

Management of ships & scientific equipments



Lampsilis Technical sheet



1. General information

Ship:	Lampsilis
Ship owner:	Université du Québec à Trois-Rivières
Ship operator:	REFORMAR, Rimouski (Québec)
Ship builder:	Chantier Naval de Matane, Inc., Matane, Qc.
Year built:	2004
Type:	Special – Research
Port of registry:	Trois-Rivières
Official number:	827380
Overall length:	24,00m
Length between perpendiculars:	23,15m
Maximum breadth:	6,8 m
Moulded breadth:	6,7 m
Moulded depth at the ship's centre:	2,4 m
Draft (normal operation):	0,9 m
Freeboard at summer draft:	1,22 m
Gross tonnage:	114
Net tonnage:	29

2. Accommodation capacity:

Up to 25 people depending on voyage type (20 clients + 5 crew members)

3. Tank capacity

Fresh water tank:	1000 L
Fuel tank:	2 x 1800L
Sewage holding tank :	1000 L

4. Safety equipment

Mustang immersion suits, one-size, (16 adults)
Two life rafts accommodating 25 persons each
One service boat with 20hp outboard engine
Two radio beacons

5. Fire-fighting equipment

Hose nozzle for extinguishing with water
CO2 system - Engine room
Extinguishers, type A, B, C

6. Certification

Transport Canada

7. Equipment in the wheelhouse

Radar:	Raymarine C120
Electronic chart:	Raychart C120
Echo sounder:	Raymarine DS 600x
Magnetic compass:	Ritchie
Automatic pilot:	Simrad
GPS:	JRC J-NAV 500

Whistle: Yes
Radio: Icom IC-M601
Signal light: 2
Alarm system: fire and bilge (hulls)

8. Engine room

Propulsion: Autopropulsion
Propulsion method: Hydro Jet
Propulsion motor: CUMMINS QSM11
Propulsion system: ALPHA POWER JET 420
Total power: 900 HP
Generating sets: 2X 35 kw (Perkins)
Steering gear (2): Main and auxiliary systems
Bilge pump: Yes
Fire hose pump: Yes
Back-up fire hose pump: Yes

9. Deck and laboratory equipment

Rear deck area: 44,8 m²
Crane: Heila, 1 tonne
 2 Titan TH1 Rotzler, 200 kg
Winch: 1 Titan TH1 Rotzler, 1000 kg
 1 Hauler, 12" diameter
Trawl winches: 1,13 tonnes, 50 RPM; 45 m of cable 5/16"
Wet laboratory: 17,1 m²
Dry laboratory: 10,4 m²
Refrigerator / Freezer: 23,0 pi.3
Freezer -80 °C: 3,6 pi.3
Informatics: Portable computer (2)
 External disk drive
 Printer
 External hard disk
 GO-FLO 2,5L bottle (2)
 GO-FLO 8L bottle (2)
 Biological dredge (2)
Water, periphyton, zooplankton and benthic samplers: Ekman grab (2)
 Ponar grab
 Corers
 Doppler current meter

Hyperspectroradiometer system:	Includes radiance and irradiance sensors (surface and subsurface), C-star transmissometer, and fluorometer (CDOM, Chl a, phycoerythrine).
Reflectance measurement system:	Microsas, including a radiometer.
YSI multisensor:	O2 sensor pH / ORP sensor Turbidity sensor Conductivity sensor
Fluorometer system:	Turner Designs field fluorometer: 25-mm continuous-flow sample system
Incubators:	Incubator (3)
Spectrophotometer:	Field spectrophotometer
Preservation:	Liquid nitrogen container, 50 L 2 L liquid nitrogen flasks (2) Cart (liquid nitrogen container)
Analytical instruments:	pH meter Balance Centrifuge Centrifuge rotor, 8 x 50 mL Centrifuge rotor, 4 x 250 mL Filtration system (3) 25 mm filtration set-up (12) 47 mm filtration set-up (6) Vacuum pump (3) Automatic pipette, 0.5–10 µL (2) Automatic pipette, 10–100 µL (2) Automatic pipette, 100–1000 µL (2) Automatic pipette, 2–20 µL (2) Pipette holder (2)
Trawls:	Pelagic trawl Bottom trawl Cable winch Net drum
Microscopes	
Plankton separation	
Zooplankton nets:	Net #1, 153 µm Net #2, 243 µm Net #3, 500 µm Replacement net, 153 µm Replacement net, 243 µm Replacement net, 500 µm Flow meter for net (2)