

### **Action Item: 32.2a - Question to EPA (now multiple agency response)**

This series of questions relate specifically to PEL 238 and more specifically to, and adjacent to, the proposed Narrabri Gas Project Area

The Oil and Gas industry leader Schlumberger, both on its web site and in its publication "Oil Industry Review", which covers both the Oil and Gas industries, devotes a lot of space to the Bacteria known as Sulphate Reducing Bacteria (SRB) and the destructive effects that that have on the Industries infrastructure, as well as carrying a warning about the spread of the Bacteria by the drill rigs and drilling fluids, the latter is also a source of "food" for any SRB that may be naturally occurring in the local groundwater adjacent to the drilling operation. I refer you the Chapter 11 of the Narrabri Gas Project, 'Groundwater and Geology' specifically page 11-53 *Impacts from Drilling Fluids*, I also draw you attention to a recent question to Santos raised recently in the NGPCCC with regard to the use of Sulphate Reducing Bacteria Resistant Cement for the outer well casing to the natural strata sealing. No reply from Santos has been forthcoming re that question.

In the light of the above and more information concerning these Bacteria and other associated Bacteria that are known to destroy CSG infrastructure, I ask the following.

Q. Has there been a comprehensive over time testing of the groundwater in the area of the NGP for Bacteria of all types? If there has been a comprehensive over time testing, can the EPA provide the results of the tests and a location map indicating where the Bacteria were found?

Q. What steps are being taken to monitor the levels of these Bacteria and other Bacteria, at well sites in PEL 238, that have or are about to be P&A?

Q. Will groundwater quality be monitored at each P&A site if so at what depths and at what locations on the P&A well pad?

Q. Over what period of time will this groundwater quality be carried out and for how long?

Q. If Bacteria and water quality monitoring is to be carried out and problems with the outer cement casing are encountered leading to aquifer connectivity, then what measures have been put in place to correct this situation?

Q. Given that no studies have been recently carried out to determine the directional flow of the groundwater in the Project area, how will the sites of any groundwater monitoring bores be determined?

Q. What compensation will be available to any groundwater user should problems arise with the groundwater and be traced back to a P&A Gas well?

Q. Will the EPA assist in determining the cause and source of any groundwater quality or Bacterial Count changes should any changes to either occur in and around the Narrabri Gas Project Area?

Q. The same question applies to groundwater not currently being used or accessed?

### **Question to EPA (note now referred to multiple agencies for advice)**

Note: The questions cross over multiple agency statutory responsibilities. The response to these questions is currently being prepared and a consolidated response will be provided at the earliest opportunity.