

ROCK SAMPLE RADON CALIBRATION

Rock Sample SN: _____ **Average of Four Readings:** _____ pCi/L
 _____ Bq/M³

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 Conc: _____ pCi/L

RAD7 Serial Number: _____ BqM³

RAD7 RH: _____ %

Temperature: _____ °C

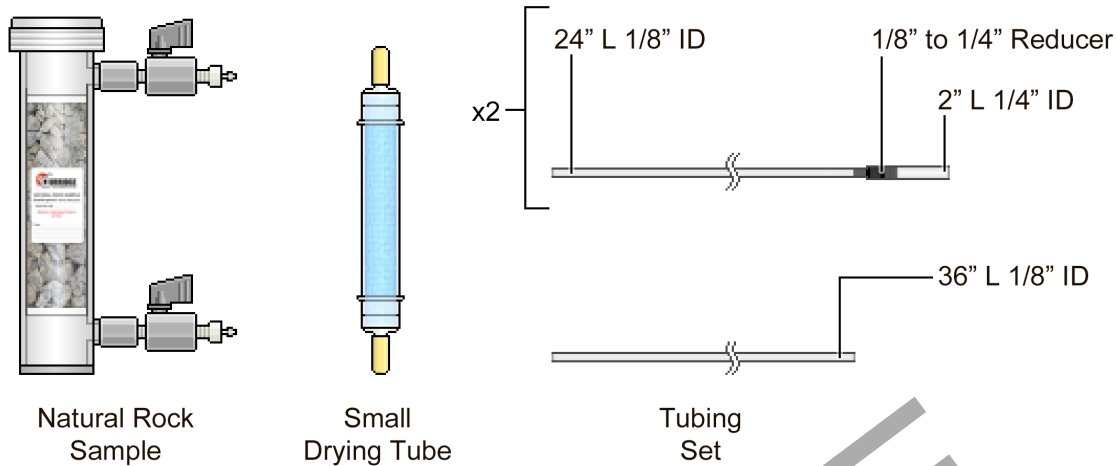
Any standard RAD7 that is in calibration will give the same result to within 7% provided the rock sample has been sealed for a month or more and exactly the same setup and procedure, as described above, are used.

Signature: _____

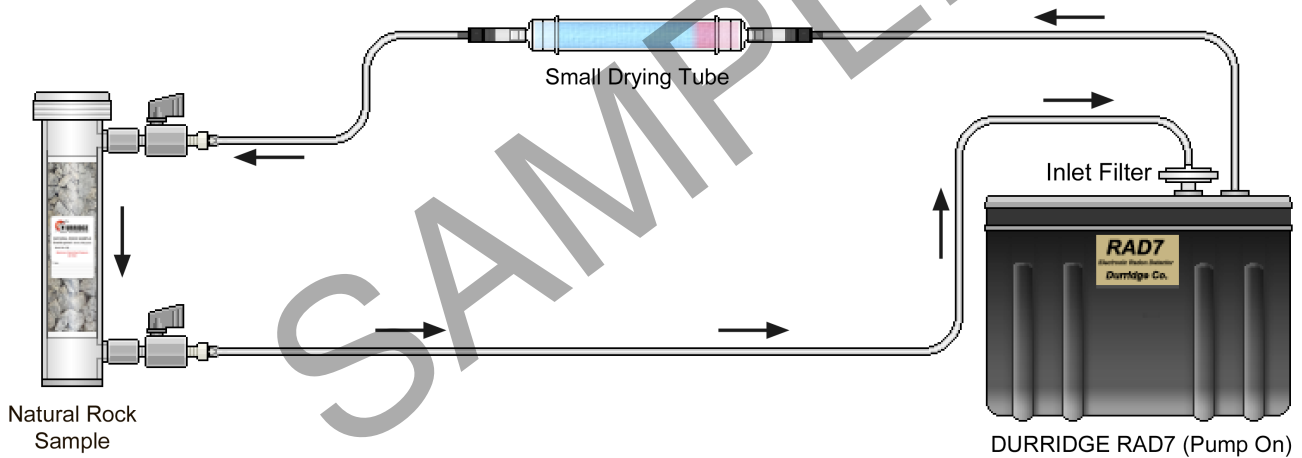
Date (Y/M/D): _____ / _____ / _____

Notes on Rock Sample Calibration

1. Natural Rock Sample Components Used:

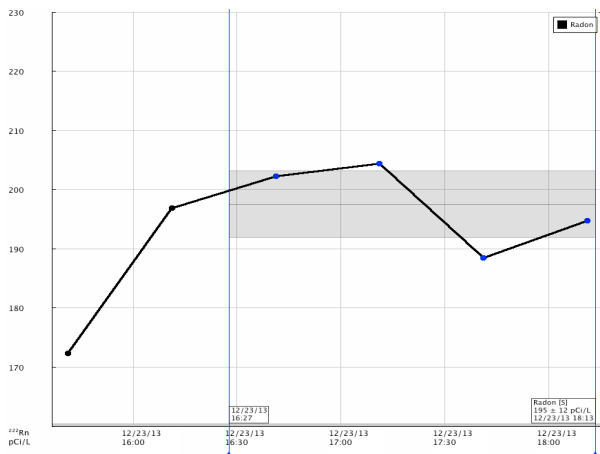


2. Natural Rock Sample Test Configuration:



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 a different total volume, the average radon concentration of the four readings, R_{avNew} , will be:

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

The standard setup component volumes are: Rock Sample 460ml, tubing set 4ml, small drying tube 24ml and RAD7 800ml. Thus the total standard setup volume, V_{setup} , is 1,260ml.