PERMIT HAS NOT BEEN ISSUED

Attachment 1

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 SHELE

IN THE OUTER CONTINEITAL SHELL
(Section 11, Outer Continental Shelf Lands Act of August 7, 1953, as amended on September 18, 1878, by Public Law 95-372, 92 Statute 629, 43 U.S.C. 1340; and 30 CFR Part 251) Spectrum Geo, Inc. Name of Applicant
Spectrum Geo, Inc.
Name of Applicant 16225 Park Ten Place, Suite 300 Number and Street
16225 Park Ten Place, Suite 300
Number and Street
Houston, Texas 77084
City, State, and Zip Code
Name of Service Company or Purchaser (if different from above) Application is made for the following activity: (check one)
Application is made for the following activity: (check one) Geological exploration for mineral resources Geological scientific research
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: 409-83 Date: 24-Mai-2009

A. General Information

1.	The activity will be conducted by:		
	Spectrum Geo, Inc.	For	Spectrum Geo, Inc.
	Service Company Name		Purchaser(s) of the Data
	16225 Park Ten Place, Suite 300		16225 Park Ten Place, Suite 300
	Address		Address
	Houston, Texas 77084		Houston, Texas 77084
	City, State, Zip		City, State, Zip
	281.647.0602/281.647.0926		281.647.0602/281.647.0926
	Telephone/FAX Numbers		Telephone/FAX Numbers
	mc-us@spectrumasa.com		mc-us@spectrumasa.com
	E-Mail Address		E-Mail Address
2.	The purpose of the activity is:	Miı	neral exploration
		Sci	entific research
3.		inimiz	d activity, including potential adverse effects on e these adverse effects (use continuation sheets
4.	The expected commencement date is: May		
	The expected completion date is: October 3	01, 200	3
5.	The name of the individual in charge of the	field o	peration is: Thomas S. Sherman
	May be contacted at: 544 Front Street New		
			Marine)
	Radio call sign V7KL9		
6.	The vessel(s) to be used in the operation is	(are):	
	Name GGS Atlantic	F	Registry number MO 8225943
	Registered owner Atlantic Seismic AS		
7.	The port from which the vessel(s) will oper	ate is:	Norfolk, VA and Charleston, SC
8.	Briefly describe the navigation system (ves	sel nav	rigation only):
	NAVIpac		

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

	1.	The type of o	peration(s) to	be employed is: (check one)			
		(a) <u>N/A</u>	Deep strati	igraphic test, or				
		(b) N/A	Shallow st	tratigraphic test wi	th proposed total depth of, or			
		(c) N/A	Other					
	2.	Exact geogra	phic coordina	tes of proposed tes	t(s) (attach a page-size plat(s)):			
C.		omplete for eophysical			for Mineral Resources or			
	1.	Proposed loc	ation of the ac	ctivity (attach a pag	ge-size plat(s)): see attachment			
	2.	The type(s) o	of operation(s)	to be employed is	(are): Seismic Streamer Acquisition			
				(Seismic	, gravity, magnetic, etc.)			
	3.	The instrumentation and/or technique(s) to be used in the operation(s) is (are):						
		Air Gun						
		Air Gun (Air gun, sparker, etc.)						
	4.			will not x harge size (in poun	_ be used. If applicable, indicate the type of ds) to be used:			
		Туре		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 3(16/09)
TITLE Vice President	
TO BE COMP	LETED BY MMS

Permit No. <u> </u>	Assigned by	2 lungs	Date <u>34-</u>	Uar-3009
This application is hereby:				
a. Approved				
b Returned for reason	ns in the attached			
The approved permit is:				
aAttached				
b Will be forwarded	at a later date			
SIGNED	TITLE	Regional Supervisor	DATE	

Section D Proprietary Information Attachment Required for an Application for Geophysical Permit

1.	1. Brief description of the energy source and streamer (receiving array):				
Seamap Gunlink 2000, I streamer at 10,000 meters in length					
2.	Total energy output per impulse: 5860 cubic inches at 2000 psi, 4 subrrays at 13 guns each				
3.	Number of impulses per linear mile: 64				
4.	Towing depth of the energy source: 6 - 7 meters				
5.	Towing depth of the streamer: 6 - 7 meters				
6.	Navigation system or method to be used to position shotpoint locations:				
	NAVIpac				
7.	Area of activity and total number of line miles proposed: 180,000 kms				
8.	Description and list of the final processed data that will result from operations under the proposed				
	activity: Data Tape				
9.	Estimated date on which processed data will be available for inspection: April 31, 2011				
10.	Attach map(s), plat(s), and chart(s) (preferably at a scale of 1:250,000) showing latitude and longitude, scale, specific block numbers, specific track lines with line identifications, and the total number of line miles proposed.				

UNITED STATES DEPARTMENT OF THE INTERIOR 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.		information resulting from the proposed activity will be and reproduction, such time being the earliest practicable
	N/A	
В.	Joe Erickson resulting from the proposed activity will not	
		(Signature of Applicant)
		Joe Erickson (Type or Print Name of Applicant)
		Vice President
		(Title)
		3/16/09
		(Date)

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

PERMITHAS NOT BEEN ISSUED

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 resource 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 English Department of the Interior, and
Spectrum Geo, Inc. (Name of Permittee) 16225 Pork Top Place, Suite 300
(Name of Permittee)
16225 Park Ten Place, Suite 300
(Number and Street)
Houston, Texas 77084
(City, State, and Zip Code) PERMIT NUMBER: FOX -05 DATE: 34-May -2008
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 Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Continental Shelf Lands Act, as amended, (43 U.S.C. 1331 et seq.), hereinafter called the Conti

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

Th	e Government authorizes the permittee to conduct:
	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.
Th	is permit authorizes the permittee to conduct the above geophysical activity during the period from in the following area(s):
the wi Ins	orth Atlantic Planning Area, Mid Atlantic Planning Area and South Atlantic Planning Area. Extensions of time period specified above must be requested in writing. A permit plus extensions for activities all be limited to a period of not more than 1 year from the original issuance date of the permit. Spection and reporting of geophysical exploration activities, suspension and cancellation of authority conduct exploration or scientific research activities under permit, and penalties and appeals will be tried out in accordance with 30 CFR 251.8, 251.9, and 251.10.
	e authority of the Regional Director may be delegated to the Regional Supervisor for Resource
Ev	aluation for the purposes of this permit.
	aluation for the purposes of this permit. on II. Type(s) of Operations and Technique(s)
ectio	on II. Type(s) of Operations and Technique(s) The permittee will employ the following type(s) of operations:
ectio	on II. Type(s) of Operations and Technique(s)
ectio	The permittee will employ the following type(s) of operations: Air Gun Energy Source
ectio	The permittee will employ the following type(s) of operations: Air Gun Energy Source Seismic Streamer Acquisition and will utilize the following instruments and/or technique(s) in such operations:
ectic A.	The permittee will employ the following type(s) of operations: Air Gun Energy Source Seismic Streamer Acquisition and will utilize the following instruments and/or technique(s) in such operations: Seamap gun Link 2000, 10,000 meter in length,

Section III. Reports on Operations

A. The permittee must submit status reports on a two month 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: 40,000) 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 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.

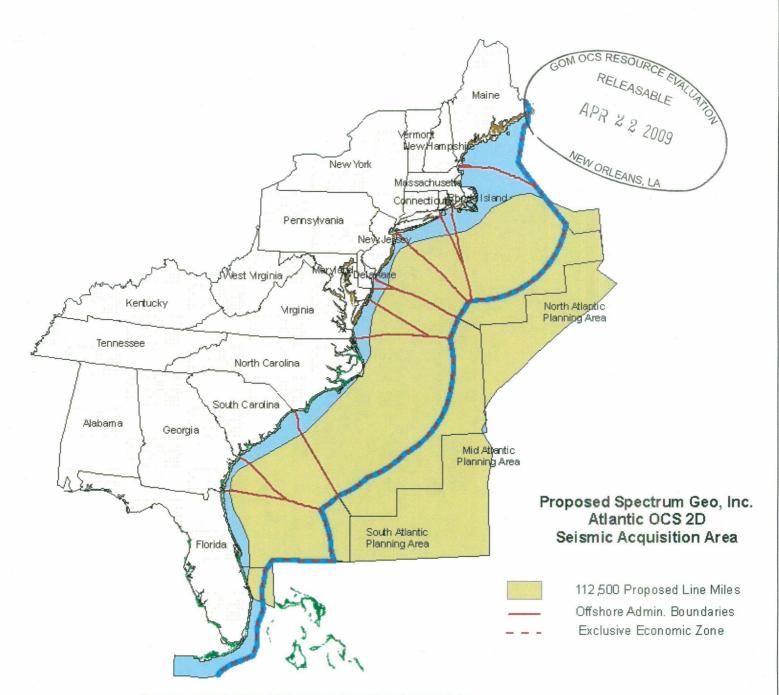
- B. After the time of receipt of nominations for any area of the OCS within 3 geographic miles of the seaward boundary of any coastal State and Area Identification in accordance with the provisions of Subparts D and E of 30 CFR Part 256, MMS, in consultation with the Governor of the State (or the Governor's 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)	
Joe Erickson		
(Type or Print Name of Permittee)	(Type or Print Name of Regional Supervisor)	
Vice President		
(Title)	(Date)	
3/16/09		
(Date)		



*These are generalized acquisition areas and are not exact representations

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.
 - (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 CD-ROM coded in ASCII. All 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

- 1. Comply with the provisions of NTL No. 2007-G02, Implementation of Seismic Survey Measures and Protected Species Observer Program, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g02.pdf).
- 2. Comply with the provisions of NTL No. 2007-G03, Marine Trash and Debris Awareness and Elimination, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g03.pdf).
- 3. Comply with the provisions of NTL No. 2007-G04, Vessel Strike Avoidance and Injured/Dead Protected Species Reporting, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g04.pdf).
- 4. Man-made 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), take precautions in accordance with Notice to Lessees and Operators No. 2007-G01, Section VI.B. (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g01.pdf)
- 5. If you conduct activities that could disturb the seafloor in an Ordnance Dumping Area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/jl06006.pdf for a map), exercise caution, since this area might contain old ordnance, including unexploded shells and depth charges, dumped before 1970. In addition, the U.S. Air Force has released an undeterminable amount of unexploded ordnance in Water Test Areas 1 through 5 (most of the Eastern Planning Area of the GOM).
- 6. If you discover any site, structure, or object of potential archaeological significance (i.e., cannot be definitively identified as modern debris or refuse) while conducting operations, the provisions of 30 CFR 250.194(c) and NTL 2005-G07 require you to immediately halt operations within 1,000 feet of the area of discovery and report this discovery to the Regional Supervisor of Leasing and Environment (RSLE) within 48 hours. Every reasonable effort must be taken to preserve the archaeological resource from damage until the RSLE has told you how to protect it.
- 7. If you conduct activities within a military warning or water test area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/MWA boundaries.pdf for a map), or if the associated boat or aircraft traffic will traverse a military warning or water test area, contact the commander(s) of the appropriate command headquarters having jurisdiction over the respective area(s) before you commence such traffic. You can obtain the names and telephone numbers of the command headquarters for each military warning and water test area by consulting the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/Military%20Contacts.pdf.

- 8. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities near an identified biologically sensitive topographic feature (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 152 meters (500 feet) of its designated "No Activity Zone." Within 90 calendar days after completing activities that disturbed the seafloor within 305 meters (1,000 feet) of the "No Activity Zone" of a biologically sensitive topographic feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 9. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Pinnacle Trend" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 30 meters (100 feet) of any identified pinnacles or other hard bottoms that have a vertical relief of eight feet or more. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 61 meters (200 feet) of pinnacles in the "Pinnacle Trend" area, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 10. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Low Relief" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor near any identified live bottom low relief features. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of live bottom low relief features, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.

- 11. If you conduct activities in water depths 400 meters (1,312 feet) or greater, make sure that you do not anchor, use anchor chains wire ropes or cables, or otherwise disturb the seafloor within 76 meters (250 feet) of any features or areas that could support high-density chemosynthetic communities. The known chemosynthetic community sites are listed in Appendix A of NTL No. 2000-G20, Deepwater Chemosynthetic Communities, effective December 6, 2000 (see the MMS website at
- http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl00-g20.html). Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 152 meters (500 feet) of features or areas that could support high-density chemosynthetic communities, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 12. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you discover any high-relief topographic feature with a relief greater than eight (8) feet while conducting activities, report the discovery to the MMS GOMR Regional Director. Make sure you do not anchor on or otherwise disturb such a feature. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of such a feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to the feature.
- 13. Before you conduct activities that could disturb the seafloor within 254 meters (1,000 feet) of a Texas artificial reef site or artificial reef permit area, within 152 meters (500 feet) of a Louisiana artificial reef site or artificial reef permit area, or could disturb the seafloor within a General Permit Area established by the States of Texas, Alabama or Florida for the placement of artificial reef material, contact the appropriate State reef management agency. See the MMS websites at http://www.gomr.mms.gov/homepg/regulate/environ/artreefcontacts.pdf for State contacts.
- 14. If you conduct activities within the boundaries of the Flower Gardens National Marine Sanctuary (Flower Gardens Banks and Stetson Bank), exercise caution to ensure that such activities do not endanger any other users of the Sanctuary. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSmap.pdf for map. Additionally, if the activities involve moving the marker buoys at the Sanctuary, contact Mr. G. P. Schmahl, the current Sanctuary Manager, for instructions. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMScontacts.pdf for Mr. Schmahl's contact information. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSbuoys.pdf for the locations of the Flower Gardens' marker buoys.

- 15. If your proposed activities will involve using boats from a port located south of the Suwannee River mouth in Florida, make sure that you adhere to the following manatee protection plan:
- a. Advise your personnel of the possibility of the presence of manatees in the inland and coastal waters of Florida in the Eastern GOM.
- b. Advise your personnel that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, and the Florida Manatee Sanctuary Act of 1978.
- c. Advise your vessel operators to (1) use the deeper ship channels to the maximum extent possible; (2) avoid collisions with manatees and to stay within the existing channels; and (3) obey all speed restrictions and travel at "no wake/idle" speeds at all times while operating in shallow water or in channels where the draft of the vessel provides less than four (4) feet of clearance. (Areas of manatee concentrations have been identified and speed limit signs have been erected in accordance with Federal, State, and local regulations.)
- d. While vessels are berthed in port, advise your vessel operators to use fenders between the dock and the vessel and/or between adjacent vessels berthed side-by-side. Make sure that the fenders have a minimum clearance of three feet when compressed between the dock and the vessel.
- e. Ensure that your vessel operators keep logs detailing any sighting of, collision with, damage to, or death of manatees that occur while you conduct an ancillary activity. If a mishap involving a manatee should occur, make sure that the vessel operator immediately calls the "Manatee Hotline" ((888) 404-3922), and the U.S. Fish and Wildlife Service, Jacksonville Field Office ((904) 232-2580) for north Florida or the U.S. Fish and Wildlife Service, Vero Beach Ecosystem Office ((772) 562-3909) for south Florida.
- f. Within 60 calendar days after completing the ancillary activity, submit a report summarizing all manatee incidents and sightings to the Florida Marine Research Institute, Florida Fish and Wildlife Conservation Commission, 100 Eighth Avenue SE, St. Petersburg, FL 33701-5095; and to the U.S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, FL 32216-0958, for north Florida, or to the U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, Florida 32960-3559, for south Florida.
- 16. The Magnuson-Stevens Fisheries Conservation and Management Act (see 50 CFR 600.725) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Therefore, if your activities involve the use of explosives, and the explosions result in stunned or killed fish, do not take such fish on board your vessels. If you do, you could be charged by the National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries Service) with a violation of the aforementioned Act. If you have any questions, contact NOAA Fisheries Service, Office for Law Enforcement, Southeast Division, at (727) 824-5344.
- 17. When operations extend south of approximately 26 degrees north latitude in the Western Gulf of Mexico or 24 degrees to 25 degrees north latitude in the Eastern Gulf (the 200-nautical mile provisional maritime also called the Exclusive Economic Zone Conservation Zone Limit), notify the Department of State: Ms. Liz Tirpak Room 5801, OES/OA, Department of State, Director, Office of Ocean Affairs, Washington, D.C., 20520, at (202) 647-1106.

18. MMS GOMR Data Acquisition and Special Project Unit Address:

Regional Supervisor, Resource Evaluation Resource Studies Section Data Acquisition and Special Project Unit (MS 5123) Minerals Management Service Gulf of Mexico OCS Region 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394



Attachment 1

UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE

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

PPLICATION FOR PERMIT TO CONDUCT GEOLOGICAL ON THE SEARCH OF RESOURCES OR SCIENTIFIC RESEARCH OF RESEARCH OF RESOURCES OR SCIENTIFIC RESEARCH OF RESOURCES OR SCIENTIFICATION OR SCIENTIFICATI APPLICATION FOR PERMIT TO CONDUCT GEOLOGICAL OR GEOPHYSICAL (Section 11, Outer Continental Shelf Lands Act of August 7, 1953, as amended on September 18,499 by Public Law 95-372, 92 Statute 629, 43 U.S.C. 1340; and 30 CFR Part 251) Spectrum Geo, Inc. Name of Applicant 16225 Park Ten Place, Suite 300 Number and Street Houston, Texas 77084 City, State, and Zip Code Name of Service Company or Purchaser (if different from above) GOM OCS REGION, MMS Application is made for the following activity: (check one) Geological exploration for mineral resources Geological scientific research OFFSHORE RESOURCE EVALUATION Geophysical exploration for mineral resources Geophysical scientific research Submit: Original, two copies, and one public inform To be completed by MMS Permit Number: <u>E04-06</u> Date: <u>24-Mar-</u> 2809

DECEMBENT SEND ISSUED

للاشتبال بالمكنان الماعلهم والابتاء

A. General Information

1.	The activity will be conducted by:			
	Spectrum Geo, Inc.	For	Spectrum Geo, Inc.	
	Service Company Name	_	Purchaser(s) of the Data	
	16225 Park Ten Place, Suite 300		16225 Park Ten Place, Suite 300	
	Address		Address	
	Houston, Texas 77084		Houston, Texas 77084	
	City, State, Zip		City, State, Zip	
	281.647.0602/281.647.0926		281.647.0602/281.647.0926	
	Telephone/FAX Numbers		Telephone/FAX Numbers	
	mc-us@spectrumasa.com		mc-us@spectrumasa.com	
	E-Mail Address		E-Mail Address	
2.	The purpose of the activity is:	_ Mii	neral exploration	
		_ Sci	entific research	
	NTL 2007-G07 will be adhered to at all times		09	
4.	The expected commencement date is: May			
	The expected completion date is: October 3	31, 200	9	
5.	The name of the individual in charge of the	field o	peration is: Thomas S. Sherman	
	May be contacted at: 544 Front Street New	Ulm, T	exas 78950	
	Telephone (Local) 713.444.5315		Marine)	
	Radio call sign V7KL9			
6.	The vessel(s) to be used in the operation is	_ (are):		
	Name GGS Atlantic		Registry number IMO 8225943	
		T	tegistry number	• •
	Registered owner Atlantic Seismic AS	·		
7.	The port from which the vessel(s) will open	ate is:	Norfolk, VA and Charleston, SC	,
8.	Briefly describe the navigation system (vess	sel nav	igation only):	
	NAVIpac			

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) N/A Deep stratigraphic test, or
		(b) N/A Shallow stratigraphic test with proposed total depth of, or
		(c) N/A Other
	2.	Exact geographic coordinates of proposed test(s) (attach a page-size plat(s)):
C.		emplete for Geophysical Exploration for Mineral Resources or eophysical Scientific Research
	1.	Proposed location of the activity (attach a page-size plat(s)):
	2.	The type(s) of operation(s) to be employed is (are): Gravity
		(Seismic, gravity, magnetic, etc.)
	3.	The instrumentation and/or technique(s) to be used in the operation(s) is (are):
		Gravity Sensor EVS 2.781.001
		(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.

	Vice President				
					
		TO BE COMPL	ETED BY MN	ns	
Permit No	<u>. E09-06</u>	_ Assigned by \int	Z lungs	no is	Date <u>94-Max</u> 3
This appli	ication is hereby:				
a	Approved				
b	Returned for rea	sons in the attached			
The appro	oved permit is:				
a	Attached				
	Will be forward	-1-4-1-4 1-4-			

SIGNED _____ TITLE Regional Supervisor DATE ____

UNITED STATES DEPARTMENT OF THE INTERIOR 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.	A. State the time and manner in which data and informa made available to the public for inspection and repro time.	
	N/A	
B.		ant) agrees that the data and information
	resulting from the proposed activity will not be sold	or withheld for exclusive use.
	(
		(Signature of Applicant)
	Joe E	rickson
	,,	(Type or Print Name of Applicant)
	Vice I	President
		(Title)
	·	3116/29
		(Date)

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

PERMIT HAS NOT BEEN ISSUED

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

Spectrum Geo, Inc. (Name of Permittee) 16225 Park Ten Place, Suite 300 (Number and Street) Houston, Texas 77084 (City, State, and Zip Code)

PERMIT NUMBER: FOG-06

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

> New Orleans, LA OFFSHORE RESOURCE EVALUATION

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

_	
	X 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.
N the wi In:	to in the following area(s): orth Atlantic Planning Area, Mid Atlantic Planning Area and South Atlantic Planning area Extensions of the time period specified above must be requested in writing. A permit plus extensions for activities are limited to a period of not more than 1 year from the original issuance date of the permit. Spection and reporting of geophysical exploration activities, suspension and cancellation of authority conduct exploration or scientific research activities under permit, and penalties and appeals will be rried out in accordance with 30 CFR 251.8, 251.9, and 251.10.
	ne authority of the Regional Director may be delegated to the Regional Supervisor for Resource valuation for the purposes of this permit.
Section	on II. Type(s) of Operations and Technique(s)
A.	The permittee will employ the following type(s) of operations: Onboard Gravity Sensor
	<u> </u>
	and will utilize the following instruments and/or technique(s) in such operations: Gravity Sensor EVS 2.781.001
В.	

Section III. Reports on Operations

A. The permittee must submit status reports on a two month 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: 40,000) 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 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.

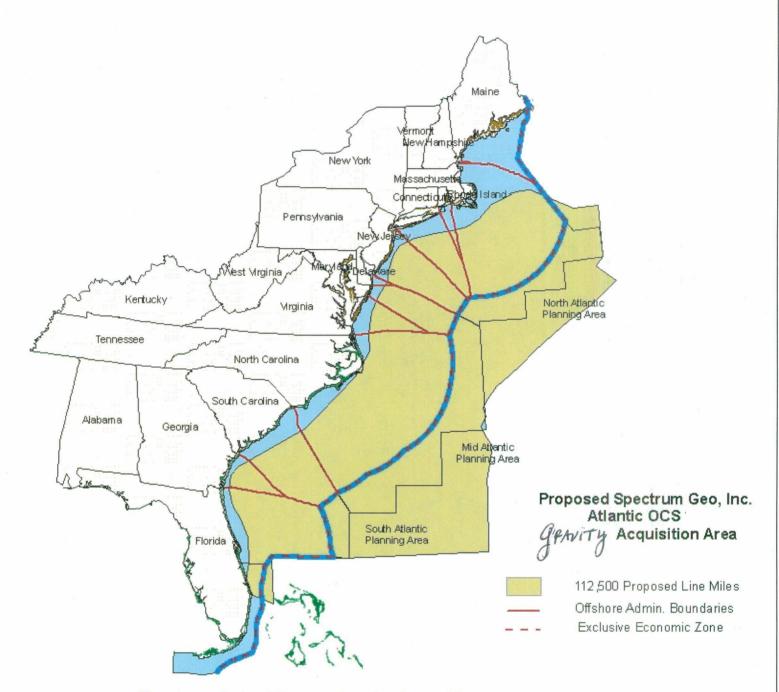
- B. After the time of receipt of nominations for any area of the OCS within 3 geographic miles of the seaward boundary of any coastal State and Area Identification in accordance with the provisions of Subparts D and E of 30 CFR Part 256, MMS, in consultation with the Governor of the State (or the Governor's 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)	
Joe Erickson		
(Type or Print Name of Permittee)	(Type or Print Name of Regional Supervisor	
Vice President		
(Title)	(Date)	
3/16/09		
(Date)		



*These are generalized acquisition areas and are not exact representations

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.
 - (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 CD-ROM coded in ASCII. All 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

- 1. Comply with the provisions of NTL No. 2007-G02, Implementation of Seismic Survey Measures and Protected Species Observer Program, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g02.pdf).
- 2. Comply with the provisions of NTL No. 2007-G03, Marine Trash and Debris Awareness and Elimination, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g03.pdf).
- 3. Comply with the provisions of NTL No. 2007-G04, Vessel Strike Avoidance and Injured/Dead Protected Species Reporting, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g04.pdf).
- 4. Man-made 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), take precautions in accordance with Notice to Lessees and Operators No. 2007-G01, Section VI.B. (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g01.pdf)
- 5. If you conduct activities that could disturb the seafloor in an Ordnance Dumping Area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/jl06006.pdf for a map), exercise caution, since this area might contain old ordnance, including unexploded shells and depth charges, dumped before 1970. In addition, the U.S. Air Force has released an undeterminable amount of unexploded ordnance in Water Test Areas 1 through 5 (most of the Eastern Planning Area of the GOM).
- 6. If you discover any site, structure, or object of potential archaeological significance (i.e., cannot be definitively identified as modern debris or refuse) while conducting operations, the provisions of 30 CFR 250.194(c) and NTL 2005-G07 require you to immediately halt operations within 1,000 feet of the area of discovery and report this discovery to the Regional Supervisor of Leasing and Environment (RSLE) within 48 hours. Every reasonable effort must be taken to preserve the archaeological resource from damage until the RSLE has told you how to protect it.
- 7. If you conduct activities within a military warning or water test area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/MWA boundaries.pdf for a map), or if the associated boat or aircraft traffic will traverse a military warning or water test area, contact the commander(s) of the appropriate command headquarters having jurisdiction over the respective area(s) before you commence such traffic. You can obtain the names and telephone numbers of the command headquarters for each military warning and water test area by consulting the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/Military%20Contacts.pdf.

- 8. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities near an identified biologically sensitive topographic feature (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 152 meters (500 feet) of its designated "No Activity Zone." Within 90 calendar days after completing activities that disturbed the seafloor within 305 meters (1,000 feet) of the "No Activity Zone" of a biologically sensitive topographic feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 9. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Pinnacle Trend" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 30 meters (100 feet) of any identified pinnacles or other hard bottoms that have a vertical relief of eight feet or more. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 61 meters (200 feet) of pinnacles in the "Pinnacle Trend" area, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 10. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Low Relief" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor near any identified live bottom low relief features. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of live bottom low relief features, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.

11. If you conduct activities in water depths 400 meters (1,312 feet) or greater, make sure that you do not anchor, use anchor chains wire ropes or cables, or otherwise disturb the seafloor within 76 meters (250 feet) of any features or areas that could support high-density chemosynthetic communities. The known chemosynthetic community sites are listed in Appendix A of NTL No. 2000-G20, Deepwater Chemosynthetic Communities, effective December 6, 2000 (see the MMS website at

http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl00-g20.html). Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 152 meters (500 feet) of features or areas that could support high-density chemosynthetic communities, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.

- 12. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you discover any high-relief topographic feature with a relief greater than eight (8) feet while conducting activities, report the discovery to the MMS GOMR Regional Director. Make sure you do not anchor on or otherwise disturb such a feature. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of such a feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to the feature.
- 13. Before you conduct activities that could disturb the seafloor within 254 meters (1,000 feet) of a Texas artificial reef site or artificial reef permit area, within 152 meters (500 feet) of a Louisiana artificial reef site or artificial reef permit area, or could disturb the seafloor within a General Permit Area established by the States of Texas, Alabama or Florida for the placement of artificial reef material, contact the appropriate State reef management agency. See the MMS websites at http://www.gomr.mms.gov/homepg/regulate/environ/artreefcontacts.pdf for State contacts.
- 14. If you conduct activities within the boundaries of the Flower Gardens National Marine Sanctuary (Flower Gardens Banks and Stetson Bank), exercise caution to ensure that such activities do not endanger any other users of the Sanctuary. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSmap.pdf for map. Additionally, if the activities involve moving the marker buoys at the Sanctuary, contact Mr. G. P. Schmahl, the current Sanctuary Manager, for instructions. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMScontacts.pdf for Mr. Schmahl's contact information. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSbuoys.pdf for the locations of the Flower

Gardens' marker buoys.

- 15. If your proposed activities will involve using boats from a port located south of the Suwannee River mouth in Florida, make sure that you adhere to the following manatee protection plan:
- a. Advise your personnel of the possibility of the presence of manatees in the inland and coastal waters of Florida in the Eastern GOM.
- b. Advise your personnel that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, and the Florida Manatee Sanctuary Act of 1978.
- c. Advise your vessel operators to (1) use the deeper ship channels to the maximum extent possible; (2) avoid collisions with manatees and to stay within the existing channels; and (3) obey all speed restrictions and travel at "no wake/idle" speeds at all times while operating in shallow water or in channels where the draft of the vessel provides less than four (4) feet of clearance. (Areas of manatee concentrations have been identified and speed limit signs have been erected in accordance with Federal, State, and local regulations.)
- d. While vessels are berthed in port, advise your vessel operators to use fenders between the dock and the vessel and/or between adjacent vessels berthed side-by-side. Make sure that the fenders have a minimum clearance of three feet when compressed between the dock and the vessel.
- e. Ensure that your vessel operators keep logs detailing any sighting of, collision with, damage to, or death of manatees that occur while you conduct an ancillary activity. If a mishap involving a manatee should occur, make sure that the vessel operator immediately calls the "Manatee Hotline" ((888) 404-3922), and the U.S. Fish and Wildlife Service, Jacksonville Field Office ((904) 232-2580) for north Florida or the U.S. Fish and Wildlife Service, Vero Beach Ecosystem Office ((772) 562-3909) for south Florida.
- f. Within 60 calendar days after completing the ancillary activity, submit a report summarizing all manatee incidents and sightings to the Florida Marine Research Institute, Florida Fish and Wildlife Conservation Commission, 100 Eighth Avenue SE, St. Petersburg, FL 33701-5095; and to the U.S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, FL 32216-0958, for north Florida, or to the U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, Florida 32960-3559, for south Florida.
- 16. The Magnuson-Stevens Fisheries Conservation and Management Act (see 50 CFR 600.725) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Therefore, if your activities involve the use of explosives, and the explosions result in stunned or killed fish, do not take such fish on board your vessels. If you do, you could be charged by the National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries Service) with a violation of the aforementioned Act. If you have any questions, contact NOAA Fisheries Service, Office for Law Enforcement, Southeast Division, at (727) 824-5344.
- 17. When operations extend south of approximately 26 degrees north latitude in the Western Gulf of Mexico or 24 degrees to 25 degrees north latitude in the Eastern Gulf (the 200-nautical mile provisional maritime also called the Exclusive Economic Zone Conservation Zone Limit), notify the Department of State: Ms. Liz Tirpak Room 5801, OES/OA, Department of State, Director, Office of Ocean Affairs, Washington, D.C., 20520, at (202) 647-1106.

18. MMS GOMR Data Acquisition and Special Project Unit Address:

Regional Supervisor, Resource Evaluation Resource Studies Section Data Acquisition and Special Project Unit (MS 5123) Minerals Management Service Gulf of Mexico OCS Region 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394



Attachment 1

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) Spectrum Geo, Inc. Name of Applicant 16225 Park Ten Place, Suite 300 Number and Street Houston, Texas 77084 City, State, and Zip Code Name of Service Company or Purchaser (if different from above) GOM OCS REGION, MMS 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: <u>F09-07</u> Date: <u>34-11a1-2009</u>

A. General Information

I.	The activity will be conducted by:					
	Spectrum Geo, Inc.	For	Spectrum Geo, Inc.			
	Service Company Name		Purchaser(s) of the Data			
	16225 Park Ten Place, Suite 300		16225 Park Ten Place, Suite 300			
	Address		Address			
	Houston, Texas 77084		Houston, Texas 77084			
	City, State, Zip		City, State, Zip			
	281,647.0602/281.647.0926		281.647.0602/281.647.0926			
	Telephone/FAX Numbers		Telephone/FAX Numbers			
	mc-us@spectrumasa.com		mc-us@spectrumasa.com			
	E-Mail Address		E-Mail Address			
2.	The purpose of the activity is:	Mi	neral exploration			
		Sci	entific research			
<i>3</i> .	marine life and what steps are planned to m as necessary): NTL 2007-G07 will be adhered to at all times	inimiz	d activity, including potential adverse effects e these adverse effects (use continuation she	ets		
4.	The expected commencement date is:					
	The expected completion date is: October 3	31, 200	9			
5.	The name of the individual in charge of the	field o	operation is: Thomas S. Sherman			
	May be contacted at: 544 Front Street New Ulm, Texas 78950					
			Marine)			
	Radio call sign V7KL9	_				
6.	The vessel(s) to be used in the operation is	(are):	• .			
	Name GGS Atlantic	I	Registry number IMO 8225943			
	Atlantia Salemia AS					
7.	The port from which the vessel(s) will open	rate is:	1			
			rigation only):			
	NAVIpac					

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) N/A	Deep strati	igraphic test, or				
		(b) N/A	Shallow st	ratigraphic test wi	th proposed total depth of, or			
		(c) <u>N/A</u>	Other					
2. Exact geographic coordinates of proposed test(s) (attach a page-size plat(t(s) (attach a page-size plat(s)):	_		
						_		
C	Co	mnlete for	Geonhysic	eal Evoloration	for Mineral Resources or			
U.		Complete for Geophysical Exploration for Mineral Resources or Geophysical Scientific Research						
	l.	. Proposed location of the activity (attach a page-size plat(s)): see attachment						
	2.	The type(s) of operation(s) to be employed is (are): Magnetic						
				(Seismic	, gravity, magnetic, etc.)			
	3.	. The instrumentation and/or technique(s) to be used in the operation(s) is (are):						
		Marine Magnetometer						
		(Air gun, sparker, etc.)						
4. Explosive charges will will not _x be used. If applicable, indice explosive and maximum charge size (in pounds) to be used:						ate the type of		
		Туре		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		DATE3//	6/29
TITLE Vice President			
	TO BE COMPLETED BY	MMS	
Permit No. <u>F09-07</u>	_ Assigned by Plung	7 1 of MMS	Date <u>94-</u> Mai -
This application is hereby:	V		
a Approved			
b Returned for rea	sons in the attached		
The approved permit is:			
a Attached			
b Will be forward	ed at a later date		
SIGNED	TITLE Regional	1 Supervisor DATE	

Section D Proprietary Information Attachment Required for an Application for Geological Permit

l.	Brief description of method of shallow drilling or sampling:
•	Number of boring or sample locations to be occupied:
•	Navigation system or method to be used to position sample locations:
•	Method of sample analyses, storage, and handling:
	Description and list of the final analyzed and/or processed data that will result from operations under the proposed activity:
	Estimated date on which samples, logs, and analyzed and/or processed data will be ready for inspection:
	Attach map(s), plat(s), and chart(s) (preferably at a scale of 1:250,000) showing latitude and longitude, scale, specific block numbers, specific boring sample locations, and total number of borings or samples proposed.

UNITED STATES DEPARTMENT OF THE INTERIOR 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

N/A	
	applicant) agrees that the data and information
resulting from the proposed activity will not be	sold or withheld for exclusive use.
_	(Signature of Applicant)
	oe Erickson
-	(Type or Print Name of Applicant)
,	/ice President
	(Title)

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

PERMITIAN VOT BIND ISSUES

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 Agreenica's RESOURCE (the Government), acting through the Minerals Management Service (MMS) of the Department of the Interior, and

Spectrum Geo, Inc.

(Name of Permittee)

16225 Park Ten Place, Suite 300

(Number and Street)

Houston, Texas 77084

PERMIT NUMBER: <u>125-07</u> DATE: <u>24-1121-20</u>09

(City, State, and Zip Code)

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:					
Geophysical exploration for mineral resources as defined in 30 CFR 2	51.1.				
Geophysical scientific research as defined in 30 CFR 251.1. A permit geophysical investigation that involves the use of solid or liquid explo and information for proprietary use or sale.					
This permit authorizes the permittee to conduct the above geophysical activity to in the follow North Atlantic Planning Area, Mid Atlantic Planning area and South Atlantic Planning the time period specified above must be requested in writing. A permit plus exwill be limited to a period of not more than 1 year from the original issuance d Inspection and reporting of geophysical exploration activities, suspension and to conduct exploration or scientific research activities under permit, and penalt carried out in accordance with 30 CFR 251.8, 251.9, and 251.10.	ing area(s): Area . Extensions of tensions for activities ate of the permit. cancellation of authority				
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: Magnetic recording					
and will utilize the following instruments and/or technique(s) in such operation Marine Magnetometer	; ations: 				
B. The permittee will conduct all activities in compliance with the terms and including the "Stipulations," "Special Provisions," and the approved "Appl which are attached to and incorporated into this permit.					
C. The permittee will conduct all geophysical exploration or scientific research compliance with the Act, the regulations in 30 CFR Part 251, and other appregulations whether such statutes and regulations are enacted, promulgated before or after this permit is issued. Some of the provisions of 30 CFR Part 251 appermit for emphasis. However, all of the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions of 30 CFR Part 251 appears to the provisions to the provisions to the provisions to the provisions to the	plicable statutes and I, issued, or amended rt 251 are restated in this				

Section III. Reports on Operations

A. The permittee must submit status reports on a two month 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: 40,000) 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 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.

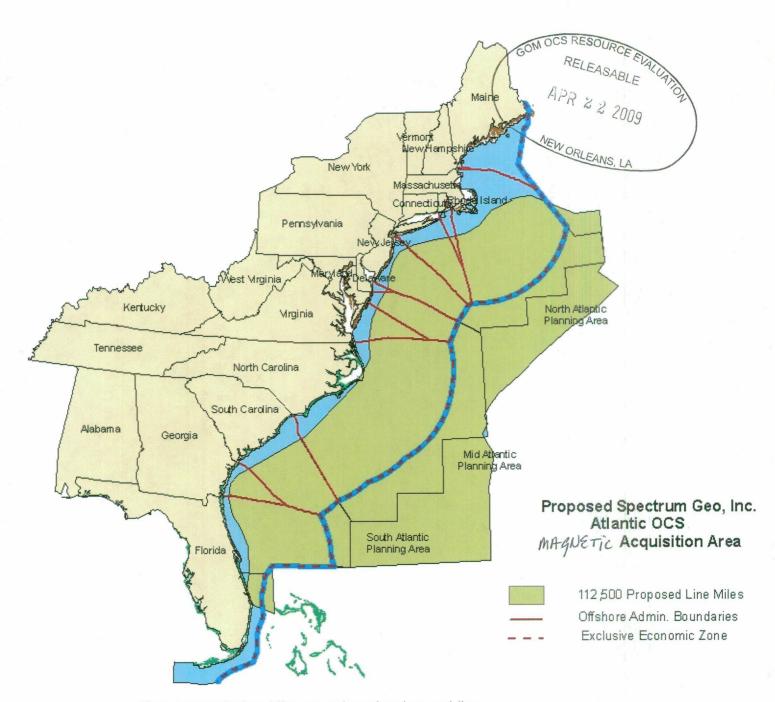
- B. After the time of receipt of nominations for any area of the OCS within 3 geographic miles of the seaward boundary of any coastal State and Area Identification in accordance with the provisions of Subparts D and E of 30 CFR Part 256, MMS, in consultation with the Governor of the State (or the Governor's 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)	
Joe Erickson		
(Type or Print Name of Permittee)	(Type or Print Name of Regional Supervisor)	
Vice President		
(Title)	(Date)	
3/16/09		
(Date)		



*These are generalized acquisition areas and are not exact representations

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.
 - (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 1/2 inch diskettes or CD-ROM coded in ASCII. All 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

- 1. Comply with the provisions of NTL No. 2007-G02, Implementation of Seismic Survey Measures and Protected Species Observer Program, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g02.pdf).
- 2. Comply with the provisions of NTL No. 2007-G03, Marine Trash and Debris Awareness and Elimination, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g03.pdf).
- 3. Comply with the provisions of NTL No. 2007-G04, Vessel Strike Avoidance and Injured/Dead Protected Species Reporting, effective February 7, 2007 (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g04.pdf).
- 4. Man-made 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), take precautions in accordance with Notice to Lessees and Operators No. 2007-G01, Section VI.B. (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/2007NTLs/07-g01.pdf)
- 5. If you conduct activities that could disturb the seafloor in an Ordnance Dumping Area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/jl06006.pdf for a map), exercise caution, since this area might contain old ordnance, including unexploded shells and depth charges, dumped before 1970. In addition, the U.S. Air Force has released an undeterminable amount of unexploded ordnance in Water Test Areas 1 through 5 (most of the Eastern Planning Area of the GOM).
- 6. If you discover any site, structure, or object of potential archaeological significance (i.e., cannot be definitively identified as modern debris or refuse) while conducting operations, the provisions of 30 CFR 250.194(c) and NTL 2005-G07 require you to immediately halt operations within 1,000 feet of the area of discovery and report this discovery to the Regional Supervisor of Leasing and Environment (RSLE) within 48 hours. Every reasonable effort must be taken to preserve the archaeological resource from damage until the RSLE has told you how to protect it.
- 7. If you conduct activities within a military warning or water test area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/MWA boundaries.pdf for a map), or if the associated boat or aircraft traffic will traverse a military warning or water test area, contact the commander(s) of the appropriate command headquarters having jurisdiction over the respective area(s) before you commence such traffic. You can obtain the names and telephone numbers of the command headquarters for each military warning and water test area by consulting the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/Military%20Contacts.pdf.

- 8. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities near an identified biologically sensitive topographic feature (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 152 meters (500 feet) of its designated "No Activity Zone." Within 90 calendar days after completing activities that disturbed the seafloor within 305 meters (1,000 feet) of the "No Activity Zone" of a biologically sensitive topographic feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 9. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Pinnacle Trend" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf for a list and http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor within 30 meters (100 feet) of any identified pinnacles or other hard bottoms that have a vertical relief of eight feet or more. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 61 meters (200 feet) of pinnacles in the "Pinnacle Trend" area, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.
- 10. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you conduct activities in the Live Bottom "Low Relief" area (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf for a map), make sure that you do not anchor or otherwise disturb the seafloor near any identified live bottom low relief features. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of live bottom low relief features, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.

11. If you conduct activities in water depths 400 meters (1,312 feet) or greater, make sure that you do not anchor, use anchor chains wire ropes or cables, or otherwise disturb the seafloor within 76 meters (250 feet) of any features or areas that could support high-density chemosynthetic communities. The known chemosynthetic community sites are listed in Appendix A of NTL No. 2000-G20, Deepwater Chemosynthetic Communities, effective December 6, 2000 (see the MMS website at

http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl00-g20.html). Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 152 meters (500 feet) of features or areas that could support high-density chemosynthetic communities, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to these features.

- 12. Comply with the provisions of NTL 2004-G05, Biologically Sensitive Areas of the Gulf of Mexico, effective April 1, 2004, (see the MMS website at http://www.gomr.mms.gov/homepg/regulate/regs/ntls/ntl04-g05.pdf). If you discover any high-relief topographic feature with a relief greater than eight (8) feet while conducting activities, report the discovery to the MMS GOMR Regional Director. Make sure you do not anchor on or otherwise disturb such a feature. Within 90 calendar days after completing an ancillary activity that disturbed the seafloor within 30 meters (100 feet) of such a feature, submit to the MMS GOMR Data Acquisition and Special Project Unit (see page 4 of these "Protective Measures" for the address) a map at a scale of 1 inch = 1,000 feet with DGPS accuracy, showing the location of the seafloor disturbance relative to the feature.
- 13. Before you conduct activities that could disturb the seafloor within 254 meters (1,000 feet) of a Texas artificial reef site or artificial reef permit area, within 152 meters (500 feet) of a Louisiana artificial reef site or artificial reef permit area, or could disturb the seafloor within a General Permit Area established by the States of Texas, Alabama or Florida for the placement of artificial reef material, contact the appropriate State reef management agency. See the MMS websites at http://www.gomr.mms.gov/homepg/regulate/environ/artreefmap.pdf for a map and http://www.gomr.mms.gov/homepg/regulate/environ/artreefcontacts.pdf for State contacts.
- 14. If you conduct activities within the boundaries of the Flower Gardens National Marine Sanctuary (Flower Gardens Banks and Stetson Bank), exercise caution to ensure that such activities do not endanger any other users of the Sanctuary. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSmap.pdf for map. Additionally, if the activities involve moving the marker buoys at the Sanctuary, contact Mr. G. P. Schmahl, the current Sanctuary Manager, for instructions. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMScontacts.pdf for Mr. Schmahl's contact information. See the MMS website at http://www.gomr.mms.gov/homepg/regulate/environ/FGNMSbuoys.pdf for the locations of the Flower

Gardens' marker buoys.

- 15. If your proposed activities will involve using boats from a port located south of the Suwannee River mouth in Florida, make sure that you adhere to the following manatee protection plan:
- a. Advise your personnel of the possibility of the presence of manatees in the inland and coastal waters of Florida in the Eastern GOM.
- b. Advise your personnel that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, and the Florida Manatee Sanctuary Act of 1978.
- c. Advise your vessel operators to (1) use the deeper ship channels to the maximum extent possible; (2) avoid collisions with manatees and to stay within the existing channels; and (3) obey all speed restrictions and travel at "no wake/idle" speeds at all times while operating in shallow water or in channels where the draft of the vessel provides less than four (4) feet of clearance. (Areas of manatee concentrations have been identified and speed limit signs have been erected in accordance with Federal, State, and local regulations.)
- d. While vessels are berthed in port, advise your vessel operators to use fenders between the dock and the vessel and/or between adjacent vessels berthed side-by-side. Make sure that the fenders have a minimum clearance of three feet when compressed between the dock and the vessel.
- e. Ensure that your vessel operators keep logs detailing any sighting of, collision with, damage to, or death of manatees that occur while you conduct an ancillary activity. If a mishap involving a manatee should occur, make sure that the vessel operator immediately calls the "Manatee Hotline" ((888) 404-3922), and the U.S. Fish and Wildlife Service, Jacksonville Field Office ((904) 232-2580) for north Florida or the U.S. Fish and Wildlife Service, Vero Beach Ecosystem Office ((772) 562-3909) for south Florida.
- f. Within 60 calendar days after completing the ancillary activity, submit a report summarizing all manatee incidents and sightings to the Florida Marine Research Institute, Florida Fish and Wildlife Conservation Commission, 100 Eighth Avenue SE, St. Petersburg, FL 33701-5095; and to the U.S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, FL 32216-0958, for north Florida, or to the U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, Florida 32960-3559, for south Florida.
- 16. The Magnuson-Stevens Fisheries Conservation and Management Act (see 50 CFR 600.725) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Therefore, if your activities involve the use of explosives, and the explosions result in stunned or killed fish, do not take such fish on board your vessels. If you do, you could be charged by the National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries Service) with a violation of the aforementioned Act. If you have any questions, contact NOAA Fisheries Service, Office for Law Enforcement, Southeast Division, at (727) 824-5344.
- 17. When operations extend south of approximately 26 degrees north latitude in the Western Gulf of Mexico or 24 degrees to 25 degrees north latitude in the Eastern Gulf (the 200-nautical mile provisional maritime also called the Exclusive Economic Zone Conservation Zone Limit), notify the Department of State: Ms. Liz Tirpak Room 5801, OES/OA, Department of State, Director, Office of Ocean Affairs, Washington, D.C., 20520, at (202) 647-1106.

18. MMS GOMR Data Acquisition and Special Project Unit Address:

Regional Supervisor, Resource Evaluation Resource Studies Section Data Acquisition and Special Project Unit (MS 5123) Minerals Management Service Gulf of Mexico OCS Region 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394