

CSPG INTERNATIONAL DIVISION

Mission Possible: High Density Seismic Acquisition with Near-Zero Footprint

Speaker: Allan Châtenay, Explor, Calgary

Location: Virtual

Date: Wednesday May 12th, 2021, 12.00-1.00 pm MST

ABSTRACT

We will outline our efforts to develop and deploy lightweight seismic source and receiver technologies and methodologies to overcome the limitations on economic and environmentally responsible high-density data acquisition, particularly in forested regions around the globe.

Using the oil sand and shale resource plays in Western Canada as a proving ground, Explor has overcome significant technical and environmental challenges to achieve a step-change in seismic data densities to better image resources underlying complex and sensitive forest ecosystems while simultaneously reducing the environmental footprint of those operations.

To achieve these outcomes, Explor has developed and patented a new high-resolution, low-impact, single-person-portable, impulsive seismic source system that can deliver high quality seismic images without the need for opening source lines.

Recently, Explor has also tested the deployment of a new generation of lightweight seismic receiver nodes that together with lightweight source technology can significantly increase the efficiency of operations making high density near-zero footprint seismic acquisition commercially viable.

This technology will have broad applicability to environmentally sensitive onshore regions around the globe, transforming the process for seismic acquisition in resource-rich sensitive ecosystems in sub-Saharan Africa, Colombia, Brazil, Peru, Bolivia, and Papua New Guinea to name just a few.

Tests are also being planned in support of Carbon Capture and Sequestration projects in the Continental United States.

We will share our seismic journey, the results to date, and our plans for driving to zero footprint ultra-high density seismic data.



CSPG

Canada's Energy Geoscientists

cspg.org

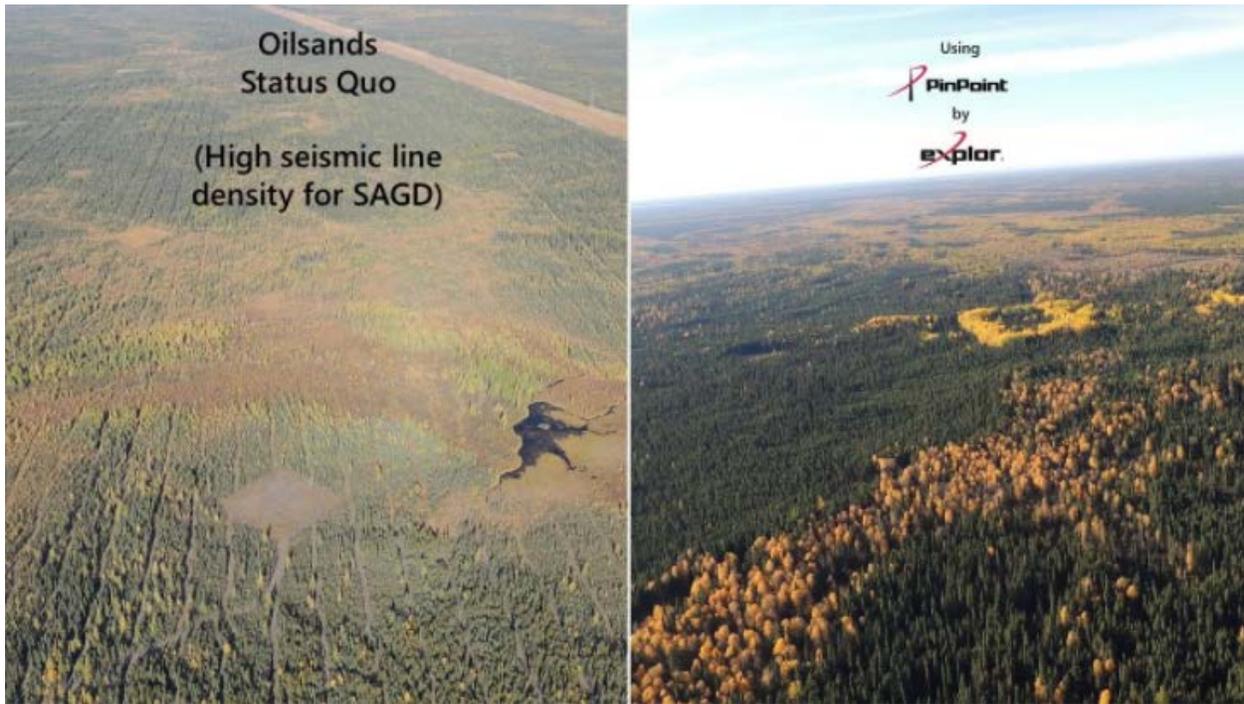


Figure 1

Because we do not need heavy equipment or all-terrain vehicles, we do not need frozen ground conditions, so we can do the work any time of year.

BIOGRAPHY



Allan Châtenay is the President of Explor, a company specializing in developing and implementing advanced geoscience solutions, integrating new technologies and software and providing the highest quality seismic data to E&P companies. Explor also has a long history of frontier exploration and specializes in challenging and extraordinary projects.

Mr. Châtenay has been in the geophysical industry for over 30 years. He holds several patents in geophysical acquisition technology, has a Diploma in Strategy and Innovation from the University of Oxford and is an AWS Certified Cloud Practitioner.

Prior to joining Explor in 2002, he gained over 14 years of experience in the industry while working for Schlumberger.

Allan was born and raised in Calgary, Alberta, where he currently resides with his wife Heather, and their two sons. He volunteers with several industry and community organizations.

CSPG INTERNATIONAL DIVISION