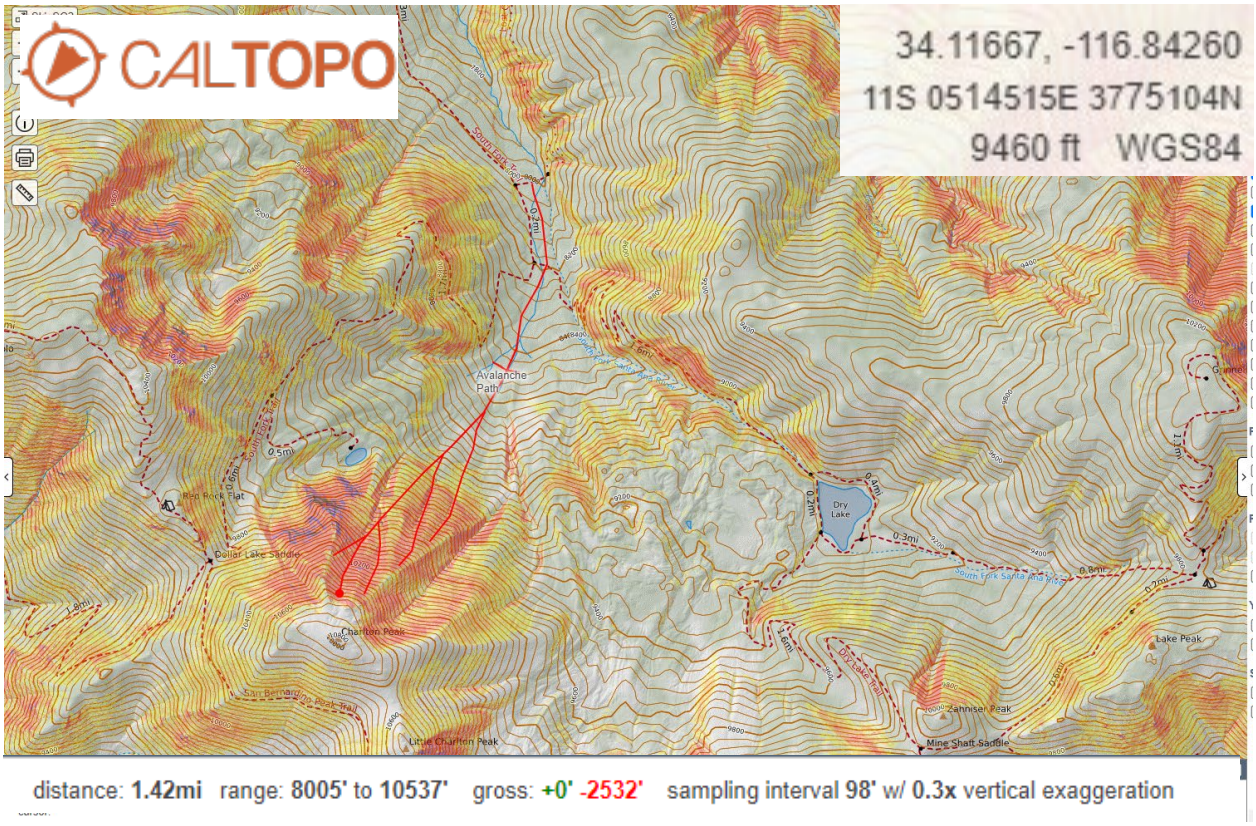

Figure 1 Summary area of Mt Charlton avalanche slide (red shows the avalanche path)

It appears there were several simultaneous natural slides off of the east facing couloirs of Mt Charlton in the San Gorgonio area, See Figure 1. On the day of the observation, the temperature was warm (47 F at 9000 ft) and the overnight temperatures were above the freeze thaw cycle where the estimated freezing level was 10,500 ft (which is close to the estimated fracture point of 10,400 ft). There were light winds and clear skies in the morning with cloud cover in the afternoon.

The snow fall for the areas (All of Southern California and Northern California) is being recorded as historic where over 200 inches was recorded for the season at the Big Bear local ski resort (just North of San Gorgonio area) at the time of the observation. Of those 200 inches, over 127 inches of snow fell between 2/21 to 3/3 (spanning 11 days), see Figure 2. The temperatures were unusually cold for the SoCal area where snow levels were below 4,000 ft (reaching as low as 1500 ft). The water loading was about 4 inches for the 127 inches of snow, see Figure 2. Then on 3/11 – 3/12 another 1 inch of water fell in the area (see Figure 2) with a freezing level of 11,000 ft which may have caused the light snow to form a slush or wet slab avalanche, see Figure 3. My estimates show that the fracture occurred and propagated the entire span of the east facing couloirs of Mt Carleton, see Figure 4.

This avalanche had a path of about 1.42 miles with a width of 500 ft or more, see Figure 5 through Figure 8. It is estimated, based on previous hikes in the area, that the snow depth in the avalanche path is over 100 ft. Several very large trees were taken out from the avalanche and are included in the debris field, see Figure 9. This appears to be a natural slide that was triggered from weather and no one was caught in this slide. Due to the size, path length, and the descriptive nature of the avalanche, I would estimate this as a very large avalanche in the R4D4 rating which easily would have buried and killed someone if they were

in its path. The conditions in the other areas in the San Gorgonio wilderness had a very icy surface that didn't break during skinning at the 10,000 ft elevation, see Figure 10

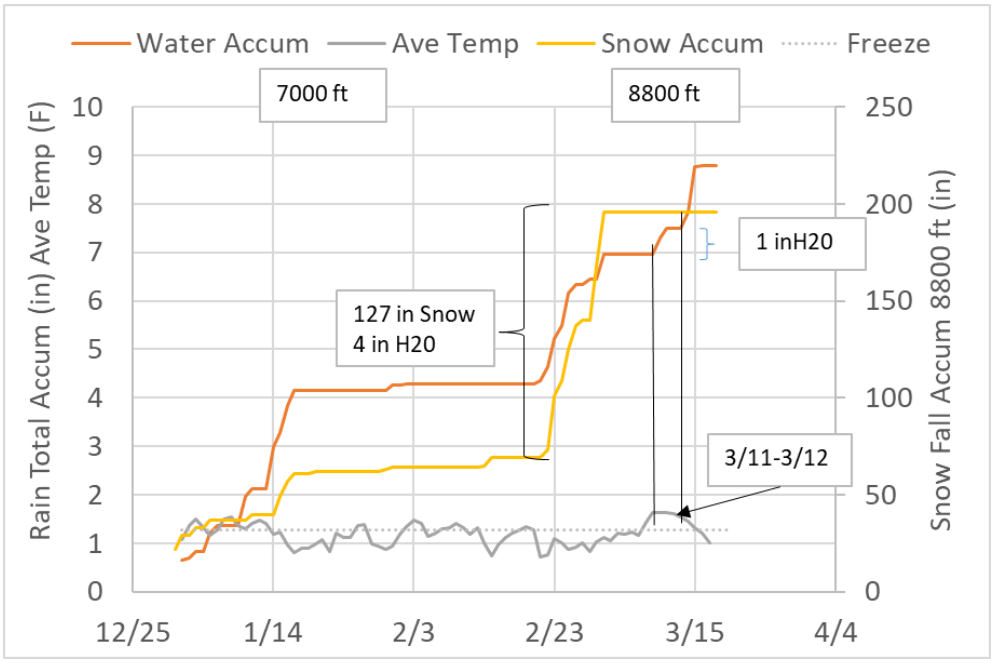

Figure 2 Accumulated water and average temperature for the Big Bear weather station (Courtesy of CCMIS stn 251 at 7,000ft) and Big Bear snow report using the peak elevation of 8,800 ft.

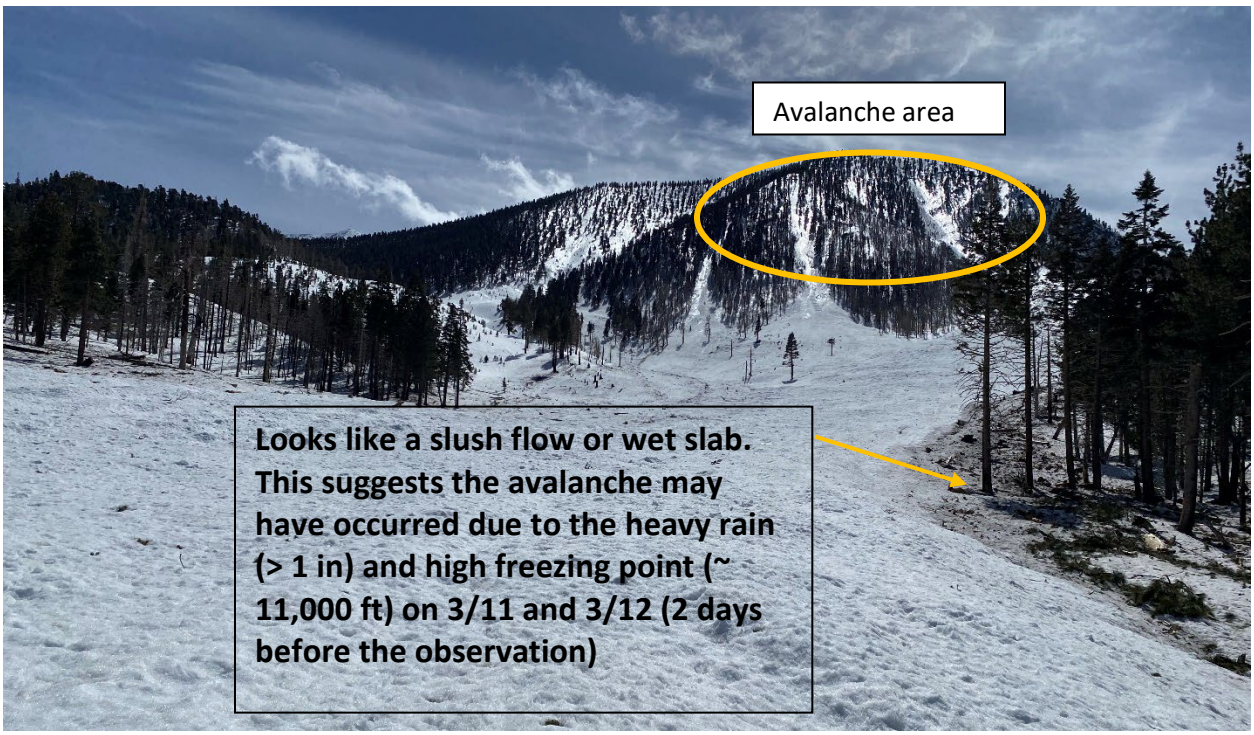

Figure 3 Main area of the avalanche source and path through the South Fork Meadow area.

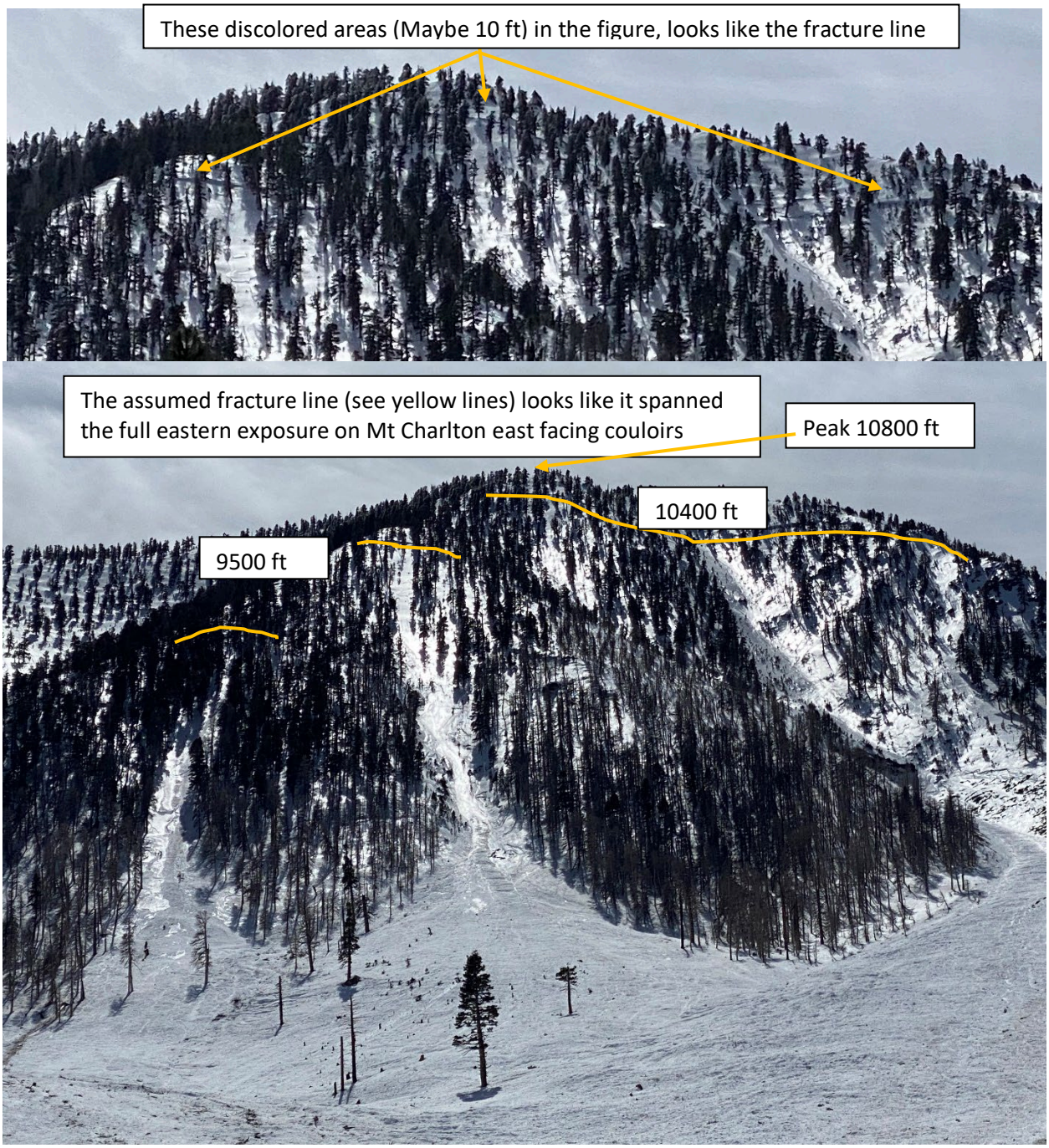

Figure 4 East exposure of Mt Carleton where 3 couloirs formed a single slide in the South Fork Meadow of San Gorgonio.

Figure 5 Facing North East from Mt Charlton showing the avalanche path, distance, and debris.

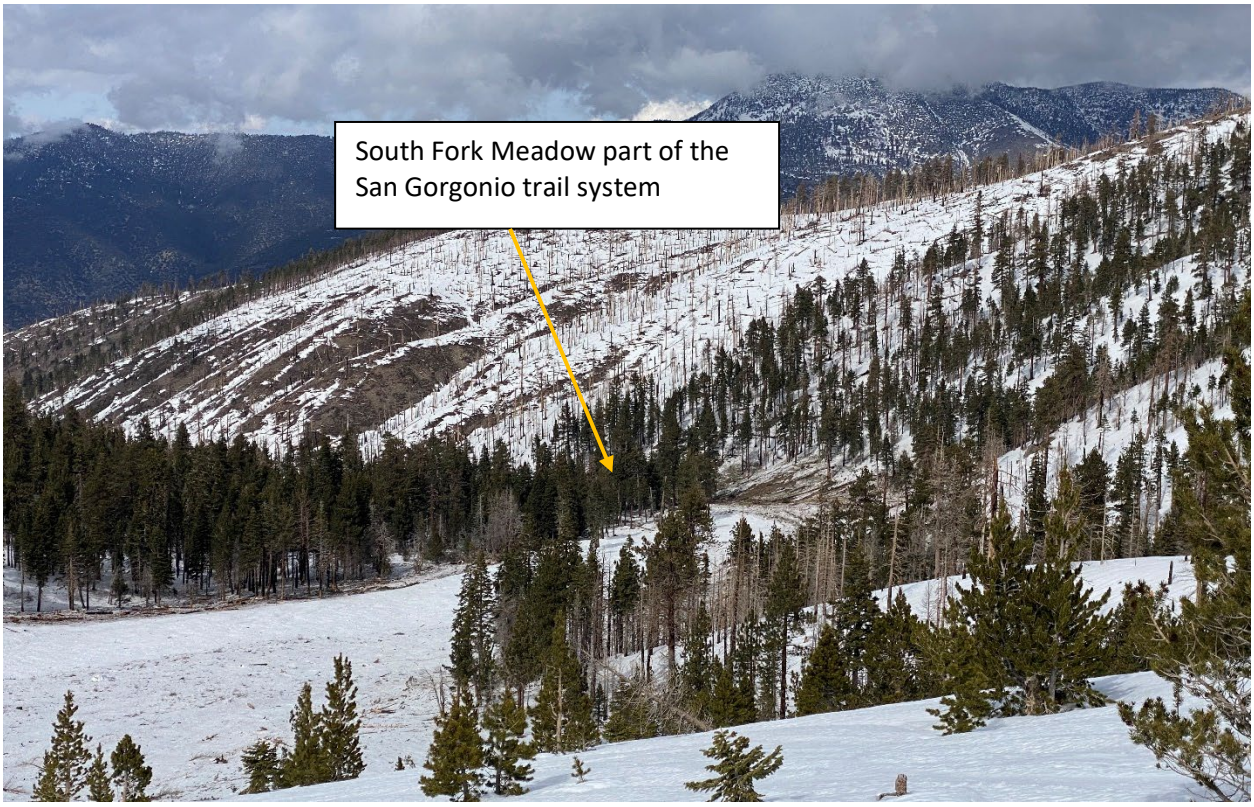

Figure 6 Facing North East from Mt Charlton at a higher elevation showing the avalanche path at South Fork Meadow.

Figure 7 Facing North East from Mt Charlton at a location looking down the avalanche path.

Figure 8 Facing West up to Mt Charlton at a location where the avalanche started and its path

Figure 9 A tree in the path of the avalanche showing the large areas of damage to the standing tree's bark and some trees that were part of the avalanche path.

Figure 10The surface conditions at 10,000 ft was a relatively thick ice crust near Jepson bowel area on the same day.