

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

GULF OF MEXICO REGION
(AREAS IN GULF OF MEXICO AND ATLANTIC OCS)

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)

WesternGeco, LLC

 Name of Applicant

10,001 Richmond Avenue

 Number and Street

Houston, TX 77042

 City, State, and Zip Code

Multi-Client

 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
- X Geophysical exploration for mineral resources
- _____ Geophysical scientific research



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

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To be completed by MMS

Permit Number: ES09-01 Date: Feb 2, 2009

A. General Information

1. The activity will be conducted by:

<u>WesternGeco</u> Service Company Name	For <u>Multi Client</u> Purchaser(s) of the Data
<u>10001 Richmond Ave</u> Address	<u>10001 Richmond Ave</u> Address
<u>Houston, TX 77042</u> City, State, Zip	<u>Houston, TX 77042</u> City, State, Zip
<u>713-689-2023/713-689-5815</u> Telephone/FAX Numbers	<u>713-689-2023/713-689-5815</u> Telephone/FAX Numbers
<u>deal1@houston.westerngeco.slb.com</u> E-Mail Address	<u>deal1@houston.westerngeco.slb.com</u> 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

4. The expected commencement date is: October 1, 2009

The expected completion date is: October 1 2011

5. The name of the individual in charge of the field operation is: Peter Daswon

May be contacted at: 10001 Richmond Ave Houston, TX 77042

Telephone (Local) 713-789 9600 (Marine) 713-689-1804

Radio call sign 3EET6

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

Name M/V GILAVAR Registry number 34106-PEXT_T

Registered owner CASPIAN GEOPHYSICAL LTD.

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

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

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)): East Coast USA(Atlantic Ocean)
2. The type(s) of operation(s) to be employed is (are): 2D SEISMIC

(Seismic, gravity, magnetic, etc.)
3. The instrumentation and/or technique(s) to be used in the operation(s) is (are): _____
MARINE TOWED STREAMER WITH DIGITAL RECORDING SYSTEM
(Air gun, sparker, etc.)
4. Explosive charges will _____ will not X 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

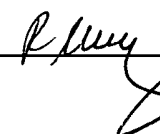
Use the appropriate form on page 9 for a “geological” permit application or the form on page 10 for a “geophysical” permit application. You must submit a separate Form MMS-327 to apply for each geological or geophysical permit.

E. Certification

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

SIGNED  KDZML DATE 29/1/2009
TITLE MARINE OPERATIONS MANAGER

TO BE COMPLETED BY MMS

Permit No. F09-01 Assigned by  of MMS Date 26/2/2009

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 _____

UNITED STATES
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MINERALS MANAGEMENT SERVICE

GULF OF MEXICO REGION
(AREAS IN GULF OF MEXICO AND ATLANTIC OCS)

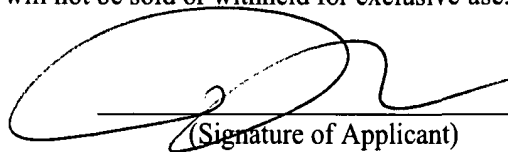
NONEXCLUSIVE USE AGREEMENT FOR SCIENTIFIC RESEARCH
IN THE OUTER CONTINENTAL SHELF

- A. State the time and manner in which data and information resulting from the proposed activity will be made available to the public for inspection and reproduction, such time being the earliest practicable time.

Data available no later than 24 months after Completion of Acquisition.

Data will be made available as Workstation Files

- B. WesternGeco, LLC (applicant) agrees that the data and information resulting from the proposed activity will not be sold or withheld for exclusive use.



(Signature of Applicant)

KEVIN DEAL

(Type or Print Name of Applicant)

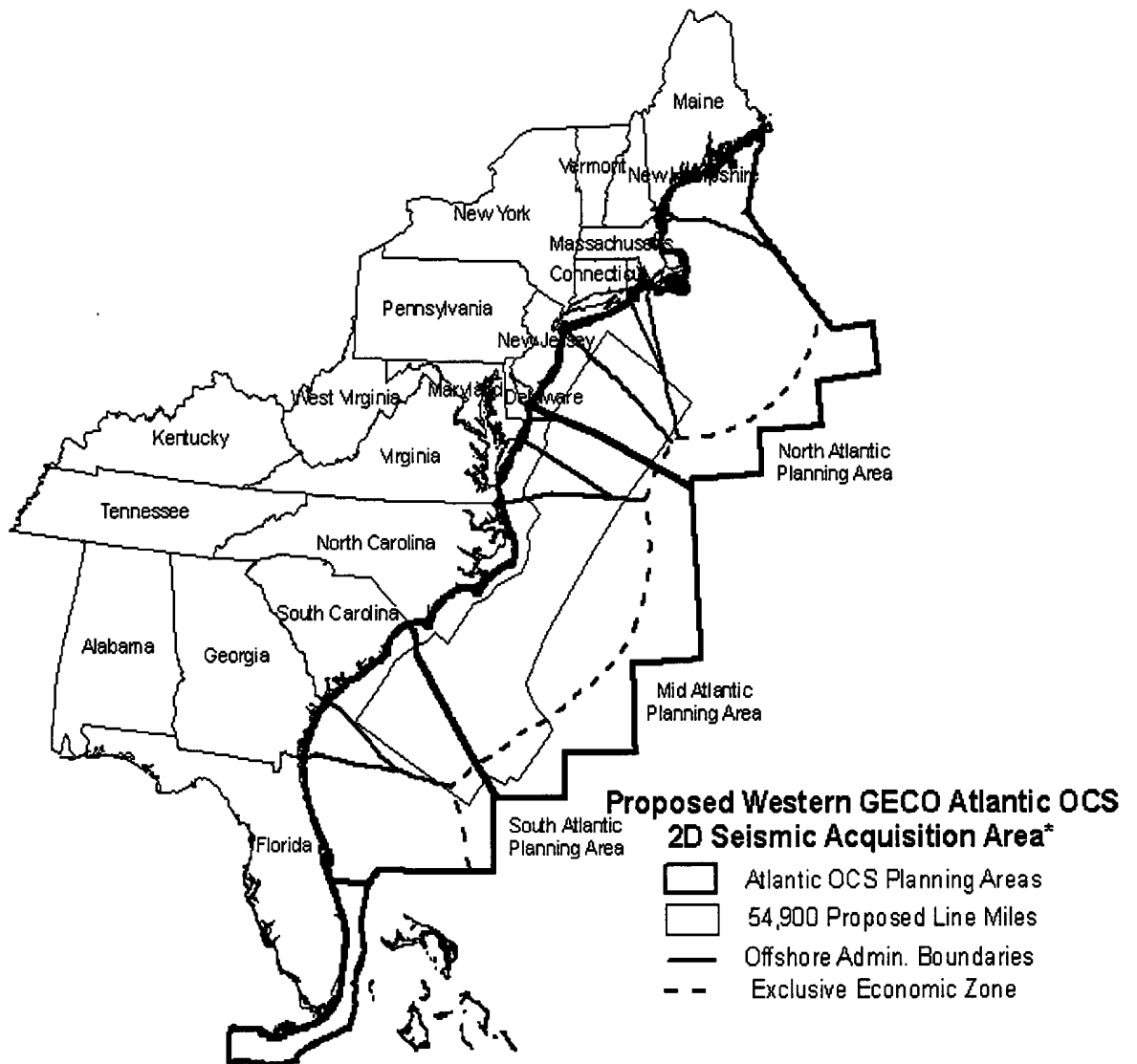
MARINE OPERATIONS MANAGER

(Title)

29 / 1 / 2009

(Date)

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



*This is a generalized acquisition area and is not an exact representation

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

GULF OF MEXICO REGION
(AREAS IN GULF OF MEXICO AND ATLANTIC OCS)

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

WesternGeco LLC

(Name of Permittee)

10001 Richmond Avenue

(Number and Street)

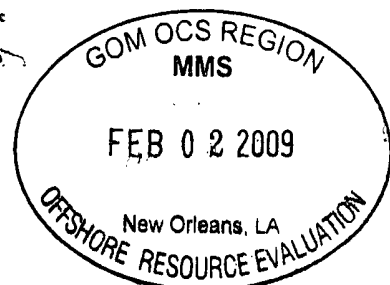
Houston, TX 77042

(City, State, and Zip Code)

PERMIT NUMBER: EO9-01

DATE: Feb 2, 2009

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.

- 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 tape or other suitable storage medium of all data or sample locations in latitude/longitude degrees. The tape is to be formatted in **SEG-P1**, coded in ASCII with fixed record length and fixed block size. A printed 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.

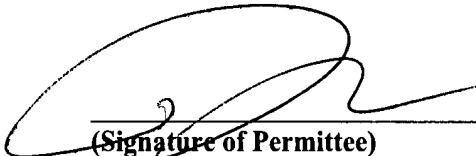
Section IX. Permit Modifications

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:

THE UNITED STATES OF AMERICA:



 (Signature of Permittee)

 (Signature of Regional Supervisor)

KEVIN DEAL

 (Type or Print Name of Permittee)

 (Type or Print Name of Regional Supervisor)

MARINE OPERATIONS MANAGER

 (Title)

 (Date)

29 / 1 / 2009

 (Date)

(Rev. 5/2000)

Stipulations

In performance of any operations under the Permit and Agreement for Outer Continental Shelf Geophysical Exploration for Mineral Resources or Scientific Research, the Permittee shall comply with the following Stipulations:

1. As part of the requirements of 30 CFR 251.6(a), if any operation under this Permit and Agreement is to be conducted in a leased area, the Permittee shall take all necessary precautions to avoid interference with operations on the lease and damage of existing structures and facilities. The lessee (or operator) of the leased area will be notified, in writing, before the Permittee enters the leased area, or commences operations, and a copy of the notification will be sent to the Regional Supervisor executing this Permit and Agreement.

2. (a) Solid or liquid explosives shall not be used except pursuant to written authorization from the Regional Supervisor. Requests of the use of such explosives must be in writing, giving the size of charges to be used, the depth at which they are to be detonated, and the specific precautionary methods proposed for the protection of fish, oysters, shrimp, and other natural resources. The use of explosives represents a "may affect" situation under Section 7 of the Endangered Species Act of 1973, as amended (see number 13. of attached "Environmental Protective Measures").

- (b) The following provisions are made applicable when geophysical exploration on the Outer Continental Shelf using explosives is approved:
 - (i) Each explosive charge will be permanently identified by markings so that unexploded charges may be positively traced to the

Permittee and to the specific field party of the Permittee responsible for the explosive charge.

- (ii) The placing of explosive charges on the seafloor is prohibited. No explosive charges shall be detonated nearer to the seafloor than five (5) feet (1.52 meters) .
 - (iii) No explosive shall be discharged within 1,000 feet (304.8 meters) of any boat not involved in the survey.
3. Any serious accident, personal injury, or loss of property shall be immediately reported to the Regional Supervisor.
 4. All pipes, buoys, and other markers used in connection with seismic work shall be properly flagged and lighted according to the navigation rules of the U.S. Corps of Engineers and the U.S. Coast Guard .
 5. In compliance with Section III- B(6) of this permit, digital navigation data shall be recorded on tape or other suitable storage media for seismic reflection surveys. The navigation data shall be in a format according to SEG P1 (Morgan, J.G. , et al, 1983, SEG Standard Exchange Formats for Positional Data, Society of Exploration Geophysicists, Special Report) . For 2-dimensional seismic events, a geographic location shall be reported for every shot point, irrespective of SEG P1 specifications. For 3-dimensional surveys, the first and last binned and centered locations for each line only shall be reported in SEG P1 format. Suitable media include, but are not limited to, 3 ½ inch diskettes or 8 mm cassettes all coded in ASCII . Tape and diskette formatting are to be in accordance with "Exchange Format for Postplot Location Data" presented in "Notice to Permittees" dated August 14,1990 .
 6. In addition to the "Stipulations" above, the "Environmental Protective Measures" attached hereto shall apply.

ENVIRONMENTAL PROTECTIVE MEASURES

The permittee shall comply with the following provisions:

1. Transportation operations conducted through Aransas or Cavallo Passes will avoid disturbance of the following islands used for nesting by the endangered brown pelican: Sundown Island in Matagorda Bay; Second Chain of Islands in San Antonio Bay; Long Reef Island in Aransas County, Texas; and Pelican Island in Nueces County, Texas.

2. This mitigation applies to all oil- and gas-related activities where the operator proposed to use a shorebase south of the Suwannee River (Florida). Shorebases north of the Suwannee River do not need this mitigation. Shorebases other than the Port Manatee/Tampa Bay area require a separate Endangered Species Section 7 Consultation.

To protect the endangered Florida Manatee, onshore support activities are restricted to Tampa Bay (including Port Manatee). The following manatee protection measures will be used by all vessels associated with these OCS activities:

- a. Permittees and their employees, contractors, or subcontractors are to be advised of the possibility of the presence of manatees in inland and coastal waters of Florida and the Eastern Gulf of Mexico.
- b. Permittees and their employees, contractors, or subcontractors are to be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Endangered Species Act of 1973, as amended, the Marine Mammal Protection Act of 1972, and the Florida Manatee Sanctuary Act of 1978. The permittee may be held responsible for any manatee harmed, harassed, or killed as a result of their activities.
- c. Permittees and their employees, contractors, or subcontractor vessel operators are to be advised of the need to avoid collisions with manatees and to stay within the existing channels. Vessels using Port Manatee should restrict travel to the extent possible to the deeper channels from Egmont Key to Port Manatee. While in Tampa Bay, vessels should obey all speed restrictions and operate at "no wake/idle" speeds at all times while in waters where the draft of the vessel provides less than a 4-ft clearance from the bottom. (Areas of manatee concentrations have been identified and speed zone signs erected in accordance with Federal, State, and local regulations.)
- d. Vessels while berthed in port will use fenders between the dock and the vessel and/or between adjacent vessels berthed side-by-side. The fenders shall have a minimum clearance of 3 feet when compressed between dock and vessel.
- e. Any collision with and/or injury to a manatee must be reported immediately to the "Manatee Hotline" (1-800-DIAL FMP) and to the U.S. Fish and Wildlife Service, Jacksonville Field Office (904/232-2580) for north Florida and to the Vero Beach Ecosystem Office (407/562-3909) for south Florida.

- f. The permittees and their employees, contractors, or subcontractors must maintain a log detailing sightings, collisions, or injuries to manatees should they occur during the activity time.
- g. Following activity completion, a report summarizing the above incidents and sightings must be submitted to the Florida Marine Research Institute, Florida Fish and Wildlife Conservation Commission, 100 Eighth Avenue SE, St. Petersburg, Florida 33701-5095 and to the U.S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, Florida 32216 for north Florida and to the U.S. Fish and Wildlife Service Office, P.O. Box 2676, Vero Beach, Florida 32961-2676 for south Florida.

3. If the permittee discovers any archaeological resource (shipwreck/prehistoric site) while conducting activities, the company will report the discovery immediately to the Regional Director (RD) at the MMS. The company will make every reasonable effort to avoid disturbance to the archaeological resource until the RD informs the company as to what precautions must be taken to protect the resource from operational activities.

4. No bottom-disturbing operations will be allowed for the proposed activities within 500 feet of the No Activity Zone(s) of the biologically sensitive feature(s) shown on the enclosed map.

5. It is recommended that the permittees use low sulfur fuel and NO_x controls within 100 kilometers of the Breton Sound National Wildlife Refuge.

6. The permittee will exercise precaution while conducting operations that involve bottom-surface disturbance in blocks shown on the attached Ordnance Dumping Area map as portions of these areas possibly contain old ordnance and unexploded shells and depth charges dumped until 1970. In addition, the U.S. Air Force has released an indeterminable amount of unexploded ordnance in Water Test Areas 1-5 (most of the Eastern Planning Area).

7. Manmade structure(s) such as pipeline(s) or other potential hazard(s) may be located in the permitted work area; therefore, prior to performing operations that involve bottom-surface disturbance (e.g., coring), all existing pipeline(s) or other potential hazard(s) within 150 m (490 ft) of the proposed work area will be buoyed. In areas highly congested with pipelines or debris, a safe working area large enough to accommodate the proposed operations may be outlined with buoys in lieu of marking each hazard.

8. Operations proposed in designated military warning and or test areas require compliance with the following requirement regarding boat and/or aircraft traffic:

- (a) Hold and Save Harmless

Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the company assumes all risks of damage or injury to persons or

property, which occur in, on, or above the OCS, to any persons or employees, or invitees of the permittees, its agents, independent contractors or subcontractors doing business with the company in connection with any activities being performed by the company in, on, or above the OCS, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the command headquarters listed in the following listing.

The permittee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors, or subcontractors, or any of its officers, agents, or employees. The company further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the company, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the company, its agents, or any independent contractors or subcontractors doing business with the company in connection with the programs and activities of the appropriate military installation, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

(b) Electromagnetic Emissions

The permittee agrees to control its own electromagnetic emissions and those of its agents, employees, invitees, independent contractors or subcontractors emanating from individual designated defense warning areas in accordance with requirements specified by the commander of the command headquarters listed to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing, or operational activities conducted within individual designated warning areas. Necessary monitoring control and coordination with the company, its agents, employees, invitees, independent contractors subcontractors will be effected by the commander of the appropriate onshore military installation conducting operations in the particular warning area, provided, however, that control of such electromagnetic communication during any period of time between a company, its agents, employees, invitees, independent contractors or subcontractors, and onshore facilities.

(c) Operational

The permittee, when operating or causing to be operated on its behalf, boat or aircraft traffic in the individual designated warning areas, shall contact the following individuals listed below, upon utilizing an individual designated warning area prior to commencing such traffic.

MWA W-92

Contact the Naval Air Station, Air Operations Department, Air Traffic Division/Code 52, New Orleans, Louisiana 70146-5000 (contact ACC A. W. Thrift at (504) 678-3100 or

(504) 678-3101) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-92.

MWA W-147

Contact the 147th Fighter Wing, Operations Officer, Houston, Texas 77034 (contact Msgt. Winsor at (281) 929-2716 or (281) 929-2683) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-147.

MWA W-151

Contact the Air Armament Center, Programs Division, Eglin Air Force Base, Florida 32542-5495 (contact Ms. Dorine White at (850) 882-3899 or (850) 882-4188) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-151.

MWA W-155

Contact the Naval Air Station, Chief - Naval Air Training, Office No. 206, Corpus Christi, Texas 78419-5100 (contact Cmdr. M. Thompson at (512) 939-3862 or (512) 939-2621) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-155.

MWA W-228

Contact the Naval Air Station, Chief - Naval Air Training, Office No. 206, Corpus Christi, Texas 78419-5100 (contact Comdr. M. Thompson at (512) 939-3862 or (512) 939-2621) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-228.

MWA W-453

Contact the Air National Guard-CRTC, Gulfport/ACTS, Gulfport, Mississippi 39507 (contact TSgt. D. Crawford or TSgt. L. Wyche, at (228) 867-2433) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-453.

MWA W-602

Contact the Navy Strategic Communications Wing One, VQ4, Tinker Air Force Base, Oklahoma City, Oklahoma 73145-8704 (contact Lt. Hurst, Lt. Tulles, AD1 Hall, or Mark Herkert at (405) 739-5700, (405) 739-4527, or (405) 739-4056) concerning the control of your electromagnetic emissions and use of boats and aircraft in Military Warning Area W-602.

EWTA-1, EWTA-2, or EWTA-3

Contact the Air Armament Center, Programs Division, Eglin Air Force Base, Florida 32542-5495 (contact Ms. Dorine White at (850) 882-3899 or (850) 882-4188) concerning the control of electromagnetic emissions and use of boats and aircraft in Eglin Water Test Area No. (1)(2)(3).

Naval Coastal Systems Center (NCSC)

Contact the Coastal Test and Evaluation Division, Coastal System Station/Code E21, Panama City, Florida 32407 (contact Mr. Dennis Wilson at (850) 234-4895 or (850) 234-4280) concerning the control of your electromagnetic emissions and use of boats and aircraft in the Naval Coastal Systems Center Area.

MWA W-59

Contact the Naval Air Station-JRB, New Orleans, Louisiana 70143-0027 (contact Msgt. Proze at (504) 391-8696 or (504) 391-8697) concerning the control of electromagnetic emissions and use of boats and aircraft in Military Warning Area W-59.

9. Artificial reef material may be located in the area of the permittee's proposed activities. The permittee should coordinate with the respective State's artificial reef coordinator for specific data regarding the location of reefal material. The following are the respective coordinators and their phone numbers:

Louisiana - Contact the Louisiana Artificial Reef Coordinator, Mr. Rick Kasprzak at (225) 765-2375 to ensure that your operations do not damage reefal material.

Texas - Contact the Texas Artificial Reef Coordinator, Ms. Jan Culbertson at (281) 461-4064 to ensure that your operations do not damage reefal material.

Mississippi - Contact the Mississippi Artificial Reef Coordinator, Mr. Mike Buchanan at (228) 374-5000 to ensure that your operations do not damage reefal material.

Alabama - Contact the Alabama Artificial Reef Coordinator, Mr. Steve Heath at (334) 968-7576 to ensure that your operations do not damage reefal material.

Florida - Contact the Florida Artificial Reef Coordinator, Mr. Jon Dodrill at (850) 922-4340 to ensure that your operations do not damage reefal material.

10. When operations extend south of approximately 26 degrees North Latitude in the Western Gulf of Mexico or 24 to 25 degrees North Latitude in the Eastern Gulf (the 200-nmi

provisional maritime also called the Exclusive Economic Zone Conservation Zone Limit), the permittee should notify the Department of State:

Mr. Tom Cocke, Room 5801, OES/OA
Department of State
Director, Office of Ocean Affairs
Washington, D.C. 20520
Phone: (202) 647-0240

11. Under the Magnuson Fisheries Management Act, 50 CFR 641.22(a) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, permittees/contractors should not take stunned or killed fish on board their vessels. Should this happen the permittee/contractor could be charged by the National Marine Fisheries Service with violation of the Act. If you have questions, contact Mr. Robert Sadler with the National Marine Fisheries Service. His telephone number is (813) 570-5305.

12. The following OCS lease blocks are known as the "Pinnacle Trend": Main Pass Area, South and East Addition, Blocks 190, 194, 198, 219-226, 244-266, 276-290; Viosca Knoll Area, Blocks 473-476, 521, 522, 564-566, 609, 610, 654, 692-698, 734, and 778. The use of anchors may cause physical damage to the Pinnacles. When operations are proposed on any of the above blocks, the permittee must submit anchor plats or other data to demonstrate that pinnacle areas will not be physically impacted by anchoring activities. Anchor locations may be surveyed with an echo sounder prior to anchoring to determine if there is any topographic relief indicative of pinnacle reefs. If pinnacles are discovered, anchors must avoid these hard bottoms/pinnacles by a distance of at least 100 ft. Echo sounder or other data and anchor locations must be submitted to MMS for review upon completion of operations in this Pinnacle Trend area.

13. The permittee shall contact Mr. G. P. Schmahl, the current Sanctuary Manager of the Flower Garden Banks National Marine Sanctuary, when conducting operations within the Sanctuary (Flower Garden Banks and Stetson Bank.) Mr. Schmahl's address is: Flower Garden Banks National Marine Sanctuary, 216 W. 26th St., Suite 104, Bryan, Texas, 77803. His telephone number is (979) 779-2705 [office], or 1-800-715-3271 [pager], (409) 229-6542 [cell phone]. If Mr. Schmahl cannot be reached immediately, you must contact the Sanctuaries and Reserves Division in Silver Spring, Maryland at 1-800-218-1232 (Ms. Lisa Symons).

The permittee should also arrange for any possible buoy removal and subsequent replacement, and exercise caution regarding any geophysical or navigational activities that may endanger any other users of the aforementioned Sanctuary. The Flower Gardens' buoys are located at the following:

East Flower Garden Bank

EFG Buoy #1	27°54'35.9"N, 93°35'49.7"W
EFG Buoy #2	27°54'31.9"N, 93°35'49.0"W
EFG Buoy #3	27°54'27.0"N, 93°35'57.4"W
EFG Buoy #4	27°54'33.0"N, 93°35'59.7"W
EFG Buoy #5	27°54'38.7"N, 93°36'00.5"W
EFG Buoy #6	27°54'39.9"N, 93°35'55.6"W
EFG Buoy #7	27°54'32.8"N, 93°35'55.1"W

West Flower Garden Bank

WFG Buoy #1	27°52'35.1"N, 93°48'54.1"W
WFG Buoy #2	27°52'31.3"N, 93°48'51.3"W
WFG Buoy #3	27°52'27.5"N, 93°49'00.4"W
WFG Buoy #4	27°52'29.4"N, 93°49'04.1"W
WFG Buoy #5	27°52'30.6"N, 93°48'54.7"W

Stetson Bank

Buoy #1	28°09'57.4"N, 94°17'51.5"W
Buoy #2	28°09'59.1"N, 94°17'50.5"W
Buoy #3	28°09'59.2"N, 94°17'47.5"W

13. All permits using explosives or involving surface-disturbing activities must comply with the following special provisions:

The MMS has determined that bottom-disturbing activities and/or the use of explosives for geophysical survey operations conducted under 30 CFR 251 may potentially harm marine mammals, endangered sea turtles, and other indigenous marine life. The use of explosives represents a "may effect" situation under Section 7 of the Endangered Species Act of 1973, as amended. Section 7 Consultation between the MMS and the National Marine Fisheries Service will be conducted on these applications. Specific information needed to support MMS evaluations of applications proposing the use of explosives and seafloor disturbing operations is listed below:

- a. Purpose of the survey.
- b. Description of operations to be conducted.
- c. Proposed starting date and duration of the proposed operation.
- d. Name, title, and telephone number of contact person.
- e. Name, registration number, registered owner, and home port of vessel(s) to be used.
- f. A sketch that schematically illustrates the configuration of the vessel(s) to be used.

g. The anticipated number, if any, of trips to be made by vessel(s) to shorebase for food, fuel, and supplies. Location of shorebase.

h. A legible map of the area(s) of proposed operations, showing shorebase and travel routes.

i. Will operations be supported by aircraft? If yes, name of operations base, distance from base to area of operations, and anticipated number of trips to be made between them.

j. Lease number(s), area(s), block(s), the range of water depths, and the average water depth in the area of planned activity.

k. A preplot map, preferably at a scale 1": 4000', with the area name and block number(s) and boundaries indicated as follows:

(1) for *explosives* - showing the proposed grid pattern and shot point interval to be used; or

(2) for *surface-disturbing activities* - showing location of the proposed operations indicated in feet from the nearest block lines and showing anchor pattern, if any, of the vessel(s) to be used.

l. If *soil samples* will be obtained by drilling or coring, provide the following:

(1) An evaluation, referencing supporting information, of the potential for encountering shallow hazards; and

(2) A plan for dealing with the shallow gas should it be encountered while drilling.

m. If *explosives* are used, provide the following:

(1) Briefly state why explosives were selected over nonexplosive seismic energy sources;

(2) Type of explosive, number of charges, maximum charge size, and identification (manufacturer and lot number, serial number, etc.) of charges;

(3) Will charges be detonated below the mudline? If no, why not?

(4) Depth in water column where charge is to be detonated and method of detonation.

(5) Will detonations be sequential? If yes, time delay between detonations.

- (6) Will explosives be used continuously?
- (7) Will explosives be detonated during hours of darkness?
- (8) Briefly describe plan for retrieval and/or disposal of unexploded charges.

As these seafloor disturbing and explosives permit applications require more time to process, more advance notice by the applicant will be required.

If explosives are used, it may be required that an MMS representative witness the detonations. Upon such notification by MMS, provisions shall be made to accommodate the representative.