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NMED Analysis of Preliminary EPA Data
Gold King Mine Spill

The New Mexico Environment Department (NMED) received preliminary EPA data on Sunday, August 9, 2015, which NMED immediately posted to its website at http://www.nmedriverwatersafety.org/.
This document provides an explanation of NMED's initial analysis of the preliminary EPA data.

BACKGROUND

Contaminants were released from the Gold King Mine into Cement Creek in CO, which then entered the Animas River. The contaminants, including but not limited to, aluminum, arsenic, barium, cadmium, cobalt, copper, lead, manganese, iron, mercury, molybdenum, nickel and zinc (trace metals concentrated in ore deposit from mine) are associated with suspended sediments released from the mine site. Meaning, the trace metals bind to the suspended sediments, which are mainly solid forms of iron and manganese. The presence of the suspended iron particles is indicated by the orange/brown color of the plume. The color indicates the contamination, which are the trace metals binding to the suspended sediments, moving down river.

DATA

Though not complete, preliminary data thus far gives a good indication of the *metal contamination*. NMED strongly believes that *anion data* should have been determined and is still needed: chloride, sulphate, nitrate and total carbonate alkalinity. The trace metals react with these anions. While metals are of more concern to human health than the anions, the anions influence the chemistry of the metals, making them more or less harmful and influencing how far they will migrate down river.

LONG TERM TOPICS

The contaminated suspended sediments will settle along the river. Where these sediments have and/or will deposit along the river(s) is an issue. Future storm events can erode the sediments, resuspending the contaminants and moving them further downstream. NMED and its environmental scientists, including a PhD Geochemist, are seeking ALL data related to metals and anions as they are all needed to paint a complete picture of the potential contamination. NMED Surface Water Quality Bureau data sets, received early this morning, with additional results expected in the next few days, should help to fill in the gaps in the data.