**Introduction to:** Meharg, Andrew A.; Scrimgeour, Charlie; Hossain, Shahid A.; et al. (2006) Codeposition of organic carbon and arsenic in Bengal Delta aquifers ENVIRONMENTAL SCIENCE & TECHNOLOGY Volume: 40 Issue: 16 Pages: 4928-4935

**Exercise:** The 14 sentences in the Introduction have been scrambled. Do your best to put them back in proper order. For example, say Sentence number 4 should be the first sentence in the Intro, and so on.

1. The third is that OC is deposited at the surface and is then buried with sediment (*ref*).
2. A recent paper has argued that As is released from sediments near the surface and is transported deeper into the aquifer by groundwater recharge (*ref*).
3. It is generally believed that arsenate (As(V)) initially bound to iron(III) oxide minerals in the sediments is released as a result of the bacterially driven reducing environment generated on sediment burial (*ref*).
4. There are three main hypotheses regarding the OC source.
5. The installation of tens of millions tubewells into the Holocene sediments of Southeast Asia has inadvertently led to the one of the most serious water quality problems in history (*ref*).
6. The second is that OC from surface sources such as latrines is pulled into the aquifer following the enhanced recharge resulting from the withdrawl of groundwater for irrigation (*ref*).
7. This current study sets out to establish the relationship between As and OC in sediment cores to determine if the current hypotheses for the source of OC are adequate, or if alternative OC sources are available to drive iron(III) oxide reduction.
8. Further reports undermine the OC recharge hypothesis (no. 2 above) by showing that the age of As-releasing waters is too old to explain surface mixing with water drawn down from the surface (*ref*).
9. It is estimated that over 100 million people live in areas with high groundwater As concentrations (*ref*).
10. There is as yet no consensus on how As builds up in the sediment in the first place, or on the source of organic carbon (OC) fuelling the bacterial reduction (*ref*).
11. The detailed mechanisms of As release that have caused this disaster are now beginning to be understood.
12. While the installation of tubewells greatly reduced gastro-intestinal diseases associated with the use of surface water supplies, the decrease in childhood mortality provided by the “safe” drinking water has been replaced by a high incidence of arsenical disease (*ref*).
13. The first is that organic carbon leaches from peat lenses buried in the sediment (*ref*).
14. However, all these hypotheses have been developed without actual characterization of OC in the sediments to see if there are other explanations for the source of OC.