

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

**A. GENERAL INFORMATION**Permit No. 15-73461. Owner DON HARRISPhone No. 801-458-6101Current address 12295 S 300 E WOODRUFF, ID.2. Examiner's name CASS JONESEXAM DATE 5/18/20173. Accompanied by DON HARRIS

Email \_\_\_\_\_

Address 12295 S 300 E WOODRUFF, ID.Relationship to permit holder PERMIT HOLDERPhone No. 801-458-61014. Source GROUND WATER

tributary to \_\_\_\_\_

**B. OVERLAP REVIEW**1. Other water rights with the same place of use 15-7277 (Samaria Lake Irrigating Co.)2. Other water rights with the same source and point of diversion NONE**C. DIVERSION AND DELIVERY SYSTEM**

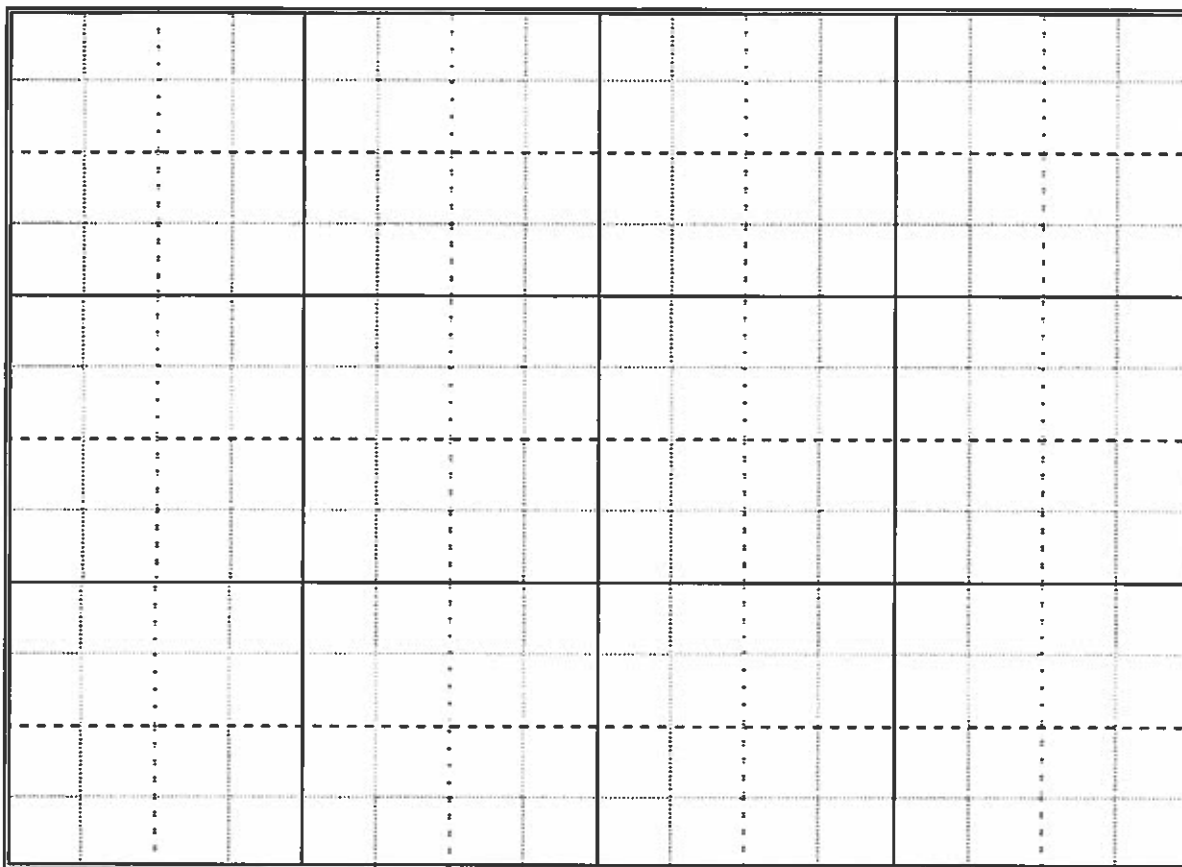
## 1. Point(s) of Diversion:

| Ident. No. | Gov't Lot | ¼  | ¼  | ¼  | Sec | Twp | Rge | County | Method of Determination/Remarks |
|------------|-----------|----|----|----|-----|-----|-----|--------|---------------------------------|
|            |           | SW | NW | SW | 26  | 16S | 36E | ONEIDA | GPS                             |
|            |           |    |    |    |     |     |     |        |                                 |
|            |           |    |    |    |     |     |     |        |                                 |
|            |           |    |    |    |     |     |     |        |                                 |

2. Place(s) of Use: Method of determination GPS

| Twp | Rge | Sec | NE |    |    |    | NW |    |    |    | SW  |    |    |     | SE |    |    |    | Totals |
|-----|-----|-----|----|----|----|----|----|----|----|----|-----|----|----|-----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE  | NW | SW | SE  | NE | NW | SW | SE |        |
| 16S | 36E | 26  |    |    |    |    | 20 | 39 | 36 | 22 | 24  | 38 | 30 | 6.3 |    |    |    |    | 215.3  |
| 16S | 36E | 27  |    |    |    |    |    |    |    |    | 4.3 |    |    |     | 36 | 34 |    | 22 | 96.3   |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |        |
|     |     |     |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    | 311.6  |

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = \_\_\_\_\_

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)  
☒ 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 |
|---------------------------------------|------------|-----|------------------|-----------|-----------------------------------|
|                                       | ISUZU      | 200 |                  | HYDROFLOW | 1512078                           |
|                                       |            |     |                  |           |                                   |
|                                       |            |     |                  |           |                                   |

\*Code to correspond with no. on map and aerial photo

#### D. FLOW MEASUREMENTS

1.

| Measurement Equipment    | Type       | Make | Model No. | Serial No. | Size | Calib. Date |
|--------------------------|------------|------|-----------|------------|------|-------------|
| GE Panametric Flow Meter | Ultrasonic | GE   | PT878     |            |      | 2017        |
|                          |            |      |           |            |      |             |

2. **Measurements:** \_\_\_\_\_

Measurement was done using a GE Panametrics Liquid Flow Meter for a duration of 10 minutes. A maximum flow rate of 2679.6 gpm or 5.9 cfs was achieved.

Rate limited by permit to 5.00 cfs.

**E. NARRATIVE/REMARKS/COMMENTS**

A large diesel Isuzu motor is hooked up to a 200 hp Hydroflow pump. Water is brought to the surface into a single pipe. This pipe is ~ 6' long to where it splits into two directions. One pipe leads over to a single pivot, and some smaller wheel lines. The other pipe goes over to a pivot, and two sets of wheel lines. One set of wheel lines are set in the northern most part of the property/POU and the other set of wheel lines is directly west of the pump towards the road. The big pivot has ~151 sprinkler heads and an end gun with a 2hp booster. The small pivot has ~95 sprinklers and an end gun with a 2hp booster. Wheel lines on the Northern most part of the field have 180 sprinkler heads on them and span 1800'. Each sprinkler has a 3/16" / 7gpm nozzle. These were brand new wheel lines and information provided was from a as built plan from Circle B Irrigation. Wheel lines west of the pump are about equal in size. Wheel lines to the south are approx. 800' and have about 80 sprinkler heads.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

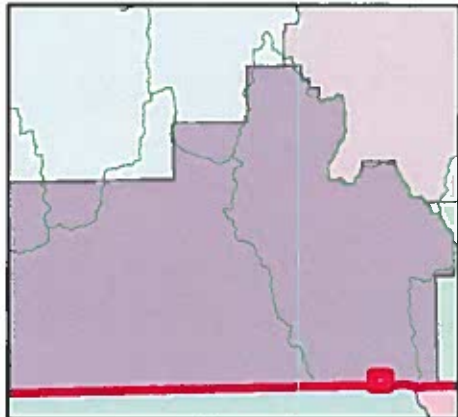




# Idaho Department of Water Resources

Water Right  
15-7346  
(IRRIGATION)

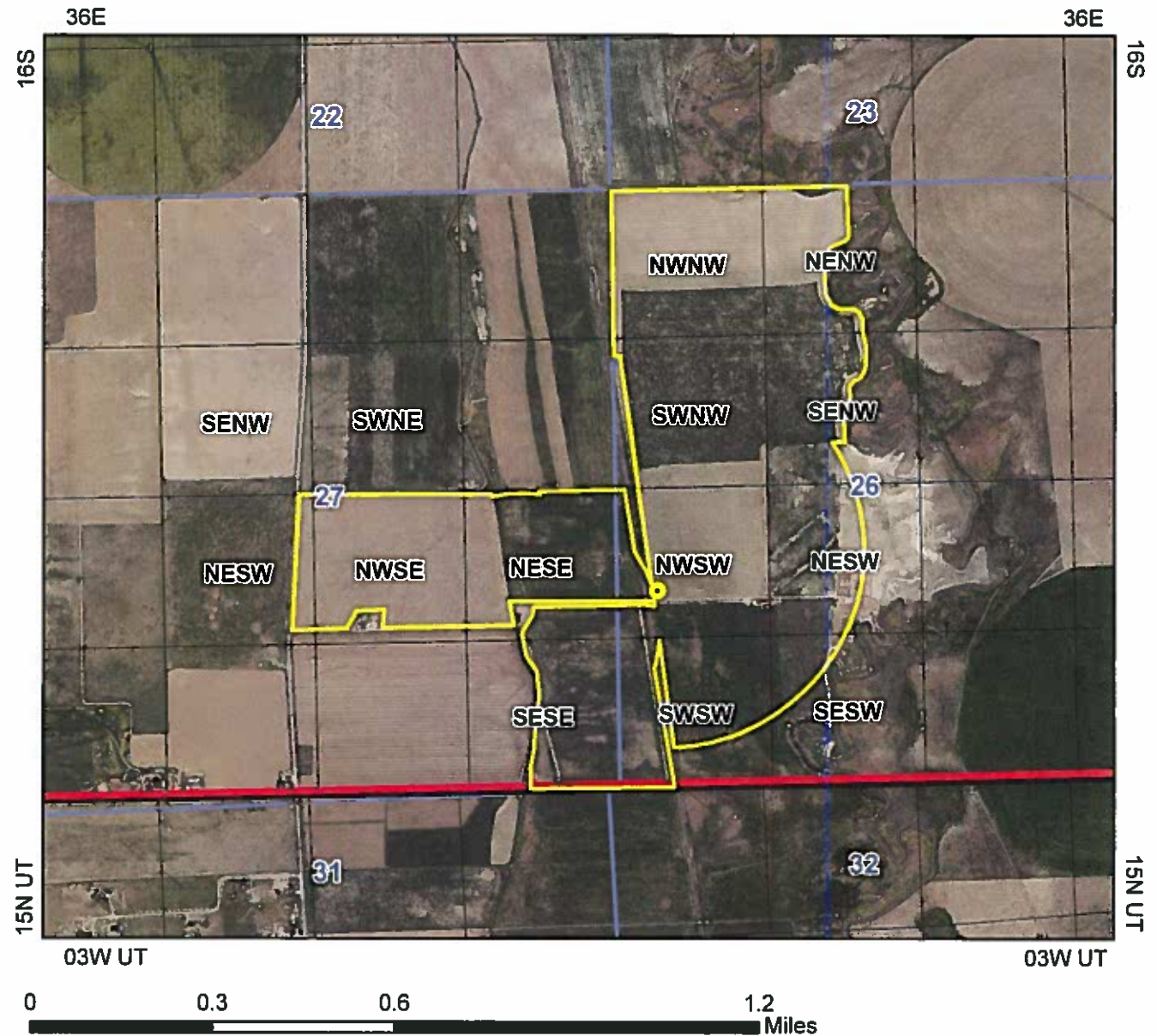
-  Place of Use
-  Point of Diversion
-  State Outline
-  Townships
-  PLS Sections



Oneida County  
IDWR Basin 15

Prepared by Jones, Cass

Background: 2015 Aerial Photography





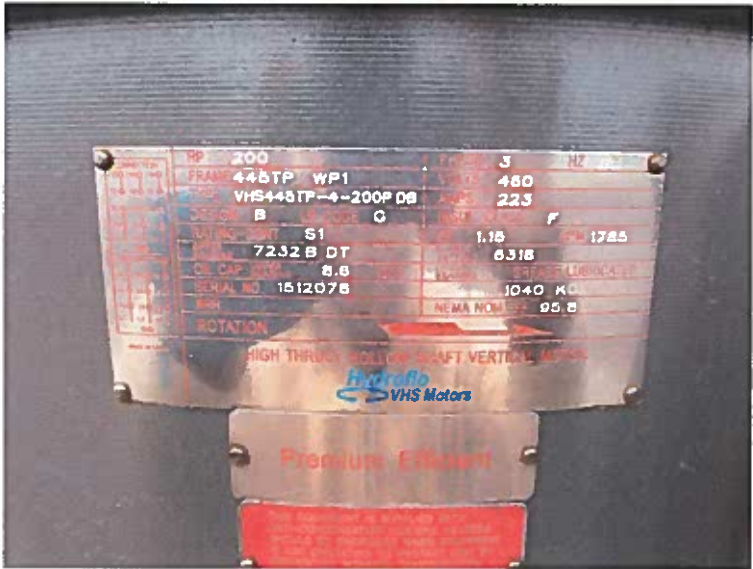
Pump house with Isuzu motor on the right



Pump with piping system



Different angle of the pump



Info tag on pump



Small Pivot



Large Pivot

An aerial photograph of a large, light-colored, irregularly shaped area, likely a reservoir or a large field. A bright yellow line runs diagonally from the bottom left towards the top right. To the right of this line, there are several concentric blue arcs, suggesting a circular or semi-circular irrigation pattern. The surrounding area is dark and textured, possibly representing other land or water features.

3-1800' x 5' Wheelines Irrigates 75  
Acres



120 Acres Irrigated under Pivot  
1720' Pivot

200 HP Well Pump 2250 gpm  
200 kw diesel genset  
Electrical building with 200 HP VFD

Google earth

Imagery Date: 8/2/2013 42°00'30.37" N 112°13'28.65" W elev 4385 ft eye alt 9291 ft

Company: Circle B Irrigation

Name:

Date: 5/17/2016

**Hydroflo Pumps**  
Fluid Solutions™  
A Taco Group Company

**Pump:**

Size: 12HHC (5 stage)  
Type: Vertical  
Synch Speed: 1800 rpm  
Curve: 010311  
Specific Speeds:  
Dimensions:  
Vertical Turbine:  
Speed: 1780 rpm  
Dia: 9.93 in  
Impeller: 12HHC SS ENCL.  
Ns: —  
Nss: —  
Suction: 10 in  
Discharge: 10 in  
Bowl Size: 11.8 in  
Max Lateral: 0.75 in  
Thrust K Factor: 16.2 lbf/ft

**Search Criteria:**

Flow: 2250 US gpm Head: 260 ft

**Fluid:**

Water  
Density: 62.32 lb/ft³  
Viscosity: 0.9946 cP  
NPSHa: —  
Temperature: 68 °F  
Vapor Pressure: 0.3391 psi a  
Atm Pressure: 14.7 psi a

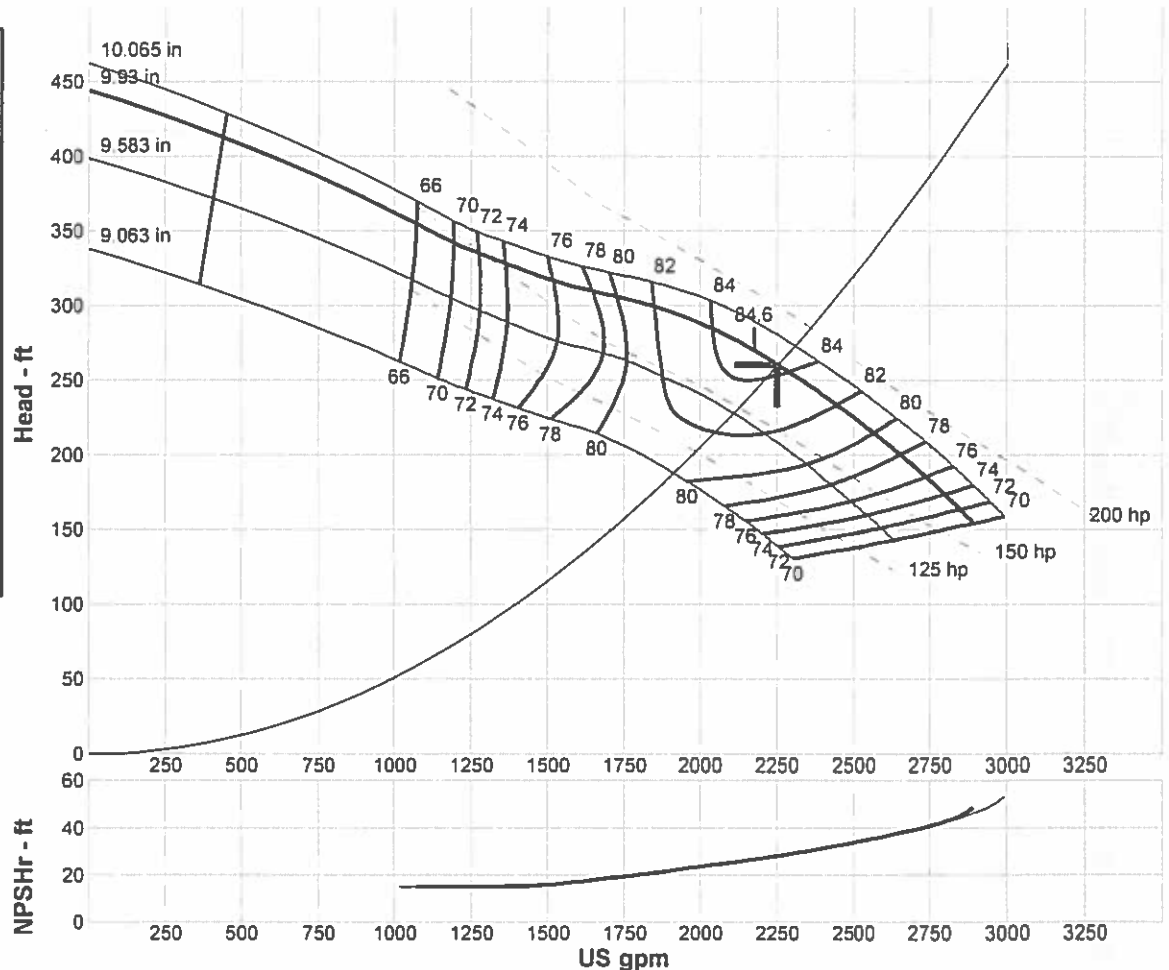
**Motor:**

Standard: NEMA  
Enclosure: WP1  
Sizing Criteria: Max Power on Design Curve  
Size: 200 hp  
Speed: 1800 rpm  
Frame: 445T

**Pump Limits:**

Temperature: 140 °F  
Pressure: 300 psi g  
Sphere Size: 1.38 in  
Power: 300 hp  
Eye Area: 29.7 in²

| Duty Point    |                      |
|---------------|----------------------|
| Flow:         | 2251 US gpm          |
| Head:         | 260 ft               |
| Eff:          | 84.2%                |
| Power:        | 176 hp               |
| NPSHr:        | 28.3 ft              |
| Design Curve  |                      |
| Shutoff Head: | 445 ft               |
| Shutoff dP:   | 192 psi              |
| Min Flow:     | 435 US gpm           |
| BEP:          | 84.6% @ 2173 US gpm  |
| NOL Power:    | 176 hp @ 2442 US gpm |
| Max Curve     |                      |
| Max Power:    | 189 hp @ 2523 US gpm |



**Performance Evaluation:**

| Flow<br>US gpm | Speed<br>rpm | Head<br>ft | Efficiency<br>% | Power<br>hp | NPSHr<br>ft |
|----------------|--------------|------------|-----------------|-------------|-------------|
| 2700           | 1780         | 192        | 76.8            | 170         | 39.5        |
| 2250           | 1780         | 260        | 84.2            | 176         | 28.3        |
| 1800           | 1780         | 302        | 81.2            | 169         | 20.3        |
| 1350           | 1780         | 329        | 73.8            | 152         | 15.2        |
| 900            | 1780         | 369        | 60.5            | 143         | 15.1        |