

[illegible]

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.

<u>Well or Diversion</u> <u>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</u> <u>Size</u>
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N/A

and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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N/A

2. Measurements:

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method: POWER DIVERSION RATE MEASURED BY 5 GALLON BUCKET TEST. DISCHARGE FILLED BUCKET IN A LITTLE UNDER 8 SECONDS. FLOW RATE AT 40 GPM OR 0.09 CFS. MEASUREMENT OF DIVERSION RATE FOR DOMESTIC, STOCKWATER AND IRRIGATION COVERED UNDER IDAPA RULES 37.03.02.035.01.r.

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = .5 \text{ AC} \times 3.0 \text{ AF} = 1.5 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ CFS} \times 214 \times 1.9835 = 12.7 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.5 \text{ AF}$$

2. Volume Calculations for Other Uses: DOMESTIC USE FOR 1 HOME = 0.6 AF

$$\text{STOCKWATER FOR 10 HEAD OF MIXED STOCK} = 10 \text{ STOCK} \times 12 \text{ GPD} \times 365 \text{ DAYS} / 325,850 \text{ GAL / AF} = 0.1 \text{ AF}$$

$$\text{POWER} = 0.09 \text{ CFS FOR 1 YEAR OF CONSTANT USE} = 65.20 \text{ AF (NON CONSUMPTIVE)}$$

G. NARRATIVE/REMARKS/COMMENTS

FIELD EXAM REQUIRED TO VERIFY POWER SYSTEM. MEASUREMENT OF DIVERSION RATE FOR DOMESTIC, STOCKWATER AND IRRIGATION COVERED UNDER IDAPA RULES 37.03.02.035.01.r. POWER DIVERSION RATE WAS MEASURED USING 5 GALLON BUCKET TEST AT DISCHARGE POINT AFTER POWER PRODUCTION. MEASUREMENT SHOWED 5 GALLONS FILLED IN A LITTLE UNDER 8 SECONDS. POWER DIVERSION RATE WILL BE GIVEN AT 40 GPM OR 0.09 CFS. FIELD EXAM SHOWED IRRIGATION WAS ACTUALLY 0.5 ACRES INSTEAD OF 3.

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	0.10 AF
IRRIGATION	04/01 to 10/31	0.030 CFS	1.50 AF
POWER	01/01 to 12/31	0.090 CFS	65.20 AF
<u>Totals:</u>		0.190 CFS	67.40 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

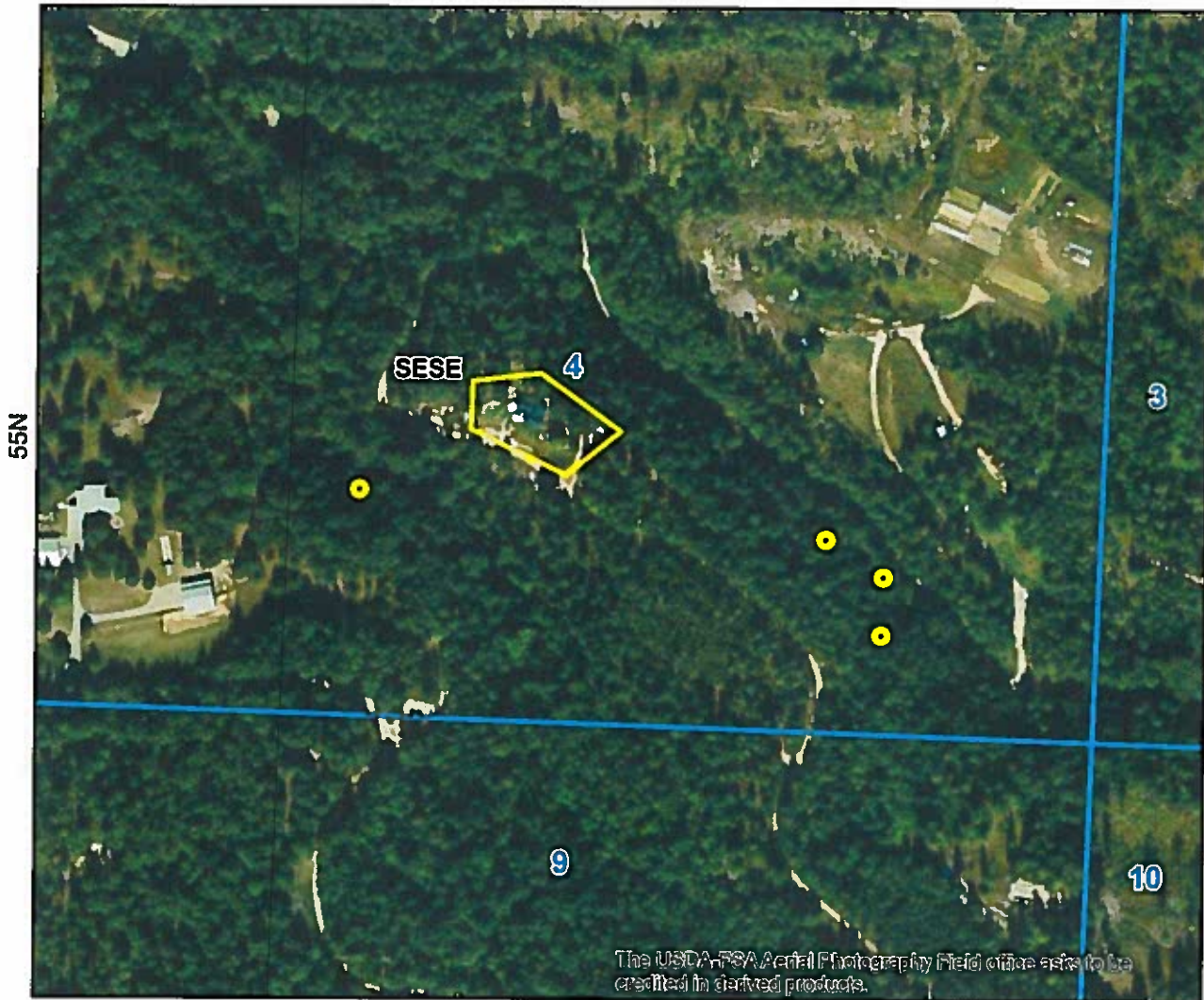
I. AUTHENTICATION

Field Examiner's Name Adam Friedman Date 2-17-2016

Reviewer Eva Johnson Date 2-17-2016

State of Idaho
Department of Water Resources
Water Right License
96-9234
Domestic

03W



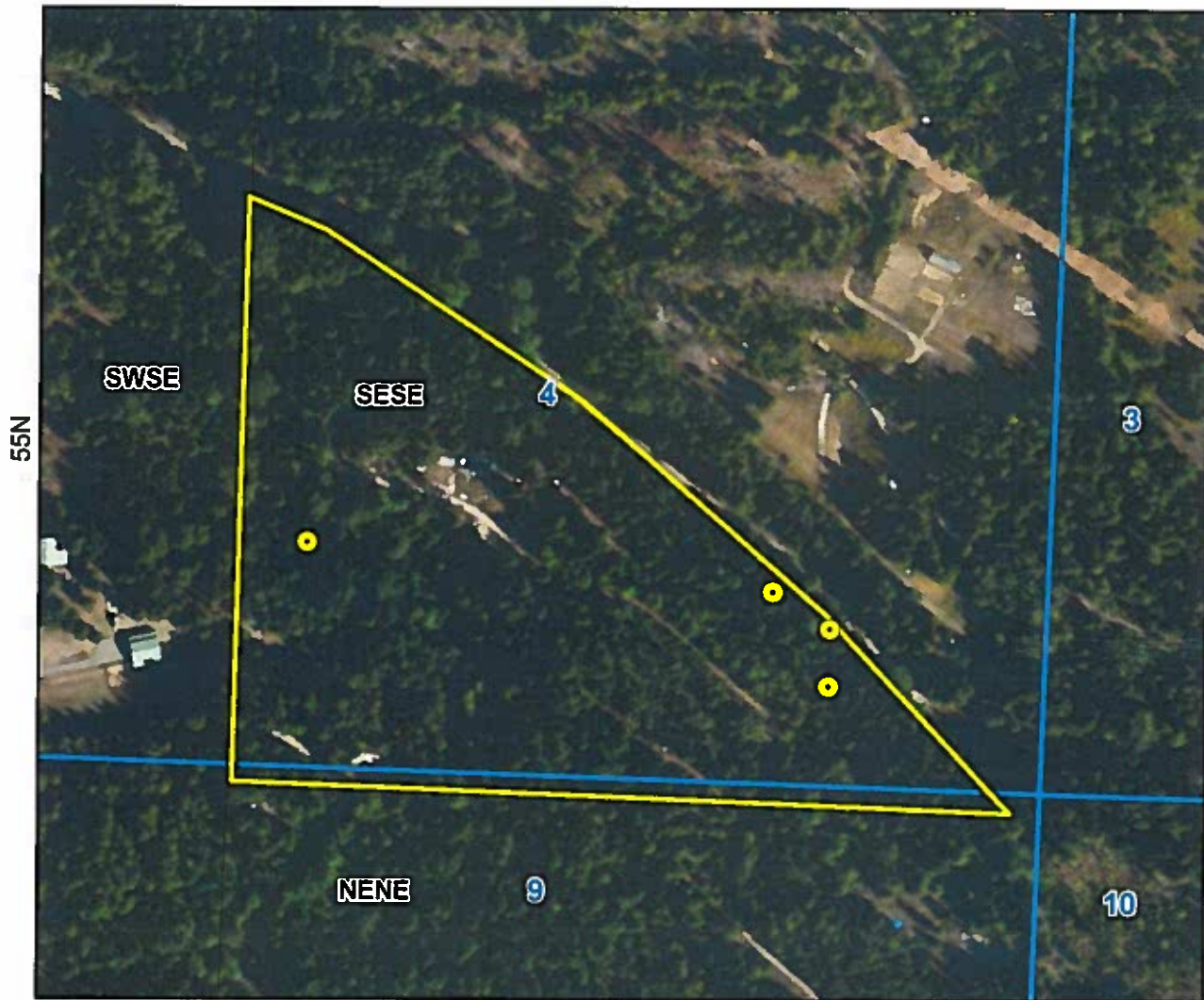
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.035 0.07 0.14 Miles



State of Idaho
Department of Water Resources
Water Right License
96-9234
Stockwater

03W



0 0.035 0.07 0.14 Miles

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections



State of Idaho
Department of Water Resources
Water Right License
96-9234
Power

03W



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.035 0.07 0.14 Miles



State of Idaho
Department of Water Resources
Water Right License
96-9234
IRRIGATION

03W



0 0.035 0.07 0.14 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections



State of Idaho
Department of Water Resources
Water Right License
96-9234
POINTS OF DIVERSION



0 0.035 0.07 0.14 Miles

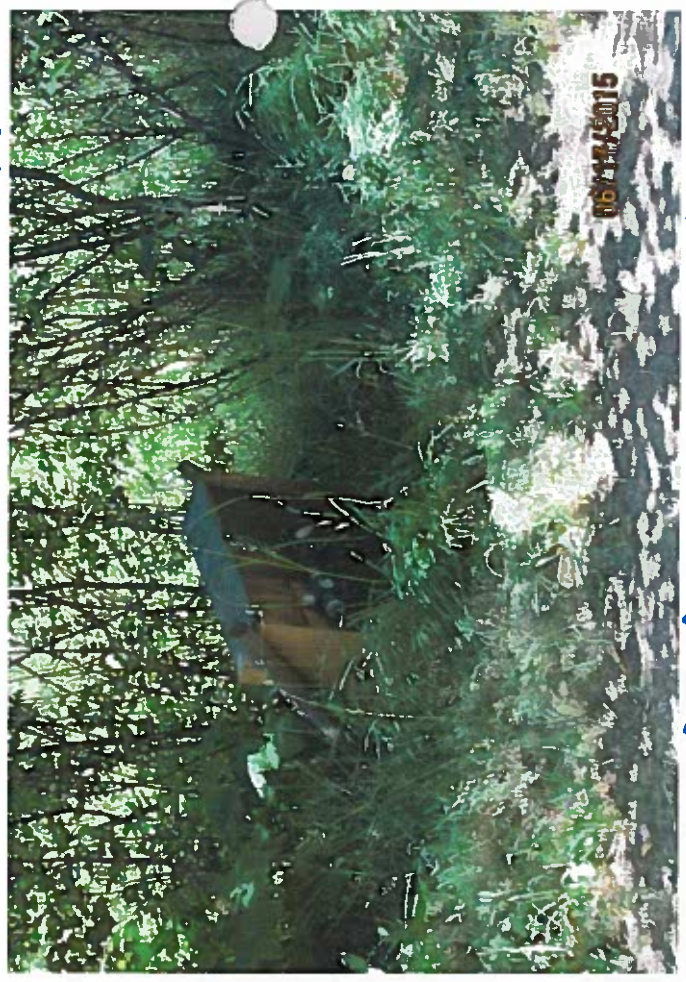
- Point of Diversion
- Townships
- PLS Sections



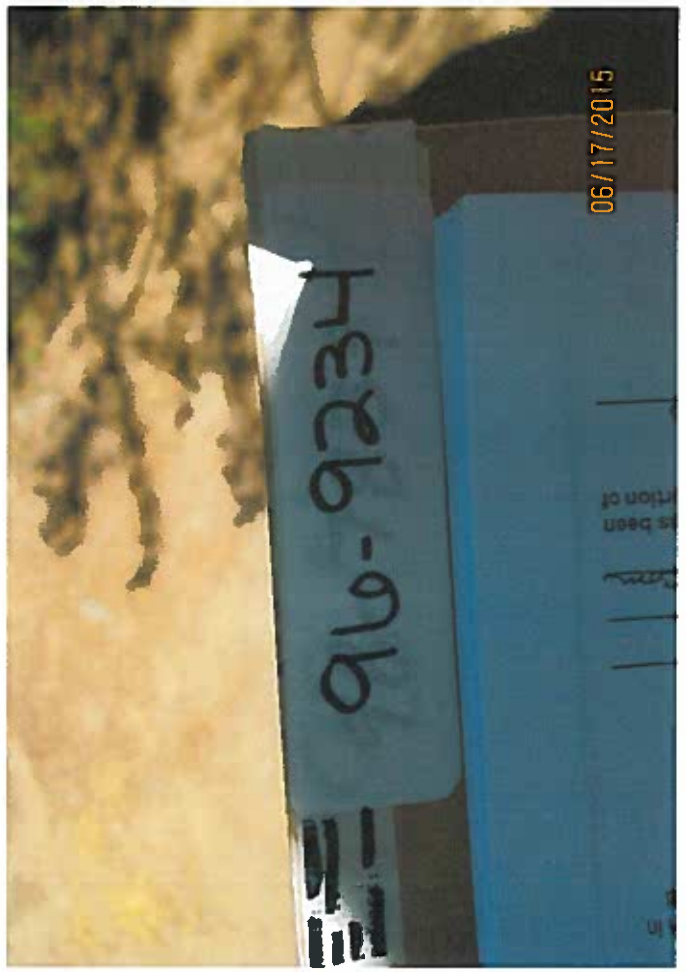
Garden



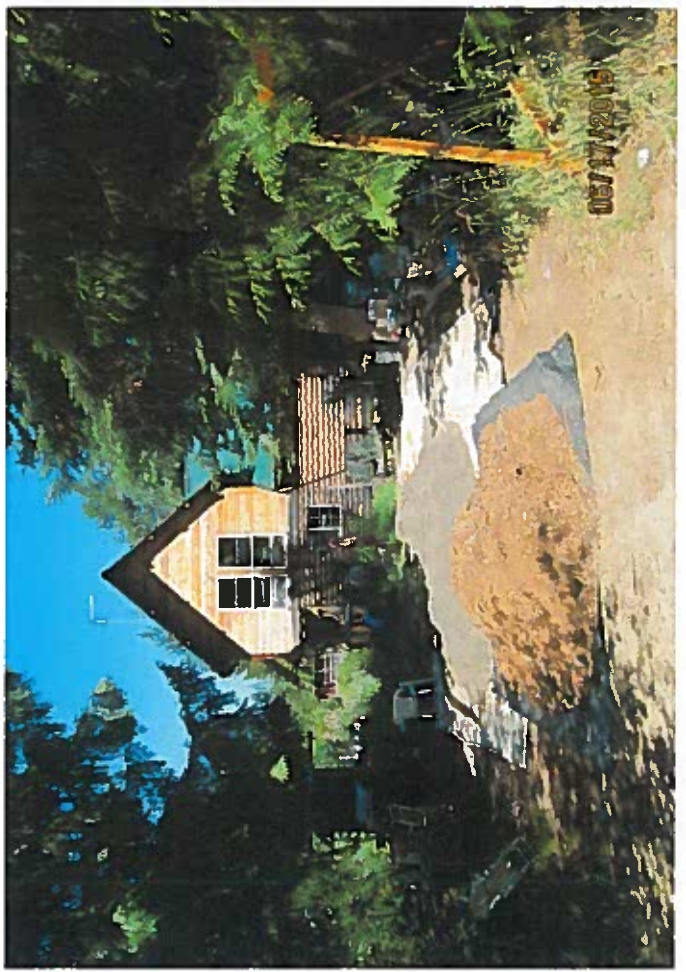
Stockwater and irrigation system



Pump for irrigation up hill



96-9234



Home and irrigation

Hydro



Irrigation method around house



96-9234

Hydro system



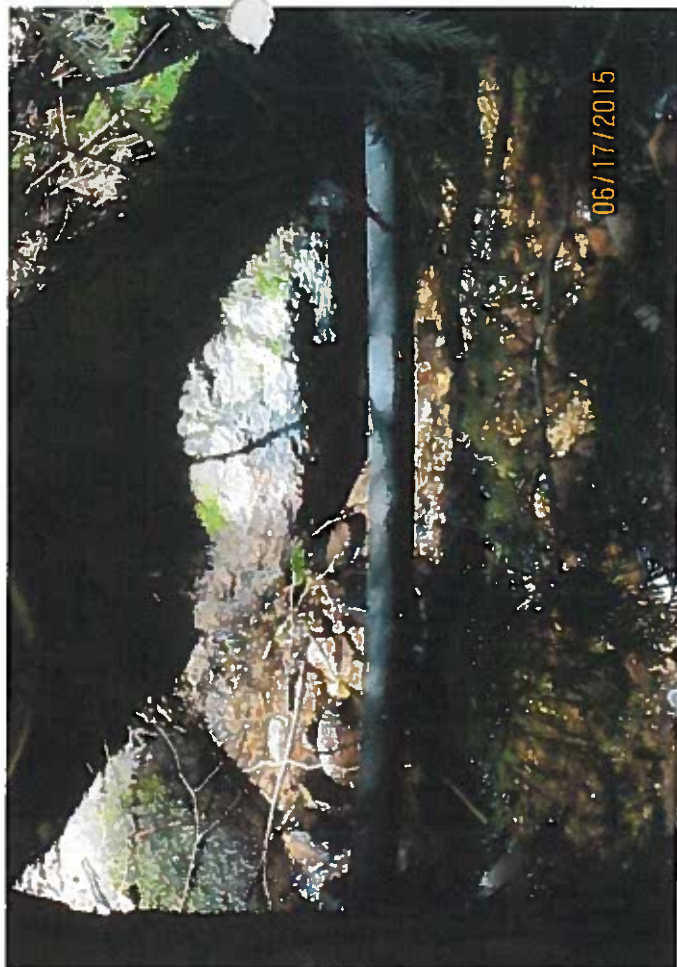
Supply lines



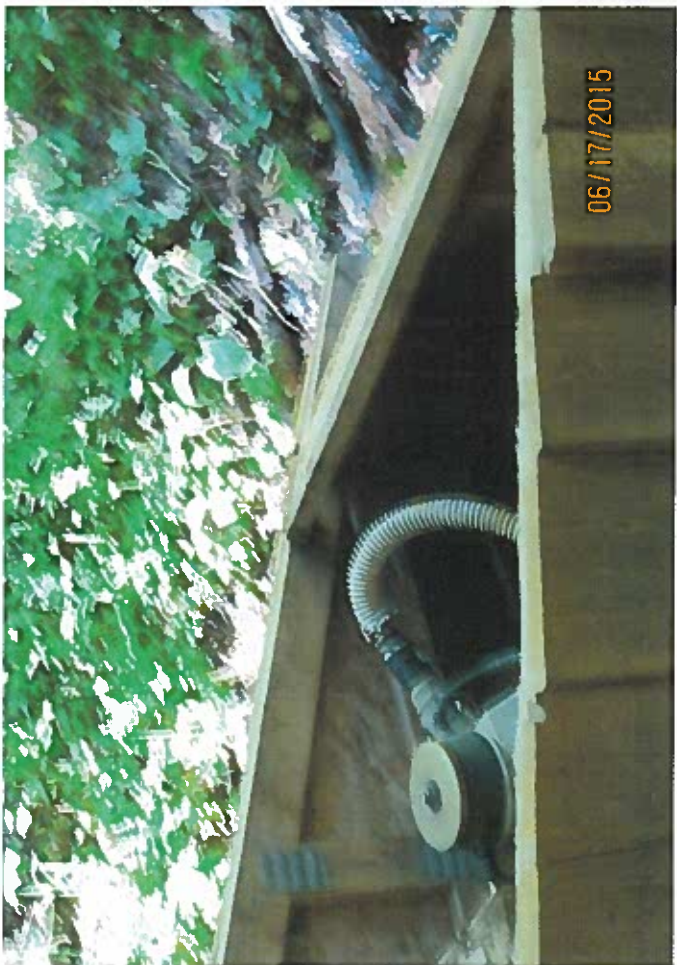
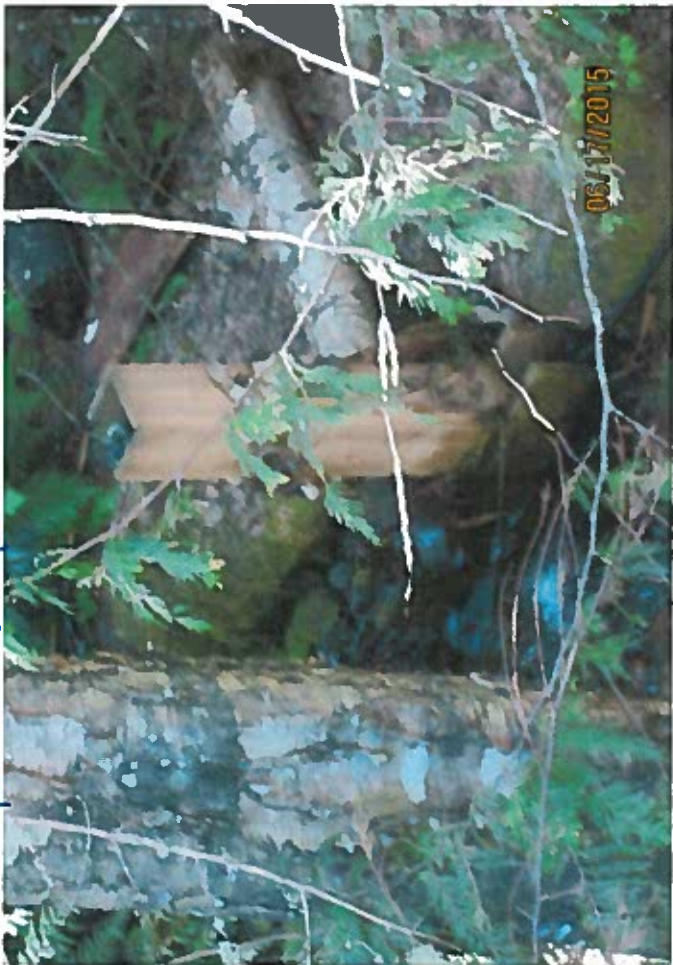
discharge point

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Pod

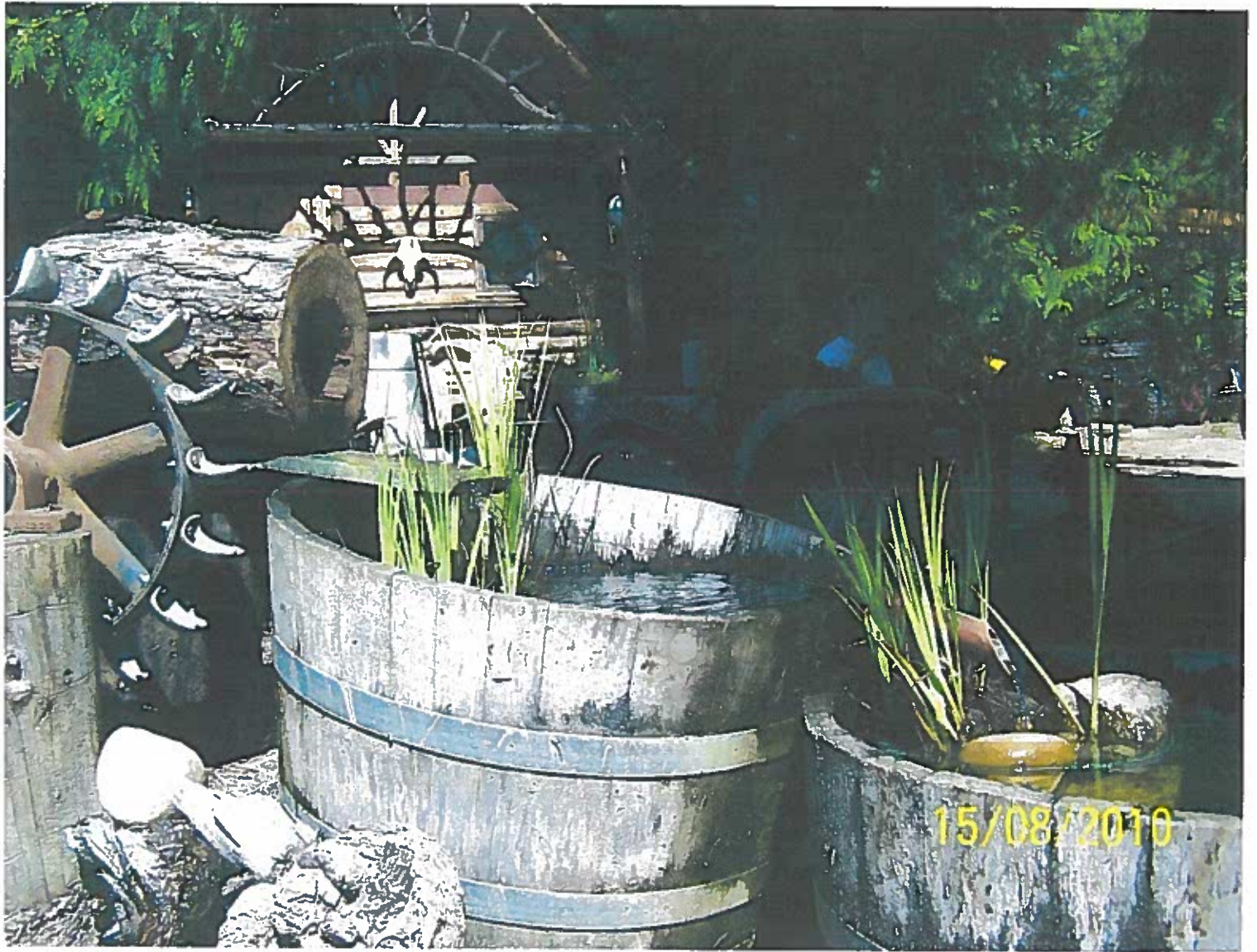


Rem Pump



PERMIT #: 96-9234

TAMARA FROSTAD



* RAM PUMP: PUMPS H₂O TO THE HOUSE,
GARDEN, AND OAK BARRELS.

*RAM PUMP HAS FISH SCREEN ON INTAKE PIPE

PERMIT # : 96-9234

TANARA FROSTAD



- * RAM PUMP VOLUME AT THE HOUSE ON "AUGUST 15 2010".
- * APPROX 350' FROM THE PUMP.
- * A RAM PUMP "DOES NOT" USE ELECTRICITY. IT IS VERY EARTH FRIENDLY. CONSIDERED A "GREEN PUMP."

PERMIT #: 96-9234

TAMARA FROSTAD



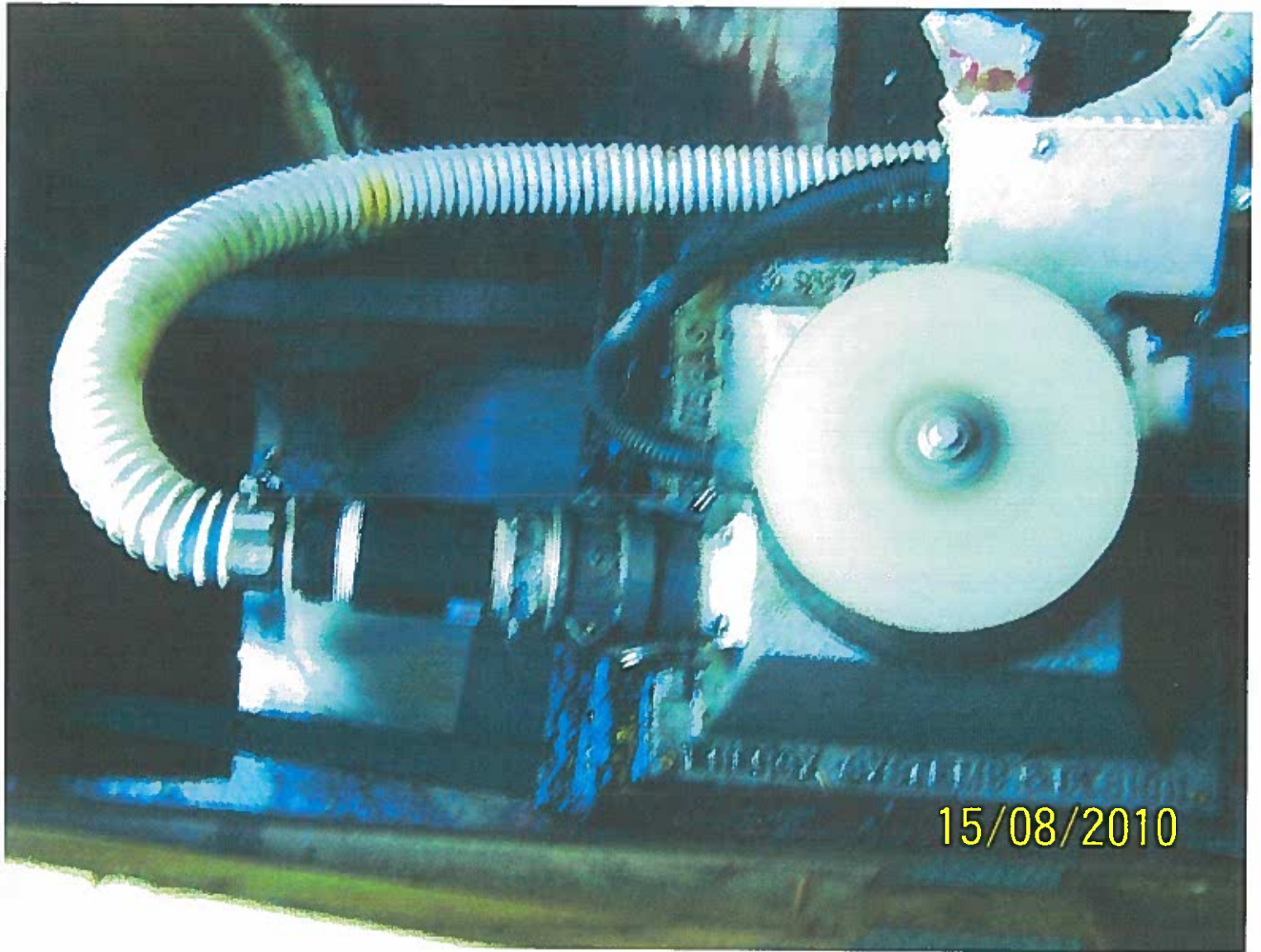
Sampling:

restoring
part of the
going back
into the
creek.

* takes 8 parts
to push 1
net upriver.
has returning
1 parts the
back into creek.

PERMIT #: 96-9254

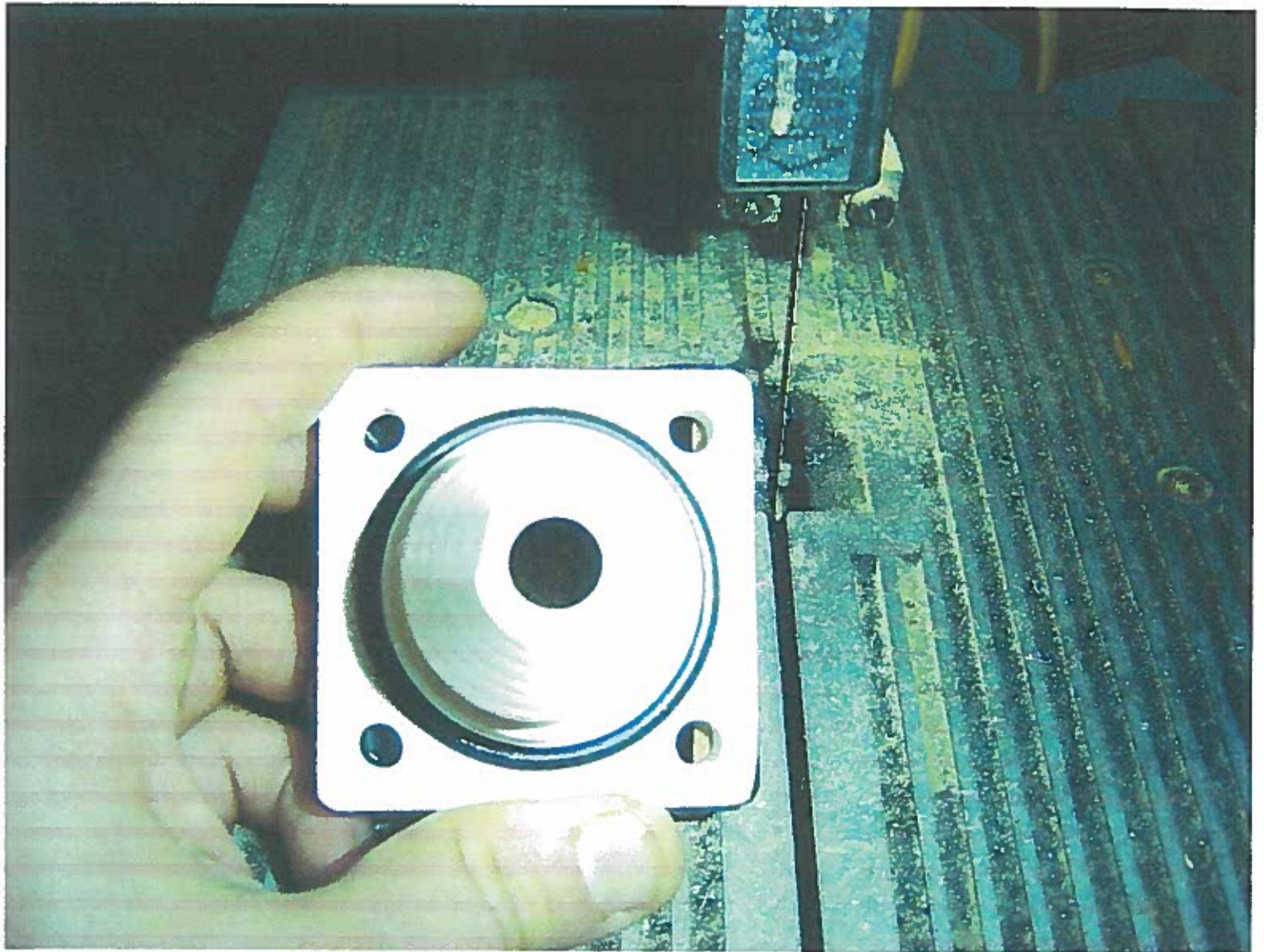
TAMAILA FROSTAD



* MICRO ~ HYDRO POWER : MAKERS
: NAME = STREAM ENGINE

PERMIT #: 96-92-34

YANARA FROSTAD



* MICRO ~ HYDRO

* USED THIS 1 NOZZLE ALL SEASON. ☺

AUG 15 2010

PERMIT #: 96-9234

TAMARA FROSTAD



* MICRO ~ HYDRO POWER HOUSE

* HELPS IT RUN LONGER UNTILL FREEZE POINT.

PERMIT #: 016-0234

TAMARA FROSTAD



* MICRO ~ HYDRO POWER

* SHOWING "1 OF 2 FISH SCREENS"

* THIS FISH SCREEN IS ON THE INTAKE PIPE.

10/1/12

PERMIT #: 96-9234

TAMARA FROSTAD



* Micro ~ Hydro

* CLOSE UP OF FISH SCREEN

PERMIT #: 916-9234

TAMARA FROSTAD



* SHOWING WATER FLOW AFTER RAIN & HYDRO
WELL BEFORE IT LEAVES THE PROPERTY.

* SHOWS THAT THE RAIN PUMP & MICRO-HYDRO
ARE "VERY LOW IMPACT" //

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PERMIT #: 96-1234

TANARA
FROSTAD

DATE
STAMP

AUG 15 2010

15/08/2010



* Spring #1

* Showing
spring
source
(mouth)

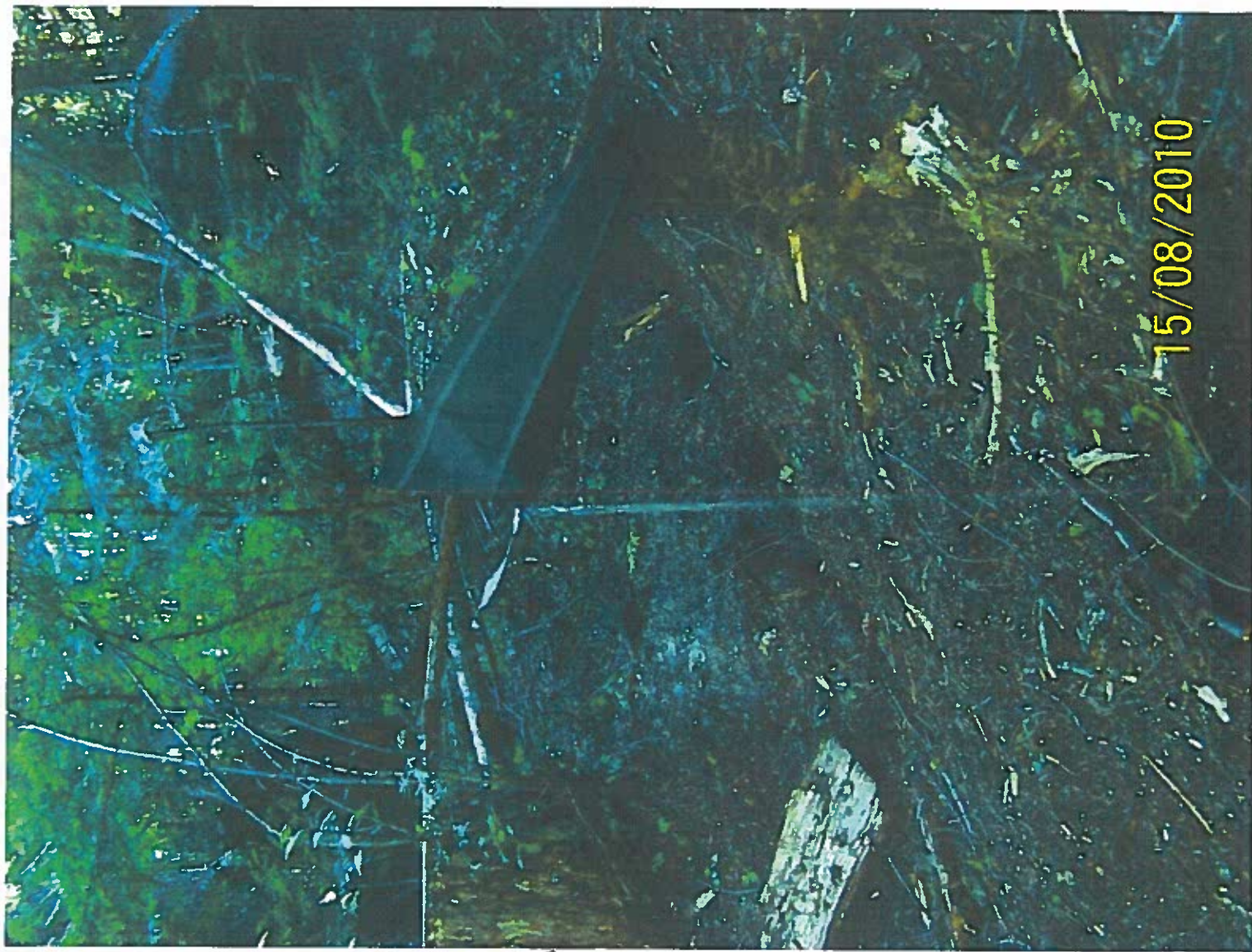
..
y

* CLEANING

* REBUILDING
small spring
house in order
to protect the
source from
contaminates

PERMIT #: 96-9254

TAMARA
FROSTAD



Spring # 1

* Establishing
Flow Volume
approx 1/2 min.

* Photo Taken
during "Spring
bore" reconstruction

July 15 2010

PERMIT #: 96-9234

TAMARA FROSTAD



*spring #2

*showing volume flow on Aug 15 2010

*using a sand point & a length of pipe extension