



## Profiles of Chemists



**Maria Montour**

**Geologist**  
**Mineral Resources Surveys Program**  
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### Education:

B.S. - Geological Sciences, University of California, Santa Barbara  
M.S. - Geochemistry, University of Colorado, Boulder

### Job Description:

Geologist in Aqueous Geochemistry

### Video Transcript 1:

"The field of aqueous geochemistry really focuses on doing geology problems the chemistry part of those geology problems and the aqueous part deals with water, so what I work on is the interactions between water and rock. Specifically, the interactions between water and rock that relate to mining like mineral deposits, where the rocks are in their natural environment as well as mine wastes and streams or runoff from mines and looking at water that exists in the environment that can be potentially impacted by activities in the mining."

### Video Transcript 2:

"We go out to abandoned land mines and we go out and sample runoff from these mine sights or mineral deposits and to see what the chemistry of the water, how it has changed because it has come into contact with these minerals and these rocks. And we use that to try and correlate what the, what we call the geology which means what is the rock made of in mineral types, what elements are there and how that affects the water. And we try and help land management agencies to predict potential environmental impacts of the mines abandoned mine sights so we'll aid them in prioritizing for their cleanup."

### Video Transcript 3:

"I get to go on the outdoors and that's nice to be away from the office and uh generally our field season starts in the late spring, early summer. We're trying to catch snow melt runoff from the mine waste piles since a lot of those sites are up in the mountains, so we try and catch the runoff and study the chemistry and that's really nice because even though the mine sights are often not so quite picturesque. Usually the surrounding area is just beautiful and that's really nice to be able to get out in the outdoors. I tend to do laboratory work the rest of the year."

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