

# LUNCH & LEARN

## U.S. Navy Square Lake 1 Gas Discovery Well: Core Geochemical Survey

Baker Hughes, in conjunction with the Alaska Geologic Materials Center (GMC) and the Alaska Geological Society (AGS), are pleased to invite you to a free workshop on Wednesday, February 26, 2020, focusing on the expanded Volatiles Analysis Service (VAS) study that was completed on the samples recovered from the 1952 U.S. Navy Square Lake 1 gas discovery well in the northern foothills fold-belt, North Slope. The Square Lake 1 well tested gas at 112 MSCF/day from 1,646 to 1,675 feet measured depth below Kelly Bushing in the Nanushuk Formation (USGS PP 1399, nominal p. 326). The workshop will include a lunch, results presentation, spirited discussion, and a viewing of the core in the examination room.

### What is VAS?

Volatiles Analysis Service (VAS), provided by Advanced Hydrocarbon Stratigraphy and distributed by Baker Hughes, is an advanced geochemical analysis that can be carried out on multiple types of geologic materials. The VAS analysis provides relevant information on the presence and composition of hydrocarbon (HC) resources, the presence of non-HC compounds (water, Helium, H<sub>2</sub>S, CO<sub>2</sub>, organic acids, and many more), plus rock properties in terms of permeability and mechanical strength indices; water measurements empirically correlate to water saturation (Sw) measurements. While commonly applied to "fresh" samples, legacy samples are a very viable, valuable, and often overlooked data resource.

### Background of Study

In early 2019 a proof of concept study was delivered at the GMC-AGS technical conference focusing on a key 190-ft interval of the lower Seabee and upper Nanushuk (previously Ninuluk/Chandler) Formation. From the blind test, an unconformity at 1,885 feet was detected solely from geochemical results from cuttings originally collected 68 years ago. Given the rich legacy of oil and gas activity in Alaska and the large repositories of available cuttings and core at the GMC (Anchorage) and the Core Research Center (Denver), there are significant opportunities to reevaluate petroleum systems on the North Slope.

**Wednesday  
Feb 26**

### Alaska Geologic Materials Center

**3651 Penland Pkwy  
Anchorage, Alaska**

(East of the Northway Mall)

**11:30** Light lunch

**11:45** Presentations begin

**1:00** Core examination

### RSVP

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