**IDAHO MUSEUM OF MINING AND GEOLOGY**

# Field Trip Road Log

**September 14, 2013; South Fork Boise River Lava Flows**
**Leader: Don Adair**
**Note: odometers vary, mileages are approximate. Also, GPS values vary over time, but the listed points will get you within visual range of the features described.**

The trip originates at the Blacks Creek Road/Kuna-Mora Road Exit on I-84. Take Blacks Creek Road to the Bonneville Point Exhibit, where one can see an overview of the Boise Valley that once was covered to a depth of about 800 feet by ancient Lake Idaho. After viewing the exhibits and the terrain, return to Blacks Creek Road and turn **Left**; zero odometer at this point.

At mile 3.6, take the **Left** fork to stay on Blacks Creek Road toward Prairie.

**Stop 1: Mile 5.9; (GPS N43.48535; W115.95048).** On the left is a volcanic dike in the granite batholith shown in the photo.

The same dike is obvious on the other side of the road, but displaced by about 100 feet, indicating fault movement (photo below).

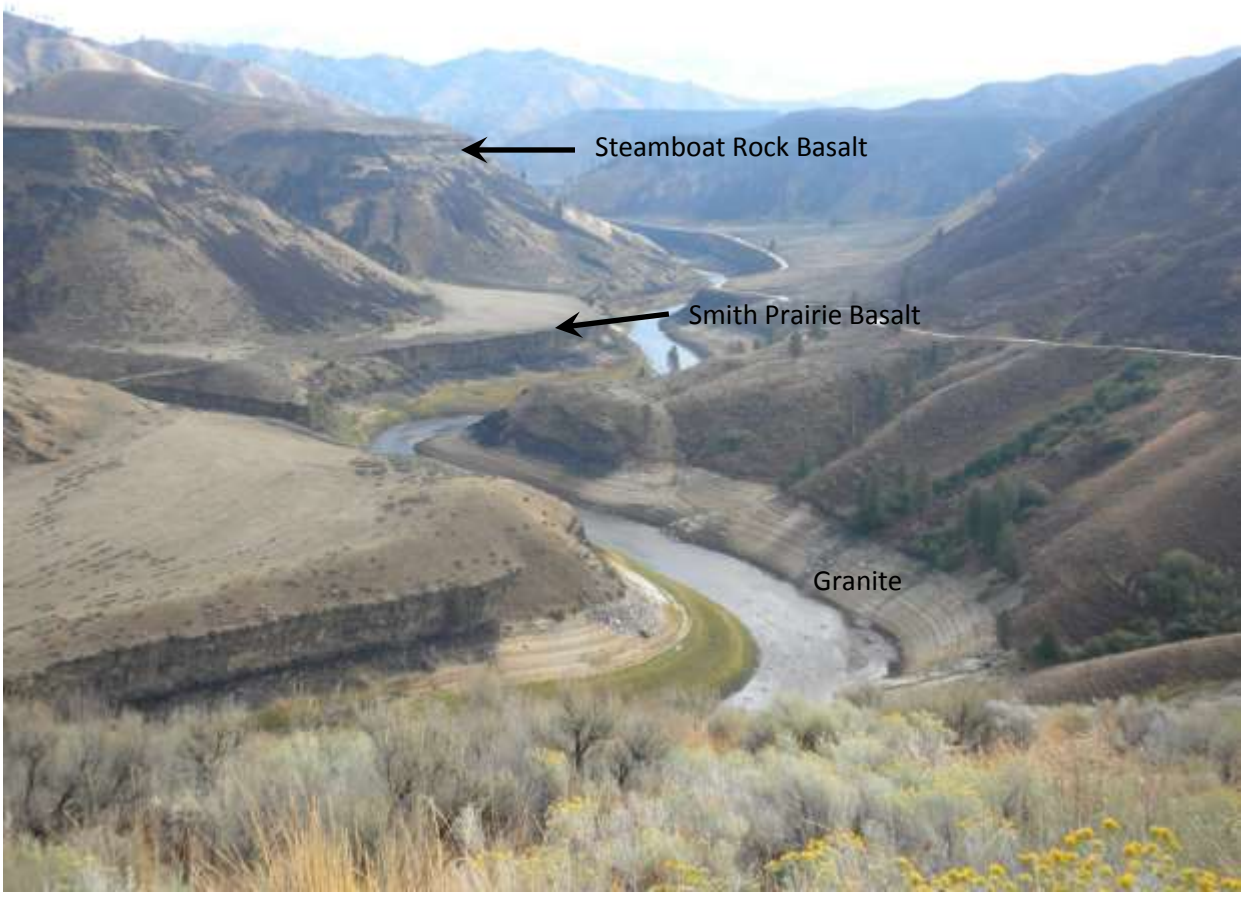
Proceed along Blacks Creek Road, staying **Left** at mile 7.6.

**Stop 2: mile 8.3; (GPS N43.50700; W115.92665).** This area is the old Neal gold mining district that was worked in the late 1800's to early 1900's. Some of the claims were Daisy, Homestake, Hidden Treasure, Victor, Mountain Queen, Golden Star and Queen. Most were worked underground.

**Stop 3: mile 16.2; (GPS N43.54579; W115.80395).** A basalt flow on the right side of the road exhibits the more solid deeper basalt and the more vesicular surface basalt.

**Stop 4: mile 17.3; (GPS N43.55019; W115.78713).** This stop gives a spectacular view of lava flows down the South Fork Canyon. The higher flows are the Steamboat Rock basalt that was eroded by the South Fork and then the canyon was refilled by the younger Smith Prairie basalt flows (Photo 3). This is the "reversed stratigraphy" of old over young.

From here on, we see the effects of the 2013 Elk Complex Fire, shown by the burned vegetation on the right above the road in the photo.




Also note that the river tended to cut at the margin of the flow, where the granite of the batholith was less resistant to erosion.

**Stop 5: mile 20.3 (GPS N43.54979; W115.74130).** Another view of the Steamboat basalt flows.

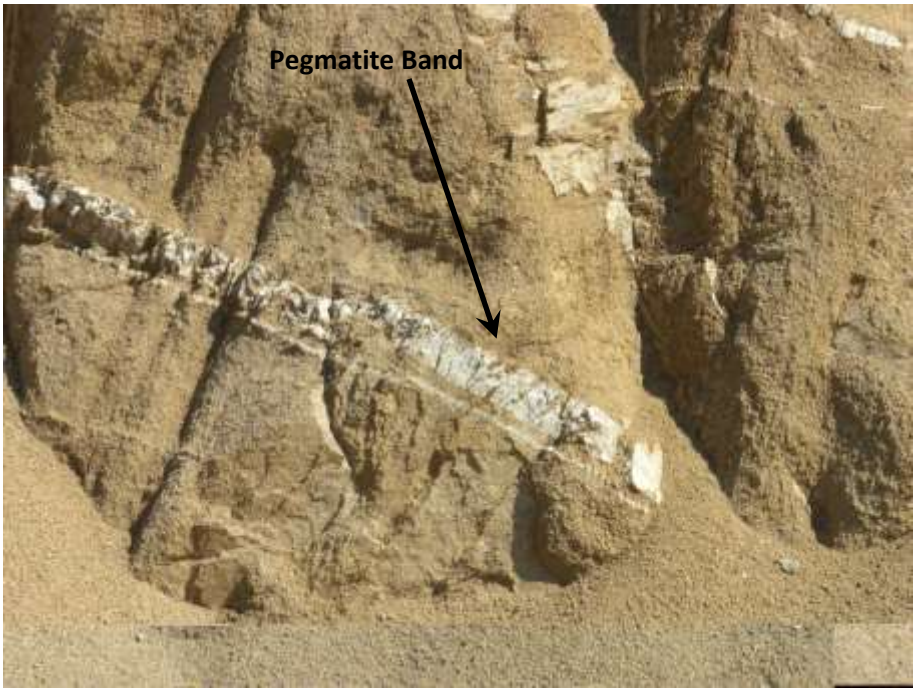
**Stop 6: mile 21.0 )GPS N43.54927; W115.72816).** More views of the Steamboat basalt flows on the other side of the canyon. The contact between the basalt and granite batholith is obvious.

After stop 6, we cross the bridge.

**Stop 7: mile 23.0 (GPS N43.54270; W115.71267).** A view of the Steamboat Rock flows across the canyon; many many layers of basalt.

**Stop 8: mile 23.4 (GPSA N43.53880; W115.70634).** A view down an eroded area in the Smith Prairie basalt.

**Stop 9: mile 25.1 (GPS N43.52197; W115.68687).** Pegmatite bands in batholitic basalt (photo).




Pegnatites are not intrusive like basalt dikes, but develop in cracks in the granite where minerals from the walls of the crack recrystallize from very hot water that percolates through the granite.

**The "Y": mile 29.0 (GPS N43.50808; W115.62797).** Intersection with Long Gulch Road; you can turn left here to visit the "Y Store and Restaurant" for food, beverages and bathroom. Otherwise curve to the right to continue the route on Long Gulch Road.

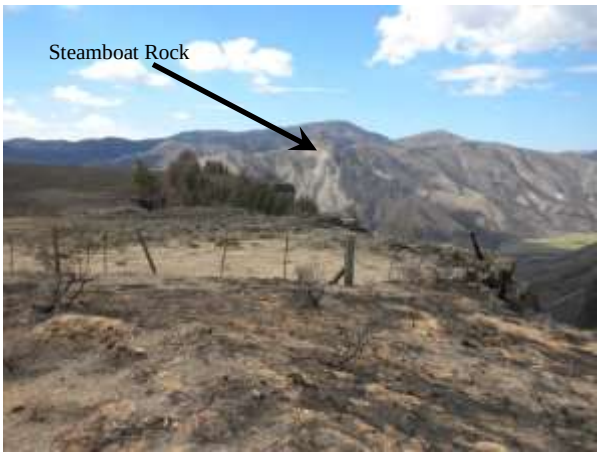
**Right** turn at Prairie Road: mile 31.5 (GPS N43.50089; W115.58388).

**Stop 10: mile 32.0 (GPS N43.49406; W115.58386).** This is a lava tube from the Steamboat Rock Volcano The photos show the tube from both sides of the road where it crosses a non-collapsed area. Unfortunately, the tube makes a convenient garbage dump!

**Left** turn NF 116: mile 33.5 (GPS N43.47185; W115.58373).

**Right** turn (Prairie Road): mile 33.8 (GPS N43.47181; W115.57880).

**Stop 11: mile 37.8 (GPS N43.42506; W115.57829).** Here you can see the Steamboat Rock across the South Fork that gave the Steamboat Rock Volcanics their name.




Across the nearby gorge, there are remnants of fire retardant used to fight the 2013 Elk Complex Fire.

Retrace route to NF 116, reset odometer to zero, turn **Right**. Follow NF116 around turn to **Left** to Stop 12.

**Stop 12: mile 1.3 (GPS N43.47636; W115.55885).** This is a spot to view the Steamboat Rock shield volcano.

Because of its generally flat sloping profile, it is pretty unimpressive despite the large volume of lava it produced. Steamboat basalt reached to the Lucky Peak and Diversion Dam areas.

At mile 1.6 stay **Left** where NF116 intersects House Mountain Road and becomes NF128, proceed up NF128 and turn **Right** on Burnt Creek Road at mile 3.0 (GPS N43.49972; W115.55893). Follow Burnt Creek Road to mile 5.4 (GPS N43.50497; W115.51372) and take **Left** fork; follow rough dirt road to Stop 13.

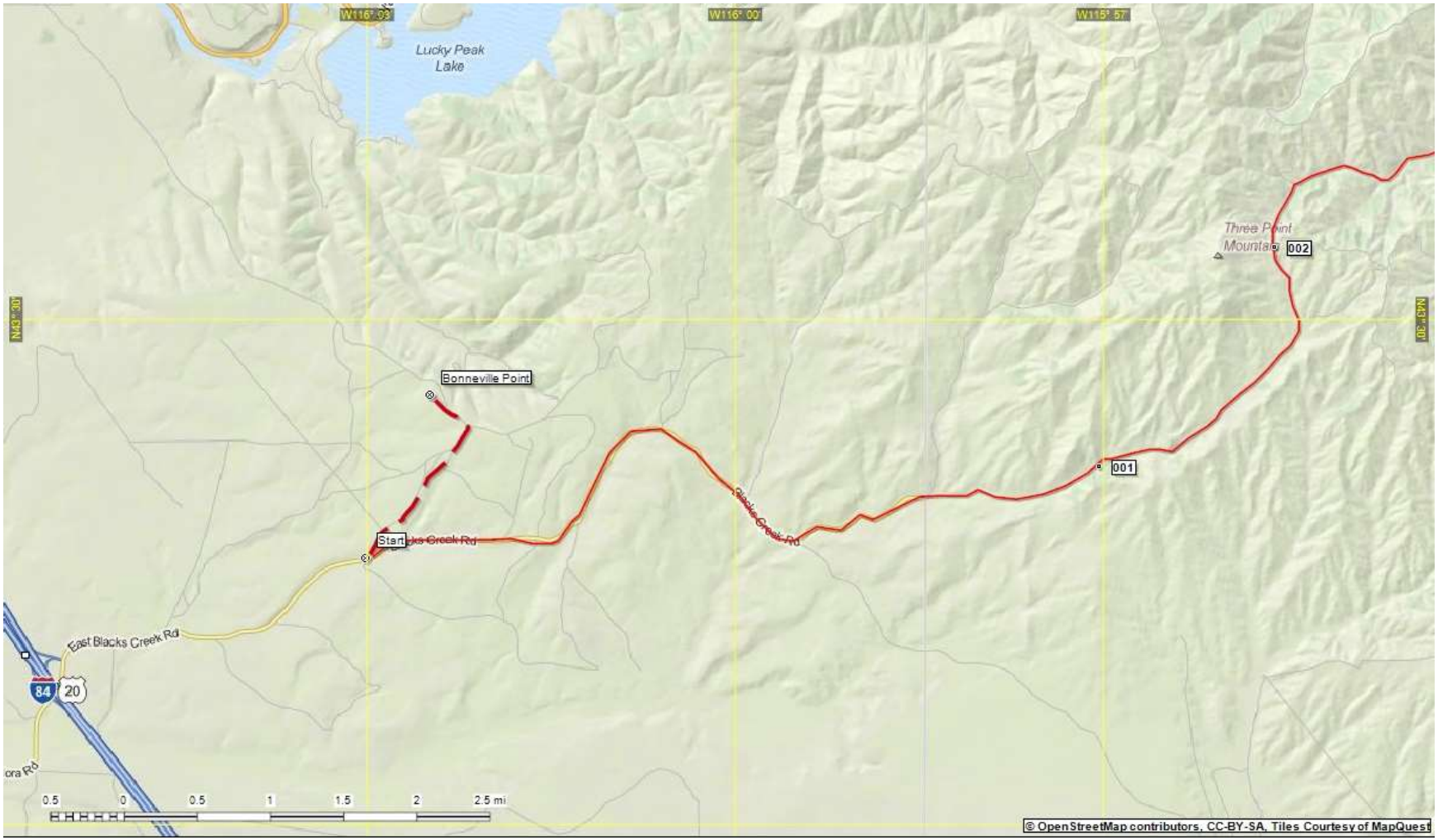
**Stop 13: mile 6.2 (GPS N43.51096; W115.50593).** This is a lava tube from the Smith Prairie volcano.

In one tenth of a mile take next **Left** to parking at Stop 14.

**Stop 14: mile 7.2 (GPS N43. 52313; W115.51116).** Park here on left side of road. You will walk up the slope to the left (south) for about 220 yards to the edge of the Smith Prairie Volcano crater at GPS N43.52200; W115.51127). If you walk further down into the crater you will get a

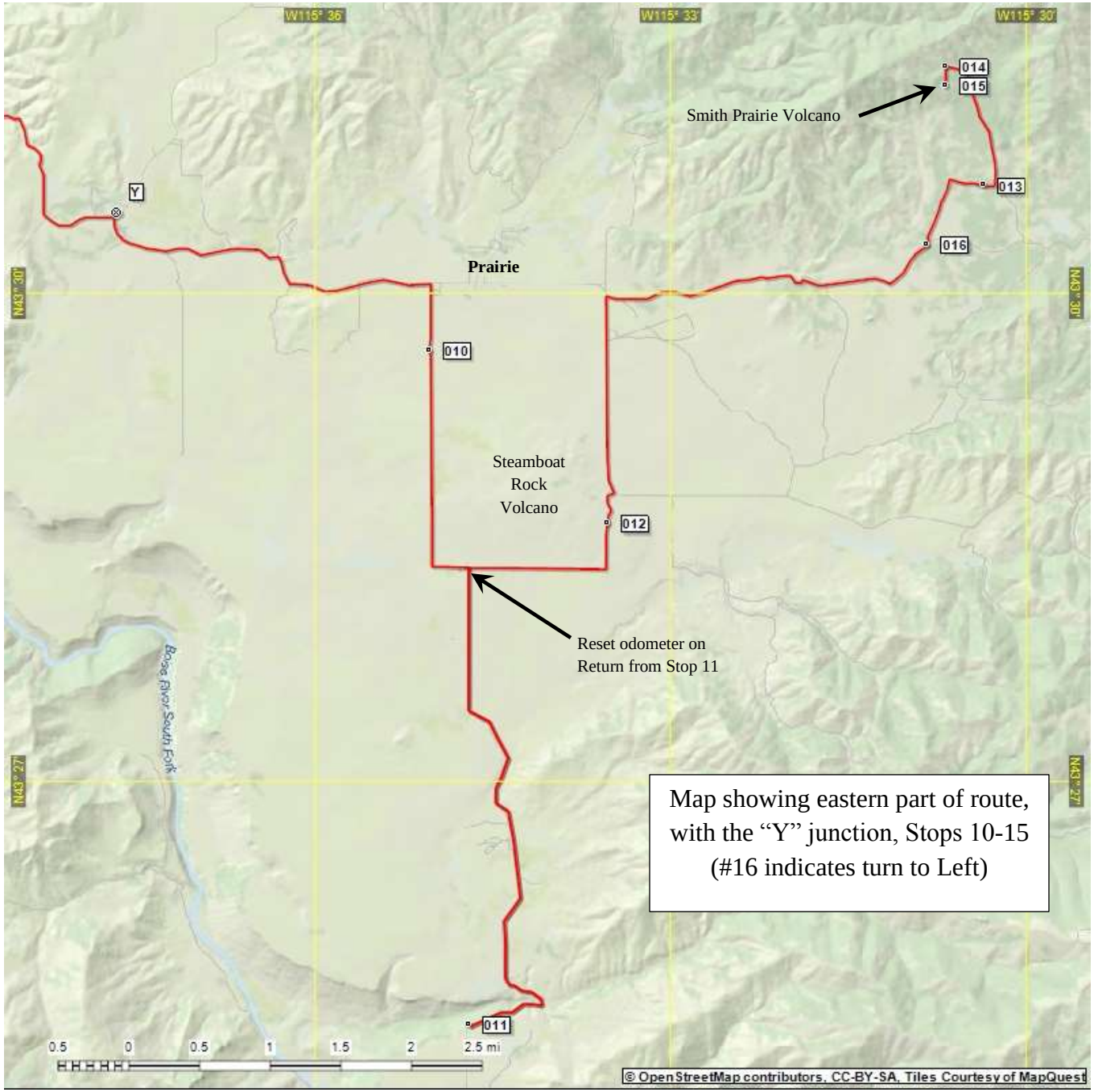
view of the central plug dome. The eruption blew out the rim of the crater to the left (east) and that was the direction of flow for the basalts that entered the South Fork Canyon.


This area was severely burned and footing was very slippery from ash, rain and fallen pine needles on the day of the trip.




Map of western part of route, including I-84 exit, Bonneville Point, odometer starting point and Stops 1 and 2


Map showing central part of route, with Stops 3-9




Map showing eastern part of route, with the "Y" junction, Stops 10-15 (#16 indicates turn to Left)