Message

From: Greene, Nikia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=32A08A414A4F40199B557C0819EB7D0B-GREENE, NIKIA]
Sent: 12/11/2019 11:57:45 PM
To: Mark Thompson [MThompson@montanaresources.com]
Subject: RE: McGrath Comment on MT Standard Web-Page

Mark,

I also talked to Henry and his view is consistent with what we just discussed.

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From: Mark Thompson <MThompson@montanaresources.com>
Sent: Wednesday, December 11, 2019 4:56 PM
To: Greene, Nikia <Greene.Nikia@epa.gov>
Subject: McGrath Comment on MT Standard Web-Page

Nikia,

I sent the McGrath comment on the Montana Standard web page to a toxicological group that is working under attorney privilege. This was their response:

Hi Mark
That is an interesting comment. However, I think it is inaccurate on several points. The article in question is Hamzaoglu et al. (2014), which was conducted in Turkey, not Japan. It is the same research group as the Turker studies (Turker is one of the authors).
Also, the commenter cites Butte mean concentrations (with units incorrect, as you note). A better comparison is the Butte median, because Hamzaoglu et al. provide medians but not means.
Perhaps most noteworthy, the numbers cited by the commenter are actually the number of samples in which the element was detected (>LOD), not a concentration. So the commenter is comparing the number of samples with a detected metal from Hamzaoglu et al. to the mean concentration reported for Butte in McDermott.

Hamzaoglu et al. measured metals in meconium from babies of mothers living in an industrial and a non-industrial neighborhood in an Kocaeli, Turkey (which is an industrial city, so both neighborhoods had impacted air quality).
From my quick reading of this study, it appears to me the meconium metals concentrations reported by Hamzaoglu et al. were much higher than reported for Butte.
For example, median zinc concentrations in Hamzaoglu et al. for the two cities are 229,000 and 244,500 µg/kg. Those are well above the Butte median zinc concentration of 81,642 µg/kg.
For copper, Hamzaoglu reports median concentrations of 71,000 and 67,050 µg/kg. Butte median copper was 26,311 µg/kg.

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