

IDAHO MUSEUM OF MINING AND GEOLOGY



Field Trip Road Log

April 7, 2012: Following the Bonneville Flood

Leader: Dr. Paul Link, ISU

Note: odometers vary, mileages are approximate.

Map A includes Stops 2 – 4; Map B includes Stops 6 & 7.

To Stop 1: Proceed on Interstate 15 to the Downey Exit (#36) (zero odometer) and take U.S. 91 approximately 11.9 miles south to a turnout on the left signed “Red Rock Pass.” (GPS N42.3543; W112.0494) There are information boards here that describe the onset of draining of Lake Bonneville that started the flood. The pass is a divide and the “dam” at this site was comprised of overlapping alluvial fans approximately 2 kilometers wide north to south. Bedrock outcrops visible in the large butte to the east and also to the west are comprised of limestone. The eastern butte was actually an island in the flood, extending approximately 60 meters above the water level. The flood has been re-dated to 17,400 years ago from the previously accepted 14,500 years.

To Stop 2: Return to Interstate 15 and proceed north to the Inkom Exit (#57). The ramp turns left under the Interstate and becomes “old Highway 30.” Take the first left onto the extension of Park Street, cross the railroad tracks (zero odometer) and wind around the cement plant and turn left onto N. Marsh Creek Road. Pull off the road at the junction with Kissel Road (~1.3 miles) (GPS N42.7797; W112.2384). Walk about 400 feet farther down Marsh Creek Road to the end of a basalt outcrop. This site is near the confluence of Marsh Creek to your right and the Portneuf River to your left. The basalt between where you are standing and across the valley was stripped by the flood and deposited in Pocatello. Across the valley there are limestone outcrops that are the same formation as at Red Rock Pass.

To Stop 3: Retrace the route along Marsh Creek Road and turn left on W. Portneuf Road (zero odometer). Proceed approximately 4.1 miles and keep left at junction with W. Blackrock Road; proceeding another 0.7 miles (4.8 miles total) to a pull off with information boards on the right (GPS N 42.7944; W112.3410). This is the Portneuf Gap, the narrowest constriction of the flood south of Pocatello. Water was about 350 feet deep here. Again, this is an example of basalts stripped out of the valley by floodwaters.

To Stop 4: Zero odometer and continue on W. Portneuf Road for 1.2 miles and turn left on N. Fort Hall Mine Road; go on about 0.3 miles and turn left on Old Highway 91 (S. 5th Avenue); follow S. 5th Avenue under the Interstate and continue for 1.1 miles to turn left just past the High School on Hidreth Drive (may not be signed). Follow Hidreth Drive under the Interstate (one-lane underpass) to a dead end (GPS N42.8091; W112.3774). Park and walk past large yellow gates on a two-track dirt road for about 200 yards, then veer to the right across the grass toward large basalt boulders, another 100 yards. These boulders were dropped by the flood as the water slowed down and spread out across the valley. If you are lucky, you will find a diamictite boulder – this is a sedimentary rock that is associated with glacial activity. The diamictite is black, with a fine, smooth clay-silt matrix, without gas-caused vesiculations and contains pebble-sized clasts. In some diamictites with large clasts it is possible to see glacial striations on the clasts.

To Stop 5: Return to S. 5th Avenue (Old Highway 91), turn right and proceed toward Pocatello. The next stop will be the Massacre Rocks Rest Stop on Interstate 86. The easy way is to take the first entrance

on to Interstate 15 North (#67), go up to the junction with Interstate 86, and bear left (West) toward Twin Falls. The rest stop is about 31.3 miles on I-86 and is the first rest stop going west (GPS N42.6971; W112.9583). Walk on the paved path across the loop road and proceed on a dirt path to a bluff overlooking the river. The area across the river was covered by flood waters that could not be contained by the Snake River channel.

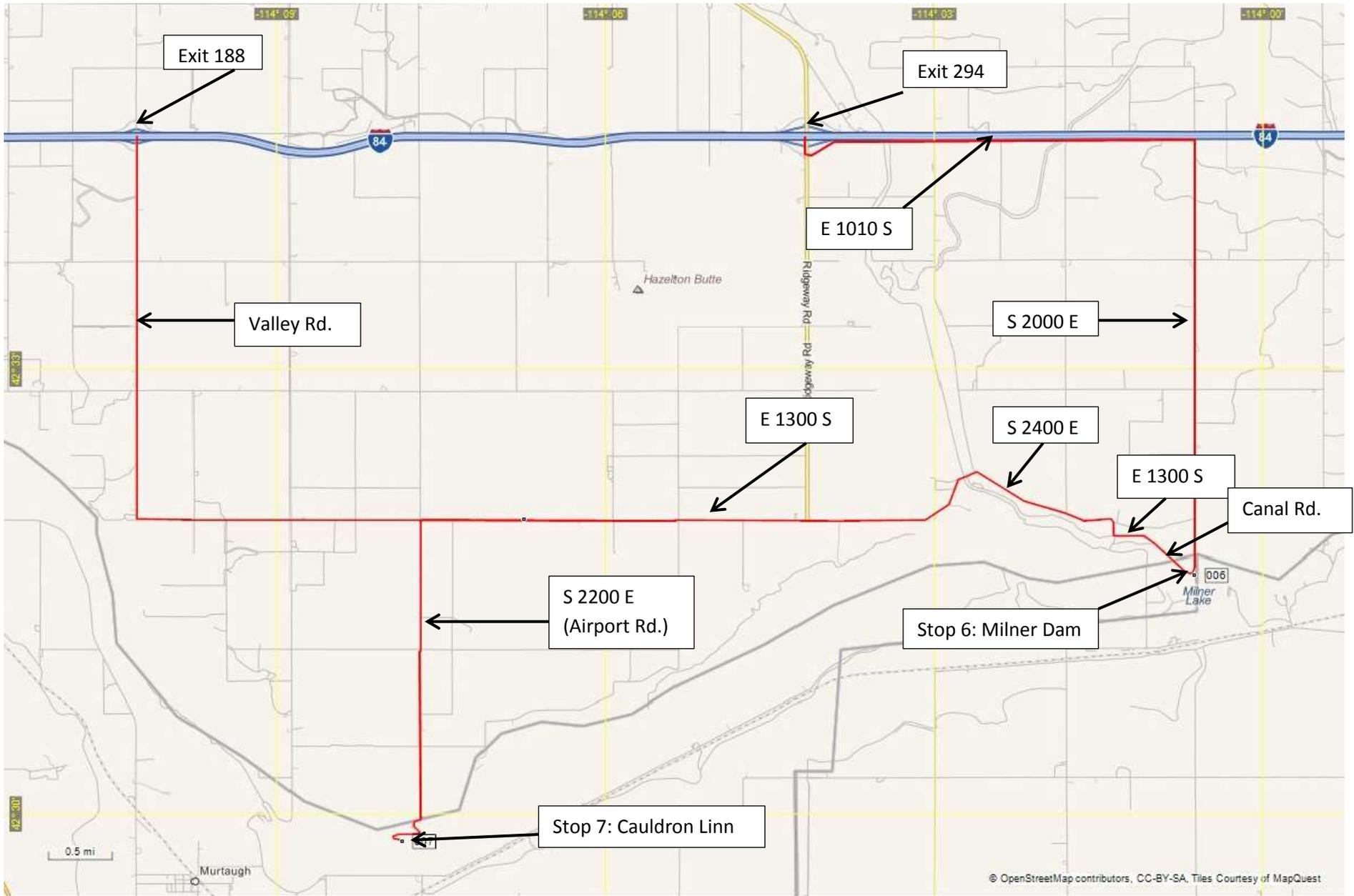
To Stop 6: Continue on I-86 and merge onto Interstate 84 West. On the way look to the right at I-86 Milepost 28; notice the broad notch in the basalt across the river. This is a re-entry channel for floodwaters that went north of the Snake River main channel and flowed back into the river at this point, cutting the notch. Exit at the Hazleton Exit (#294). Turn left on Ridgeway Road and go under the Interstate and then immediately left again on the frontage road (E1010S) (going west) (zero odometer). After 2.1 miles turn right (south) on S2500E just after crossing a large canal; follow S2500E for 0.9 miles then turn left on E1100S for 1 mile, right on S2600E (Steel Ranch Road) for 2.3 miles, then crossing a large canal and parking at an open area at the Milner Dam (GPS N42.5268; W114.0105). Milner Dam, completed in the early 1900s, feeds an extensive canal system both north and south of the Snake River. This site is the beginning of the Snake River Canyon through south-central Idaho and the small falls here represent a “nick point” where the river changes grade (slope).

To Stop 7: Backtrack on S2600E for 0.4 miles from the canal bridge and turn left on E1300S (Power Line Road) (zero odometer), stay on E1300S for about 0.6 miles then turn slightly right to meet S2400E (also “Milner Road”) around a curve. Stay on S2400E for 1.1 miles then turn left on E1300S, immediately crossing two canals. Just across the second canal, follow E1300S to the left and proceed a total of 2.4 miles on E1300S to the intersection with S2200E; turn left on S2200E to E1400S (1 mile); turn right and go 2 miles on E1400S to “Airport Road” (S2000E). Turn left on Airport Road; after going straight for about 0.5 miles, the road winds down a steep grade for about 0.5 miles. This is the parking spot for Stop 7, Cauldron Linn (GPS N42.4969; W114.1309). Walk to the river on any of the dirt paths to look at the falls. This is another “nick point” in the Snake River cut by the flood. Shoshone Falls near Twin Falls looks like a nick point, but was actually formed by a hard layer of rhyolite below softer basalt. The flood would have filled the canyon at this area and spilled over the rim. The “Hunt Party” of John Jacob Astor’s fur company had a disaster here while trying to force an overland route to Astoria at the mouth of the Columbia River. They crashed, lost boats and two of the party died going over the Cauldron Linn falls.

To return to Interstate 84, retrace your route on Airport Road to E1300S (zero odometer), turn left and go 2.2 miles to a forced right turn on Valley Road. Follow Valley Road 3 miles north to I-84.

If, desired, Shoshone Falls can be visited from Twin Falls by following Falls Avenue to N3300E and turning left to the falls overlook park.





Map B: Milner Dam and Cauldron Linn