



## Environmental

### SUMMARY OF TESTING

Date: August 22, 2008

Client: **Oly Welke**  
Strasser Woodenworks  
14237 NE 200<sup>th</sup> St  
Woodinville, WA 98072

Project: Granite Testing

### TESTING OVERVIEW

On August 18, 2008, Radon Technician Mr. Mark Linton performed radiation measurements on 6 pieces of various colors of granite. All sample pieces were 4" x 4". The colors are listed below:

- Baltic Brown
- Uba Tuba
- Blue Pearl
- Black Galaxy
- Giallo Fiorita
- Beige

The results of the gamma radiation survey are listed below:

- Baltic Brown- ranges from **0.018 mR/hr to 0.028 mR/hr** across the sample front and back
- Uba Tuba ranges from **0.019 mR/hr to 0.034 mR/hr** across the sample front and back
- Blue Pearl ranges from **0.027 mR/hr to 0.030 mR/hr** across the sample front and back.
- Black Galaxy- ranges from **0.018 mR/hr to 0.028 mR/hr** across the sample front and back.
- Giallo Fiorita- ranges from **0.017 mR/hr to 0.021 mR/hr** across the sample front and back
- Beige-ranges from **0.019 mR/hr to 0.023 mR/hr** across the sample front and back

\*\*Each sample was tested for a one hour period.

The results above indicated no elevated gamma radiation levels.

### **Radon Release Testing:**

The granite counter top pieces were placed inside a 5 gallon container with a screw cap. An EPERM (Electret Passive Environmental Radon Monitor) a small chamber with a charged electret attached to its base was placed inside each container on top of the stone pieces. The radon testing began on August 18, 2008 at 9:00 am and ran through August 21 at 9:00 am. Elapsed time was 4 days or 96 hours. The ½ life of radon is 3.8235 days the testing represented 15.3 days for each piece of granite.

**Results of the testing are listed below:**

- Baltic Brown- average radon concentration 0.2 pCi/l over a 4 day period.
- Uba Tuba-average radon concentration 0.3 pCi/l over a 4 day period.
- Blue Pearl-average radon concentration 0.2 pCi/l over a 4 day period.
- Black Galaxy-average radon concentration 0.1 pCi/l over a 4 day period.
- Giallo Fiorita-average radon concentration 0.1 pCi/l over a 4 day period.
- Beige-average radon concentration 0.1 pCi/l over a 4 day period.

The average indoor radon concentration is 1.3 pCi/l. The average outdoor radon concentration is 0.4 pCi/l.

Based on the above readings all the samples tested below the average outdoor radon concentration.

Based on the readings all the samples add only insignificant amounts of radon to the home, and no more than the outside air would in opening a window.

The main source of radon emitted from granite counter tops is from trace minerals found inside the brown or black minerals known as biotite because of their uranium content. The radon emanation from other minerals in the counter tops such as orthoclase and quartz are negligible. If proper resealing is applied once a year or at other times as recommended by the granite industry, the radon emanation can further be reduced.

Report Approved By:

*Tammy Linton*

RDS EPA certified Radon Laboratory  
Lab ID# 102717.0AL