

**Subject:** [External] Re: Question: Filter testing report JOB NUMBER: 3653-001  
**Date:** Monday, July 6, 2020AD at 12:59:49 Atlantic Daylight Time  
**From:** Bruce Urch  
**To:** Ng, William, Aerosol Testing DLSPH  
**CC:** Anwari, Vahid, Mary Speck, Jessica Trac, James Scott

William,

- 1) The pressure drop for filter/mask test #1 was -21.3 mm H<sub>2</sub>O or -0.84 inches H<sub>2</sub>O.
  - 2) With lab air the count inside the mask was 16.8 particles/cc.
  - 2) With salt the average count inside the mask was 2,143 particles/cc.
  - 3) The FE formulae is  $100 \times [(outside - inside) / outside]$ .
- For the mass FE we use the sum of the particle volume x counts for the 54 particle sizes from 10.4 to 469.8 nm diameter midpoint.

Bruce

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**From:** Ng, William <William.Ng@uhn.ca>  
**Sent:** July 2, 2020 7:16 PM  
**To:** Aerosol Testing DLSPH <aerosol.testing.dlsph@utoronto.ca>; Bruce Urch <bruce.urch@utoronto.ca>  
**Cc:** Anwari, Vahid <vahid.anwari@uhn.ca>; Mary Speck <m.rutherford@utoronto.ca>; Jessica Trac <jessica.trac@mail.utoronto.ca>  
**Subject:** Question: Filter testing report JOB NUMBER: 3653-001

Dear Bruce and Mary

Thanks to you both for all the hard work and resources.

Vahid and I just wanted to ask Bruce 3 things:

1. Did we have a seal pressure measured for the face-piece with the filter? And did it measure < -1000 in. water as expected?
2. With the raw particle count, the expected count number is  $<20 / \text{cm}^3$ , what was the actual particle count for this (FE-99.7%),
3. by what number do we divide the particle count to get the actual %? I forgot what you once told me.

Thank you for the pressure drop measurement, that is reassuring.

Truly,

William C. K. Ng  
*MBBS MMed FANZCA FRCPC*

Anesthesia and Pain Management, Toronto General Hospital  
TGH Research Institute & UHN Advanced Perioperative Imaging Lab (PI)  
Pediatric Cardiac Anesthesia, SickKids Hospital  
Faculty Dept. of Anesthesiology, University of Toronto

M 1.857.330.7399

*Soli Deo Gloria*

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**From:** Aerosol Testing DLSPH <aerosol.testing.dlsph@utoronto.ca>

**Date:** Tuesday, June 23, 2020AD at 14:08

**To:** "Ng, William" <William.Ng@uhn.ca>

**Cc:** James Scott <james.scott@utoronto.ca>

**Su**

**Subject:** [External] Filter testing report

Hi William,

Attached are the results of our testing of the filter media you provided.

Please sign and return a copy of the attached agreement letter.

Best Regards,

Aerosol Testing Laboratory  
Dalla Lana School of Public Health  
Gage Bldg, Room 302  
223 College, Toronto, Ontario M5T 1R4  
[aerosol.testing.dlsph@utoronto.ca](mailto:aerosol.testing.dlsph@utoronto.ca)

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