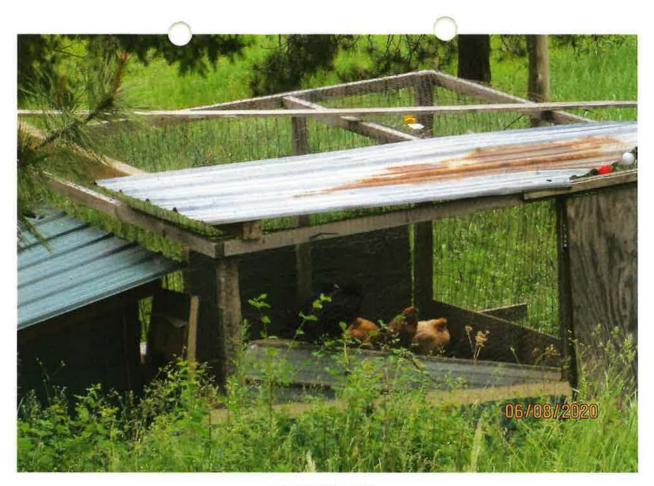
IRRIGATION POU





SPRINKLERS FOR IRRIGATION





STOCKWATER POU





IRRIGATION POU – IMAGE PROVIDED BY APPLICANT



STOCKWATER POU - IMAGE PROVIDED BY APPLICANT