

Wickham, Jerry, Env. Health

From: James Barnard [James.Barnard@anteagroup.com]
Sent: Tuesday, January 25, 2011 12:24 PM
To: Wickham, Jerry, Env. Health
Subject: RE: CSIA of TBA

That sounds like a plan.

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From: Wickham, Jerry, Env. Health [<mailto:jerry.wickham@acgov.org>]
Sent: Tuesday, January 25, 2011 12:05 PM
To: James Barnard
Subject: RE: CSIA of TBA

Since we cannot get good direct data for TBA degradation with CSIA, is it still useful to do CSIA for MTBE to establish whether degradation is occurring and then qualitatively compare the percent degradation to observed temporal changes in concentration for TBA?

Regards,

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From: James Barnard [<mailto:James.Barnard@anteagroup.com>]
Sent: Tuesday, January 25, 2011 11:33 AM
To: Wickham, Jerry, Env. Health
Subject: CSIA of TBA

Hi Jerry!

On the Microseeps website I found the following question/answer;

Biodegradation of MTBE: Is it occurring? But for TBA, which is often a co-contaminant so it is of little use, there are no daughter products for MTBE biodegradation and its degradation can be hard to document. In most situations the BTEX in gasoline drives gasoline releases into anaerobic metabolism and the MTBE is left behind in an environment conducive only to anaerobic bacteria. In that situation CSIA of carbon only is often best. That scenario is well documented and there are many existing case studies for it. In some cases (especially those of seepage velocity greater than 1 foot per day) aerobic biodegradation of MTBE is possible and it may be necessary to do CSIA of hydrogen as well. While the science here is excellent and there have been a few examples of it, the utility of the hydrogen analysis for this application is not yet fully established.

Please advise me of your comments.

Jim

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