

## Summary of radon measurements on Belden YR29304 Clear Cable

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The following is a summary of the measurements of radon emanation into vacuum done on Belden clear cable with a high density polyethylene (HDPE) jacket.

The sample supplied by Belden is their YR29304 877 NAT coaxial cable. The sample was clear in color (with a slight purple tint due to the Al foil) and in cable form (O.D. 6.1 mm). There is a central copper covered steel wire, a solid polyethylene insulator, a tinned copper braid, flooding compound, Al foil and a HDPE jacket.

45.72 m of cable were put in the emanation chamber and pumped for three days. The chamber reached a base pressure of 46 microns.

Five Extractions were performed:

- 1: July 21, 1993 after 5 day seal:  $0.072 \pm 0.007 \text{ Rn m}^{-1}\text{h}^{-1}$
- 2: July 26, 1993 after 5 day seal:  $0.064 \pm 0.010 \text{ Rn m}^{-1}\text{h}^{-1}$
- 3: July 30, 1993 after 4 day seal:  $0.033 \pm 0.006 \text{ Rn m}^{-1}\text{h}^{-1}$
- 4: August 3, 1993 after 4 day seal:  $0.062 \pm 0.007 \text{ Rn m}^{-1}\text{h}^{-1}$
- 5: August 9, 1993 after 6 day seal:  $0.049 \pm 0.006 \text{ Rn m}^{-1}\text{h}^{-1}$

Taking the weighted average of all extractions gives a radon emanation rate for the Belden YR29304 877 NAT coaxial cable of  $0.053 \pm 0.007 \text{ Rn m}^{-1}\text{h}^{-1}$ .