Message

From: d'Almeida, Carolyn K. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9EC4401AFA1846DD93D52A0DDA973581-CDALMEID]
Sent: 9/21/2018 8:36:05 PM
To: Jennings, Eleanor [Eleanor.Jennings@parsons.com]; Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]; Dan Pope [DPope@css-inc.com]; Wayne Miller [Miller.Wayne@azdeq.gov]; Davis, Eva [Davis.Eva@epa.gov]
CC: Paula Panzino [Panzino.Paula@azdeq.gov]; Steven Willis [steve@uxopro.com]
Subject: RE: Conference call to discuss microbial data - Part two
Attachments: SERDP sulfate fuel biodegradation.pdf

Eva sent me this report that might be of interest

13. ABSTRACT (Maximum 200 words)

Enhanced anaerobic biodegradation of ground water contaminated by fuel hydrocarbons has been evaluated at a field demonstration conducted at the Naval Weapons Station, Seal Beach, California. This demonstration included establishing three different remediation zones in situ: one zone was augmented with sulfate, one was augmented with sulfate and nitrate, and the third was not augmented. This enables a comparison of hydrocarbon biodegradation under sulfate-reducing, sequential denitrifying/sulfate-reducing, and methanogenic conditions, respectively. In general, the results from the field demonstration are: (1) Certain fuel hydrocarbons were removed preferentially over others, but the order of preference depends on the geochemical conditions; and (2) in the zones that were augmented with sulfate and/or nitrate, the added electron acceptors were consumed quickly, indicating that enhancement via electron acceptor injection accelerates the biodegradation process. More specifically, in the sulfate-reducing zone, sulfate was utilized with an apparent first-order rate coefficient of approximately 0.1/day. In the combined denitrifying/sulfate-reducing zone, nitrate was utilized preferentially over sulfate, with an apparent first-order rate coefficient of 0.1-0.6/day. With regard to the aromatic BTEX hydrocarbons, toluene was preferentially removed under intrinsic conditions; biodegradation of benzene was slow if it occurred at all; augmentation with sulfate preferentially stimulated biodegradation of o-xylene; and ethylbenzene appeared recalcitrant under sulfate-reducing conditions but readily degradable under denitrifying conditions.

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"Because a waste is a terrible thing to mind..."

From: Jennings, Eleanor [mailto:Eleanor.Jennings@parsons.com]
Sent: Friday, September 21, 2018 7:15 AM
To: Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Dan Pope <DPope@css-inc.com>; d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>; Davis, Eva <Davis.Eva@epa.gov>
Cc: Paula Panzino <Panzino.Paula@azdeq.gov>; Steven Willis <steve@uxopro.com>
Subject: RE: Conference call to discuss microbial data - Part two

Everyone on this email should have received an invite for Monday's meeting, sent a few minutes ago.

If you didn't get the invite, please let me know. Also, if you think somebody else needs to attend and they were not on this invite, please feel free to forward your invite to them.

Cheers!
E

Eleanor M. Jennings, M.S., PhD

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"Safety Isn't Expensive. It's Priceless."

From: Jennings, Eleanor
Sent: Friday, September 21, 2018 9:47 AM
To: 'Brasaemle, Karla' <Karla.Brasaemle@TechLawInc.com>; 'Dan Pope' <DPope@css-inc.com>; d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>; Davis, Eva <Davis.Eva@epa.gov>
Cc: Paula Panzino <Panzino.Paula@azdeq.gov>; 'Steven Willis' <steve@uxopro.com>
Subject: Conference call to discuss microbial data

As of this morning, it was looking like 4 PM EST (1 PM Pacific) was good for everyone on Monday. I will be sending out a meeting invite shortly.

Because there is a lot of data, lab reports, etc. to go through, I'm going to set up the meeting using WebEx – this way, we can all see the presenter's computer screen during the discussions. We can also easily change who is the presenter, as well. This way, we won't be saying "ummm, if you look at line five, over to the right…." ☺ We may not need it, but it's easier to have the call set up this way in case we want it, as opposed to getting onto a call and only then realizing it would make sense to all be looking at the same thing.

I will also pull together some items that might be helpful (such as the slides shown by USAF, when they presented the original microbial data back in August, the Checklist we had put together and submitted to USAF, etc.) – this way, we all have those documents readily at hand. If you think of something that might also be helpful, please send it to me and I'm happy to include that. I'll probably send this email out over the weekend or Monday AM.

Give me a minute or two, and you all should see the meeting invite shortly.

Happy Friday, everyone!
Eleanor

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