

Hatfield-4107: Detection of unexpected methane leakage on a regional basis

Detection of unexpected methane leakage on a regional basis

Challenge

Challenge ID:	HCP-4107	Originator:	Onshore: Hatfield
Title:	Detection of unexpected methane leakage on a regional basis.		
Theme:	ON 4.1: Environmental monitoring - Baseline historic mapping of environment and ecosystems		
Consortium Lead:	Hatfield	Interviewed Company:	Hatfield
Geography:	ON.REG.00 - Generic onshore		
Challenge Description			
What is not possible / not adequately addressed at present?			
As part of shale gas development, unexpected emissions of methane and other light gases may occur. Emission may not be local to development site. Large operations areas.			
What effect does this challenge have on operations?			
Potential need for extensive air monitoring before and after gas drilling to determine how hydraulic fracturing may impact natural leakage rates.			
Thematic information requirements:	Air quality and emissions		
What do you currently do to address this challenge?			
How is this challenge conventionally addressed?			
In-situ monitoring systems and airshed modelling. Development of an aerial platform technology at present.			
What kind of solutions do you envisage could address this challenge?			
High resolution hyperspectral sensors and geological models. Integration of in-situ and aerial information for improved monitoring (spatial coverage and accuracy).			
What is your view on the capability of technology to meet this need?			
Are you currently using EO tech? If not, why not?			
Currently focused on developoment with airborne sensors.			
Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	2	Climate class:	Generic climate
Exploration:	3	Topographic class:	Not specific
Development:	3	Seasonal variations:	Any season
Production:	4	Impact area:	Environmental
Decommissioning:	0	Technology urgency:	1 - Mid-Term (5-10 years)
Challenge Information Requirements			
Update frequency:	Daily		
Data currently used:	In-situ monitoring and surveys.		
Spatial resolution:	Basin		
Thematic accuracy:	Not specific		
Required formats:	Not Specific		

Timeliness (Vintage):	Within a month
Geographic extents:	Regional
Existing standards:	None

Relevant products

Content by label

There is no content with the specified labels