



**Shell Offshore Inc.**  
3601 C Street, Suite 1334  
Anchorage, AK 99503

April 4, 2007

U.S. Fish & Wildlife Service  
Marine Mammals Management  
Attn: Mr. Craig Perham  
1011 E. Tudor Road, MS-341  
Anchorage, Alaska 99503

Subject: Request for Incidental Harassment Authorization  
2007 Open Water Season - Chukchi Sea

Dear Mr. Perham:

Shell Offshore Inc. (SOI), a legal entity of Shell Exploration and Production Company, requests an Incidental Harassment Authorization for incidental takes of polar bears and pacific walrus associated with the 2007 Open Water Season, Chukchi Sea, 3D Seismic Program. Please refer to the attached Plan of Operations for our 2007 Open Water Program.

Please contact me at (907) 770-3700 for additional information regarding this request.

Sincerely Yours,

Shell Offshore Inc.

A handwritten signature in cursive script that reads "Susan Childs".

Susan Childs  
Regulatory Coordinator, Alaska

cc: Jeff Walker, MMS  
Rance Wall, MMS  
Don Perrin, ADNR OPMP  
Greg Horner, AES-RTS  
Project File  
Administrative Record

Attachment: 2007 Open Water Program Plan of Operations (4 pages)

15214-D-07-048/07-125 (Task 8.3.1)

## 2007 OPEN WATER PROGRAM – CHUKCHI SEA

### 1.0 SPECIFIC PROJECT ACTIVITIES

SOI and its geophysical (seismic) contractor proposes to conduct a marine geophysical (deep seismic) survey program during open-water season on various U.S Minerals Management Service (MMS) Outer Continental Shelf (OCS) lease blocks, in the Northern Chukchi Sea (See Figure 1). This 3D seismic survey will consist of deep seismic surveys only conducted from WesternGeco's vessel M/V Gilavar. The Chukchi Sea 3D seismic work will not include any site clearance or shallow hazard surveys.

It is proposed that the following acoustic source will be used from the M/V Gilavar:

Bolt Long Life Airgun array with a total volume of 3147 in<sup>3</sup> operated at a nominal Source pressure of 2000 psi.

The M/V Gulf Provider, or similar vessel, will serve as a resupply, fueling, support of acoustic and marine mammal monitoring, and seismic chase vessel. It will not deploy seismic acquisition gear. In addition, a crew change vessel such as the M/V Peregrine will support the M/V Gilavar and the chase vessel in the Chukchi Sea.

#### Vessel Specifications

##### M/V Peregrine

A crew change vessel such as the M/V Peregrine (27.4 meters (m) length, (90 feet [ft]), 1 m, (3 ft) draft) will support the M/V Gilavar and the chase vessel in the Chukchi Sea.

##### M/V Gilavar and M/V Gulf Provider

The deep seismic survey in the Chukchi Sea will be conducted from WesternGeco's vessel M/V Gilavar 84.9 m (278.5 ft) length, 5.3 m (17.4 ft) draft. The seismic acquisition vessel will be supported by the M/V Gulf Provider (or a seismic chase vessel of similar characteristics) 57.8 m (190 ft) length, 3.8 m (12.5 ft) draft.

#### Aerial Survey Program

A fixed-wing aerial overflight program also will be conducted as a component of the marine mammal monitoring and mitigation program. It is presumed that one, specially outfitted Twin Otter fixed wing aircraft will support this open water 3D seismic program in the Chukchi Sea.

SOI will also contract a Sikorsky S-61 helicopter or similar aircraft to provide emergency rescue/evacuation and search and rescue (SAR) services. The Sikorsky or similar aircraft will initially be stationed in Barrow. This aircraft would fly intermittent training missions over the Chukchi Sea. SOI contracted a S-61 during 2006 to perform SAR.

### - Number of Personnel

**Open Water 3D Seismic Program:** 90 personnel spread across 4 vessels, including the marine mammal monitoring and mitigation program vessel. Marine mammal observers (MMOs) will accompany each vessel to scout for marine mammals and record observations.

**Aerial Survey Program:** Number of personnel not known at this time. It is estimated not to exceed 6.

### - Task Descriptions

**Open Water 3D Seismic Program:** The M/V Gilavar will conduct offshore surveys associated with 3D open water seismic acquisition. The marine mammal monitoring and mitigation program support may include acoustic instrument and buoy deployment by the M/V Gulf Provider at various locations throughout the Chukchi Sea, depending on ice conditions and stipulations in the NMFS IHA, and USFWS IHA.

**Aerial Survey Program:** Aerial overflights for marine mammal monitoring by fixed wing aircraft may be as often as twice-daily during bowhead whale migration. The North Slope Borough (NSB) or NMFS may request other marine mammal overflights. Aerial overflights are proposed to be flown from early July until SOI's seismic operations in the Chukchi Sea are completed. Twice weekly, a single fixed wing aircraft will fly a saw-toothed pattern from Point Barrow to Point Hope over an area extending from the mainland, or outer barrier island, out to 20 nautical miles offshore. Aerial overflights will honor flight altitude restrictions of 1,000 feet over the survey area, and 1,500 feet after July 1 over the Ledyard Bay spectacled eider critical habitat area. Marine mammal observers will be aboard aircraft during these surveys. The aerial component of the operation will observe a 0.5 mile (800 m) exclusion zone around walrus and polar bears observed on land or ice. In addition to these measures, aerial flights will remain outside of a 40-mile radius offshore from affected communities.

### - Vehicle Access

There will be no vehicle access.

### - 2007 Schedule of Operations

The proposed deep seismic survey in the Chukchi Sea potentially will occur before and after seismic survey activity in the Beaufort Sea. As sea ice coverage conditions allow, seismic activity will begin on or after July 15th and continue to the end of August or early September when the M/V Gilavar and M/V Gulf Provider, or similar vessel, will transit to the Beaufort Sea to start work on a deep seismic survey on SOI lease-holdings in the mid and eastern Beaufort. After early-October or when sea ice conditions in the mid and eastern Beaufort Sea make further survey work there impractical, the survey activity may return to the Chukchi Sea. The M/V Gilavar and M/V Gulf Provider will transit to the Chukchi Sea and continue the deep seismic survey program until such time as sea ice and weather conditions preclude further work, probably sometime in mid- to late-November. Obviously the dates indicated here represent what might occur under ideal conditions for performing marine seismic work, whereas the actual dates will depend on sea ice and weather conditions as they occur in summer and mid-autumn of 2007.

**- Daylight Hours (Visibility, etc.)**

At the commencement of survey activities in July, the sun is above the horizon providing constant daylight in the activity area. Towards the end of the program, potentially in late November, civil twilight begins at 3:34 p.m. and ends at 10:56 a.m., when the sun will be below the horizon.

**- Proposed “Footprint” of Operation –**

The geographic region where the proposed deep seismic survey will occur is the area designated as the MMS OCS Chukchi Sea Lease Sale 193 Area (See Figure 1). Since the Chukchi deep seismic program is being conducted as a pre-lease activity, the exact locations where operations will occur remain confidential for business competitive reasons. The deep seismic program will take place in OCS waters well offshore of the Chukchi Sea coast beyond the polynya zone.

**- Permits and Agreements**

**MMS** – Geology & Geophysics Permit

**NMFS** – MMPA IHA Application

**USFWS** – MMPA IHA Application Polar Bears & Pacific Walrus

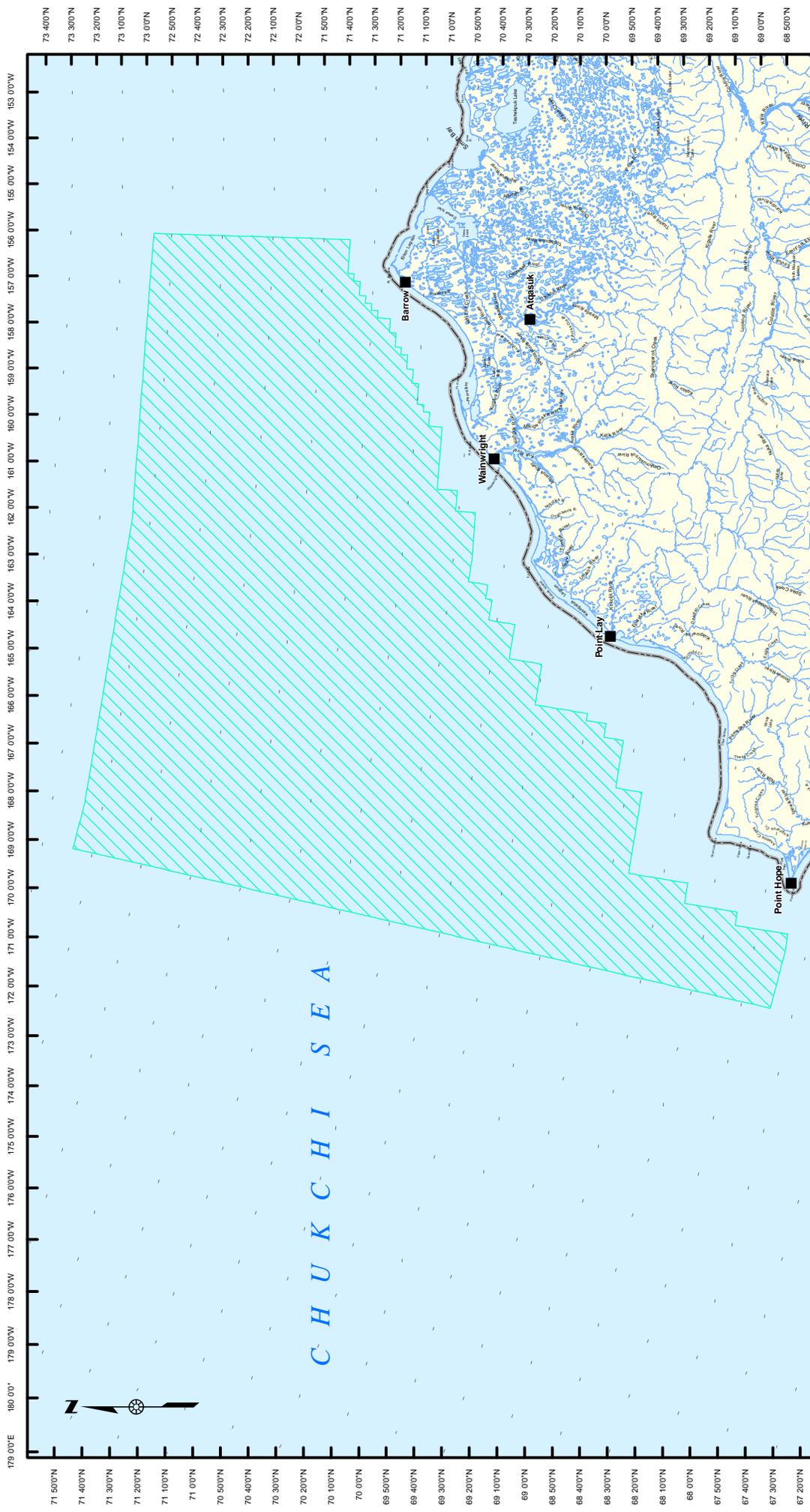
**AEWC** – Conflict Avoidance Agreement\*

**- Emergency Planning**

Operating in the Chukchi Sea involves special logistical considerations. Given the distance involved in responding to incidents in the Chukchi Sea, incident response will rely on the support of the SAR S-61 Sikorsky. Given the distance offshore to operations and agency stipulations, temporary camps will not be used.

In the case of vessels seeking emergency refuge adjacent to the offshore islands personnel will be briefed in safety protocol relating the appropriate manner to manage encounters with wildlife.

\* The Conflict Avoidance Agreement is a lease stipulation that requires the Lessee to consult with the directly affected subsistence communities, Barrow, Kaktovik, or Nuiqsut, the NSB, and the Alaska Eskimo Whaling Commission (AEWC) to discuss potential conflicts with the siting, timing, and methods of proposed operations and safeguards or mitigating measures which could be implemented by the operator to prevent unreasonable conflicts. Through this consultation, the lessee shall make every reasonable effort, including such mechanisms as a conflict avoidance agreement, to assure that exploration, development, and production activities are compatible with whaling and other subsistence hunting activities and will not result in unreasonable interference with subsistence harvests.



**SHELL EXPLORATION & PRODUCTION CO.**

Open Water Program 2007:  
3D Seismic Chukchi Sea

SCALE: 0 15 30 60 Mi  
FIGURE: 1

ASRC Energy Services  
Regulatory & Technical Services  
3900 C Street, Suite 601  
Anchorage, Alaska 99503  
Phone (907) 339-5467  
Fax (907) 339-5475  
www.asrcenergy.com

■ Villages



Prospective Seismic Acquisition Area