



IDAHO DEPARTMENT OF
WATER RESOURCES

BRBA FIELD EXAMINATION REPORT

Claim Number: 11-4024B

Exam Date: 7/29/2026

Exam Time: 1:30 PM

IDWR Staff Present: Collin Macheel & Brian Wunsch.

Claimant/Representative Present: Tyler Hymas (President), Dale Hymas (Treasurer), and Mike Derricott (Secretary).

☐ **No**

☒ **Yes**

Exam Location: Near 551 Old Mill Rd, Ovid.

Examiner's Signature:

Purpose of Exam: Verify POD location, diversion works, and flow rate.

Conclusion of Exam: The POD location and diversion works were verified and documented with GPS and photos. The location is 60' north of where it was claimed. The diversion works were as

described in the claim. The theoretical maximum rate of diversion was calculated (20 cfs) that exceeds the claimed rate (2.3 cfs).

Exam Narrative:

We met Tyler Hymas, Dale Hymas, and Mike Derricott near 551 Old Mill Rd in Ovid. Tyler and Dale took Collin and I down to the POD on Mill Creek. We observed the rock diversion structure in Mill Creek where GPS coordinates and photos were taken.

Next, we moved to a location 0.25 miles down the ditch to where a 6 cfs cutthroat flume had recently been installed. An elevation gradient was recorded with an auto level and specifications from the flume were documented.

In the office, Collin validated the elevation data taken in the field with LIDAR. The field measurements were used in Manning's equation to produce a theoretical maximum rate of diversion.

Explanation of Elements not Examined:

☐ **POD:**

☒ **POU:** Verified by office analysis of maps and information provided with claim.

☐ **Quantity:**

☐ **Other:**

Amendments Needed:

☒ **No**

☐ **Yes:**

Flow/Volume Calculations:

11-4024B

Elevation Change 3.74 ft
Distance 104 ft

Manning's Equation

Channel 45-degree trapezoid

Top 3.5 ft
Depth 1 ft
Area 4.5 sqft
Perimeter 6.3 ft
n (NCEES 2023 CE Ma 0.05

Q 20 cfs

Channel bank erroded where accessible due to stock in the area.

Possibly oversized to due to spring flows as well.

Flume rated for 6 cfs.

Channel exceeds claim.

Longer slopes estimated by lidar generally agree with the measurement.

Vertical elevation survey used to verify lidar data



Approximate Values of Manning's Roughness Coefficient

Material		Manning n
Closed Conduit or Built-up Channel	Metal:	
	Brass	0.01
	Copper	0.011
	Steel – welded	0.012
	Steel – riveted	0.016
	Cast iron – coated	0.013
	Wrought iron – galvanized	0.016
	Corrugated metal (storm drain)	0.024
	Nonmetal:	
	Glass	0.01
	Cement	0.011
	Cement mortar	0.013
	Concrete culvert	0.013
	Concrete-lined channel pipe	0.015
	Wood	0.012
	Clay	0.013
	Brickwork	0.013
	Brickwork with cement mortar	0.015
	Masonry/rubble masonry	0.025
	Sanitary sewer coated with slime	0.013
	Asphalt	0.013
	Plastic	0.013
	PVC	0.009–0.011
	Polyethylene	0.009–0.015
Excavated or Dredged Channel	Straight and clean	0.022
	Winding and sluggish	0.025
	Dredged	0.028
	Rock cut/stony	0.035
	Earth bottom, rubble sides	0.03
	Unmaintained uncut brush	0.08
Natural Streams	On plain, clean, straight, no pools	0.03
	On plain, clean, winding, some pools	0.04
	On plain, sluggish, weedy, deep pools	0.07
	On mountain, few boulders	0.04
	On mountain, large boulders	0.05

System Map:



Photos:



Photo 1: Rock diversion on Mill Creek.



Photo 2: Mill Creek below POD.

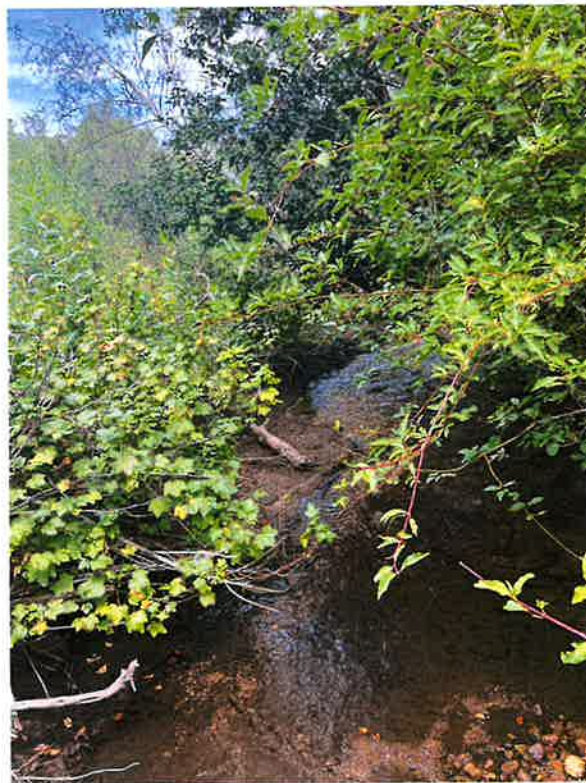


Photo 3: Liberty Hillside ditch below POD.



Photo 4: Cutthroat flume on ditch.

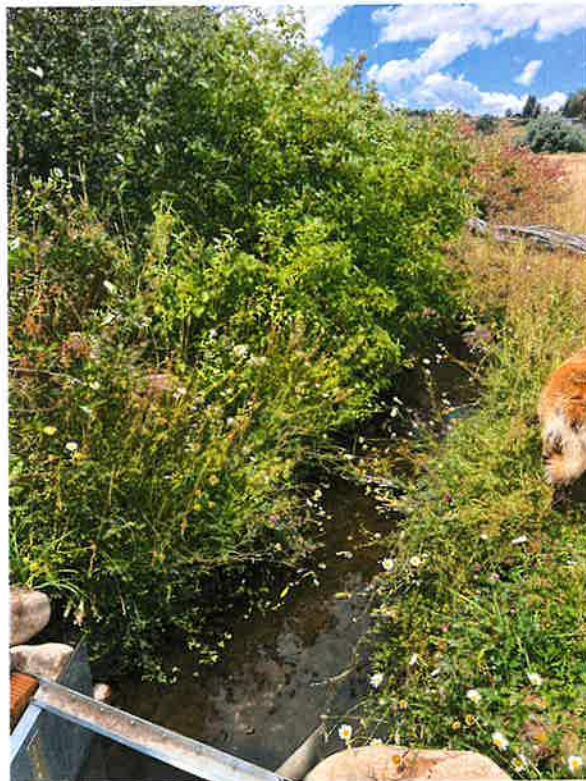


Photo 5: Ditch upstream of flume.



Photo 6: Flume detail.



Photo 7: Flume gauge.



Photo 8: Ditch downstream of flume, facing upstream.



Photo 9: Ditch downstream of flume, facing downstream.