

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 84-12242

Exam Date: 8/16/2012

1. Current Owner: EMPIRE LUMBER CO
PO BOX 206
WEIPPE ID 83553
(208)435-4703
2. Accompanied by: Kenny Walter
Phone No: 208-435-4113
Address: PO Box 206 Weippe, ID 83553
Relationship to Permit Holder: Mill Supervisor

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 84-7002, 84-7038, 84-12249
2. Other water rights with the same point of diversion: none

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

GROUND WATER NE1/4NE1/4 Sec. 15, Twp 35N, Rge 04E, B.M.

CLEARWATER County

Method of Determination: Field verification with Garmin handheld GPS unit.

2.

PLACE OF USE: COMMERCIAL and FIRE PROTECTION

Tw	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
35N	04E	14						X	X										
35N	04E	15	X																

Method of Determination: Field verification and review of aerial photographs.

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

<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 Size</u>
Well #1		15			

The well is equipped with a submersible pump and an inspection was not available at the time of the field exam due to the pump being installed and operating in the well.

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

D. FLOW MEASUREMENTS

1.

Measurement

<u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Tyme Flight Mag Meter						

2. Measurements:

Well was measured at 493 gallons per minute (1.1 cfs) using the tyme flight meter.

E. FLOW CALCULATIONS

Measured Method: N/A

____ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = N/A$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = N/A$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = N/A$$

2. Volume Calculations for Other Uses:

Volume of water used for sprinkling log decks and dust abatement:

Assume well pumps 17 hours per day, for 280 days (March-October) = 244,800 minutes.

Pumping rate of 492 gallons per minute X 244,800 minutes = 120,441,600 gallons

120,441,600 gallons / 325,850 = 369.6 AF = 370 AF

G. NARRATIVE/REMARKS/COMMENTS

This field exam for permit 84-12242 was conducted on 8/16/2012 by Dennis Owsley. Kenny Walter, the mill supervisor, accompanied me on the exam. This permit authorized the diversion of 4.5 cubic feet per second of groundwater for commercial and fire protection purposes. The source of water for this permit is groundwater, diverted from a single well located on the property.

Permit 84-12242 is a permit for the use of groundwater used commercially at the Empire Lumber Company site. The use of the water is for sprinkling log decks and dust abatement. The place of use for this permit is the Empire Lumber Company property and the point of diversion is a groundwater well located on the same parcel of property.

The point of diversion for this permit is an 855 foot deep well. The rate of diversion was determined by measuring the capacity of the well discharge using a Tyme Flight magnetic flow meter. During the field examination the flow from the well was measured at 493 gallons per minute (1.1 cfs). Water is pumped from the well into the distribution lines that are located and moved according the current stock of logs at the mill.

The volume of water diverted on an annual basis varies, dependent upon how many log decks are currently on the site. The decks are watered with 4 gpm nozzles, with up to 213 operating when the mill is at full capacity. To cover the water demand not available through the well alone and as a water conservation effort, a settling basin is located just south of the place of use on a parcel of ground owned by the mill. Water is allowed to naturally drain to the settling pond where it is pumped back into the distribution system with a 30 Hp pump.

Considering the number of nozzles operating varies widely at the site, the volume of water put to beneficial use was calculated based on the amount of time the well is operating. During the field examination, the mill supervisor informed me that the sprinklers are operating from approximately 5 a.m. to 10 or 11 p.m. at night. For the volume calculations it was assumed that the log sprinkling

operation does not occur during the winter months. Therefore, assuming a use of 17 hours per day for 280 days, the volume of water was 370 AF.

This permit also authorizes the use of groundwater for fire protection purposes. At the time of the exam, a small (approximately ½ acre) basin had been constructed and was full of water in the event of a fire at the mill. The water in the pond was diverted from the well. The fire protection system for the mill consists of a diesel generator and a separate pump that is dedicated for fire protection purposes. No water that enters the pond is diverted for commercial purposes.

Based on the aerial photographs and the interview with the current owner, it appears the water authorized through this permit is being put to beneficial use. I recommend a maximum diversion rate of 1.1 cfs and an annual volume of 370 AF be licensed for commercial uses. For the fire flow component, I recommend a diversion rate of 1.1 cfs. Unfortunately, the permit does not authorize the storage of water for fire protection purposes. Therefore, the permit holder needs to apply for a water right that specifically authorizes the storage of water for fire protection.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

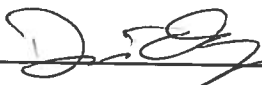
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
COMMERCIAL	01/01 to 12/31	1.100 CFS	370.00 AF
FIRE PROTECTION	01/01 to 12/31	1.100 CFS	
<u>Totals:</u>		1.100 CFS	370.00 AF

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

I. AUTHENTICATION

Field Examiner's Name Dennis Owsley  Date 1/23/13
 Reviewer _____ Date _____

Field exam photos for 84-12242. Photos taken by D. Owsley on 8/16/2012



Photo 1. View of POD in the well house.



Photo 2. View of distribution system leaving the well house.



Photo 3. 30 Hp pump used to pump water for re-use.



Photo 4. View of sprinkling of log decks.

Delivery System Diagram for 84-12242

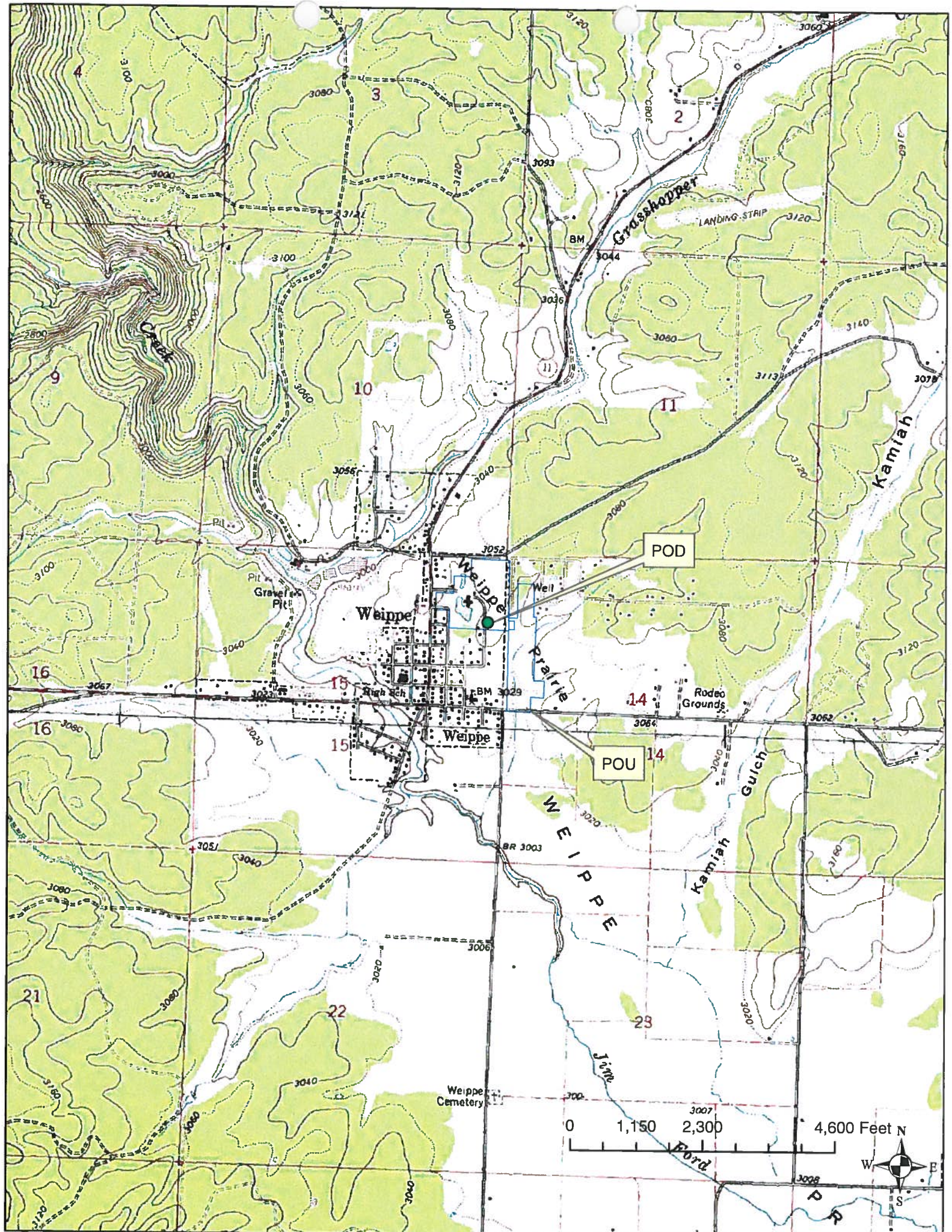


Re-use settling pond

30 Hp pump for re-use water

POD

Distribution Lines



NO19278

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED

OCT 17 2008

1. WELL TAG NO. D 0054612

Drilling Permit No. _____
Water right or injection well # _____

2. OWNER

Name Empire Lumber Company
Address P.O. Box 206
City Weippe State ID Zip 83553

3. WELL LOCATION:

Twp. 32 North ☒ or South ☐ Rge. 4 East ☒ or West ☐
Sec. 14 1/4 NE 1/4 NE 1/4
10 acres 40 acres 160 acres

Gov't Lot _____ County Clearwater
Lat. _____ (Deg. and Decimal minutes)
Long. _____ (Deg. and Decimal minutes)
Address of Well Site 206 6th Ave. E

City Weippe
Lot 8 Blk. _____ Sub. Name Brown's 3rd Addition

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☒ Other Fire Protection

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Port. Cement	0	480	10 cu. yds	tremie

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
16"	0	31		Steel	☒	☐	☐	☒
12"	+3	282		Steel	☒	☐	☐	☒
10"	275	480		Steel	☒	☐	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) N/A

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method N/A
Manufactured screen ☐ Y ☒ N Type N/A
Method of installation N/A

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

Length of Headpipe N/A Length of Tailpipe N/A

Packer ☐ Y ☒ N Type N/A

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) N/A
Describe control device N/A

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 117 Static water level (ft) 318
Water temp. (°F) _____ Bottom hole temp. (°F) _____
Describe access port _____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)

Test method:

Pump	Bailer	Air	Flowing artesian
☐	☐	☐	☐

Water Quality test or comments: Good

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	N
19	0	2	Crushed rock		x
19	2	21	Brown clay		x
19	21	23	Broken basalt		x
19	23	31	Basalt, med, black		x
15	31	53	Basalt, med, black		x
15	53	62	Broken basalt		x
15	62	95	Basalt, med, black		x
15	95	97	Broken basalt & wood		x
15	97	117	Clay, blue & tan		x
15	117	122	White sand - H2O approx. 20 GPM	x	
15	122	126	Basalt, soft, black		x
15	126	210	Basalt, hard, black		x
15	210	273	Sandstone interbed		x
15	273	282	Basalt, med, black		x
12	282	288	Basalt, med, black		x
12	288	336	Basalt, hard, black		x
12	336	354	Vascular basalt	x	
12	354	378	Basalt, med, black		x
12	378	480	Basalt, hard, black		x
10	480	558	Basalt, hard, black		x
10	558	605	Claystone blue - H2O approx. 150 GPM	x	
10	605	642	Cemented gravel		x
10	642	728	Basalt, med, black		x
10	728	736	Basalt, hard gray		x
10	736	744	Interbed w/sand - H2O approx. 400 GPM	x	
10	744	748	Brown clay		x
10	748	753	Broken basalt		x
10	753	851	Claystone brown		x
10	851	855	Granite, med, S & P		x

Completed Depth (Measurable) 855'

Date: Started 6-01-08 Completed 8-01-08

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Intermountain Drilling Co. No. 513

*Principal Driller [Signature] Date 10-7-08

*Driller _____ Date _____

*Operator II [Signature] Date 10-10-08

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.



Spokane
509-535-6363
800-572-0516
FAX 509-536-5415

Wenatchee
509-663-2992
FAX 509-663-5613

Missoula
406-549-2992
866-949-2992
FAX 406-549-2143

Coeur d'Alene
208-292-0300
877-892-0300
FAX 208-292-0640

30 HP Pump
600 GAL MIN
4 GAL MIN NOZZLES
150 SPRINKER HEADS

15 H.P
103 NOZZLES
63 HEADS

We still STOCK STEEL

08-16 15:2600 *R
+002.30 % A12
08-16 15:2800 *H
+002.40 % A12

08-16 15:3100 *R
+003.10 % A12

08-16 15:3300 *H
+002.10 % A12

0242.2 MMSEC
101.29 % T0

08-16 15:3800 *H
+295.608E 26PH

08-16 15:3800 *H
+ E 26PH

08-16 15:3900 *H
+ E 06GPM

08-16 15:3900 *H
+492.680E 06GPM

08-16 15:3900 *H
+ E 06GPM