



United States Department of the Interior

BUREAU OF OCEAN ENERGY
MANAGEMENT, REGULATION, AND ENFORCEMENT
Alaska Outer Continental Shelf Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823

SEP 13 2010

Mr. Joseph Gagliardi
Director, Arctic Solutions & Technology
ION Geophysical Corporation
2105 CityWest Boulevard, Suite 900
Houston, Texas 77042

Dear Mr. Gagliardi:

On February 10, 2010, ION submitted an application to the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) to obtain a Geological and Geophysical (G&G) permit under the 30 CFR 251 regulations to conduct geophysical exploration operations on certain Outer Continental Shelf (OCS) lands. The activity is in the Beaufort and Chukchi Seas as shown on the map accompanying your application. Your application specified that Octio Geophysical AS will be your service providing company and will conduct the subject operations using the vessels described in the Operation Plan. Operations are proposed to begin on or after September 25, 2010, and will be completed on or before December 15, 2010. The proposed survey program consists of 2D marine seismic acquisition using airguns with concurrent magnetic and gravity data collection.

Your application submittal states that ION Geophysical Corporation has requested an Incidental Harassment Authorization (IHA) from National Marine Fisheries Service (NMFS) for whales and pinnipeds, and a Letter of Authorization (LOA) from US Fish and Wildlife Service (USFWS) for polar bears and walrus. The BOEMRE requires a copy of the IHA and LOA authorizations and the Incidental Take Statements (ITS) prior to ION conducting seismic operations. The IHA from NMFS and the LOA from USFWS are in place to resolve subsistence-related concerns and to insure that impacts to marine mammals are not significant. The procedures outlined in these authorizations are required to avoid conflict with subsistence activities which may be conducted during a portion of the time proposed for this seismic operation.

OCS Permit 10-03 is hereby granted to conduct geophysical exploration operations on the OCS in the area and manner described in the application. A detailed track map of planned operations must be submitted to this office prior to the start of seismic operations. All operations are subject to the enclosed stipulations (see enclosure 1) and approved Permit for Geophysical Exploration for Mineral Resources on the OCS. The specific mitigating measures identified in the NMFS IHA and USFWS LOA will apply and will take precedence over any BOEMRE

requirements, where applicable, including protocols for monitoring programs with the exception of nighttime seismic operations as proposed by ION. The BOEMRE requires trained Marine Mammal Observers to stand watch at night during the acquisition of seismic data and follow the proscribed monitoring protocol stipulated in the IHA and LOA. Information related to compliance with the provisions in the IHA and LOA and penalties of the ESA and the MMPA may be obtained from the

U.S. Fish and Wildlife Service
Alaska Region
1011E.Tudor Road
Anchorage, Alaska 99503
Telephone (907) 786-3467

And from the

National Marine Fisheries Service
Federal Building, Room C-554
Anchorage, Alaska 99513
Telephone (907) 271-5006

This permit is effective from September 25 until December 15, 2010, or the completion of the survey, whichever occurs earlier. Please be advised that this office requires a weekly report of daily operations (see enclosure 2 for reporting requirements). We will require a completion report as detailed in the permit within 30 days following cessation of field operations.

The BOEMRE requests that ION provide us with a copy of the 90 Day Report when they become available.

Sincerely,



Rance R. Wall
Regional Supervisor
Resource Evaluation

3 Enclosures

Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE)
Alaska OCS Region
Seismic Survey G&G Permit Stipulations for Permit 10-03

- No solid or liquid explosives shall be used without specific approval.
- Permittee operations shall be conducted in a manner to ensure that they will not cause pollution, cause undue harm to aquatic life, create hazardous or unsafe conditions, or unreasonably interfere with other uses of the area. If any difficulties are encountered with other uses of the area or any of the above mentioned scenarios occur during operations under this permit, they shall be reported to the Regional Supervisor, Resource Evaluation. Serious or emergency conditions shall be reported without delay.
- The Permittee shall maintain a minimum spacing of 15 miles between their deep penetration seismic-source vessels and any other concurrently operating deep penetration seismic-source vessel. If there is not 15 miles between seismic-source vessels, one source vessel must cease operations. The BOEMRE must be notified by means of the weekly report whenever a shut down of operations occurs in order to maintain this minimum distance.
- Permittee operators shall use the lowest sound levels feasible to accomplish their data-collection needs.
- Vessels and aircraft shall avoid concentrations or groups of whales. Permittee operators shall, at all times, conduct their activities at a maximum distance from such concentrations of whales. Under no circumstances, other than an emergency, shall aircraft be operated at an altitude lower than 1,000 feet above sea level (ASL) when within 1,500 lateral feet of groups of whales. Helicopters shall not hover or circle above such areas or within 1,500 lateral feet of such areas.
- When weather conditions do not allow a 1,000-foot ASL flying altitude, such as during severe storms or when cloud cover is low, aircraft may be operated below the 1,000-foot ASL altitude stipulated above. However, when aircraft are operated at altitudes below 1,000 feet ASL because of weather conditions, the operator must avoid known whale-concentration areas and should take precautions to avoid flying directly over or within 1,500 yards of groups of whales.
- When the Permittee operates a vessel near a concentration of whales, every effort and precaution shall be taken to avoid harassment of these animals. Therefore, vessels shall reduce speed when within 900 feet of whales and those vessels capable of steering around such groups should do so. Vessels shall not be operated in such a way as to separate members of a group of whales from other members of the group.
- Vessel operators shall avoid multiple changes in direction and speed when within 900 feet of whales. In addition, operators shall check the waters immediately adjacent to a vessel to ensure that no whales will be injured when the vessel's propellers (or screws) are engaged.

- Small boats shall not be operated at such a speed as to make collisions with whales likely. When weather conditions require, such as when visibility drops, vessels shall adjust speed accordingly to avoid the likelihood of injury to whales.
- When any operator becomes aware of the potentially harassing effects of operations on whales, or when any operator is unsure of the best course of action to avoid harassment of whales, every measure to avoid further harassment shall be taken until the National Marine Fisheries Service (NMFS) is consulted for instructions or directions. However, human safety shall take precedence at all times over the guidelines and distances recommended herein for the avoidance of disturbance and harassment of whales.
- The Permittee shall notify BOEMRE, NMFS, and U.S. Fish and Wildlife Service (USFWS) in the event of any loss of cable, streamer, or other equipment that could pose a danger to marine mammals and other wildlife resources.
- To help avoid causing bird collisions with seismic survey and support vessels, seismic and surface support vessels will minimize the use of high-intensity work lights, especially within the 20-meter-bathymetric contour. High-intensity lights will be used only as necessary to illuminate active, on-deck work areas during periods of darkness or inclement weather (such as rain or fog), otherwise they shall be turned off. Deck lights, interior lights, and lights used during navigation could remain on for safety.¹
- All bird collisions (with vessels and aircraft) shall be documented and reported within 3 days to BOEMRE. Minimum information shall include species, date, time, location and weather, identification of the vessel or aircraft involved, and its operational status when the strike occurred. Bird photographs are not required, but would be helpful in verifying species. Permittees/operators are advised that the USFWS does not recommend recovery or transport of dead or injured birds due to avian influenza concerns.

The following monitoring and mitigation measures are related to the requirements of the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA). The mitigation and monitoring requirements defined in any NMFS (the Federal agency having MMPA management authority for cetaceans and pinnipeds, less Pacific walrus) and USFWS (the Federal agency having MMPA management authority for Pacific walrus, polar bear, and sea otter) Incidental Take Authorization (ITA) and/or Letters of Authorization (LOA) obtained by the seismic survey operator will have precedence over any related measures listed below.

- **Exclusion Zone** – Any exclusion zones specified in ITAs and/or LOAs for protection of marine mammals from harassment will be enforced by the BOEMRE. The exclusion zones shall be free of marine mammals before the survey can begin and must remain free of marine mammals during the survey. The next four mitigation measures pertain to enforcement of an exclusion zone.

¹ Nothing in this mitigation measure is intended to reduce personnel safety or prevent compliance with other regulatory requirements (e.g., U.S. Coast Guard or Occupational Safety and Health Administration) for marking or lighting of equipment and work areas.

- **Monitoring of the Exclusion Zone** – Individuals (marine mammal biologists and/or trained observers as designated by the regulating agencies) shall monitor the area around the survey for the presence of marine mammals to maintain a marine mammal-free exclusion zone and monitor for avoidance or take behaviors. Visual observers monitor the exclusion zone to ensure that marine mammals do not enter the exclusion zone for at least 30 minutes prior to ramp up, during the conduct of the survey, or before resuming seismic-survey work after shut down. The NMFS will set specific requirements for the marine mammal monitoring program and observers.
- **Shut Down/Power Down** – A seismic survey shall be suspended until the exclusion zone is free of marine mammals. All observers shall have the authority to, and will, instruct the vessel operators to immediately de-energize the airgun array whenever a marine mammal is seen within the exclusion zone or to power down to a sound level where the marine mammal is no longer in the exclusion zone. If the airgun array is completely powered down for any reason during nighttime or poor sighting conditions, it shall not be re-energized until daylight or whenever sighting conditions allow for the exclusion zone to be effectively monitored from the source vessel and/or through other passive acoustic, aerial, or vessel-based monitoring.
- **Ramp Up** – Ramp up is the gradual introduction of sound to deter marine mammals from potentially damaging sound intensities and from approaching the exclusion zone. This technique involves the gradual increase (usually 5-6 dB per 5-minute increment) in emitted sound levels, beginning with firing a single airgun and gradually adding airguns over a period of 20 to 40 minutes, until the desired operating level of the full array is obtained. Ramp-up procedures may begin after observers ensure the absence of marine mammals for at least 30 minutes. Ramp-up procedures shall not be initiated when monitoring the exclusion zone is not possible. A single airgun operating at a minimum source level can be maintained for routine activities, such as making a turn between line transects, for maintenance needs or during periods of impaired visibility (e.g., darkness, fog, high sea states), and does not require a 30 minute clearance of the exclusion zone before the airgun array is again ramped up to full output.
- **Reporting Requirements** – Operators must report immediately any shut downs/power downs due to a marine mammal entering the exclusion zones and provide the regulating agencies and BOEMRE with information on the frequency of occurrence and the types and behaviors of marine mammals (if possible to ascertain) entering the exclusion zones.
- **Ledyard Bay Critical Habitat Unit (Unit)** – Except for emergencies or human/navigation safety, surface vessels associated with seismic survey operations shall avoid travel within the Unit between July 1 and November 15. To the maximum extent practicable, aircraft supporting seismic survey operations shall avoid operating below 1,500 feet ASL over the Unit between July 1 and

November 15. Vessel travel within the Unit and altitude deviations by aircraft over the Unit for emergencies or human safety shall be reported within 24 hours to BOEMRE.

- **Walrus-** Vessels and aircraft should avoid concentrations or groups of walruses. Operators should, at all times, conduct their activities at a maximum distance from such aggregations. Seismic-survey and associated support vessels shall observe a 0.5-mile safety radius around Pacific walrus groups hauled out onto land or ice. Under no circumstances, other than an emergency, should aircraft be operated at an altitude lower than 1,500 feet ASL when within 0.5-mile of walrus groups. Helicopters may not hover or circle above such areas or within 2,500 lateral feet of such areas.
- **Polar Bear** – Seismic survey operators shall adhere to any mitigation measures identified by the USFWS to protect polar bears from being harassed and/or injured.

Weekly Operations Report for submittal to BOEMRE

- Weekly Summary Report
 - Map showing data collected to date
 - Summary of operating time by categories listed below
 - Compilation of line Kms and/or sq Kms collected
 - Daily record of weather – seas, winds, ice

- Daily operation records will include
 - All dates and times in Alaska local time
 - Latitude and longitude in decimal degrees
 - Survey name
 - Track line number that data were collected on
 - Start and end time plus total time in that mode for the following categories:
 - Ramp-up
 - Full array on
 - Mitigation gun only
 - Power down; record output in cubic inches if possible
 - Shut down (no guns operating)
 - Reason for shutdowns/power downs – marine mammals (include species if possible), weather, ice, equipment failure, etc.

- Safety Incident Report (if applicable) for same time period

- MMO Report for same time period

Send to Pete Sloan, G&G Permitting Coordinator, Alaska Region, BOEMRE,
Pete.Sloan@boemre.gov or call 907-334-5328 (office) or 907-382-1134 (cell)

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

RECEIVED
Resource Evaluation

FEB 10 2010

Alaska OCS Region

(Insert Appropriate Regional Office)

U.S. Dept. of the Interior
Minerals Management Svc.
Alaska OCS Region

APPLICATION FOR PERMIT TO CONDUCT GEOLOGICAL OR GEOPHYSICAL
EXPLORATION FOR MINERAL RESOURCES OR SCIENTIFIC RESEARCH
IN THE OUTER CONTINENTAL SHELF

(Section 11, Outer Continental Shelf Lands Act of August 7, 1953, as amended on September 18, 1978,
by Public Law 95-372, 92 Statute 629, 43 U.S.C. 1340; and 30 CFR Part 251)

ION Geophysical Corporation

Name of Applicant

2105 City West Blvd Suite 900

Number and Street

Houston, TX, 77042

City, State, and Zip Code

Octio Geophysical AS

Name of Service Company or Purchaser
(if different from above)

Application is made for the following activity: (check one)

Geological exploration for mineral resources

Geological scientific research

Geophysical exploration for mineral resources

Geophysical scientific research

Submit: Original, two copies, and one public information copy.

To be completed by MMS

Permit Number: 10-03

Date: SEP 13 2010

A. General Information

1. The activity will be conducted by:

Octio Geophysical, AS

Service Company Name
Solheimsgaten 13

Address

N-5058 BERGEN Norway

City, State, Zip

+47 55 38 30 00

Telephone/FAX Numbers

info@octio.com

E-Mail Address

For ION Geophysical

Purchaser(s) of the Data
2105 CityWest BLVD

Address

Houston, TX, 77042

City, State, Zip

713-789-7250

Telephone/FAX Numbers

joe.gagliardi@iongeo.com

E-Mail Address

2. The purpose of the activity is:



Mineral exploration



Scientific research

3. Describe the environmental effects of the proposed activity, including potential adverse effects on marine life and what steps are planned to minimize these adverse effects (use continuation sheets as necessary):

No adverse effects. Softstart procedures will be followed. A marine mammal mitigation plan is to be introduced

4. The expected commencement date is: September 25, 2010

The expected completion date is: December 15, 2010

5. The name of the individual in charge of the field operation is: Ed Nelson

May be contacted at: 2105 CityWest Blvd, Suite 900, Houston, TX 77042

Telephone (Local) +18323446852

(Marine) _____

Radio call sign _____

6. The vessel(s) to be used in the operation is (are):

Name Bos Atlantic

Registry number 8604034

Registered owner Bos Atlantic AS

7. The port from which the vessel(s) will operate is: Wainwrite

8. Briefly describe the navigation system (vessel navigation only):

B. Complete for Geological Exploration for Mineral Resources or Geological Scientific Research

1. The type of operation(s) to be employed is: (check one)
 - (a) Deep stratigraphic test, or
 - (b) Shallow stratigraphic test with proposed total depth of _____, or
 - (c) Other _____
2. Exact geographic coordinates of proposed test(s) (attach a page-size plat(s)): _____

C. Complete for Geophysical Exploration for Mineral Resources or Geophysical Scientific Research

1. Proposed location of the activity (attach a page-size plat(s)): US Beaufort Sea
2. The type(s) of operation(s) to be employed is (are): _____
Marine 2D Seismic survey plus Gravity and Magnetic surveying
 (Seismic, gravity, magnetic, etc.)
3. The instrumentation and/or technique(s) to be used in the operation(s) is (are):
Marine Towed Streamer & Single compressed air gun array
 (Air gun, sparker, etc.)
4. Explosive charges will will not be used. If applicable, indicate the type of explosive and maximum charge size (in pounds) to be used:
 Type _____ Pounds _____ Equivalent Pounds of TNT _____

D. Proprietary Information Attachments

Use the appropriate form on page 9 for a “geological” permit application or the form on page 10 for a “geophysical” permit application. You must submit a separate Form MMS-327 to apply for each geological or geophysical permit.

E. Certification

I hereby certify that foregoing and attached information are true and correct.

SIGNED  DATE Feb 2nd, 2010
TITLE Joseph Gagliardi: Director Arctic Solutions & Technology

TO BE COMPLETED BY MMS

Permit No. 10-03 Assigned by V Hoffman Date 2/12/2010
of MMS

This application is hereby:

- a. Approved
- b. Returned for reasons in the attached

The approved permit is:

- a. Attached
- b. Will be forwarded at a later date

SIGNED  TITLE Regional Supervisor DATE 9/13/10

10-03

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

ALASKA OCS REGION

(Insert Appropriate Regional Office)

RECEIVED
Resource Evaluation

FEB 10 2010

U.S. Dept. of the Interior
Minerals Management Svc.
Alaska OCS Region

PERMIT FOR GEOPHYSICAL EXPLORATION
FOR MINERAL RESOURCES OR SCIENTIFIC RESEARCH
IN THE OUTER CONTINENTAL SHELF

In consideration of the terms and conditions contained herein and the authorization granted hereby, this permit is entered into by and between the United States of America (the Government), acting through the Minerals Management Service (MMS) of the Department of the Interior, and

ION Geophysical Corporation

(Name of Permittee)

2105 CityWest Blv, Suite 900

(Number and Street)

Houston, TX, 77042

(City, State, and Zip Code)

PERMIT NUMBER: 10-03

DATE: SEP 13 2010

This permit is issued pursuant to the authority of the Outer Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the "Act," and Title 30 Code of Federal Regulations Part 251 (Geological and Geophysical (G&G) Explorations of the Outer Continental Shelf).

Paperwork Reduction Act of 1995 (PRA) Statement: This permit refers to information collection requirements contained in 30 CFR part 251 regulations. The Office of Management and Budget (OMB) has approved those reporting requirements under OMB Control Number 1010-0048.

Section I. Authorization

The Government authorizes the permittee to conduct:

~~XXXXX~~ Geophysical exploration for mineral resources as defined in 30 CFR 251.1.

_____ Geophysical scientific research as defined in 30 CFR 251.1. A permit is required for any geophysical investigation that involves the use of solid or liquid explosives or developing data and information for proprietary use or sale.

This permit authorizes the permittee to conduct the above geophysical activity during the period from September 15th 2010 to December 15th 2010 in the following area(s):

US Beaufort Sea. Extensions of the time period specified above must be requested in writing. A permit plus extensions for activities will be limited to a period of not more than 1 year from the original issuance date of the permit. Inspection and reporting of geophysical exploration activities, suspension and cancellation of authority to conduct exploration or scientific research activities under permit, and penalties and appeals will be carried out in accordance with 30 CFR 251.8, 251.9, and 251.10.

The authority of the Regional Director may be delegated to the Regional Supervisor for Resource Evaluation for the purposes of this permit.

Section II. Type(s) of Operations and Technique(s)

A. The permittee will employ the following type(s) of operations:

2010 Marine 2D Seismic survey plus Gravity and Magnetic surveying of the US Beaufort Sea.
_____;

and will utilize the following instruments and/or technique(s) in such operations:

ION Under Ice Marine Towed Streamer & Single compressed air gun array, Towed Magnetometer, Hull mounted Gravity Meter
_____.

B. The permittee will conduct all activities in compliance with the terms and conditions of this permit, including the "Stipulations," "Special Provisions," and the approved "Application for Permit," which are attached to and incorporated into this permit.

C. The permittee will conduct all geophysical exploration or scientific research activities in compliance with the Act, the regulations in 30 CFR Part 251, and other applicable statutes and regulations whether such statutes and regulations are enacted, promulgated, issued, or amended before or after this permit is issued. Some of the provisions of 30 CFR Part 251 are restated in this permit for emphasis. However, all of the provisions of 30 CFR Part 251 apply to this permit.

Section III. Reports on Operations

A. The permittee must submit status reports on a weekly basis in a manner approved or prescribed by the Regional Supervisor, Resource Evaluation (hereinafter referred to as Supervisor). The report must include a daily log of operations and a map (preferably on a scale of 1:250,000) showing traverse lines according to Minerals Management Service (MMS) area and block numbers.

B. The permittee must submit to the Supervisor a final report within 30 days after the completion of operations. The final report must contain the following:

1. A description of the work performed including number of line miles or OCS blocks of geophysical data acquired;
2. Chart(s), map(s), or plat(s) depicting the areas and blocks in which any exploration or scientific research activities were conducted. These graphics must clearly indicate the location of the activities so that the data produced from the activities can be accurately located and identified;
3. The dates on which the actual geophysical exploration or scientific research activities were performed;
4. A narrative summary of any: (a) hydrocarbon occurrences or environmental hazards observed and (b) adverse effects of the geophysical exploration or scientific research activities on the environment, aquatic life, archaeological resources, or other uses of the area in which the activities were conducted;
5. The estimated date on which the processed or interpreted data or information will be available for inspection by the MMS;
6. A final edited navigation file on suitable storage medium of all data or sample locations in latitude/longitude degrees including datum used. The navigation for 2D lines should include line name and locations for the first, last and every tenth SP. For 3D surveys, please supply a navigation file for the acquired track lines that includes the location of the first and last SP and/or the corner locations for the area acquired. Contact the G&G permitting office for the specific navigation required for this permitted activity. The digital file is to be formatted in standard SEG-P1, UKOOA P1-90 or other current, standard industry format, coded in ASCII. A printed data listing and a format statement are to be included;
7. Identification of geocentric ellipsoid (NAD 27 or NAD 83) used as a reference for the data or sample locations; and
8. Such other descriptions of the activities conducted as may be specified by the Supervisor.

C. The last status report and the final report can be combined into one report.

Section IV. Submission, Inspection, and Selection of Geophysical Data and Information

- A. The permittee must notify the Supervisor, in writing, when the permittee has completed the initial processing and interpretation of any geophysical data and information collected under an exploration permit or a scientific research permit that involves developing data and information for proprietary use or sale. If the Supervisor asks if the permittee has further processed or interpreted any geophysical data and information collected under a permit, the permittee must respond within 30 days. If further processing of the data and information is conducted, it is the responsibility of the permittee to keep the most current resulting products available in the event the Supervisor requests the current status of data processing. At any time within 10 years after receiving notification of the completion of the acquisition activities conducted under the permit, the Supervisor may request that the permittee submit for inspection and possible retention all or part of the geophysical data, processed geophysical information, and interpreted geophysical information.

- B. The Supervisor will have the right to inspect and select the geophysical data, processed geophysical information, or interpreted geophysical information. This inspection will be performed on the permittee's premises unless the Supervisor requests that the permittee submit the data or information to the Supervisor for inspection. Such submission must be within 30 days following the receipt of the Supervisor's request unless the Supervisor authorizes a later delivery date. If the inspection is done on the permittee's premises, the permittee must submit the geophysical data or information selected within 30 days following receipt of the Supervisor's request, unless the Supervisor authorizes a longer period of time for delivery. The data or information requested for inspection or selected by the Supervisor must be submitted regardless of whether the permittee and the Government have or have not concluded an agreement for reimbursement. If the Supervisor decides to retain all or a portion of the geophysical data or information, the Supervisor will notify the permittee, in writing, of this decision.
- C. In the event that a third party obtains geophysical data, processed geophysical information, or interpreted geophysical information from a permittee, or from another third party, by sale, trade, license agreement, or other means:
1. The third party recipient of the data and information assumes the obligations under this section except for notification of initial processing and interpretation of the data and information and is subject to the penalty provisions of 30 CFR Part 250, Subpart N; and
 2. A permittee or third party that sells, trades, licenses, or otherwise provides the data and information to a third party must advise the recipient, in writing, that accepting these obligations is a condition precedent of the sale, trade, license, or other agreement; and
 3. Except for license agreements, a permittee or third party that sells, trades, or otherwise provides data and information to a third party must advise the Supervisor in writing within 30 days of the sale, trade, or other agreement, including the identity of the recipient of the data and information; or
 4. With regard to license agreements, a permittee or third party that licenses data and information to a third party, within 30 days of a request by the Supervisor, must advise the Supervisor, in writing, of the license agreement, including the identity of the recipient of the data and information.
- D. Each submission of geophysical data, processed geophysical information, and interpreted geophysical information must contain, unless otherwise specified by the Supervisor, the following:
1. An accurate and complete record of each geophysical survey conducted under the permit, including digital navigational data and final location maps of all surveys;
 2. All seismic data developed under a permit presented in a format and of a quality suitable for processing;
 3. Processed geophysical information derived from seismic data with extraneous signals and interference removed, presented in a format and of a quality suitable for interpretive evaluation, reflecting state-of-the-art processing techniques; and
 4. Other geophysical data, processed geophysical information, and interpreted geophysical information obtained from, but not limited to, shallow and deep subbottom profiles, bathymetry, side-scan sonar, gravity, magnetic, and electrical surveys, and special studies such as refraction, shear wave, and velocity surveys.

Section V. Reimbursement to Permittees

- A. After the delivery of geophysical data, processed geophysical information, and interpreted geophysical information requested by the Supervisor in accordance with subsection IV of this permit, and upon receipt of a request for reimbursement and a determination by MMS that the requested reimbursement is proper, MMS will reimburse the permittee or third party for the reasonable costs of reproducing the submitted data and information at the permittee's or third party's lowest rate or at the lowest commercial rate established in the area, whichever is less.
- B. If the processing was in a form and manner other than that used in the normal conduct of the permittee's business at MMS's request, MMS will reimburse the permittee or third party for the reasonable costs of processing or reprocessing such data. Requests for reimbursement must identify processing costs separate from acquisition costs.
- C. The permittee or third party will not be reimbursed for the costs of acquiring or interpreting geophysical information.
- D. Data and information required under section IV.D.1. of this permit are not considered to be geophysical data or processed geophysical information and must be provided by the permittee at no cost to the Government.

Section VI. Disclosure of Data and Information to the Public

- A. The MMS will make data and information submitted by a permittee available in accordance with the requirements and subject to the limitations of the Freedom of Information Act (5 U.S.C. 552) and the implementing regulations (43 CFR Part 2), the requirements of the Act, and the regulations contained in 30 CFR Part 250 (Oil and Gas and Sulphur Operations in the Outer Continental Shelf), 30 CFR Part 251, and 30 CFR Part 252 (Outer Continental Shelf (OCS) Oil and Gas Information Program).
- B. Except as specified in this section, or Section VIII, or in 30 CFR Parts 250 and 252, no data or information determined by MMS to be exempt from public disclosure under subsection A of this section will be provided to any affected State or be made available to the executive of any affected local government or to the public, unless the permittee or third party and all persons to whom such permittee has sold, traded, or licensed the data or information under promise of confidentiality agree to such an action.
- C. Geophysical data and processed or interpreted geophysical information submitted under a permit, and retained by MMS, will be disclosed as follows:
 - 1. Except for deep stratigraphic tests, the MMS will make available to the public geophysical data 50 years after the date of issuance of the permit under which the data were collected (See 251.12 (a) (b) (c) and (d)).
 - 2. Except for deep stratigraphic tests, the MMS will make available to the public processed geophysical information and interpreted geophysical information 25 years after the date of issuance of the permit under which the original data were collected (See 251.12 (a) (b) (c) and (d)).

3. The MMS will make available to the public all geophysical data and information and geophysical interpretations related to a deep stratigraphic test, at the earlier of the following times: (a) 25 years after the completion of the test, or (b) for a lease sale held after the test well is completed, 60 calendar days after the Department of the Interior executes the first lease for a block, any part of which is within 50 geographic miles (92.6 kilometers) of the site of the completed test.
- D. All line-specific preplot or postplot plat(s), and navigation tapes, including but not limited to seismic survey traverses and shotpoint locations, submitted as a requirement of 30 CFR 251.7 or 251.12, will be considered as "PROPRIETARY INFORMATION." Such information will not be made available to the public without the consent of the permittee for a period of 25 years from the date of issuance of the permit, unless the Director, MMS, determines that earlier release is necessary for the proper development of the area permitted.
- E. All other information submitted as a requirement of 30 CFR 251.8 and determined by MMS to be exempt from public disclosure will be considered as "PROPRIETARY." Such data and information will not be made available to the public without the consent of the permittee for a period of up to 25 years from the date of issuance of the permit as addressed in 30 CFR 251.14, unless the Director, MMS, determines that earlier release is necessary for the proper development of the area permitted. The executed permit will be considered as "PROPRIETARY" except the public information copy which will be available to the public upon request.
- F. The identities of third party recipients of data and information collected under a permit will be kept confidential. The identities will not be released unless the permittee and the third parties agree to the disclosure.

Section VII. Disclosure to Independent Contractors

The MMS reserves the right to disclose any data or information acquired from a permittee to an independent contractor or agent for the purpose of reproducing, processing, reprocessing, or interpreting such data or information. When practicable, MMS will advise the permittee who provided the data or information of intent to disclose the data or information to an independent contractor or agent. The MMS's notice of intent will afford the permittee a period of not less than 5 working days within which to comment on the intended action. When MMS so advises a permittee of the intent to disclose data or information to an independent contractor or agent, all other owners of such data or information will be deemed to have been notified of MMS's intent. Prior to any such disclosure, the contractor or agent will be required to execute a written commitment not to sell, trade, license, or disclose any data or information to anyone without the express consent of MMS.

Section VIII. Sharing of Information with Affected States

- A. At the time of soliciting nominations for the leasing of lands within 3 geographic miles of the seaward boundary of any coastal State, MMS, pursuant to the provisions of 30 CFR 252.7 and subsections 8(g) and 26(e) (43 U.S.C. 1337(g) and 1352(e)) of the Act, will provide the Governor of the State (or the Governor's designated representative) the following information that has been acquired by MMS on such lands proposed to be offered for leasing:
 1. All information on the geographical, geological, and ecological characteristics of the areas and regions proposed to be offered for leasing;

2. An estimate of the oil and gas reserves in the area proposed for leasing; and
 3. An identification of any field, geological structure, or trap located within 3 miles of the seaward boundary of the State.
- B. After the time of receipt of nominations for any area of the OCS within 3 geographic miles of the seaward boundary of any coastal State and Area Identification in accordance with the provisions of Subparts D and E of 30 CFR Part 256, MMS, in consultation with the Governor of the State (or the Governor's designated representative), will determine whether any tracts being given further consideration for leasing may contain one or more oil or gas reservoirs underlying both the OCS and lands subject to the jurisdiction of the State.
- C. At any time prior to a sale, information acquired by MMS that pertains to the identification of potential and/or proven common hydrocarbon-bearing areas within 3 geographic miles of the seaward boundary of any such State will be shared, upon request by the Governor and pursuant to the provisions of 30 CFR 252.7 and subsections 8(g) and 26(e) of the Act, with the Governor of such State (or the Governor's designated representative).
- D. Knowledge obtained by a State official who receives information under subsections A, B, and C of this section will be subject to the requirements and limitations of the Act and the regulations contained in 30 CFR Part 250, Part 251, and Part 252.

Section IX. Permit Modifications

The Department will have the right at any time to modify or amend any provisions of this permit, except that the Department will not have such right with respect to the provisions of Sections VI, VII, and VIII hereof, unless required by an Act of Congress.

IN WITNESS WHEREOF the parties have executed this permit and it will be effective as of the date of signature by the Supervisor.

PERMITTEE:



 (Signature of Permittee)

Joseph Gagliardi

 (Type or Print Name of Permittee)

Director Arctic Solutions & Technology

 (Title)
 February 1, 2010

 (Date)

THE UNITED STATES OF AMERICA:



 (Signature of Regional Supervisor)

Rance R. Wall

 (Type or Print Name of Regional Supervisor)

7/13/10

 (Date)