Mark Green <mgreen@sjcme.edu > RON'S COPY Feb 3, 2014 to me

Hi Ron

Just wanted to give you a heads up that I have been working with the samples during various breaks in my day.

First thing to report is that they are very acidic, with a bunch of samples reading having pH in the 4-5 range. One sample (A-1) had a pH of ~1.40, which is only slightly less acidic than battery acid.

Very few of them have the organic/sulfidic smell of marine mud and I imagine are largely devoid of organic matter (which is what normally drives pH down, although never to as low as what we measured in your samples). I'll be measuring the organic content of the sediments in the next couple days so that we can cross that out in terms of source of the acid.

I started picking through the samples for small animals (meiofauna is what we call them and they are ubiquitous in marine mud) and your closest to land samples have little to no living animals present. This is not surprising considering the levels of acidity. I'll keep on that.

I have a short meeting with an environmental chemist here at the College later today/tomorrow (depending on when we can make it happen) so I can get some feedback on what she feels the next level of analysis should be. I imagine some sort of assay for toxic metal(s) will be what we agree on. In the meantime, can you, in as much detail as possible, explain what this industry did to produce this waste deposit? What did they produce?

Also, **all the samples pH** as well as the abundance of meiofauna are considerably **lower/less at all stations adjacent to the source** compared with the control location from where you took samples across the bay (transect E).

Thanks.

Mark