

OTM-006: Technical verification relation to injection of fracking fluids

Technical verification relation to injection of fracking fluids

Challenge

	Challenge ID	OTM:006				
1	Title	Regulatory verification relation to injection of fracking fluids				
2	Theme ID	ON 3.3: Subsidence monitoring - Reservoir management				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator					
General description		Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	It is possible that injected fluids do not reach their targetted destinations, and instead move to non-production targets. If unnecessary loss of water in fracking operations can be identified, large costs could be saved.				
6	Thematic information requirements	1. Obtain detailed topographic information, 13. Monitor ground movement,				
7	Nature of the challenge - What effect does this challenge have on operations?	Cost savings, through reduced water and chemical usage				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Downhole tools can track fluid movement to a degree. Tracers in injected fluids can also be used, but these also have their limitations.				
9	What kind of solution do you envisage could address this challenge?	Ground movement satellite imagery could indicate sub-surface movement and infer fluid migration of fracking fluids				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	Fluid migration in the reservoir can be inferred from ground movement data.				
Challenge classification						
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	0	0	0	3	0
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Operational cost reduction				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements						
18	Update frequency	daily / weekly /annually (application dependent)				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats	GIS Shape file				
23	Timeliness	Within a month				
24	Geographic Extent	Reservoir footprint				
25	Existing standards	No industry standards. TRE have their own internal INSAR standards				

[1] Impact quantification scores: 4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology

Relevant products

Content by label

There is no content with the specified labels

