

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-7249

Exam Date: 9/11/2012(7/21/2016)

1. Current Owner: CLAYNE A HANSON
679 N 3837 E
RIGBY ID 83442
(208)745-6274

2. Accompanied by: Randy Olsen
Phone No: (602)892-5350
Address: 236 Sandy Creek Road
Relationship to Permit Holder: ranch manager

3. **SOURCE**

SPRING

TRIBUTARY

WEST FORK SANDY CREEK

B. OVERLAP REVIEW

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

74-1797A, 74-854 also owned by Clayne Hanson share a portion of the same quarter quarter but has a different place of use

74-15238 and 74-15589 share a portion of the same quarter quarter but have a different place of use

74-200, 74-203, 74-204, 74-408, 74-433A and 74-433B – no overlap

74-15590 – complete overlap with the upper field

2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

SPRING NW¼NE¼SW¼ Sec. 4, Twp 20N, Rge 24E, B.M. LEMHI County

Method of Determination: GPS and Visual Inspection

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	
20N	24E	8														X			

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
20N	24E	8	5.5			4.0										0.5			10.0

Method of Determination:

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 Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
n/a					

D. FLOW MEASUREMENTS

1. **Measurement Equipment** used Flow Tracker to find the velocity
 The spring water flows into a small creek and is redirected into a 6 inch pipe
 Creek dimensions: 14.3 inches wide X 2.3 inches deep
 Area = $14.3 \times 2.3 = 36.9$
 Velocity $0.22 \times 36.9 = 0.8$ cfs

E. FLOW CALCULATIONS

Measured Method: The field exam was late in the season. There was insufficient water to measure at the place of use

10 acres X 0.02 = 0.2 cfs

Manning's Equation : 2.8 cfs (see attached sheet)

Permit rate: 0.2

Total recommended rate of diversion: 0.2 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 10 \times 3.5 = 35$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.2 \times 246 \times 1.9835 = 97$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{35}$$

2. Volume Calculations for Other Uses:

According to Application Processing Memo #3 101 – 200 head of range cattle require 0.05 cfs and 2.7 af

Recommended volume for Stockwater: 2.7 af

Recommended rate for Stockwater 0.05 cfs

G. NARRATIVE/REMARKS/COMMENTS

A spring located in T20N R24E Section 4 NWNESEW in Lemhi County, locally know as Agee Spring, provides water for right 74-7249. The spring flows into a small creek and is redirected into a 6-inch buried pipe. The pipe flows approximately ¾ mile to a tank in the NENE of section 8. The tank allows for access to the pipe. From the tank, the pipe continues another .26 miles to the top of the field. Water diverted from the pipe irrigates floods the land through cross ditches. Water from West Sandy Creek comingles with spring water to irrigate the field; spring water supplements water from West Sand Creek. Approximately 1/3 mile downhill from the lower end of the field the spring water irrigates about ½ an acre of pasture to the south and west of the house. Most years the spring flows year around; however, during the field exam very little water reached the upper field. Up to 50 horses and 80 to 200 non-dairy cows graze on the land irrigated under this right. At the time of the July 2016

field. Up to 50 horses and 80 to 200 non-dairy cows graze on the land irrigated under this right. At the time of the July 2016 field exam, the pipe carrying water from the spring was clogged. Mr. Olsen was trying to determine the location of the clog. At that time, water from the spring was not reaching the field described in this field exam.

The water right as described in the permit listed Sinks as the tributary for the spring point of diversion. During the field exam I determined that the spring is actually tributary to West Fork Sandy Creek. This clarification does not require an amendment.

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>
IRRIGATION	03/15 to 11/15	0.200 CFS
STOCKWATER	01/01 to 12/31	0.050 CFS
<u>Totals:</u>		0.200 CFS

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 Sandra Lind Date 9/30/2016

Reviewer _____ Date _____

Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full

[READ ME](#)

S = 0.1205 ft/ft
n = 0.009 manning's coefficient
d = 6.0 pipe diameter (inches)
D = 0.50 pipe diameter (feet)
r = 0.25 pipe radius (feet)
A = 0.20 area (ft²)
WP = 1.57 wetted perimeter (ft)
R = 0.13 hydraulic radius (ft)

Q = 2.80 flow rate (CFS)

Channel Slope

Slope Options

☒ Manual Entry ☐ Slope Calculator

Slope Calculator

Rise = **477** feet

Run = **3960** feet

Slope, S = 0.1205 ft/ft

Pipe Material, (n):

plastic (pvc, abs)

Pipe Diameter (inches)

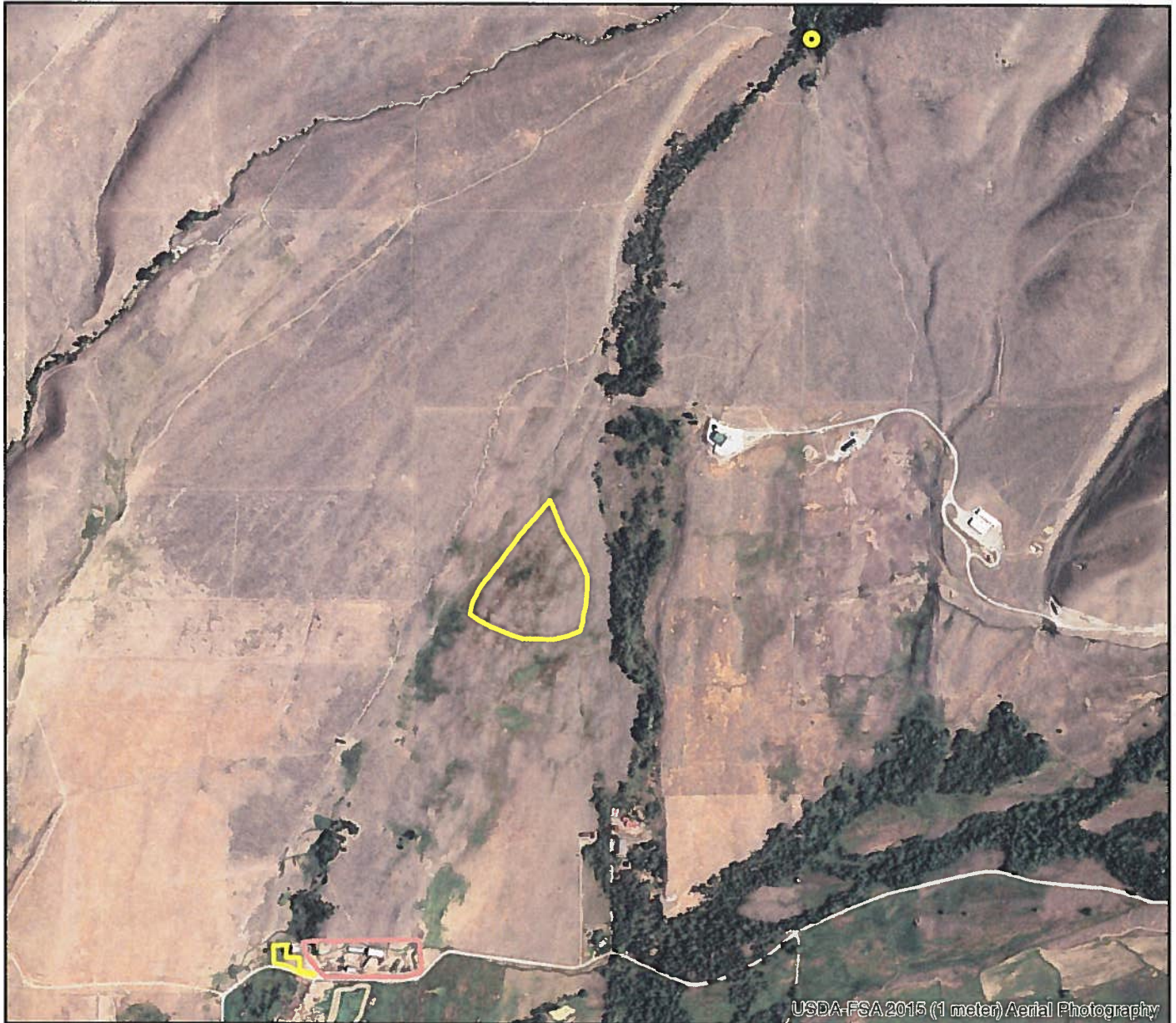
6.0 inches

State of Idaho
Department of Water Resources
Water Right License
74-7249

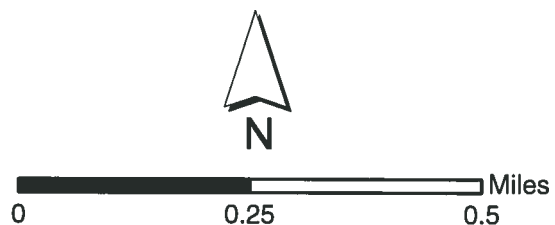
This map depicts the IRRIGATION and STOCKWATER place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R24E

T20N



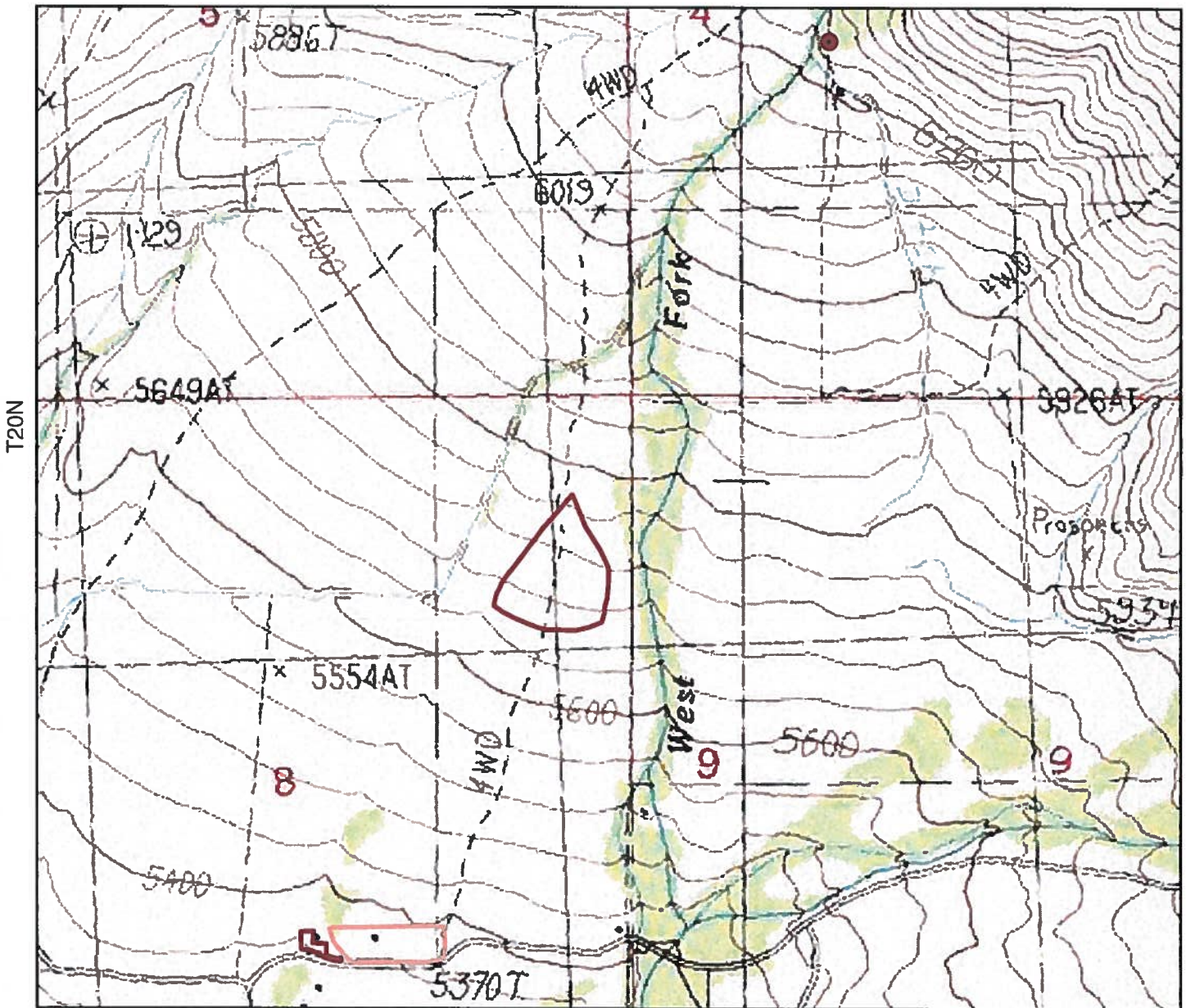
-  Point of Diversion
-  Stockwater Place of Use
-  Irrigation Place Of Use Boundary



State of Idaho
Department of Water Resources
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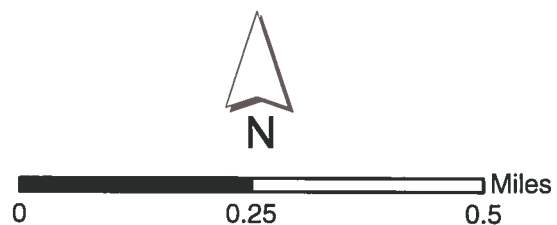
R24E



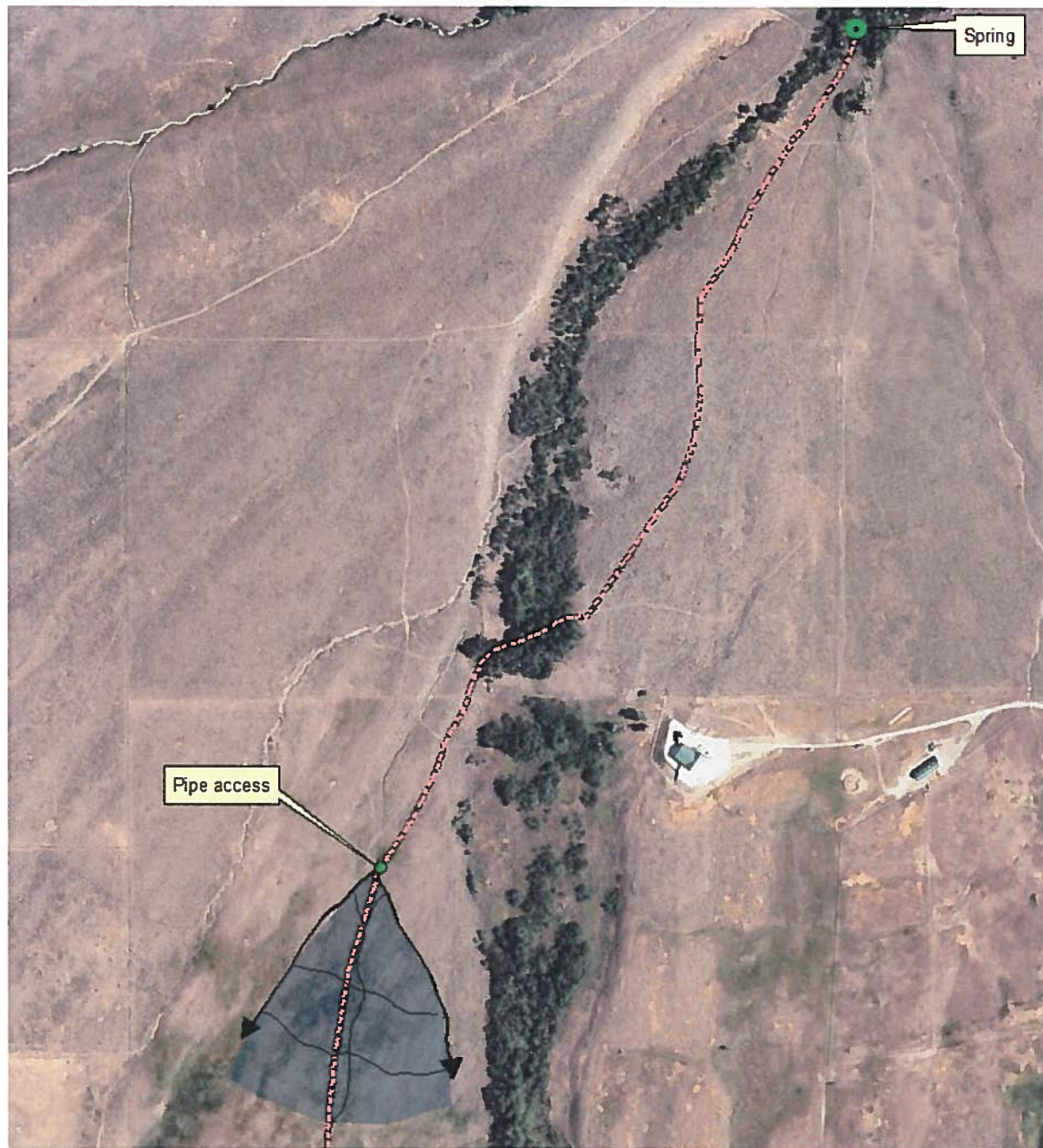
● Point of Diversion

□ Stockwater Place of Use

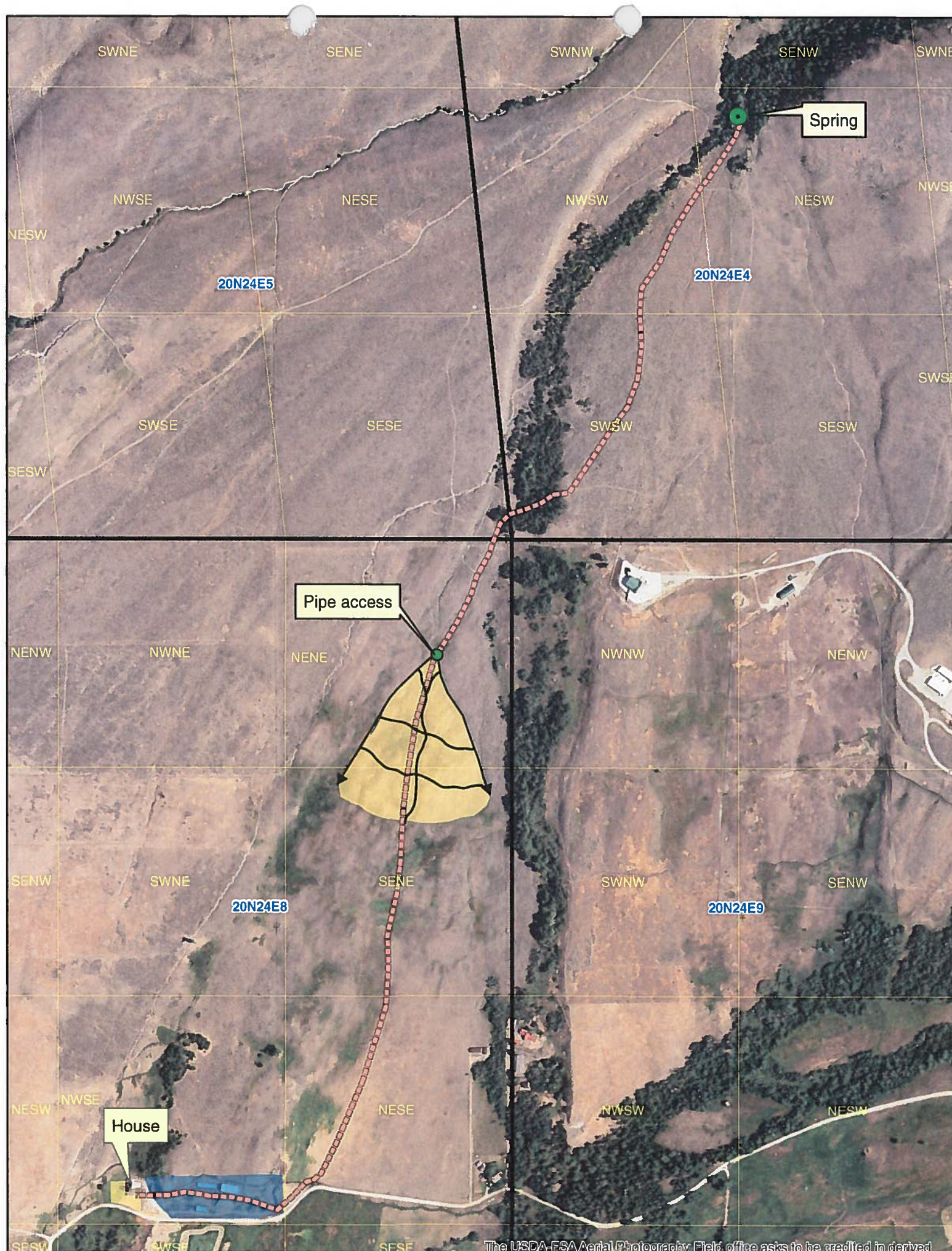
□ Irrigation Place Of Use Boundary



Water Distribution System Water Right 74-7249



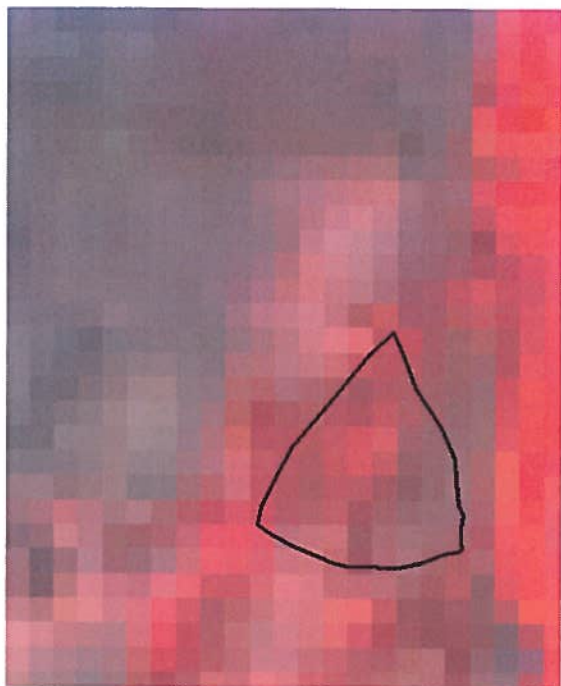
A spring located in T20N R24E Section 4 NWNESEW in Lemhi County, locally known as Agee Spring, provides water for right 74-7249. The spring flows into a small creek and is redirected into a 6-inch buried pipe (orange dashed line). The pipe flows approximately $\frac{3}{4}$ mile to a tank in the NENE of section 8. The tank allows for access to the pipe. From the tank, the pipe continues another .26 miles to the top of the field. Water diverted from the pipe irrigates floods the land through cross ditches. Water from West Sandy Creek combines with spring water to irrigate the field; spring water supplements water from West Sand Creek. Approximately $\frac{1}{3}$ mile downhill from the lower end of the field the spring water irrigates about $\frac{1}{2}$ an acre of pasture to the south and west of the house. Most years the spring flows year around; however, during the field exam very little water reached the upper field. Up to 50 horses and 80 to 200 non-dairy cows graze on the land irrigated under this right.



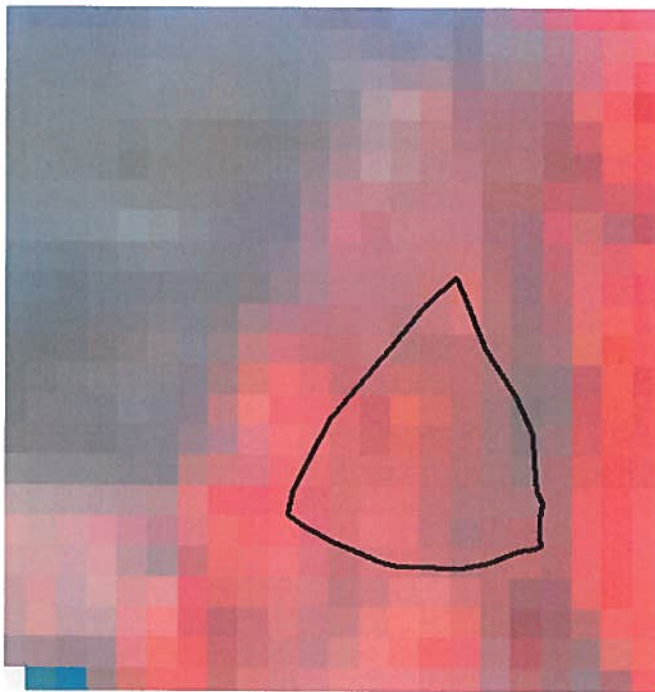
- Spring
- Buried pipe

West Fork Sandy Creek

Evidence of irrigation for right 74-7249



June 28, 2009



July 28, 2010



The arrows show the ditch system.

PHOTOGRAPHER AND DATE OF PHOTOS: Sandy Thiel, September 11, 2012 (7/21/2016)



Spring



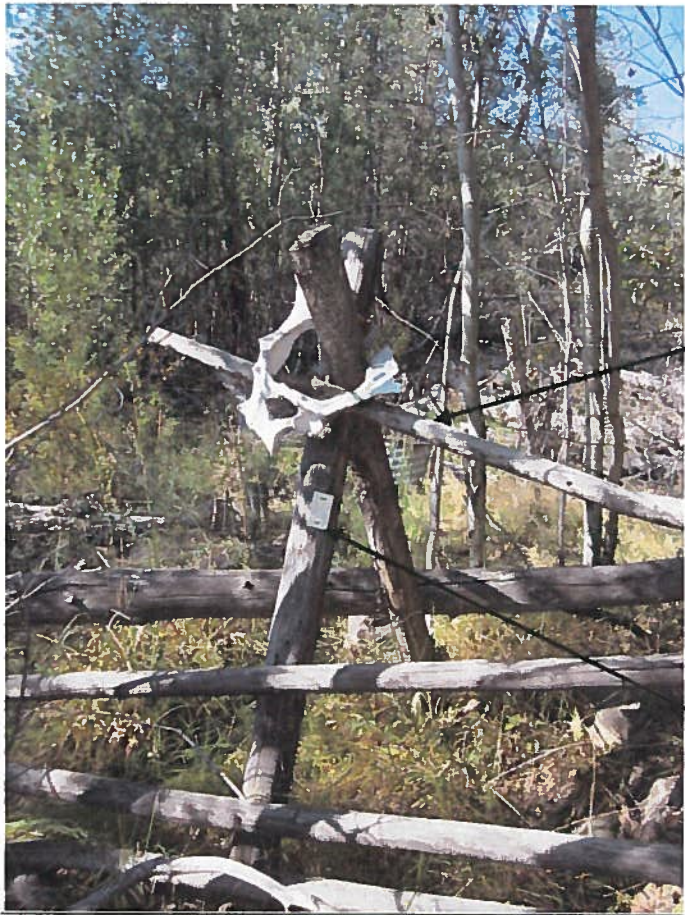
Spring



Spring

Measurement using velocity,
and channel width and depth





Spring

Tag
A0018574



Spring location near the channel of the
West Fork of Sandy Creek

The arrow shows the flow direction of
the creek

Pipe in ditch channel



Pipe

Pipe access

There are three pipe access locations along the system

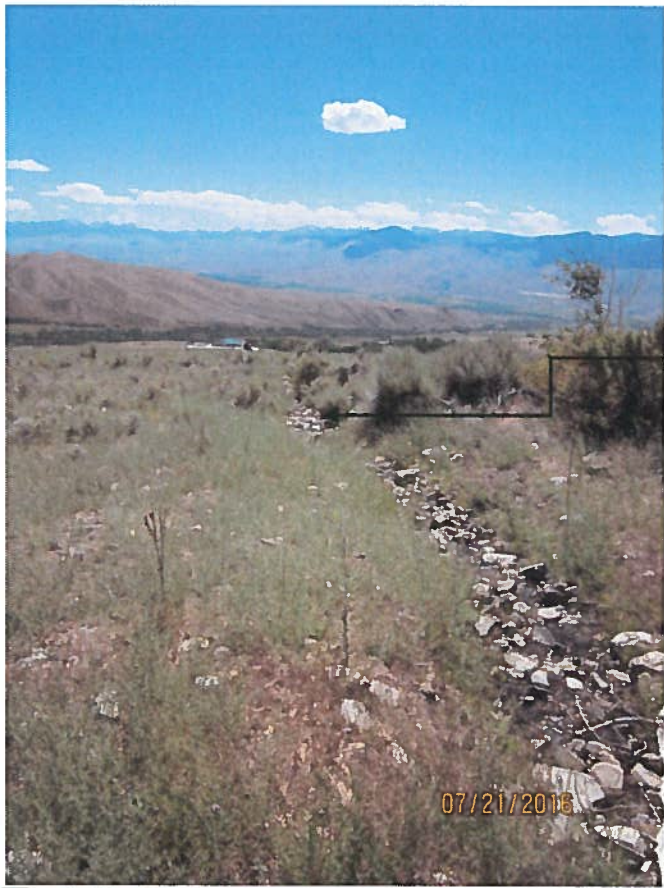
Upper pipe access



Photo taken within the pipe access shown above

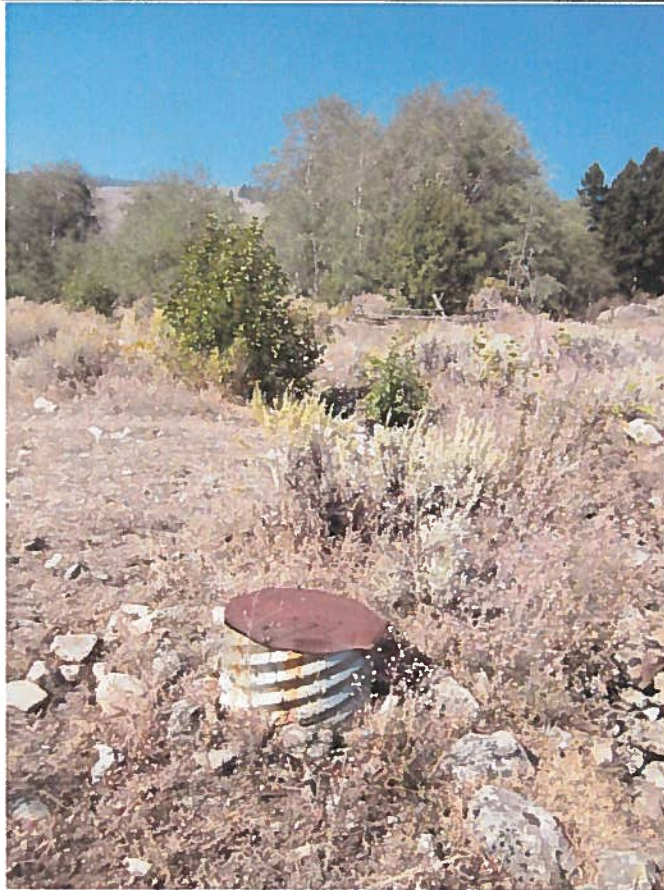


Water was flowing in channel immediately downstream from the pipe access. The pipe was clogged at the time of the field exam and spring water was allowed to flow down the existing channel



This is a photo of the ditch looking downhill from the channel shown above.

Very little water in the ditch flows further than the point indicated by the arrow



Pipe access approximately ¾ mile downhill from spring



Irrigated land

Location of spring in the trees



The pasture surrounding the house is irrigated with spring water

Sandra

I Have Identified The Land which is
Irrigated By water generated from The spring
on water right 74-7249. Also water used from that
water right also serves 3 stockwater tanks which
are piped into the ~~the~~ spring

Also I do Believe That 74-7249 And 74-15580
use The Same system

If you Have Any Further Questions or if it
would be beneficial I will meet you at the ranch
to verify locations

P.S. my Home address

is P.O. Box 98

Lewisville ID, 83431

Thanks

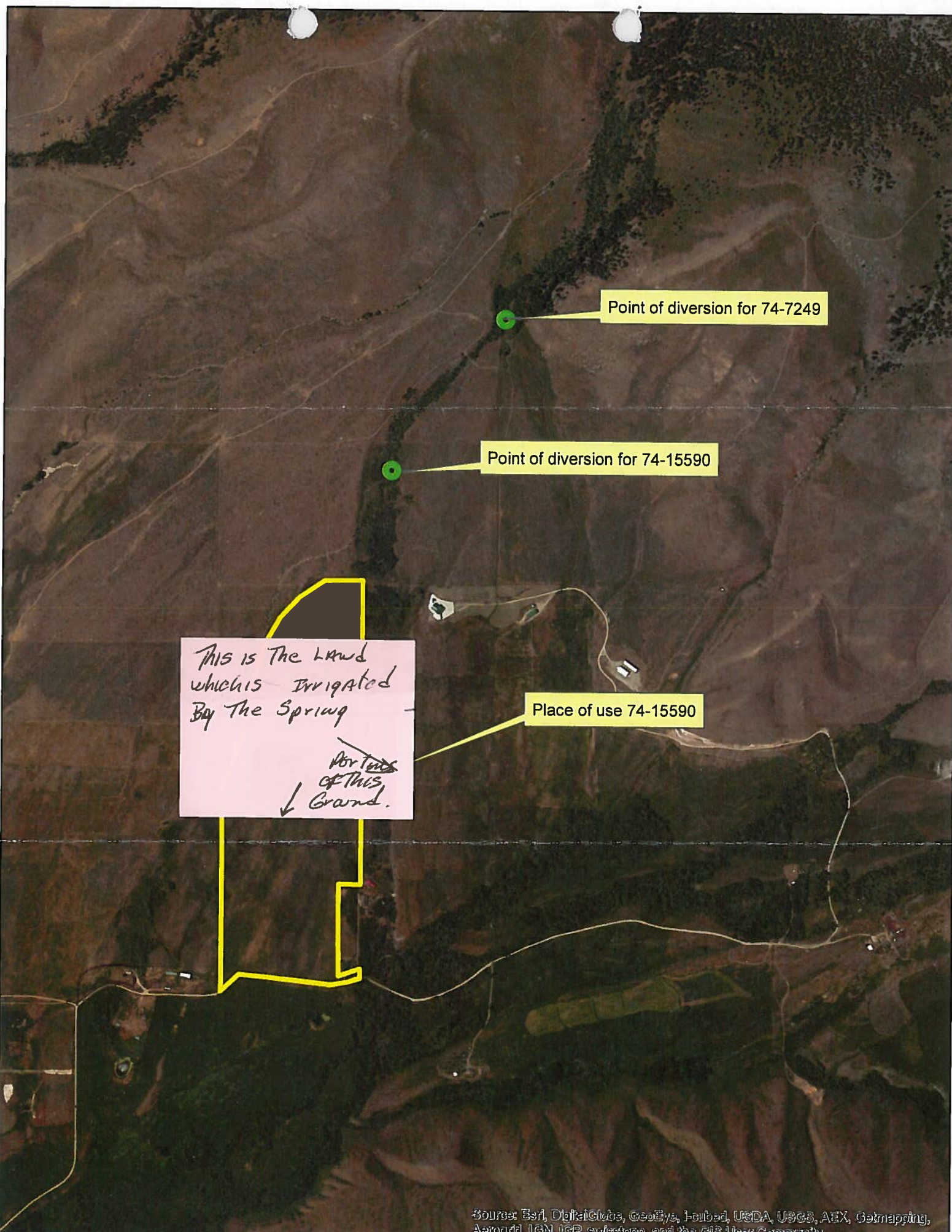
Clayne Hanson

Cell Phone 208 689 0290

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DEC 13 2013

DEPARTMENT OF
WATER RESOURCES



Point of diversion for 74-7249

Point of diversion for 74-15590

This is The Land
which is Irrigated
By The Spring

Place of use 74-15590

Portals
of this
Ground.