



United States Department of the Interior



U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:
AFES/MMM

Mr. Wm. "Randy" Reed
Permits and Regulatory Compliance
Geokinetics
2450 Cinnabar Loop
Anchorage, Alaska 99507

NOV 23 2015

Dear Mr. Reed:

The U.S. Fish and Wildlife Service (Service) has reviewed your request, dated October 19, 2015, for a Letter of Authorization (LOA) to allow the incidental take of polar bears while conducting activities associated with the Geokinetics 3D seismic programs on the North Slope of Alaska from December 15, 2015 through May 31, 2016. The northern boundary of this survey will begin approximately 5 miles south of Deadhorse, Alaska. The survey will extend approximately 50 miles south and encompass the Sag River corridor.

In accordance with Service regulations 50 CFR subpart J published on August 3, 2011 (76 FR 47010) please find enclosed your LOA number 15-20 authorizing the incidental take of small numbers of polar bears during oil and gas activities in association with Geokinetics December 15, 2016, to May 31, 2016, 3D seismic programs.

Should you have any further questions regarding your LOA, or polar bear management in general, please contact Mr. Michael Hendrick or the Marine Mammals Management Office, at (907) 786-3479, (907) 786-3800 or by email at michael_hendrick@fws.gov, respectively.

Sincerely,

Chief, Marine Mammals Management

Enclosure

Email cc: Mr. Richard Shideler, Alaska Department of Fish and Game
U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office
U.S. Fish and Wildlife Service, Office of Law Enforcement
North Slope Borough, Department of Law



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1011 East Tudor Road
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LETTER OF AUTHORIZATION Incidental Take (15-20)

ISSUED: November 24, 2015
EXPIRES: May 31, 2016

In accordance with Incidental Take Regulations at 50 CFR subpart J published on August 3, 2011 (76 FR 47010), Geokinetics is authorized to take small numbers of polar bears (*Ursus maritimus*) incidental to activities associated with their 3D seismic programs on the North Slope, Alaska.

Geokinetics proposes to conduct their 3D seismic programs on the North Slope from December 15, 2015, to May 31, 2016. This program will occur onshore on Alaska's North Slope. The program area includes State of Alaska and North Slope Borough land. Refer to *Geokinetics Plan of Operations for: Great Bear 2016 3D Winter Seismic Survey* (Geokinetics Plan (Geokinetics 2015)), for maps detailing proposed action area. Geokinetics will be mobilizing equipment and camp from the Geokinetics Deadhorse location via the existing roadways within the Prudhoe Bay Unit and the Dalton Highway. The camp will be transported to a predetermined location in order to enter the program area. For details on the seismic operations, proposed mitigation measures, camp facilities, fuel supply, and training program, refer to Geokinetics Plan (Geokinetics 2015). The Geokinetics Plan (2015) also includes a *Polar Bear Awareness and Interaction Plan*.

As a condition of this Letter of Authorization (LOA), Geokinetics shall conduct a polar bear den detection survey prior to the start of project activities near polar bear denning habitat during the maternal denning period (November to mid-April). The U.S. Fish and Wildlife Service (Service) seeks to limit disturbance of polar bear maternal dens and denning habitat. All personnel must use caution when operating near polar bear denning habitat during the maternal denning period. Service Marine Mammals Management Office (MMM) biologists are available at the phone numbers listed below if questions or concerns arise.

This LOA and the required conditions below apply to all Geokinetics employees, contractors, and personnel performing Geokinetics-approved work for the project described above. This LOA stipulates the following conditions:

- 1) This LOA authorizes incidental take only.
- 2) Geokinetics must comply with all requirements listed at 50 CFR subpart J published on August 3, 2011, (76 FR 47010).
- 3) Geokinetics shall report all polar bear sightings, signs of polar bears (e.g., tracks or excavations), and any potential dens to the Service MMM using the polar bear observations report, within 24 hours via email to fw7_mmm_reports@fws.gov.
- 4) Project field camps and personnel shall limit encounters with polar bears by being observant of approaching bears (e.g., the use of polar bear guards) and by allowing bears to pass unhindered when possible.
- 5) Project operations managers, or designees, must understand, be fully aware of, and be capable of implementing the conditions of the LOA.
- 6) If changes develop in the project during the period approved under this LOA, such as activities, location, or methods, the Service MMM must be notified prior to the implementation of such changes.
- 7) Geokinetics must conduct the following mitigation, monitoring, and reporting:
 - a. Mitigation: Holders of an LOA must use methods and conduct activities in a manner that minimizes to the greatest extent practicable adverse impacts on polar bears, their habitat, and on the availability for subsistence uses. Dynamic management approaches, such as temporal or spatial limitations in response to the presence of polar bears in a particular place or time or the occurrence of polar bears engaged in a particularly sensitive activity (such as feeding), must be used to avoid or minimize polar bear interactions and subsistence users of this resource.

1. All applicants:

- i. Holders of an LOA must cooperate with the Service and other Federal, State, and local agencies to monitor the impacts of oil and gas industry (Industry) activities on polar bears.
- ii. Holder of an LOA must designate a qualified individual or individuals to observe, record, and report on the effects of Industry activities on polar bears.
- iii. Holders of an LOA must have an approved polar bear interaction plan on file with the Service and at work sites and polar bear awareness training must be provided to personnel. The Geokinetics *Polar Bear Awareness and Interaction Plan* (October 2015), and all associated addenda are incorporated by reference into this LOA. All provisions must be complied with unless specifically noted otherwise in the LOA.
- iv. Holders of an LOA must contact affected subsistence communities to discuss potential conflicts caused by location, timing, and methods of proposed operations and submit to the Service a record of communication that documents these discussions. Documentation of communication is provided in Geokinetics Plan (Geokinetics 2015).

- v. If deemed appropriate by the Service, holders of an LOA will be required to hire and train polar bear monitors to alert crew of the presence of polar bears and initiate adaptive mitigation responses.

2. Onshore activities:

- i. Holders of an LOA must make efforts to limit disturbance around known polar bear dens.
 - ii. Holders of an LOA seeking to carry out onshore exploration activities in known or suspected polar bear denning habitat during the denning season (November – April) must make efforts to locate occupied polar bear dens within and near proposed areas of operation, utilizing appropriate tools, such as, forward-looking infrared (FLIR) imagery and/or polar bear scent-trained dogs. All observed or suspected polar bear dens must be reported to the Service prior to the initiation of activities.
 - iii. Holders of an LOA must observe a 1.6 km (1 mi) operational exclusion zone around all known polar bear dens during denning season (November – April, or until female and cubs leave the areas). Should previously unknown occupied dens be discovered within 1.6 km (1 mi) of activities, work must cease and the Service contacted for guidance. The Service will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the LOA must comply with any additional measures specified.
 - iv. A map of potential coastal polar bear denning habitat can be found at: http://alaska.usgs.gov/science/biology/polar_bears/products.html. This measure ensures that the location of potential polar bear dens is considered when conducting activities in the coastal areas of the Beaufort Sea.
 - v. Holders of an LOA must restrict the timing of their activity to limit disturbance around dens.
3. Holders of an LOA must conduct their activities in a manner that, to the greatest extent practicable, minimizes impacts on the availability of polar bears for subsistence uses.
- b. Monitoring: Depending on the location, timing, and nature of proposed activities, holders of an LOA will be required to do the following:
- 1. Maintain trained, Service-approved, onsite observers to carry out monitoring programs for polar bears necessary for initiating adaptive mitigation responses. Polar bear monitors will be required under the monitoring plan if polar bears are known to frequent the area or known polar bear dens are

present in the area. Monitors will act as an early detections system for polar bear activity near Industry activity.

2. Develop and implement a site specific, Service-approved, marine mammal monitoring and mitigation plan to monitor and evaluate the effects of authorized activities on polar bears and the subsistence use of these resources. The marine mammal monitoring and mitigation plan must enumerate the number of polar bears encountered during specified activities, estimate the number of incidental takes that occurred during specified seismic activities, and evaluate the effectiveness of prescribed mitigation measures. The Geokinetics *Polar Bear Awareness and Interaction Plan* cited previously in this LOA will satisfy this requirement.
 3. Cooperate with the Service and other designated Federal, State, and local agencies to monitor the impacts of oil and gas activities in the Beaufort Sea on polar bears. Where insufficient information exists to evaluate the potential effects of proposed activities on polar bears and the subsistence use of these resources, holders of the LOA may be required to participate in joint monitoring and/or research efforts to address these information needs. Information needs in the Beaufort Sea include, but are not limited to:
 - i. Distribution, abundance, and habitat use patterns of polar bears; and
 - ii. Cumulative effects of multiple simultaneous operations on polar bears.
- c. Reporting requirements: Holders of an LOA must report the results of specified monitoring activities to the Service MMM reporting email at fw7_mmm_reports@fws.gov.
1. Holders of an LOA must submit a report to the Service MMM within 90 days after completion of activities. Reports must include, at a minimum, the following information:
 - i. Dates and times of activity;
 - ii. Dates and locations of polar bear activity as related to the monitoring activity; and
 - iii. Results of the required monitoring activities, including as estimated level of take.
 - iv. For all activities, all sightings of polar bears must be recorded. Information within the sighting report will include, but is not limited to:
 - a. Date, time, and location of observation;
 - b. Number of bears, and their sex and age (if known);
 - c. Observer name and contact information;
 - d. Weather, visibility, and ice conditions at the time of observation;
 - e. Estimated closest point of approach for bears from personnel and facilities;

- f. Industry activity at time of sighting, possible attractants present;
 - g. Bear behavior;
 - h. Description of the encounter;
 - i. Duration of the encounter; and
 - j. Actions taken.
2. After-action monitoring reports: The results of monitoring efforts identified in the marine mammal monitoring and mitigation plan must be submitted to the Service for review within 90 days of completing the year's activities. Results must include, but are not limited to, the following information:
- i. A summary of monitoring effort including: total hours, total distances, and distribution through study period;
 - ii. Analysis of factors affecting the visibility and detectability of polar bears by specified monitoring;
 - iii. Analysis of the distribution, abundance, and behavior of polar bear sightings in relation to date, location, ice conditions and operational state; and
 - iv. Estimates of take based on density estimates derived from monitoring and survey efforts.

If a polar bear interaction escalates into a life threatening situation, section 101 (c) of the Marine Mammal Protection Act allows, without specific authorization, the take (including lethal take) of a polar bear if such taking is necessary for self-defense or to save the life of a person in immediate danger, and such taking is reported to the Service within 48 hours.

The Service has completed intra-Service consultation under the Endangered Species Act of 1973, as amended (ESA), and has determined that the issuance of this LOA is not likely to jeopardize the continuing existence of polar bears. No additional authorization under the ESA is required.

This LOA is valid for the period indicated on this authorization, unless extended or terminated in writing by the Service, MMM.

If you have any further questions, please contact Mr. Michael Hendrick or the MMM at (907) 786-3479, (907) 786-3800 or email at michael_hendrick@fws.gov.



Chief, Marine Mammals Management



Date

Reference: Geokinetics. *Plan of Operations For: Great Bear 2016 3D Winter Seismic Survey.* October 19, 2015.