

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12563

Exam Date: 4/17/2013

1. Current Owner: FREDRICK R LAPPIN
16557 HOLLOW RD
CALDWELL ID 83607
(208)454-3984

JEREE LAPPIN
16557 HOLLOW RD
CALDWELL ID 83607
(208)454-3984
2. Accompanied by: Robert Lappin
Phone No: Same
Address: Same
Relationship to Permit Holder:

3. SOURCETRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-12562
2. Other water rights with the same point of diversion: None

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

GROUND WATER

NE1/4NW1/4

Sec. 8, Twp 05N, Rge 03W, B.M.

CANYON County

Method of Determination: Arc Map (Aerial Photo); GPS – Latitude N.43°47.567', Longitude W.116°43.369'; Datum – NAD83.

2.

PLACE OF USE: IRRIGATION

Twp	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>	
05N	03W	8					3.5												3.5

Total Acres: 3.5

Method of Determination: Arc Map (Aerial Photo)

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 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>
D0057693	_Unknown_	_5_	_Unknown_	_Unknown_	_2" _
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

D. FLOW MEASUREMENTS

1.

<u>Measurement 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. Gauge pressure of 36 psi. Pressure tank in pump house. Rainbird Sprinkler rate for nine (9) pods equals 21.2 gpm (0.05 cfs).

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 5/190 + (2.31 \times 36) = 30.8/273.16 = 0.11 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.11 \text{ cfs} < 0.15 \text{ cfs } Q(\text{permit})$$

$$HP = 5$$

$$Z = 190' \text{ (Estimated)}$$

$$P = 36 \text{ psi (Gauge)}$$

Appears that the current pumping system cannot attain the permit diversion rate of 0.15 cfs. However, since the total irrigable area is 3.5 acres, not 5.0 as indicated on the permit, and since a diversion rate of 0.11 cfs is required to irrigate 3.5 acres, the current pumping system is capable of attaining a diversion rate of 0.11 cfs. Recommend a diversion rate of 0.11 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.5 \times 4.5 = 15.8 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.11 \times 260 \times 1.9835 = 56.7 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 15.8 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

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

A 5-hp submersible pump diverts ground water from a well to irrigate 3.5 acres of pasture, lawn, landscaping, and gardens. Water is discharged through 2" main lines to two irrigation risers within the pasture areas, and to the pressurized irrigation system in the lawn, landscaping, and garden areas. One 2" irrigation riser is located in the east pasture area, and another 2" irrigation riser is located in the south pasture area.

IRRIGATION SYSTEM:

The lawn, landscaping, and gardens are irrigated by a pressurized irrigation system with pop-up rotary sprinklers. The pasture areas are irrigated by K-Line Irrigation Systems connected to the two 2" irrigation risers. The easterly pasture area has four (4) K-Line sprinklers, and the southerly pasture area has five (5) K-Line sprinklers. All nine (9) K-Line sprinklers are run simultaneously, with a total application rate of 21.2 gpm (0.05 cfs) per the manufacturers specifications.

OVERLAP ANALYSIS:

Place of Use: The place of use for Water Right Permits No. 63-12563 and 63-12562 overlap for irrigating the lawn, landscaping, and gardens surrounding the home.

The right holder's property is located within the Black Canyon Irrigation District, but does not have access to surface water.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.15	&/or	N/A
Beneficial Use Limit	0.15	&/or	N/A
System Measurement	0.11(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.11	&/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>
IRRIGATION	03/01 to 11/15	0.110 CFS	15.8 AFA
<u>Totals:</u>		0.110 CFS	15.8 AFA

2. Recommended Amendments

___Change P.D. as reflected above ___Add P.D. as reflected above XNone

___Change P.U. as reflected above ___Add P.U. as reflected above ___Other

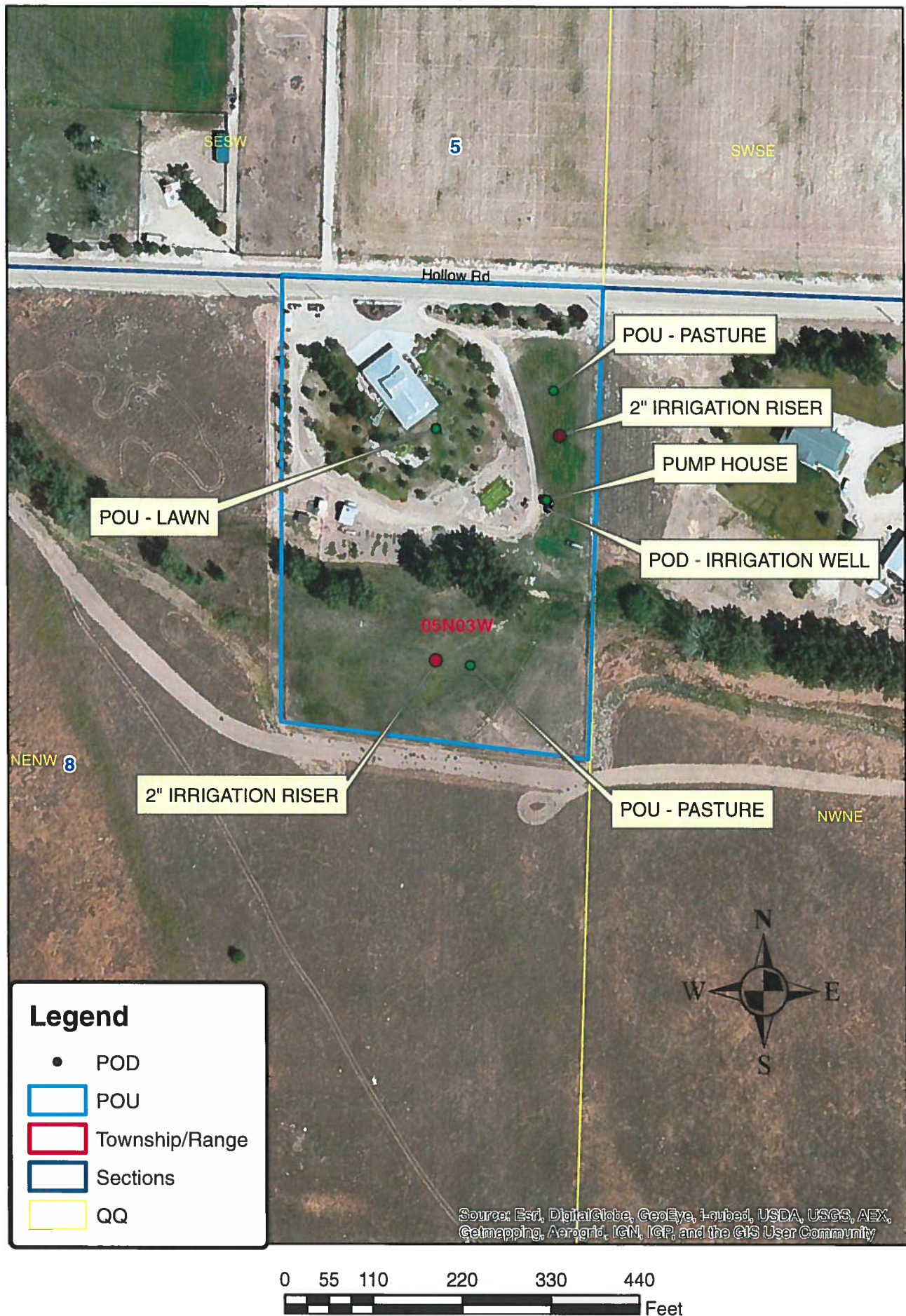
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 6/24/13

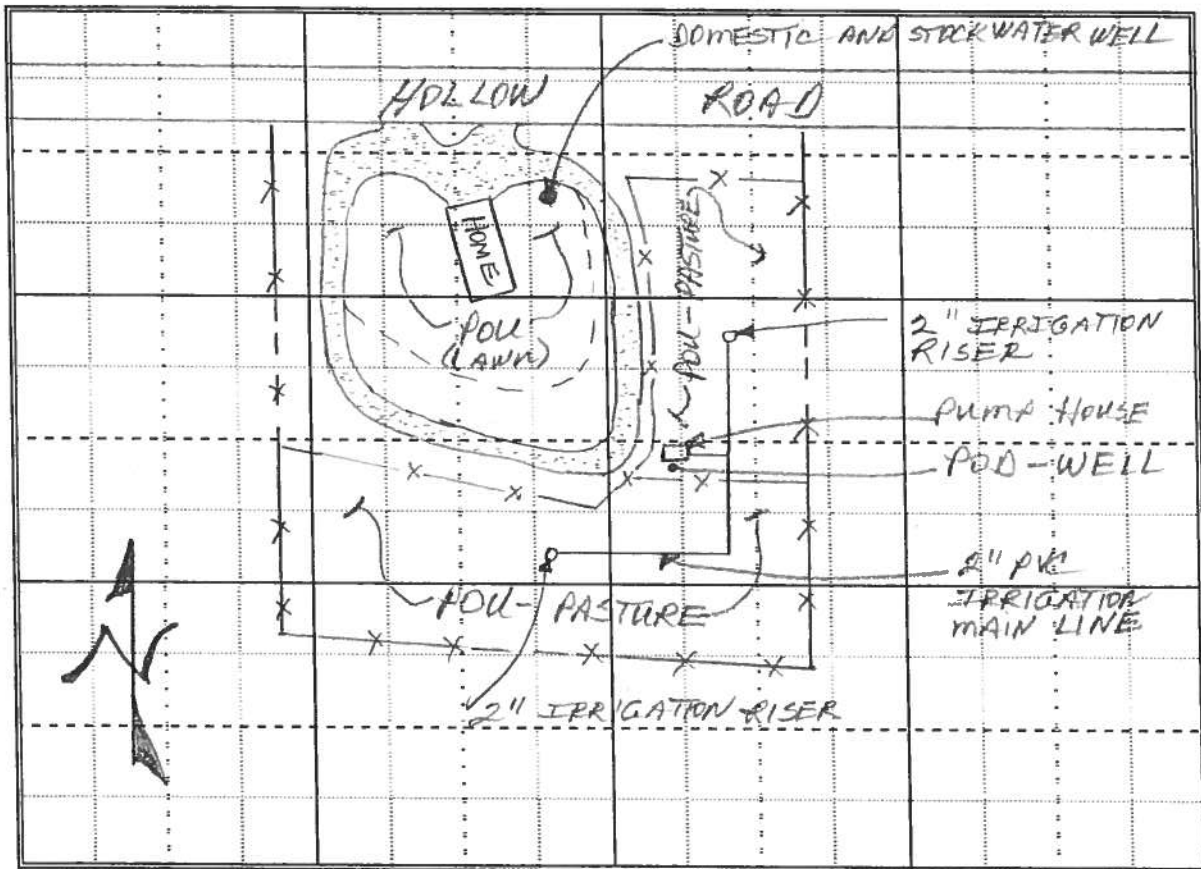
Reviewer _____ Date _____

63-12563

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

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Form 238-7
6/07IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

859042

1. WELL TAG NO. D 0057693

Drilling Permit No. _____

Water right or injection well # **63-12563**

2. OWNER

Name **Fredrick R Lappin**Address **16557 Hollow Rd**City **Caldwell**State **ID**Zip **83607**

3. WELL LOCATION:

Twp. **5** North ☒ or South ☐ Rge. **3** East ☐ or West ☒Sec. **8** **NE** 1/4 **NE** 1/4 **NW** 1/4
10 acres 40 acres 160 acresGov't Lot _____ County **Canyon**Lat. **43 ° 47.569** (Deg. and Decimal minutes)Long. **116 ° 43.370** (Deg. and Decimal minutes)Address of Well Site **same**

(Give at least name of road + Distance to Road or Landmark)

City _____

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

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
med. bent	0'	45'	1300 lbs	poured

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
6	+2'	197'	.250	steel	☒	☐	☐	☒

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) **197**

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____Manufactured screen ☒ Y ☐ N Type **telescoping**Method of installation **wash in**

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
198'	208'	.016		5"	st st	

Length of Headpipe **10 + 3** Length of Tailpipe **0**Packer ☒ Y ☐ N Type **K-Packer**

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
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11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) **49** Static water level (ft) **49**

Water temp. (°F) _____ Bottom hole temp. (°F) _____

Describe access port _____

Well test:

Test method:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
130	45	180	☒	☐	☐	☐

Water Quality test or comments:

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
10"	0'	2'	brown top soil		X
10"	2'	6'	brown clay		X
10"	6'	12'	brown sand		X
10"	12'	30'	brown sand & clay strips		X
10"	30'	38'	brown clay		X
10"	38'	40'	brown sand		X
10"	40'	45'	brown clay		X
10"	45'	50'	brown sand		X
6"	50'	116'	brown clay w/sand strips	X	
6"	116'	120'	brown clay		X
6"	120'	122'	brown sand	X	
6"	122'	180'	brown clay & sand strips	X	
6"	180'	187'	fine brown sand	X	
6"	187'	189'	brown clay		X
6"	189'	196'	grey sand	X	
6"	196'	198'	grey clay		X
6"	198'	206'	grey sand	X	
6"	206'	210'	grey clay		X

RECEIVED

SCANNED

JUN 03 2010

JUN 03 2010

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable)

210

Date: Started **5-18-2010**Completed **5-26-2010**

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 **Down Right Drilling & Pump, Inc** Co. No. **637***Principal Driller **Scamp S. Siggins** Date **6-1-10**

*Driller _____ Date _____

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

FIELD EXAM PHOTOS

Water Right Permit: 63-12563

Field Exam Date: 4-17-13

PLS: NE1/4, NW1/4 Section 8, T.5N, R.03W.

Field Examiner: RC



Point of Diversion: View easterly of the irrigation well located on the south side of the pump house. In the background is a K-Line Irrigation System irrigating a pasture area adjacent to the pump house.



Place of Use: View southerly of the easterly pasture area and a portion of the southerly pasture area. The pump house is shown next to the access road. The K-Line Irrigation System for the easterly pasture is comprised of four (4) sprinklers, while the southerly pasture area is comprised of five (5) sprinklers.



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

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

April 2, 2013

Fredrick R. & Jeree Lappin
16557 Hollow Road
Caldwell, Idaho 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-12563

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of April 15, 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 ground water for irrigation of 5.0 acres.

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 April 12, 2013, to conduct the exam during the week of April 15, 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,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

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