

**Request for Statements of Qualification &
Expressions of Interest
Ship Requirements –
Offshore Energy Research Association
2019 Cruise**

EOI Release Date: Tuesday, November 13, 2018
Proposal Due Date: Tuesday, December 11th 2018; 4 pm (Atlantic Time)

Contract Manager

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Purpose

The Offshore Energy Research Association of Nova Scotia (OERA), in partnership with the Nova Scotia Department of Energy and Mines (NSDEM), is leading the planning for a research cruise over portions of the Scotian Slope during the summer of 2019. The purpose of the cruise is to investigate already identified naturally occurring seep sites of interest using an Autonomous Underwater Vehicle (AUV) and collect sample materials by means of shallow coring. This will be a collaborative undertaking involving participants from the University of Calgary, Saint Mary's University, APT Canada, NSDEM, and possibly others to pursue shared scientific objectives.

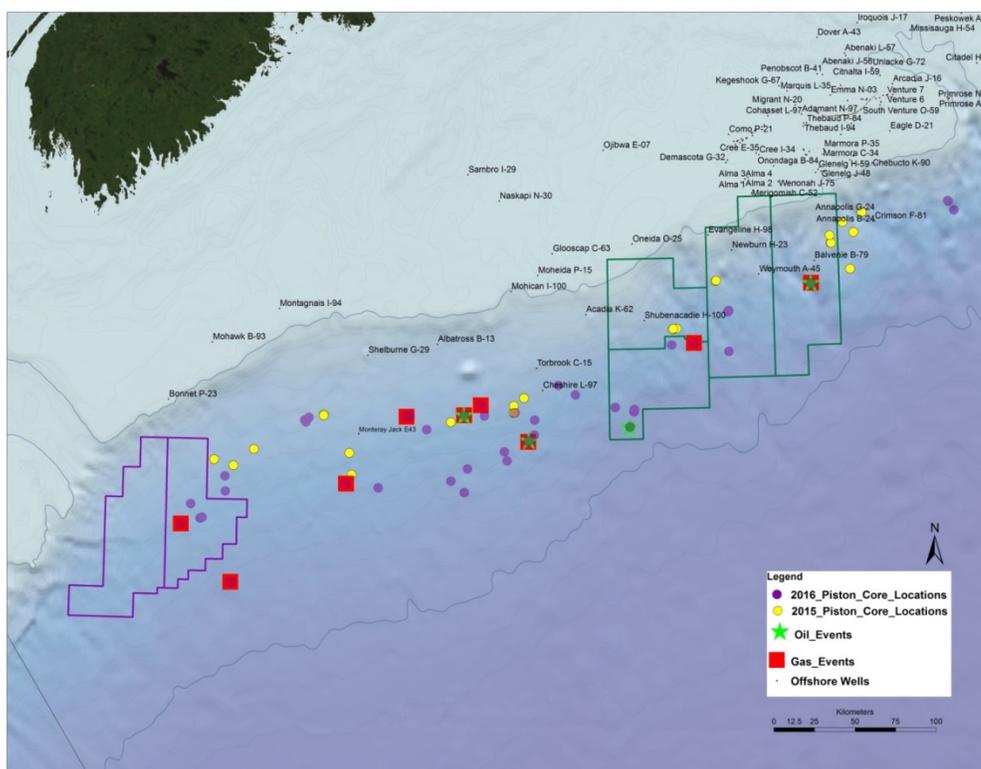
The purpose of this document is to obtain statements of qualifications and expressions of interest from owners of vessels that would be suitable for the 2019 cruise. The remainder of the document provides more information on the objectives of the cruise, the area in which the cruise will take place, the approximate timing for the cruise, the requirements for the vessel, other considerations in identifying and ultimately chartering a suitable vessel, and instructions for responding.

Cruise Objectives

1. Using an AUV, collect high resolution seafloor and shallow seismic data and images in areas of interest on the Scotian Slope where naturally occurring hydrocarbon seeps have been identified.
2. During periods when the AUV is away from the ship, collect seafloor samples in proximity to seeps by means of piston corer, trigger weight corer, box corer and other means as appropriate and feasible. Sample collection may also entail collection of water column and surface slick samples.
3. Undertake preliminary onboard sample analysis (geochemical, microbiological) and preserve samples for more detailed analysis onshore.
4. Conduct onboard genetic sequencing and test other new approaches to establish feasibility and utility to improve sampling accuracy, speed processing time and generate useful analytical results.
5. Sample preservation for subsequent onshore scientific analysis by University of Calgary, Saint Mary's University and possibly others.

Geographic Coverage

The 2019 cruise will visit sites along the Scotian Slope deemed to be of interest to the OERA and its partners. See the following map for the approximate geographic coverage.



Basic Vessel Requirements

The following sets out the requirements that the vessel should meet in order to be considered capable for the planned cruise:

- Capable of operating in a deep water North Atlantic offshore environment.
- Minimum overall length of 60 m plus; draft of 5 m or more.
- Ability to operate without resupply for a minimum of 30 days.
- Established HSE policies and procedures with a track record of training and compliance.
- Officers and crew with the experience and the skills necessary to safely deploy and retrieve the equipment needed for the success of this cruise.
- Navigational system with suitable accuracy for a scientific research cruise of this nature.
- Dynamic positioning with accurate station keeping ability.
- Echosounder and sub-bottom profiler.
- Plan for effective harsh environment launch and recovery for the AUV to prevent excessive down time.
- Sufficient open deck space for housing the AUV.
- Cabin space for no less than 12 scientific and technical personnel.

Vessels not meeting these minimum requirements may be considered if the vessel owner can clearly demonstrate that the vessel is fit for purpose and fully able to meet the objectives of the cruise.

Additional capabilities that qualified vessels should have are:

- A-frame or crane suitable for the deployment and recovery of sampling equipment.
- Winch capable of a 4000-4500 m cable spool of wire to compensate for drift with coring equipment.
- Sufficient open deck space for handling cores and any containerized lab space required to supplement what is available on the vessel.
- Coring equipment (piston, gravity and box corers)
- Laboratory space – a minimum of 25 sq. m. of laboratory space with 12 m of bench space suitable for both wet and dry lab work; alternatively, sufficient open deck space to house at least two containerized labs including suitable stable AC power availability.
- Space for sample preservation and storage including reefer container for core storage (+4 °C) and freezers, one operating at -20 and the other at -80 °C. If unavailable on the ship, freezers can be supplied by the research team.
- Any additional equipment or capabilities (e.g. ROV) that would help in achieving the objectives of the cruise.

Other Requirements and Considerations

Preference will be given to Canadian flagged vessels. Any vessel modifications that may be needed to meet the vessel requirements as set out will be the responsibility of the vessel owner. The vessel owner must carry adequate and suitable insurance against all normal risks. Any additional insurance that must be obtained by the charterer must be specified. While there are always a number of unpreventable risks that may affect the ability to fully accomplish the objectives of the research cruise, the vessel owner is expected to clearly indicate the risks for which they are responsible and how those risks will be mitigated (e.g. mechanical breakdown as a consequence of inadequate maintenance).

The decision will be based on the total cost and logistical/organizational requirements faced by OERA and its partners to accomplish the objectives of the cruise. This will include such considerations as the need to rent equipment versus having it supplied by the vessel owner; whether or not additional personnel will be required to operate equipment; the logistical effort that will be required to organize all aspects of the cruise and the implicit cost (i.e. the closer to one stop shopping, the better); and the operational experience of the vessel and crew so that downtime is minimized.

Timing

The cruise is planned for the summer of 2019 with some flexibility regarding the actual dates. The cruise is expected to be two weeks in duration with additional time for mobilization and demobilization, anticipated at one to two days each.

At present OERA and the NSDEM are exploring the possibility of either sharing the cruise with one or more marine research organizations, or planning the timing so that another organization can use the same vessel for a cruise either immediately before or just after this expedition. Regardless of the outcome of these discussions, OERA and its current partners are planning on proceeding.

Submissions – Capabilities & Preliminary Proposals

Vessel owners that meet the requirements set out above are invited to submit a Statement of Qualifications and Expression of Interest to:

Offshore Energy Research Association of Nova Scotia (OERA)
Joseph Howe Building, Suite 1001
1690 Hollis Street
Halifax, NS B3J 1V7
Attention: Ms. Nalani Perry, Operations Manager
Email: nperry@oera.ca

by not later than **4:00 p.m. AST, Tuesday, December 11th, 2018**. Submissions should include the following:

1. Company information including length of time in business, primary areas of business, experience, size and responsible company officers.
2. Proposed vessel including year of construction, vessel dimensions, country where flagged, standards and certifications, propulsion including dynamic positioning, any significant modifications, AC power supply, crewing, and cabins/berths for scientific and technical staff.
3. Range and cruising speed, fuel capacity, potable water capacity.
4. Electronics for navigation, bottom profiling and communications.
5. Deck machinery including A-frames, cranes, winches and windlasses, along with their capabilities.
6. Deck space available for AUV, handling cores, any containerized lab or storage space, etc.
7. Laboratory and processing space including feet of counter, storage, work stations, power supply and accessibility from the deck(s).
8. Space available for core and sample storage including any refrigerated storage or space suitable for freezers and cold storage of samples.
9. Scientific equipment available with the vessel including multibeam system, coring equipment, AUV, ROV, etc.
10. Miscellaneous information such as lifesaving equipment, most recent vessel inspections, risks and responsibility, and insurance including any requirement for incremental insurance.
11. Operational experience in conducting research cruises with specific examples; capability of the crew to launch and retrieve an AUV, operate coring equipment and collect water samples.
12. Vessel availability and home port
13. Preliminary cost information including:
 - a. Any costs associated with bring the vessel to and from Halifax Harbour
 - b. Day rate for mobilization and demobilization
 - c. Day rate for sea days including fuel and provisions
 - d. Any incremental costs for sampling/scientific equipment
 - e. Terms of payment

Questions and Clarifications

The OERA will accept questions from interested applicants. Any questions should be directed in writing before November 22nd, 2018 to:

Mr. P. Carey Ryan, P.Eng.

Offshore Energy Research Association of Nova Scotia

Email: careyryan@ns.sympatico.ca