



# DURRIDGE COMPANY INC.

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## ROCK SAMPLE RADON CALIBRATION

<b>Rock Sample SN:</b> _____	<b>Average of Four Readings:</b> _____	<b>pCi/L</b>
		<b>BqM<sup>3</sup></b>

This sample was kept sealed for more than one month. A recently calibrated, standard RAD7 was first purged with dry, ambient air for not less than 10 minutes. The RAD7 was connected to the rock sample with a standard rock-sample tubing set and small drying tube. The RAD7 protocol was set to 1-day and the 'Recycle' setting reduced to 06. The RAD7 was switched OFF then ON and allowed to print out a header. The ball valves on the rock sample were opened and a test started. After completion of the run (three hours later), the ball valves were closed and the date of closure noted on the rock sample. Of the six half-hour readings, the last four were averaged. The data is presented below.

RAD7 Cal. Date (Y/M/D): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_      Ambient Radon Concentration: \_\_\_\_\_ pCi/L

RAD7 Serial Number: \_\_\_\_\_      \_\_\_\_\_ BqM<sup>3</sup>

RAD7 RH: \_\_\_\_\_ %

Temperature: \_\_\_\_\_ °C

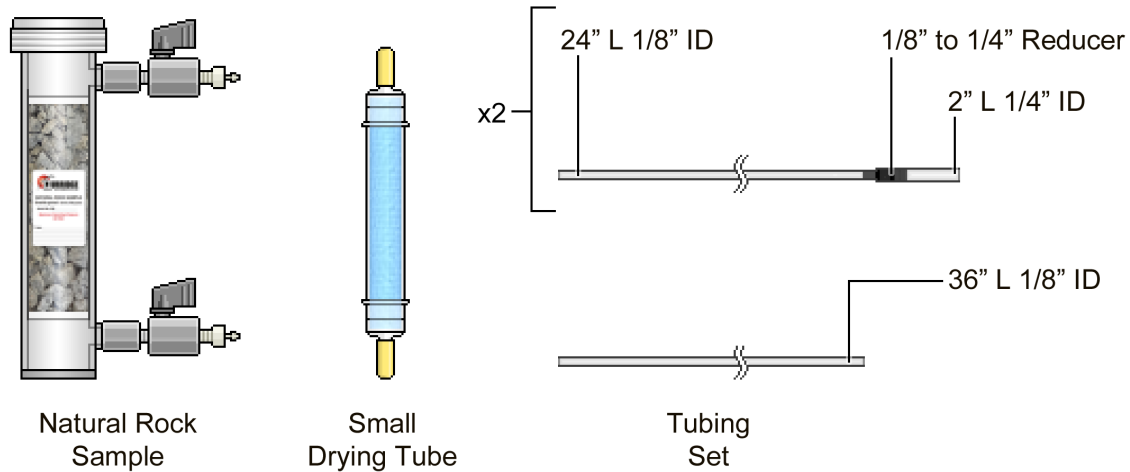
Any standard RAD7 that is in calibration will give the same result to within 7% provided the rock sample has been sealed for a month or more and exactly the same setup and procedure, as described above, are used.

Signature: \_\_\_\_\_

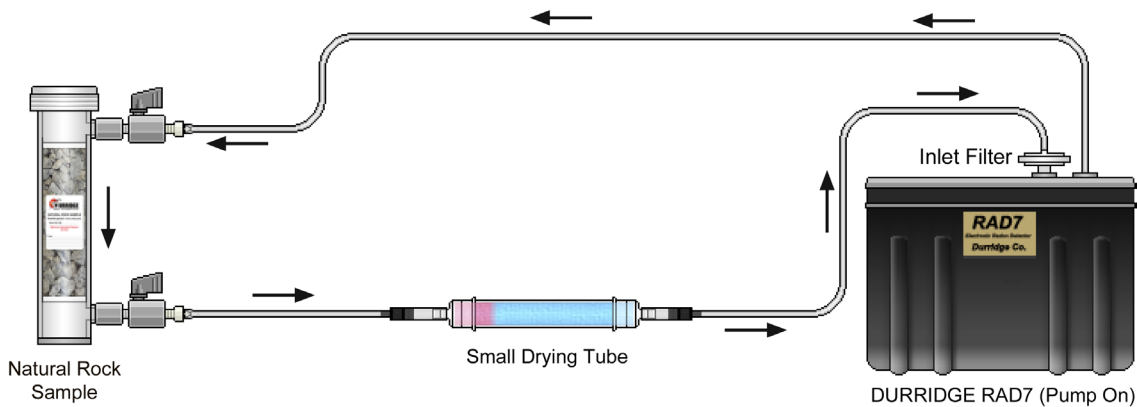
Date (Y/M/D): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

## Notes on Rock Sample Calibration

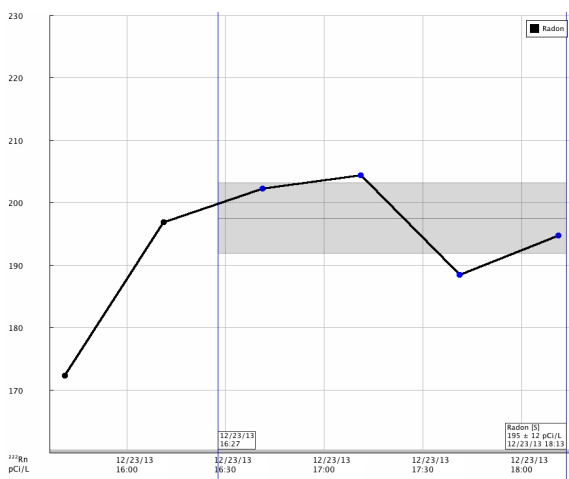
### 1. Natural Rock Sample Components Used:



### 2. Natural Rock Sample Test Configuration:



### 3. Analysis Using CAPTURE Software (Last four records examined and averaged):



### 4. Non-Standard Setups

If  $V_{setup}$  is the total volume of the standard setup and  $R_{av}$  is the measured average concentration with the standard setup, the total radon in the system is  $R_{av} * V_{setup}$ . For a non-standard setup, with different total volume, the average radon concentration of the four specified readings,  $R_{avNew}$ , will be:

$$R_{avNew} = R_{av} * (V_{setup} / V_{setupNew}).$$

The standard setup component volumes are: Rock Sample 432ml, tubing set 4ml, small drying tube 24ml and RAD7 800ml. Thus the total standard setup volume,  $V_{setup}$ , is 1,260ml.