

OTM-043: Anticipating areas of high seismic impedance

Anticipating areas of high seismic impedance

Challenge

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|---|--|-----------------------|------|-------|--------|
| Challenge ID | OTM:043 | | | | |
| 1 Title | Anticipating areas of high seismic impedance | | | | |
| 2 Theme ID | ON 1.1: Seismic Planning - Areas of poor coupling | | | | |
| 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?) | Areas of soft ground can absorb the seismic signal and consequently distort the output data. These areas need to be identified and considered when planning seismic lines, to ensure data quality is maintained. | | | | |
| 6 Thematic information requirements | 2. Obtain detailed terrain characterisation, 4. Obtain detailed land-use information, 11. Determine lithology, mineralogy and structural properties of the near surface, | | | | |
| 7 Nature of the challenge - What effect does this challenge have on operations? | Quality of output can be reduced if the sources coincides with soft surface conditions. This can ultimately lead to reservoir understanding being hampered, and thus a reduction in potential production. | | | | |
| 8 What do you currently do to address this challenge?/ How is this challenge conventionally addressed? | Data algorithms can be used to correct data | | | | |
| 9 What kind of solution do you envisage could address this challenge? | | | | | |
| 10 What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not? | | | | | |
| Challenge classification | | | | | |
| 11 Lifecycle stage | Pre license | Exp. | Dev. | Prod. | Decom. |
| Score from impact quantification [1] | 2 | 3 | 0 | 0 | 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 | Data quality, operational cost reduction | | | | |
| 17 Technology Urgency (How quickly does the user need the solution) | Immediately (0-2 years) | | | | |
| Information requirements | | | | | |
| 18 Update frequency | | | | | |
| 19 Data Currently used | | | | | |
| 20 Spatial resolution | | | | | |
| 21 Thematic accuracy | | | | | |
| 22 Example formats | | | | | |
| 23 Timeliness | Reference data - timeliness not important | | | | |
| 24 Geographic Extent | reservoir footprint | | | | |
| 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

