

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-07953

Exam Date: 7/26/2016

1. Current Owner:

DEBORAH A LOGAN 6914 WESTVIEW DR BONNERS FERRY ID 83805 (208) 610-6442 And/Or

MARK A LOGAN 6914 WESTVIEW DR BONNERS FERRY ID 83805 (208) 610.6442

2. Accompanied by: NA

Phone No:

Address:

Relationship to Permit Holder:

3. SOURCE:

MOYIE RIVER

TRIBUTARY:

KOOTENAI RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None

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

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

MOYIE RIVER NW¼SW¼ Sec. 14, Twp 65N, Rge 02E, B.M. BOUNDARY County

Method of Determination: Map provided with application.

2.

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	
65N	02E	14										0.2							.2

Total Acres: 0.2

Method of Determination: ArcMap 2015 Aerial. Reduced acres from 0.3 to 0.2 for home

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).

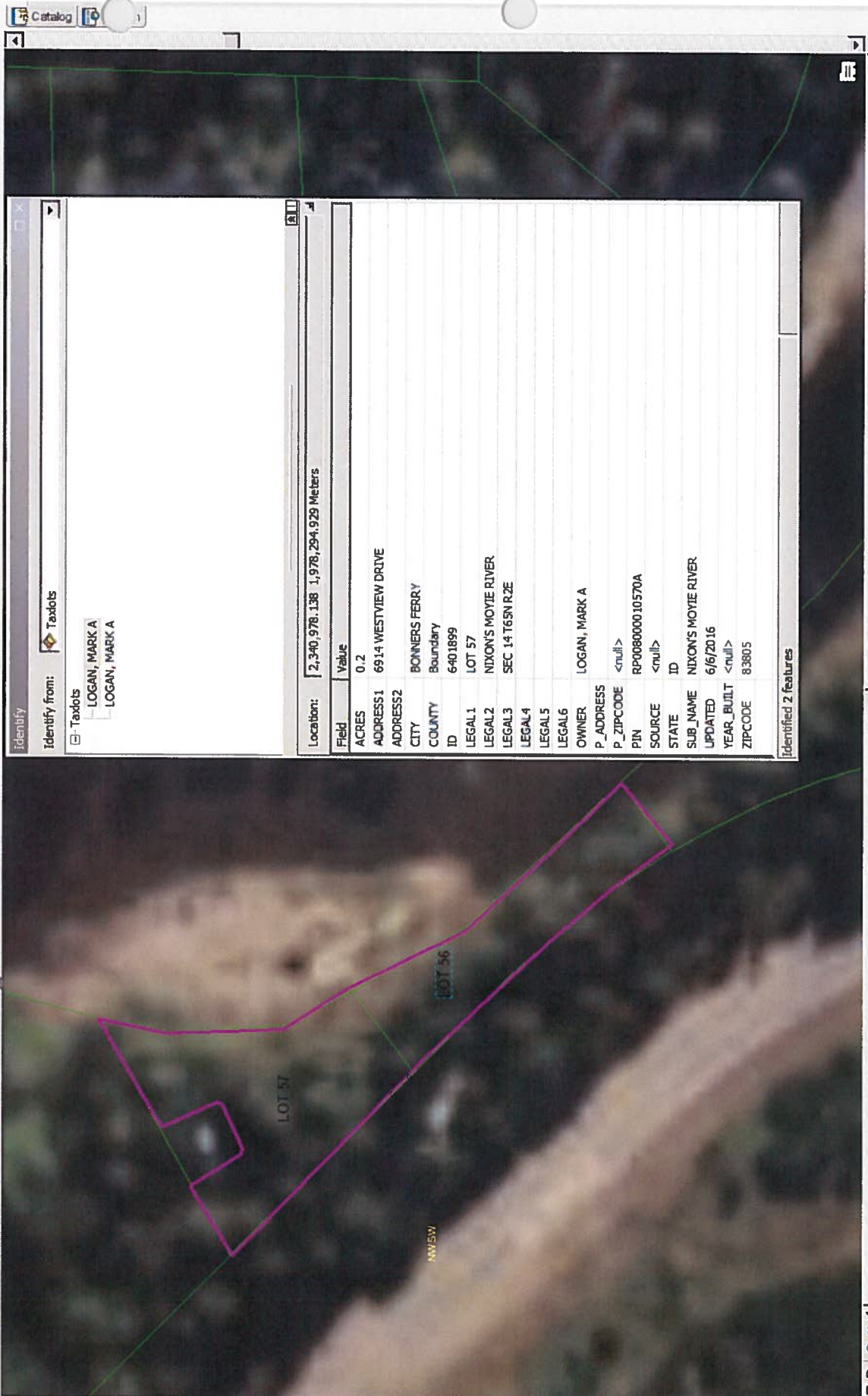
_____ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size

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

D. FLOW MEASUREMENTS



Identify

Identify from: Taxlots

LOGAN, MARK A

LOGAN, MARK A

Field	Value
Location	2,340,978.138 1,978,294.929 Meters
ACRES	0.2
ADDRESS1	6914 WESTVIEW DRIVE
ADDRESS2	
CITY	BONNERS FERRY
COUNTY	Boundary
ID	6401899
LEGAL1	LOT 57
LEGAL2	NIXON'S MOYIE RIVER
LEGAL3	SEC 14 T6S N R2E
LEGAL4	
LEGAL5	
LEGAL6	
OWNER	LOGAN, MARK A
P_ADDRESS	
P_ZIPCODE	<null>
PIN	RP008000010570A
SOURCE	<null>
STATE	ID
SUB_NAME	NIXON'S MOYIE RIVER
UPDATED	6/6/2016
YEAR_BUILT	<null>
ZIPCODE	83805

Identified 2 features

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

1516

Identified 2 features

2341.000.104 1,978,263.528 Meters

Field	Value
ACRES	0.1
ADDRESS1	6914 WESTVIEW DRIVE
ADDRESS2	
CITY	BONNERS FERRY
COUNTY	Boundary
ID	6-401501
LEGAL1	LOT 56
LEGAL2	NIXON'S MOYIE RIVER
LEGAL3	SEC 14 T6S N R2E
LEGAL4	
LEGAL5	
LEGAL6	
OWNER	LOGAN, MARK A
P_ADDRESS	196 TIMBERLANE RD
P_ZIPCODE	<null>
PIN	RP00800001056AA
SOURCE	<null>
STATE	ID
SUB_NAME	NIXON'S MOYIE RIVER
UPDATED	6/6/2016
YEAR_BUILT	2009
ZIPCODE	83805

2341020.592 1978263.519 Meters

Identity

Identify from: Taxlots

Taxlots

LOGAN, MARK A

LOGAN, MARK A

2341.000.104 1,978,263.528 Meters

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THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 98-7953
 Reviewer: Jean Hersley
 Date of Review: 7/26/2016

P/D No.:

	Well #1	Well #2	Well #3	
PUMP HORSEPOWER	0.5	0.75	1	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	10	10	10	
DISCHARGE PRESSURE	40	50	60	
RATE OF FLOW (cfs)	0.03	0.04	0.04	0.11
	13	17	19	48.62

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

The pumps for this system are 2 - 5 Hp pumps. The system currently has 2 - 7.5 Hp pumps. The current system pumps 100 gpm for each pump. The calculations below show that a lift of 92 feet would provide the 100 gpm for the two 7.5 Hp pumps. Using the same lift for the two 5 Hp pumps, the maximum flow rate would be 67 gpm per pump or 133 gpm total (0.30 cfs). Therefore, the measurements done on the field exam must have been done at 20 psi pressure, and a domestic/municipal system cannot operate at that low of pressure. .