

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17525
Exam Date: 06/08/2020

1. Current Owner:
SUSAN J CONLEY 3959 N JONQUIL CT COEUR D ALENE ID 83815 AND/OR
SANDRA L LANGSTON 3959 N JONQUIL CT COEUR D ALENE ID 83815
2. Accompanied by: Sandra Langston
Phone No: 208-765-1103
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
COEUR D ALENE LAKE

Tributary
SPOKANE RIVER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

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

| Water Right No. | Source | Purpose of Use | Basis |
|-----------------|--------------|----------------|---------|
| MULTIPLE | GROUND WATER | MUNICIPAL | DECREED |
| 95-8652 | GROUND WATER | IRRIGATION | DECREED |

Comments: Multiple WRs associated with North Kootenai Water District overlap this WRs POU, but are not a concern for overlap. WR 95-8652 is for irrigation from ground water associated with the Arrow Point Community Assn, but as it is a separate water source is not a concern for overlap.

2. Other water rights with the same point-of-diversion: NO Overlap

| Water Right No. | Source | Purpose of Use | Basis |
|-----------------|--------|----------------|-------|
| | | | |
| | | | |

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
COEUR D ALENE LAKE NE¼ NE¼, Sec. 6, Twp 49N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS; POD is a submersible pump in lake at location -116°46.237, 47°37.603.

PLACE OF USE: DOMESTIC

| Twp | Rng | Sec | NE | | | | NW | | | | SW | | | | SE | | | | Totals |
|-----|-----|-----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
| | | | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | |
| 49N | 03W | 6 | X L1 | | | | | | | | | | | | | | | | |

Method of Determination: Field exam and Arcmap.

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 |
|---------------------------|------------|-----|------------------|-----------|-----------------------------------|
| PUMP IN LAKE | GRUNDFOS | 0.5 | UNKOWN | | |

D. FLOW MEASUREMENTS

1.

| Measurement Equipment | Type | Make | Model No. | Serial No. | Size | Calib. Date |
|-----------------------|------|------|-----------|------------|------|-------------|
| NONE | | | | | | |

2. Measurements: Unable to perform flow measurement because system pumped directly into pressure tank

E. FLOW CALCULATIONS☒

Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at **0.03 cfs**, with pump lifting 25 feet from lake to crawlspace under house, with the system operating at 40 psi. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

$$\text{Annual Volume / Maximum Diversion Volume} = \text{Domestic use with up to } \frac{1}{2} \text{ acre irrigation} = \mathbf{1.2 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/8/2020 with the applicant, Sandra Langston, showed a submersible pump in lake diverting water for domestic purposes. The system has a 0.5 HP pump which diverted water into a pressure tank. I was unable to perform a flow measurement because water was diverted directly into a pressure tank with no proper place to perform measurement. Theoretical pumping equation was used to estimate a flow rate of 0.03 cfs. The pump was estimated to be 25 feet down and the system running at 40 psi (equation attached). The theoretical pumping equation value of 0.03 cfs is less than the

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17525

DOMESTIC system diagram.



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

0 0.035 0.07 0.14 Miles



95-17525

61-7836(-)

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06/08/2020



POD - PIPE IN LAKE



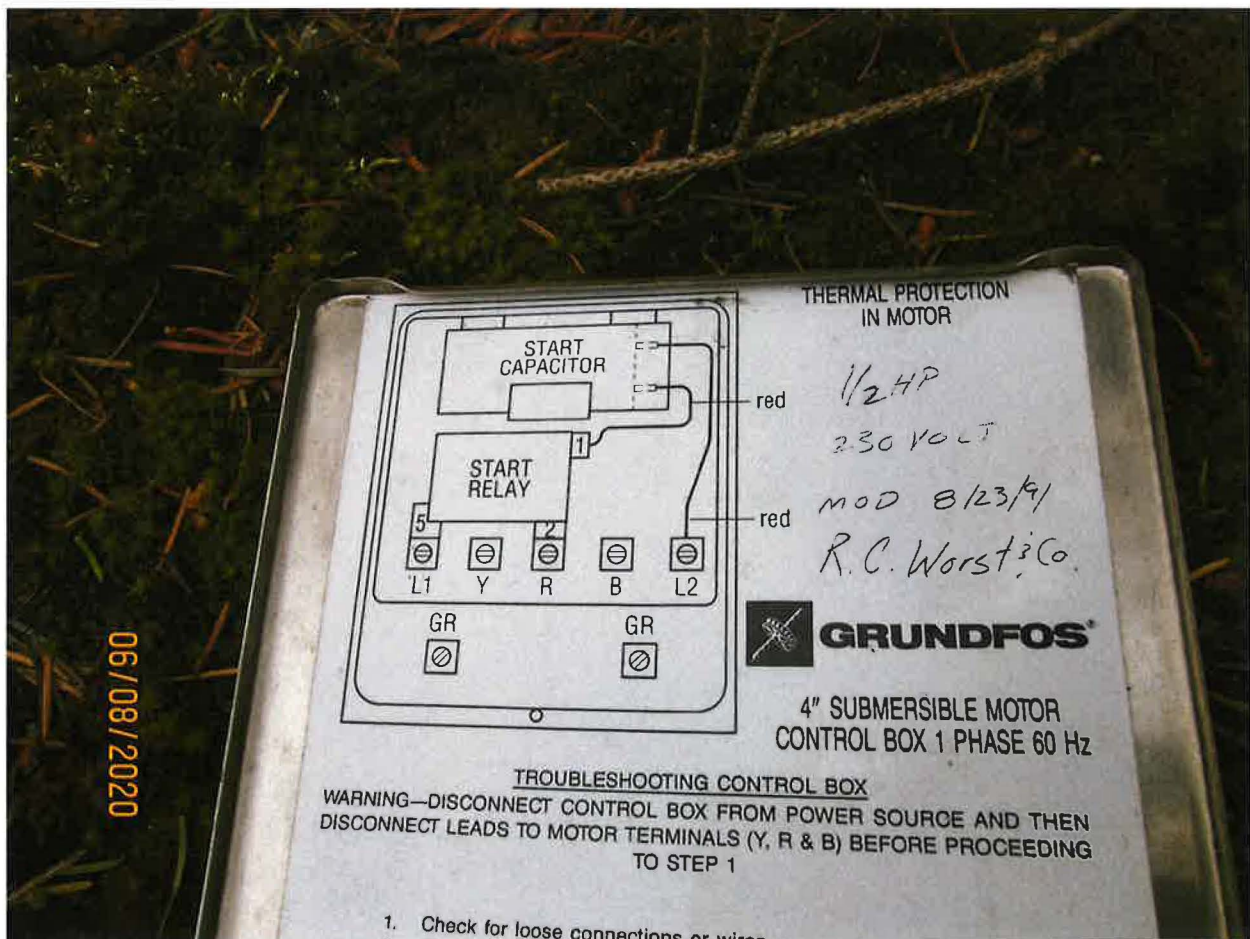
POD – PIPE IN LAKE



WATER CONVEYANCE SYSTEM – IN CRAWLSPACE BENEATH HOUSE



GRUNDFOS 1/2 HP PUMP





DOMESTIC POU



IRRIGATION SYSTEM AUTOMATIC SPRINKLER CONTROL



IRRIGATION POU





IRRIGATION POU

