

Early Season Snowpack Summary through December 2, 2022 – Dan Hohl and Zach Guy

As per usual, the bulk of early October snow melted away save for lingering pockets on the high elevation northerly terrain (Figure 1). This older snow had become a pencil hard crust by the time the October 23 storm arrived which buried and preserved the crust. Snowfall continued for the next few days and brought the seasonal snowpack up to 14” at Gothic.

This storm also caused the first recorded natural avalanche of the season in Halloween Bowl

November started off with clear days and nights, kickstarting widespread faceting and surface hoard growth, forming our first weak layer of the season (Nov 3rd interface) that spanned West to North to East aspects at all elevations. Southern aspects soon melted off on all but a few patches above tree line. The snowpack was above average in early November, averaging about 10” on shady aspects.

November 3rd brought 6” of new snow and several small natural avalanches above tree line in the Gothic and Baldy areas. In the days following this storm, strong west to north winds scoured many alpine slopes while forming hard slabs on others. A triggered slab (Figure 2) and unstable pit results continued through the week.



Figure 1: October 18, 2022. Lingering snow coverage from early October storms formed a hard crust on high northerly slopes, such as this terrain near Yule Pass.



Figure 2: November 6, 2022: The crown of a small (D1.5) skier triggered avalanche on Cinnamon Mtn.

A dry pattern continued through the rest of November, as did faceting of the snowpack. Riding conditions remained soft in shady, high elevation terrain while coverage melted away on many lower elevation southerly aspects. Periods of wind transport kept avalanche concerns confined to a few leeward slopes. The most notable of these was a ski-triggered D2 avalanche that produced debris up to 5 feet deep (Figure 3).



Figure 3: A large (D2) skier triggered wind slab on Mt. Baldy

After nearly three weeks of dry weather, the snowpack had grown increasingly weak by late November. Faceting had rendered much of the snowpack below tree line unsupportive and exceptionally weak (Figure 4). Numerous wind events above treeline left the snow surface variable with wind crusts over facets, thin hard slabs, or weak and eroded snow. Most southerly slopes below tree line were bare (Figure 5). Sunnier aspects near and above tree line held crust/facet layers that were very weak on due east aspects and gained strength as you moved to due south aspects, with southeast aspects somewhere in between (Figure 6).

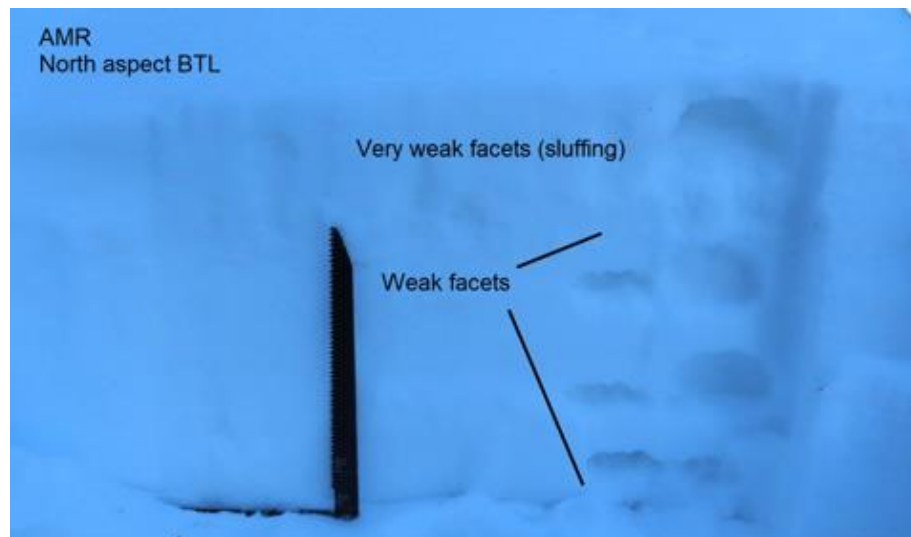
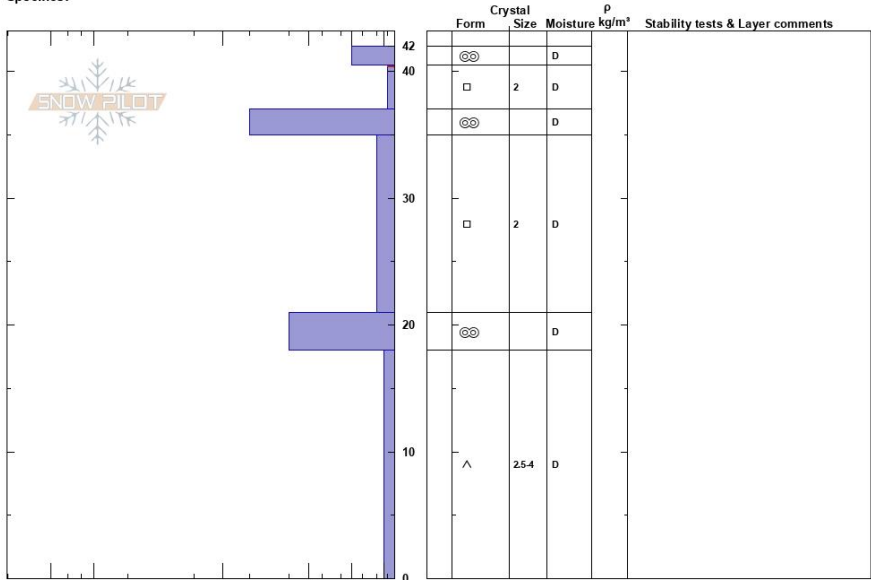


Figure 4: November 26, 2022. Very weak, faceted snow was widespread on shadier aspects, such as this pit at the Anthracites



Figure 5: November 26, 2022: Weak layer coverage was widespread across northerly and east facing terrain, with variable crusts or bare coverage on more southerly aspects.

Red Lady Bowl 1 Zach Guy **Stability:** HS:42 **Layer Notes:**
 Elk Mountains 11/28/2022 - 1:00pm **Air Temperature:** PS: 5 40.5-37cm: Problematic layer
 CO **Co-ord:** 38.88541N, -107.04927W **Sky Cover:** OVC
Elevation: 11929 ft **Slope Angle:** 34° **Precipitation:** NO
Aspect: 115° **Wind Loading:** yes **Wind:** SW Moderate
Specifics:



Notes: Dug near bottom of start zone. Surface crust on this ESE aspect is easy to break through on skis.

Figure 6: A crust facet crust facet sandwich in Red Lady Bowl, on and ESE aspect above treeline

Finally, the storm track shifted to a snowy pattern on November 28th. The first in a series of storms culminating on November 29th produced 1 to 2 feet of snow, sustained moderate winds with strong gusts, and a widespread D1 to D2 natural cycle (Figures 7, 8, and 9). The touchy avalanche conditions and widespread activity on north to east aspects spiked the danger to High in the Northwest Mountains and Considerable in the Southeast Mountains. The next storm is underway on December 2nd, with up to 1.3" of SWE at Schofield Pass, sustained strong to extreme winds, and another round of natural activity expected. Another Avalanche Warning was issued, and both forecast zones went to High danger.

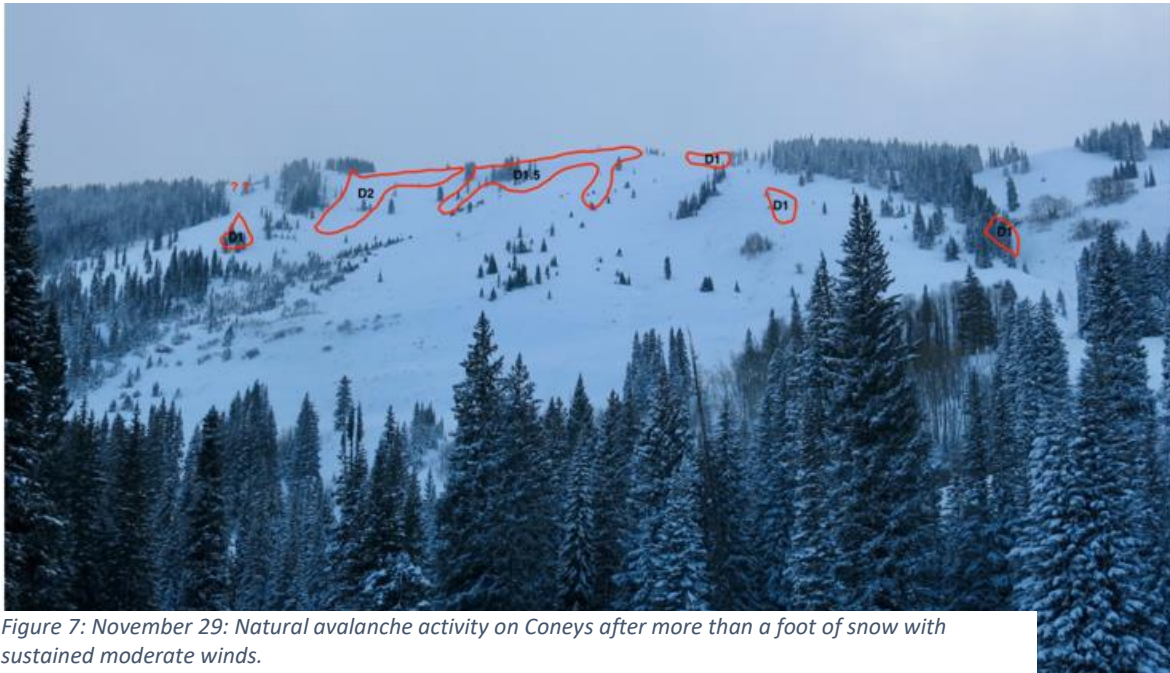


Figure 7: November 29: Natural avalanche activity on Coney after more than a foot of snow with sustained moderate winds.



Figure 8: November 30, 2022. A D2 slab avalanche that released the day prior on Mt. Richmond. We documented 17 large avalanches like this that failed on higher elevation slopes during the November 29th storm.