



SHale gas
Exploration and
Exploitation induced
Risks

Task 5.3: Recommendations for best practice

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Task 5.3. Recommendation for best practice (Task Leader: Paul Younger – UGL; RSK)

Apply the main conclusions from the modelling in Task 5. to other generic settings and derive recommendations for best practice highlighting areas which require further data collection or analysis. The outputs from the modelling completed in Task 5.5 will be compared to other generic settings within the EU to enhance the risk assessment. Recommendations for further data collection and modelling will be made as required.

The approach will be to assess the significance of the main learning points from the hydrogeological data collection and modelling deliverables for other shale plays within the EU. The deliverable will be a report highlighting the impact of well construction and fracture stimulation on baseline hydrogeological conditions and any impacts on drinking water aquifers. The lessons learnt from the research will be then applied to other shale plays in the EU. The optimum situation is to examine in detail a selected site on which a fracture stimulation programme is planned and establish baseline hydrogeological conditions in near surface aquifers and then develop a hydrogeological model which will assess potential sources, pathways and receptors for groundwater flow and establish any changes to the baseline conditions as a result of drilling fracture stimulation.

Breakdown

Proposal Content



- **Focused on hydrogeology**
- **Utilise conclusions from 5.1 and 5.2**
- **Scope for further monitoring activity input**
 - Hydrogeology does not exist in isolation

In a little more detail

Specific context of WP5



- **Main conclusions from 5.2**
 - Modelling- sources, pathways & receptors
 - Measured groundwater hydrochemistry
- **Main conclusions from 5.1**
 - Developed generic settings
 - Technical & regulatory parameters

- **Comparison with additional generic settings**
- **Identify gaps in hydrogeological data collection**
 - Enable barriers to broad application
 - Absence of potentially important parameters may hinder regulatory development
- **Identify (and rank) risk**

And now over to you...

Any additional inputs from your point of view?



Over to you...

- **‘The deliverable will be a report highlighting the impact of well construction and fracture stimulation on baseline hydrogeological conditions and any impacts on drinking water aquifers’**
- **Hydrogeological model to establish any changes to the baseline conditions as a result of drilling fracture stimulation**