

# Cometary Cell C2067

## Images

**Aerogel Cell:** [C2067-01.jpg](#)  
[C2067\\_T1\\_20x.jpg](#)

**Cell History:** Cell C2067 was removed from the cometary grid on September 14, 2006.

**Track Information:** The tile has several small- to medium-sized tracks.

## Feature Images

## Allocation History

## Results

### Log Entries

**Note:** All track / features (e.g., T1) numbers assigned during the Level 3 scanning are to be considered “**Temporary**” and in do not relate to the “Official” track number that is assigned when a given features is extracted (e.g., Keystoned) from a tile. Abbreviations: EH – Entrance Hole, TP – Terminal Particle, MTW – Maximum Track / Bulb Width, TL – Track Length.

**November 30, 2006**

**T.H. See**

Removed tile C2067 from sample cabinet and mounted in Level 3 fixture after determining proper orientation from the Level 2 mosaic. This tile has a large impact/track on the right end of the tile.

Began Level 3 process @ ~08:50.

7x / 20x lighting already in place so these images were acquired first. Completed @ 09:15.

Reconfigured system for tungsten light and depth profiles.

Completed depth profiles @ 09:45. System configured for detailed track scan and documentation.

Tracks:

On the first pass, Track B was encountered on the extreme left end and back of the tile from the microscope system. Unfortunately, this position blocks imaging the feature as the left end of the Level 3 fixture impairs the light path to the camera, which is using the left optical path of the stereo microscope. As a result, I plan to flip the tile 180° once I complete documenting the other features in this tile in the normal orientation.

C2067-TB – See above paragraph. Location under normal configuration is 2.9 x 18 mm, corresponding well with Penny’s Track B. Rest to follow after rotating tile 180°. EH ~120 µm, while MBW ~830 µm. Looks like at least 5 styli associated with this track, all appearing to have TPs. TP1, deepest ~30 µm; brownish coloration. TP2, next deepest is 15 x 25 µm; brown, glassy looking. TP3, third less deep is ~15 µm; seems to have more luster, but could be from

aerogel. TP4 is ~20  $\mu\text{m}$  in size and brownish colored. TP5 ~20  $\mu\text{m}$  and brownish. TP6 ~8  $\mu\text{m}$  and brownish. TP7 & TP8 both ~15  $\mu\text{m}$  in size and brownish in color. Maximum track length ~8.1 mm. Next longest styli ~ 5 mm.

Image C2067-TB-TC shows both tracks in the one image taken normal to tile surface (*i.e.*, Level 3 fixture not rotated normal 15 degree below surface). It can be seen in this image that Track B's top has been offset by a fracture in the aerogel.

C2067-TC – Located @ 7.2 x 17.6 mm. Type A carrot. Since this track is near Track B and the back of the tile, I will attempt to acquire a better image after rotating the tile for Track B above. Very long, needle-shaped track. Length is 4.4 mm. MBW ~120. Better images of EH and TP will be obtained from reverse angle. EH ~55  $\mu\text{m}$ . Beautiful, jet-black 12  $\mu\text{m}$  TP. Extremely pristine in appearance.

C2067-TE – Located @ 20.3 x 6.7 mm. Small, Type C track. Three visible styli. Longest stylus is ~320  $\mu\text{m}$ , while the second longest is ~250  $\mu\text{m}$ . Shortest stylus is ~181  $\mu\text{m}$ . TP present on all three. MBW is ~69  $\mu\text{m}$ . All TPs measure <5  $\mu\text{m}$ . EH not definitive, but appears to be ~20  $\mu\text{m}$ .

C2067-TD – Located @ 19.9 x 1.6 mm. Small Type A track. EH is ~7  $\mu\text{m}$ , while MBW is ~28  $\mu\text{m}$ . TP is ~4  $\mu\text{m}$ . Length ~377  $\mu\text{m}$ . T.H. See track length depth did not see small TP that was deeper in the track than could not be seen from the angular top surface / 15° offset view.

C2067-TF – Located 31.2 x 3.8 mm. Type A carrot with nice TP at the end. Length ~1.83 mm. MBW ~66  $\mu\text{m}$ . EH ~38  $\mu\text{m}$ . TP ~6  $\mu\text{m}$ .

C2067-TA – Located 36.6 x 10.4. Big mama on the right end of the tile. Type C bifurcated track. EH ~275  $\mu\text{m}$ . MBW ~2.26 mm, yes, mm. Three visible styli in low-magnification image, measuring 10.2, 9.7, & 8.8 mm in length, and again, yes mm. Top bulb portion ~7 mm deep. TP2 is either one very elongate particle, or two particles essentially touching each other. If one, measure ~15 x 40  $\mu\text{m}$  in size and is dark colored. If two particles, small one is ~12  $\mu\text{m}$ , while the larger one is ~18  $\mu\text{m}$ . TP1 ~15  $\mu\text{m}$ . TP3 ~18 x 12  $\mu\text{m}$ . TPs 1 & 3 appear to be lighter in color than TP2, but this may be due to aerogel surrounding the particles. Very little, if any aerogel around TP2.