Hatfield-1103: Identify soft and hard ground as areas of potentially poor source and receiver coupling

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Challenge

Challenge ID:	HCP-1103	Originator:	Onshore: Hatfield
Title:	**Identify soft and hard ground as areas of potentially poor source and receiver coupling.**		
Theme:	ON 1.1: Seismic Planning - Areas of poor coupling		
Consortium Lead:	RPS Group	Interviewed Company:	RPS Group
Geography:	ON.REG.03 - Canada		

Challenge Description

What is not possible / not adequately addressed at present?

Information on the distribution of potentially poor coupling areas such as gravel, sandy, and wet areas.is required. Allows for mitigation by increasing source or receiver effort and/or pre-planning for increased or modified data processing efforts.

What effect does this challenge have on operations?

Soft, saturated ground can affect data quality and value. Operations are limited in terms of location or season where soft ground is present.

Thematic information requirements:	Land cover Topographic information Water Quantity

What do you currently do to address this challenge?
How is this challenge conventionally addressed?

Planning using high quality topographic mapping data where available.
Adjust timing to conduct operations in cold weather or bring in very specialized equipment (at very high cost).
Adjust timing to the dry season. Accepting sub-optimal data as the only option in warm weather operations.

What kind of solutions do you envisage could address this challenge?

Vegetation interpretation related to the underlying soil condition. Soil moisture information

What is your view on the capability of technology to meet this need?
Are you currently using EO tech? If not, why not?

LiDAR can help to identify vegetation types and stand heights.
Satellite-based EO needs to compete on price and capability.

Challenge Classification

Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	2	Climate class:	Dry, Severe Mid-Latitude, Polar
Exploration:	3	Topographic class:	Not specific
Development:	2	Seasonal variations:	Any season
Production:	1	Impact area:	Data Quality
Decommissioning:	1	Technology urgency:	3 - Immediately (0-2 years)

Challenge Information Requirements

Update frequency:	Snapshot

Data currently used:	Topographic maps
Spatial resolution:	Regional, Basin
Thematic accuracy:	Not specific
Required formats:	Not Specific
Timeliness (Vintage):	Reference data
Geographic extents:	Regional
Existing standards:	None

Relevant products

Relevant products

Content by label

There is no content with the specified labels