

Third Energy KM8 well site

Non-technical summary

This briefing provides a non-technical summary that is to be viewed alongside Compliance Assessment Report (CAR) Forms 402444/0283388 and 402444/0285072, which relate to Third Energy's KM8 well site.

Groundwater monitoring condition

The environmental permit issued to Third Energy states that the operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the tables in schedule 3 to their permit. Table S3.5 lists the monitoring suite for surface water and groundwater.

Third Energy and their consultants advised us that they could not analyse for all the substances listed in the environmental permit as validated analytical methods are not available. Third Energy submitted a technical document addressing surface water and groundwater monitoring parameters, entitled 'SoM Tech Note' providing a justification for the proposed deviations from the monitoring in the environmental permit with a revised parameter list.

We considered this note and carried out an assessment, seeking expert opinion from senior chemists at the Environment Agency laboratory. This process in turn generated further questions which were satisfactorily addressed by the operator.

Agreed changes

Our assessment of these proposals, with further questions of the operator on the justifications, is detailed in CAR 402444/0283388. As the analysis methods for some substances cannot be verified we ultimately concluded that any data collected on those parameters would offer no practical benefit to our understanding of water quality. All chemicals that are to be used in the fracturing fluid have already been assessed as non-hazardous to groundwater.

We remain satisfied that the monitoring scheme in place, with 67 separate chemical parameters to test for, some of which have subtests, provides an extremely extensive and comprehensive monitoring suite. This will give us with the necessary evidence we need to support our regulatory duty to ensure protection to groundwater.

We believe we have taken a considered and proportionate approach and that requiring the operator to carry out monitoring for results that cannot be verified offers no credible environmental benefit and importantly will not impact on our ability to regulate the operations. We have agreed with the company that alternative parameters will provide the regulatory assurance we need. This has resulted in the following agreements for monitoring deviations:

- The analysis of the ionic constituents was agreed for a number of substances where there is no alternative analytical method.
- Analysis of anionic and ionic surfactants was agreed for appropriate substances for use as an indicator.
- Removal of 7 substances from the monitoring requirements due to the current lack of availability of validated analytical methods.

These were agreed, and have been detailed, in CAR form 402444/0285072 on 19/05/2017.

All of the fracture fluid additives proposed have been assessed by the Environment Agency as non-hazardous to groundwater.

We are confident that the comprehensive monitoring suite will fulfil its role in demonstrating whether the operator has complied with their permit requirement - to not cause pollution to groundwater.