



Re: Fw: Dunkard Creek report 

Louis Reynolds to: David Sternberg

11/22/2010 12:56 PM

Cc: Angela McFadden, Michael Kulik, Nina Rivera, Troy Jordan,  
Margaret Passmore, John Forren

---

Follow Up: Normal Priority.

---

David,

I will answer these questions as best I can for your information only , David.

THIS NEEDS TO WORK THROUGH NINA. SHE HAS FINAL APPROVAL OF ANYTHING I WRITE.

What is the hypothesis on how the golden algae got into the creek?

We had hoped to actually answer this using genetic analysis of the Dunkard strain . That did not pan out - the laboratories could not find a "dunkard strain" that could be traced to a particular place .

1. Golden algae is everywhere , all it needs is a trigger (like high TDS ).

This is not really supported in that we see high TDS in a lot of places with no Golden Algae

2. Drilling rigs and equipment from TX and OK .

Plausible , but we have no evidence that this is the case . We have seen an increase in drilling rigs and equipment from TX and OK and TX and OK have a lot of golden algae .

3. Waterfowl.

Plausible , but we have no evidence one way or the other .

4. Fishermen.

Weak. Dunkard isn't exactly a destination fishery . Then again, a local resident could have possibly brought back GA from TX on waders and jumped in Dunkard with them ...in the beaver pond....yeah...ok.

What is the hypothesis on how the TDS levels climbed so high?

1. Mining. Mining, particularly in the Pittsburgh seam , can produce very high levels of TDS . Can it produce conductivities of 36,000? I am not so sure .

2. Mining mixed with Marcellus or CBM waste . This is certainly plausible . We have not seen levels in the discharge as high as they were in early September 2009 (have we?). If mine discharge is normally that high, we would see conductivity numbers from 36,000 to 50,000 in the effluent now . There is ample opportunity for Marcellus waste (or CBM waste) to have been introduced into the effluent via ponds on site either by CONSOL or from someone illegally dumping Marcellus into the ponds .

Is consideration of gas drilling operations part of the investigation? If so, please elaborate.

I don't know.

When do you expect the next step in the investigation to be completed?

Which next step ?

Thanks

Tom

Lou Reynolds  
USEPA Region III  
Freshwater Biology Team

