

OTM-025: Early identification of potential hydrocarbon basins

Early identification of potential hydrocarbon basins

Challenge

	Challenge ID	OTM:025				
1	Title	Early identification of potential hydrocarbon basins				
2	Theme ID	ON 2.1: Surface Geology Mapping - Mapping Geological features				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	PetroSA, Tullow, Petronas				
General description		Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Identifying basins or depressions in the earth, which typically contain the geological structures necessary for hydrocarbon accumulations. You need to look at the surface over a range of scales to identify trends that, when combined with other information, suggest the presence of hydrocarbon basin.				
6	Thematic information requirements	1. Obtain detailed topographic information, 11. Determine lithology, mineralogy and structural properties of the near surface, 14. Obtain detailed imagery of the surface,				
7	Nature of the challenge - What effect does this challenge have on operations?	The chance of success in exploration is greatly enhanced, especially if 'wild cats' are to be drilled. Reduced costs in exploration would also be seen.				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Existing mapping, although this rarely has sufficient detail				
9	What kind of solution do you envisage could address this challenge?	Higher resolution terrain maps				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	This has relevance in relatively un-vegetated areas.				
Challenge classification						
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	4	3	1	0	0
12	Climate classification	Dry / non-vegetated areas				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Increased production				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements						
18	Update frequency	Specific stage in lifecycle				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Reference data - timeliness not important				
24	Geographic Extent	regional interest				
25	Existing 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