

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13420

Exam Date: 8/13/2013

1. Current Owner: RUSSELL MURATA
PO BOX 1535
5280 MILE HIGH DR
MCCALL ID 83638
(208)634-4000
- GEORGE KLIND
PO BOX 1535
5280 MILE HIGH DR
MCCALL ID 83638
(208)634-4000
- MARGARET ROWAN TRUST
PO BOX 1535
5280 MILE HIGH DR
MCCALL ID 83638
(208)634-4000
- MILE HILE PROPERTY OWNERS ASSN INC
C/O RALPH MC KENZIE
PO BOX 1535
5280 MILE HIGH DR
MCCALL ID 83638
(208)634-4000

2. Accompanied by: Ralph McKenzie
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCE TRIBUTARY
GROUND WATER

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 SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER

SE1/4SW1/4

Sec. 6, Twp 18N, Rge 03E, B.M.

VALLEY County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.44°55.327', Longitude W.116°08.263'; Datum – NVD83.

2. PLACE OF USE: DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
18N	03E	6	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
											X			X					

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
18N	03E	6	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
											0.2			4.8					5.0

Total Acres: 5.0

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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>
Unknown	Franklin	5	Unknown	Jacuzzi	2"

*Code to correspond with No. on map 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>
N/A						

2. Measurements: No field measurement. System operating gauge pressure – 66 psi.

E. FLOW CALCULATIONS

_____Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 5/168 + (2.31 \times 66) = 30.8/320.46 = 0.10 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.10 \text{ cfs} < 0.48 \text{ cfs } Q(\text{permit})$$

$$HP = 5$$

$$Z = 168'$$

$$P = 66 \text{ psi (Gauge)}$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.52 cfs. The non-development of the commercial beneficial use, the reduction of homes from 25 to 8, and the maximum allowable diversion rate of 0.02 cfs per acre or 0.18 cfs (9 acres x 0.02 cfs), reduces the total allowable beneficial use appropriation to 0.31 cfs. However, even with the total diversion rate reduction of 0.31 cfs, the current pumping system is still not capable of Attaining the reduced appropriation rate of 0.31 cfs. Recommend the theoretical pumping capacity of 0.10 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.0 \times 3.0 = 15.0 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.10 \times 200 \times 1.9835 = 39.7 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 15.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: (Domestic Internal Use – 8 Homes)

$$V = 8 \text{ homes} \times 0.60 \text{ AFA} = 4.8 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 5-hp submersible pump diverts ground water for domestic use and irrigation for eight (8) homes in the Mile High Estates Subdivision. Based on the information provided by the applicant, lawn and landscape irrigation for each lot varies from approximately 1/3 to 1/2 acre. Therefore, it is estimated that approximately 5.0 acres of lawn and landscaping are irrigated within the residential lots.

The water system controls and three (3) pressure tanks are housed in a log constructed pump house near the well. Each lot is served by a 2" galvanized pipe service lateral. A Franklin Sub-Drive Variable Frequency Drive operates the well pump operation and maintains the water system at a constant operating pressure.

IRRIGATION SYSTEM:

The irrigation systems for each lot were developed by the individual property owners. Based on the findings during the field exam, it appears that the individual pressurized irrigation systems are comprised of rotary and spray pop-up sprinklers.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-13420.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-13420.

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

CONDITION NO.1 – Commercial use is for a bottled water sales company. There is no commercial use. The proposed bottled water sales company was never developed.

Domestic use is for 25 homes. Domestic use only serves 8 homes.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.52	&/or	N/A
Beneficial Use Limit	0.31	&/or	N/A
System Measurement	0.10(theoretical)	&/or	N/A
Proof Fee Amount	1.00	&/or	N/A
Recommended Amount	0.10	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	1/01 to 12/31	0.100 CFS	4.80 AFA
IRRIGATION	4/15 to 10/15	0.100 CFS	15.00 AFA
<u>Totals:</u>		0.100 CFS	19.80 AFA

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 Rick Collingwood Date 12/20/13

Reviewer _____ Date _____

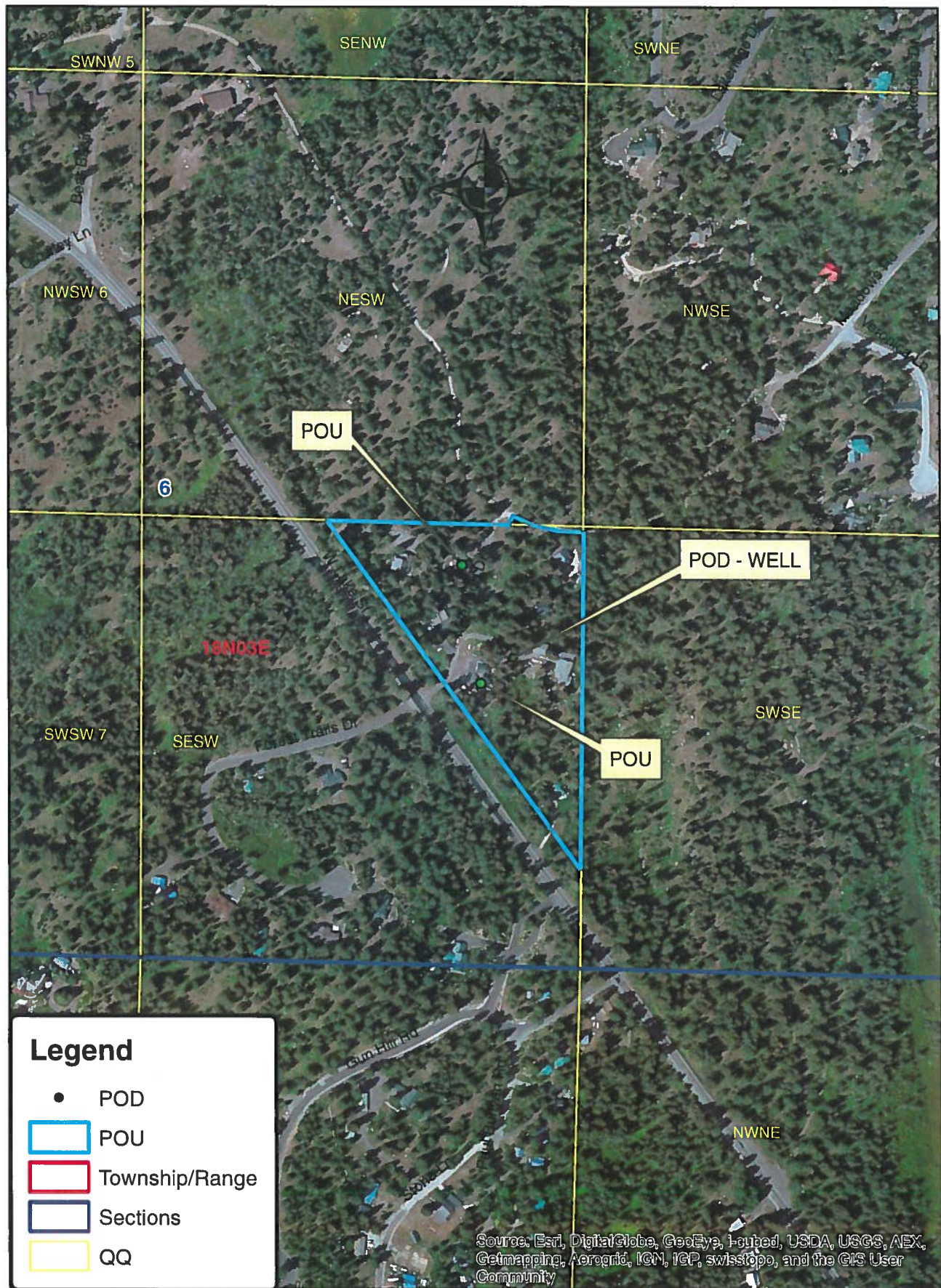
MEMORANDUM

Date: December 24, 2013
To: Water Right File 65-13420
From: kwalker
Re: Place of Use

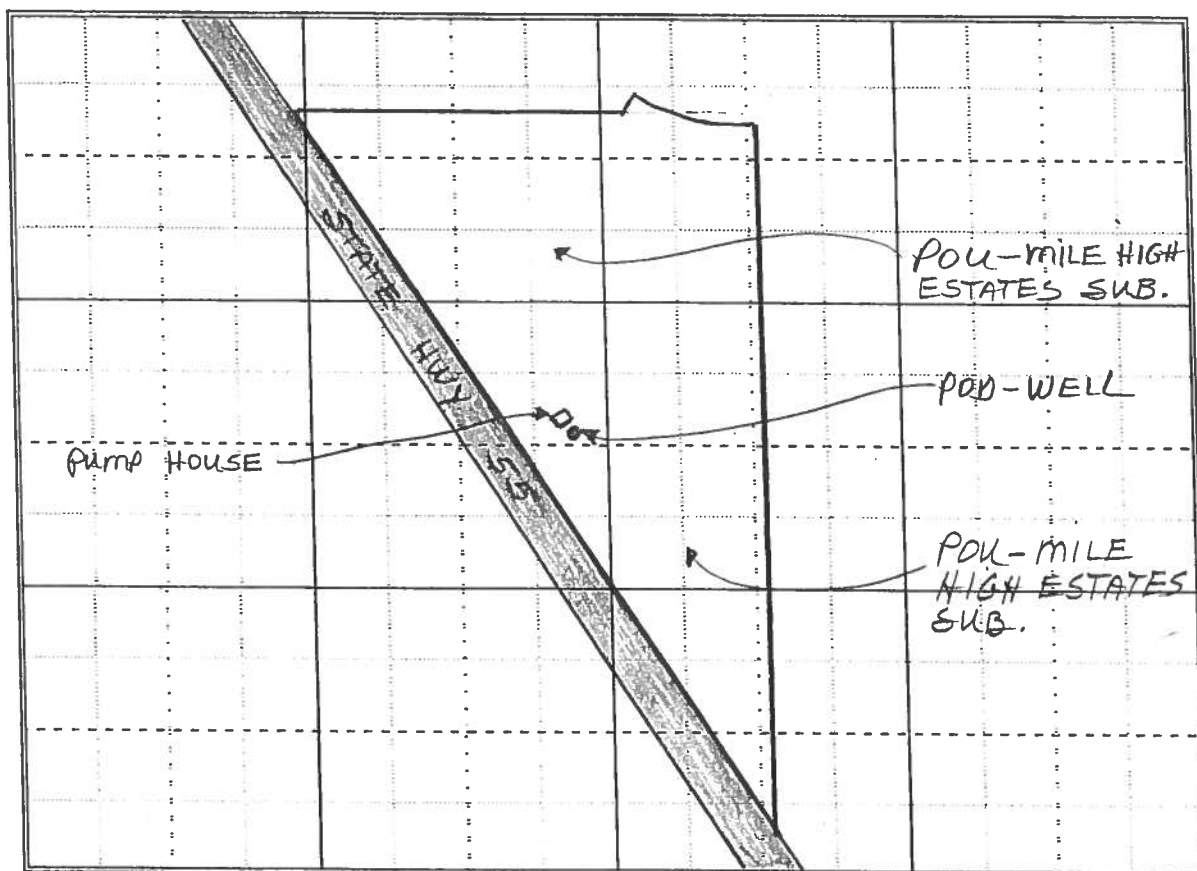
Examiner recommended a pu of NESW and SESW, S6. The land in NESW only came up to 0.02 acres so I have removed this from the proposed license. That amount is so small arc view did not even consider it when I updated the pu by PLS.

65-13420

ESRI AERIAL PHOTO - 2012



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" = NTS

- ☐ 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

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>George Klad</u> Address <u>Road 1 Box 81 Middleboro, Idaho</u> Owner's Permit No. _____	7. WATER LEVEL Static water level <u>96</u> feet below land surface. Flowing? ☐ Yes ☒ No GPM flow _____ Artesian closed in pressure _____ p.s.i. Controlled by ☐ Valve ☐ Cap ☐ Plug Temperature <u>45</u> OF Quality <u>Good</u> Describe artesian or temperature zones below																																																				
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)	8. WELL TEST DATA ☐ Pump ☐ Bailor ☒ Air ☐ Other _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td><u>3.5</u></td> <td><u>57.5</u></td> <td><u>3</u></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped	<u>3.5</u>	<u>57.5</u>	<u>3</u>																																														
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3. PROPOSED USE ☐ Domestic ☐ Irrigation ☒ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)	9. LITHOLOGIC LOG <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th rowspan="2">Wa Yes</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>10</u></td> <td><u>0</u></td> <td><u>1</u></td> <td><u>TOP SOIL</u></td> <td> </td> </tr> <tr> <td><u>10</u></td> <td><u>1</u></td> <td><u>38</u></td> <td><u>consolidated sand & boulders</u></td> <td> </td> </tr> <tr> <td><u>10</u></td> <td><u>38</u></td> <td><u>45</u></td> <td><u>silica & silica clastic</u></td> <td> </td> </tr> <tr> <td><u>8</u></td> <td><u>45</u></td> <td><u>55</u></td> <td><u>silica & silica clastic</u></td> <td> </td> </tr> <tr> <td><u>8</u></td> <td><u>55</u></td> <td><u>235</u></td> <td><u>silica & silica clastic</u></td> <td> </td> </tr> <tr> <td><u>8</u></td> <td><u>235</u></td> <td><u>310</u></td> <td><u>light brown clastic</u></td> <td>X</td> </tr> <tr> <td><u>8</u></td> <td><u>310</u></td> <td><u>375</u></td> <td><u>blue sandstone</u></td> <td>X</td> </tr> <tr> <td><u>8</u></td> <td><u>375</u></td> <td><u>387</u></td> <td><u>light brown clastic</u></td> <td>X</td> </tr> <tr> <td><u>8</u></td> <td><u>387</u></td> <td><u>580</u></td> <td><u>blue sandstone</u></td> <td>X</td> </tr> </tbody> </table>	Bore Diam.	Depth		Material	Wa Yes	From	To	<u>10</u>	<u>0</u>	<u>1</u>	<u>TOP SOIL</u>		<u>10</u>	<u>1</u>	<u>38</u>	<u>consolidated sand & boulders</u>		<u>10</u>	<u>38</u>	<u>45</u>	<u>silica & silica clastic</u>		<u>8</u>	<u>45</u>	<u>55</u>	<u>silica & silica clastic</u>		<u>8</u>	<u>55</u>	<u>235</u>	<u>silica & silica clastic</u>		<u>8</u>	<u>235</u>	<u>310</u>	<u>light brown clastic</u>	X	<u>8</u>	<u>310</u>	<u>375</u>	<u>blue sandstone</u>	X	<u>8</u>	<u>375</u>	<u>387</u>	<u>light brown clastic</u>	X	<u>8</u>	<u>387</u>	<u>580</u>	<u>blue sandstone</u>	X
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4. METHOD DRILLED ☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____	10. LITHOLOGIC LOG Work started <u>10-11-63</u> finished <u>10-21-63</u>																																																				
5. WELL CONSTRUCTION ASTM F480 1/2" = 1' TEST Casing schedule: ☒ Steel ☐ Concrete ☒ Other <u>PVC</u> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>250</u> inches</td> <td><u>8</u> inches</td> <td><u>1</u> feet</td> <td><u>61</u> feet</td> </tr> <tr> <td><u>160</u> inches</td> <td><u>6</u> inches</td> <td><u>8</u> feet</td> <td><u>368</u> feet</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☒ Yes ☐ No How perforated? ☐ Factory ☐ Knife <u>SON</u> ☒ Perch Size of perforation <u>1/8</u> inches by <u>1/4</u> inches <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>300</u> perforations</td> <td><u>268</u> feet</td> <td><u>368</u> feet</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>45</u> Material used in seal: ☒ Cement grout ☒ Bentonite ☐ Pudding clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☐ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☒ Solvent Weld ☐ Cemented between strata Describe access port <u>STANDARD WELL SEAL</u>	Thickness	Diameter	From	To	<u>250</u> inches	<u>8</u> inches	<u>1</u> feet	<u>61</u> feet	<u>160</u> inches	<u>6</u> inches	<u>8</u> feet	<u>368</u> feet									Number	From	To	<u>300</u> perforations	<u>268</u> feet	<u>368</u> feet							11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>George Klad</u> Firm No. <u>1108</u> Address <u>RT 1 Middleboro, Idaho</u> Date <u>10-21-63</u> Signed by (Firm Official) <u>George Klad</u> and (Operator) <u>George Klad</u>																				
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6. LOCATION OF WELL Sketch map location <u>must</u> agree with written location. Subdivision Name _____ Lot No. _____ Block No. _____ County <u>Valley</u> <u>SE 1/4 SE 1/4 Sec. 6, T 18N, R 3E, E.W.</u>	12. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>George Klad</u> Firm No. <u>1108</u> Address <u>RT 1 Middleboro, Idaho</u> Date <u>10-21-63</u> Signed by (Firm Official) <u>George Klad</u> and (Operator) <u>George Klad</u>																																																				

11. ADDITIONAL SHEETS IF NECESSARY - FORWARD THE WHITE COPY TO THE DEPARTMENT

JUL 09 1996

WELL LOG
SHOULD BE
SESW 444
(NOT SEE)

FIELD EXAM PHOTOS

Water Right Permit: 65-13420

Field Exam Date: 8-13-13

PLS: SE1/4, SW1/4 Section 6, T.18N, R.03E

Field Examiner: RC



Point of Diversion: View of the ground water well which serves eight homes within the Mile High Estates Subdivision. The well is located easterly of a log pump house.



View southerly of the log pump house. The ground water well is shown near the pump house.



View inside the pump house of a Franklin VSD Subdrive 300 Variable Frequency Drive system which controls the water system operations.



Place of Use: View westerly of one of the eight homes served by the Mile High Estates Subdivision water system. The pop-up rotary and spray sprinklers as shown in this photo, are typical of the individual pressurized irrigation systems serving each home.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

July 24, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

Mile High Property Owners Association, Inc.
C/O Ralph McKenzie
P.O. Box 1535
5280 Mile High Drive
McCall, ID 83638

RE: Scheduling Field Exam for Water Right Permit No. 65-13420

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 12, 2013**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.52 cfs of ground water for domestic use for 25 homes, irrigation of 12.5 acres, and commercial use for a bottled water sales company.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 2, 2013, to conduct the exam during the week of August 12, 2013.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

Rick Collingwood, P.E.
Water Resource Agent, Sr.