

UNITED STATES GOVERNMENT  
MEMORANDUM

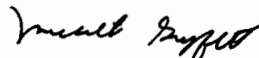
September 24, 2003

To: Public Information (MS 5034)  
From: Plan Coordinator, FO, Plans Section (MS  
5231)

Subject: Public Information copy of plan  
Control # - N-07901  
Type - Initial Exploration Plan  
Lease(s) - OCS-G24389 Block - A 248 Galveston Area  
Operator - LLOG Exploration Offshore, Inc.  
Description - Wells A and B  
Rig Type - SEMISUBMERSIBLE

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.



Michelle Griffitt  
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/A	G24389/GA/A 248	5484 FNL, 2977 FWL	G24389/GA/A 248
WELL/B	G24389/GA/A 248	5484 FNL, 2977 FWL	G24389/GA/A 248

CONTROL No. N 7901  
REVIEWER: Michelle Griffitt  
PHONE (504) 706-2975

September 12, 2003

U.S. Department of the Interior  
Minerals Management Service  
1201 Elmwood Park Boulevard  
New Orleans, Louisiana 70123-2394

Attention: Mr. Nick Wetzel  
Plans Unit

RE: Initial Exploration Plan for Lease OCS-G 24389, Galveston Block A248, OCS Federal Waters, Gulf of Mexico, Offshore, Texas

Gentlemen:

In accordance with the provisions of Title 30 CFR 250.203 and that certain Notice to Lessees (NTL 2003-G17), LLOG Exploration Offshore, Inc. (LLOG) hereby submits for your review and approval nine (9) copies of an Initial Exploration Plan (Plan) for Lease OCS-G 24389, Galveston Block A248, Offshore, Texas. Five (5) copies are "Proprietary Information", and four (4) copies are "Public Information".

Excluded from the Public Information copies are certain geologic and geophysical discussions and attachments.

*Contingent upon receiving regulatory approvals and based on equipment and personnel availability, LLOG anticipates operations under this Plan commencing as early as November 1, 2003.*

Should additional information be required, please contact the undersigned, or our regulatory consultant, R.E.M. Solutions, Inc., Attention: Christine Groth or Natalie Schumann at 281.492.8562.

Sincerely,

**LLOG EXPLORATION OFFSHORE, INC.**



Wayne Whitman  
Petroleum Engineer

**Public Information**

WW:CAG  
Attachments

**LLOG EXPLORATION OFFSHORE, INC.**

433 Metairie Road, Suite 600  
Metairie, Louisiana 70005

Wayne Whitman  
waynew@llog.com

**INITIAL EXPLORATION PLAN**

**LEASE OCS-G 24389**

**GALVESTON BLOCK A248**

**PREPARED BY:**

Christine Groth and Natalie Schumann

**R.E.M. Solutions, Inc.**

17171 Park Row, Suite 390

Houston, Texas 77084

281.492.8562 (Phone)

281.492.6117 (Fax)

[christine@remsolutionsinc.com](mailto:christine@remsolutionsinc.com)

[natalie@remsolutionsinc.com](mailto:natalie@remsolutionsinc.com)

**DATED:**

September 12, 2003

## SECTION A PLAN CONTENTS

### A. Description, Objectives and Schedule

Lease OCS-G 24389, Galveston Block A248 was acquired by LLOG Exploration Offshore, Inc. at the Western Gulf of Mexico Lease Sale No. 184 held on August 21, 2002. The lease was issued with an effective date of October 1, 2002 and a primary term ending date of September 30, 2007.

The current lease operatorship and ownership are as follows:

Area/Block Lease No.	Operator	Ownership
Galveston Block A248	LLOG Exploration Offshore, Inc.	LLOG Exploration Offshore, Inc.

LLOG proposes to drill, complete and potentially test Well Locations A and B from a common surface location in Galveston Block A248. Information pertaining to the geological targets, including a narrative of trapping features, is included as ***Attachment A-1***.

LLOG proposes to conduct these operations as outlined in the following activity schedule:

<i>Proposed Activity</i>	<i>Start Up Date</i>	<i>Completion Date</i>
Drill, Complete, and Test Well Location A and Mudline Suspend	11/01/2003	11/22/2003
Drill, Complete and Test Well Location B and Mudline Suspend	11/23/2003	12/14/2003

### B. Location

Included as ***Attachments A-2 through A-4*** are Form MMS-137 "OCS Plan Information Form", Well Location Plats, and Bathymetry Map detailing the proposed surface location disturbance area with anchor radius of semi-submersible drilling unit.

### C. Drilling Unit

LLOG will utilize a typical semi-submersible drilling rig for the proposed drilling, completion and potential testing operations provided for in this Plan. Actual rig specifications will be included with the Applications for Permit to Drill.

Safety of personnel and protection of the environment during the proposed operations is of primary concern with LLOG, and mandates regulatory compliance with the contractors and vendors associated with the proposed operations as follows:

## **SECTION A**

### **Contents of Plan - Continued**

**Minerals Management Service** regulations contained in Title 30 CFR Part 250, Subparts C, D, E, G and O mandate the operations comply with well control, pollution prevention, construction and welding procedures as described in Title 30 CFR Part 250, Subparts C, D, E, G and O; and as further clarified by MMS Notices to Lessees.

Minerals Management Service conducts periodic announced and unannounced onsite inspections of offshore facilities to confirm operators are complying with lease stipulations, operating regulations, approved plans, and other conditions; as well as to assure safety and pollution prevention requirements are being met. The National Potential Incident of Noncompliance (PINIC) List serves as the baseline for these inspections.

**U. S. Coast Guard** regulations contained in Title 33 CFR mandate the appropriate life rafts, life jackets, ring buoys, etc., be maintained on the facility at all times.

**U. S. Environmental Protection Agency** regulations contained in the NPDES General Permit GMG290000 mandate that supervisory and certain designated personnel on-board the facility be familiar with the effluent limitations and guidelines for overboard discharges into the receiving waters.

**Geological Targets and Trapping Features**

**Attachment A-1  
(Proprietary Information)**

**OCS Plan Information Form**

**Attachment A-2  
(Public Information)**

**OCS PLAN INFORMATION FORM**  
 (USE SEPARATE FORM FOR EACH LEASE)

EXPLORATION PLAN	<b>X</b>	DEVELOPMENT OPERATIONS COORDINATION DOCUMENT		DEVELOPMENT & PRODUCTION PLAN	
OPERATOR:		<b>LLOG Exploration Offshore, Inc.</b>	ADDRESS: <b>433 Metairie Road, Suite 600, Metairie, Louisiana 70005</b>		
MMS OPERATOR NO.:		<b>02058</b>			
CONTACT PERSON:		<b>Christine Groth or Natalie Schumann at R.E.M. Solutions, Inc.</b>	PHONE NO. <b>281.492.8562</b>		
PROPOSED START DATE:	<b>11/01/2003</b>	RIG TYPE:	<b>SS</b>	DISTANCE TO CLOSEST LAND (IN MILES):	<b>85</b>
NEW OR UNUSUAL TECHNOLOGY	YES	NO	<b>X</b>	ONSHORE SUPPORT BASE:	<b>Freeport, Texas</b>
NARRATIVE DESCRIPTION PROPOSED ACTIVITIES: <b>Drill, complete and test two (2) wells and mudline suspend.</b>					
					PROJECT NAME, IF APPLICABLE: <b>NA</b>

**PROPOSED WELL/STRUCTURE LOCATIONS**

WELL / STRUCTURE NAME	SURFACE LOCATION		BOTTOM-HOLE LOCATION (FOR WELLS)	
Well A  Name:	CALLS:	<b>5484' F N L and 2977' F W L OF</b>	CALLS:	
	LEASE OCS	<b>G 24389 , Galveston AREA,</b>	LEASE OCS	<b>G 24389 , Galveston AREA,</b>
	BLOCK	<b>A248</b>	BLOCK	<b>A248</b>
	X:	<b>3,415,413</b>	X:	
	Y:	<b>49,956</b>	Y:	
	LAT:	<b>27°53'52.018"</b>	LAT:	
	7500'	<b>-94°37'04.494"</b>	LONG:	
	TVD (IN FEET):		MD (IN FEET):	WATER DEPTH (IN FEET): <b>470'</b>
Well B  Name:	CALLS:	<b>5484' F N L and 2977' F W L OF</b>	CALLS:	
	LEASE OCS	<b>G 24389 , Galveston AREA,</b>	LEASE OCS	<b>G 24389 , Galveston AREA,</b>
	BLOCK	<b>A248</b>	BLOCK	<b>A248</b>
	X:	<b>3,415,413</b>	X:	
	Y:	<b>49,956</b>	Y:	
	LAT:	<b>27°53'52.018"</b>	LAT:	
	LONG:	<b>-94°37'04.494"</b>	LONG:	
	TVD (IN FEET):		MD (IN FEET):	WATER DEPTH (IN FEET): <b>470'</b>



**Well Location Plat**

**Attachment A-3  
(Public Information)**

OCS G24389

Y = 55,440'

Surface	Well A, B
X	3,415,413
Y	49,956
Lat	27° 53' 52.018"
Long	-94° 37' 4.494"
Footcall EW	2,977' FWL GA A-248
Footcall NS	5,484' FNL GA A-248



X = 3,412,435.81'

GA A-248

TEXACO INCORPORATED  
42707400120000

5280

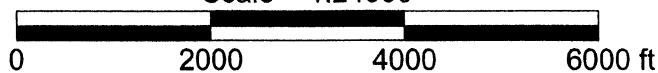
X = 3,428,275.81'

Y = 39,600'

LLOG Exploration Offshore, Inc.

Galveston A-248

Scale = 1:24000



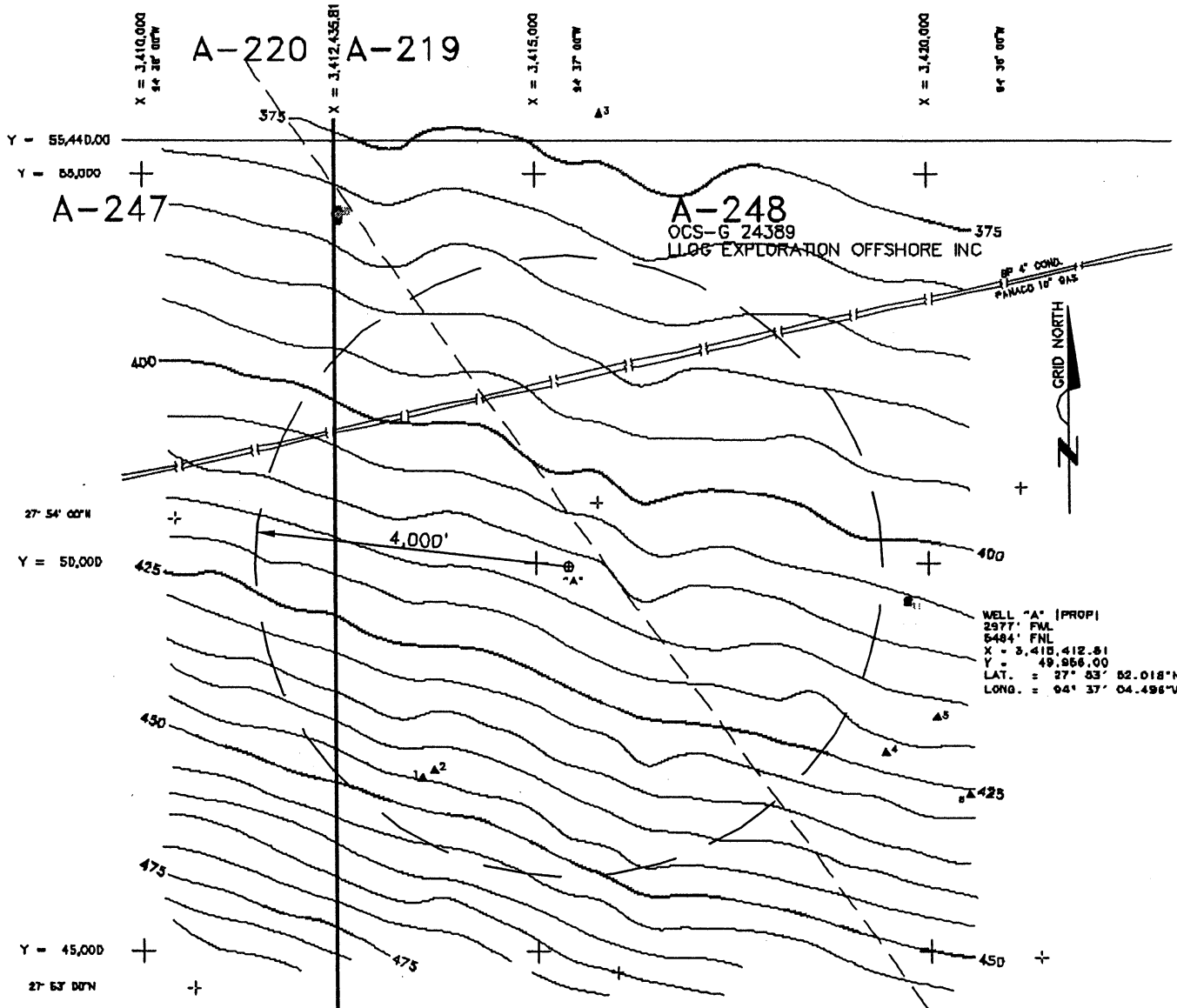
Texas SC, Clarke 1866

Surface Locations

**PUBLIC  
INFORMATION**

**Bathymetry Map**

**Attachment A-4  
(Public Information)**



WELL "A" (PROP)  
 2977' FNL  
 5484' FNL  
 X = 3,418,412.81  
 Y = 49,866.00  
 LAT. = 27° 33' 52.018"N  
 LONG. = 94° 37' 04.496"W

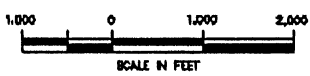
**IMPORTANT - PLEASE NOTE**

This map was compiled from various database sources, primarily of public record, and interpreted remote sensor data as described in the report with which it was prepared. The map and report should be read together.

Instrumentation utilized during this survey is not capable of locating any communication and/or power cables that may be present in the area, or of determining buried depths of existing pipelines.

**LEGEND:**

- PIPELINE (EXISTING)
- - - COMMUNICATIONS CABLE
- ⊙ WELL (PLUGGED AND ABANDONED)
- 400 BATHYMETRIC CONTOUR, INTERVAL = 5 FEET WITH EVERY 25-FOOT CONTOUR HIGHLIGHTED. VERTICAL DATUM FOR BATHYMETRY IS BELOW SEA LEVEL (BSL).
- ⊙ LARGE ROCKMARK WITH INCLUDED MUD MOUND - ELEVATION OF MUD MOUND INDICATED IN FEET ABOVE SEAFLOOR.
- Δ UNIDENTIFIED MAGNETIC ANOMALY - NUMBER REFERS TO ANOMALY ID NUMBER (SEE TABLE).



GRID - TEXAS (LAMBERT), SOUTH CENTRAL ZONE (NAD 27) CLARKE 1866

ANOMALY NUMBER	LINE NUMBER	DEPTH FIX	DEPTH HEIGHT	DEPTH	A19	DIP	BLOCK NUMBER	X	Y
1	0081	9.25	8	11	-	80	A-248	3,413,854	47,378
2	0081	9.25	8	11	-	110	A-248	3,413,893	47,378
3	0058	11.20	15	8	-	80	A-219	3,418,830	38,797
4	0058	11.20	15	8	-	80	A-248	3,418,830	47,897
5	0058	11.20	15	8	-	80	A-248	3,420,350	46,000
6	0101	20.50	16	8	-	80	A-248	3,420,261	47,001

<b>SITE SPECIFIC SURVEY</b> <b>BATHYMETRY AND SEAFLOOR FEATURES MAP</b> BLOCK A-248 GALVESTON AREA SOUTH ADDITION OFFSHORE TEXAS		<b>ILLOG EXPLORATION OFFSHORE, INC.</b>  <b>Thales GeoSolutions, Inc.</b> <small>2824 Westchase Drive          Houston, Texas 77042          Tel: 713-794-6482 Fax: 713-784-8182</small> <b>THALES</b>		
SRV. RJ	PREP. MP	CAL. TAG	APP. KAC	FILE NO. 10021
SRV. KAC	SRV. KAC	SRV. KAC	DATE 8/1/2003	D.P. 8388

## **SECTION B**

### **General Information**

#### **A. Contact**

Questions or requests for additional information should be made to LLOG's authorized representative for this project:

Christine Groth and Natalie Schumann  
R.E.M. Solutions, Inc.  
17171 Park Row, Suite 390  
Houston, Texas 77084  
281.492.8562 (Phone)  
281.492.6117 (Fax)  
[christine@remsolutionsinc.com](mailto:christine@remsolutionsinc.com)  
[natalie@remsolutionsinc.com](mailto:natalie@remsolutionsinc.com)

#### **B. Prospect Name**

LLOG does not refer to prospect names for their exploratory activities.

#### **C. New or Unusual Technology**

LLOG does not propose using any new and/or unusual technology for the operations proposed in this Plan.

#### **D. Bonding Information**

In accordance with Title 30 CFR Part 256, Subpart I, LLOG elected and has on file with the Minerals Management Service Gulf of Mexico Regional Office a \$3,000,000 Areawide Development Bond.

As deemed warranted, Minerals Management Service will contact the designated operator in the event a supplemental bond is required for the proposed operations, as outlined in Notice to Lessees (NTL) 2003-N06 to cover plugging liability of the wellbores, removal of associated well protector structures and site clearance.

LLOG is on the exempt list with the Minerals Management Service for supplemental bonding.

**SECTION B**  
**General Information - Continued**

**E. Onshore Base and Support Vessels**

The proposed surface disturbance in Galveston Block A248 will be located approximately 85 miles from the nearest Texas shoreline, and approximately 95 miles from the onshore support base to be located in Freeport, Texas.

LLOG will use an existing onshore base to accomplish the following routine operations:

- Loading/Offloading point for equipment supporting the offshore operations,
- Dispatching personnel and equipment, and does not anticipate the need for any expansion of the selected facilities as a result of the activities proposed in this Plan,
- Temporary storage for materials and equipment
- 24-Hour Dispatcher

Personnel involved in the proposed operations will typically use their own vehicles as transportation to and from the selected onshore base; whereas the selected vendors will transport the equipment by a combination of trucks, boats and/or helicopters to the onshore base. The personnel and equipment will then be transported to the drilling rig via the transportation methods and frequencies shown below, taking the most direct route feasible as mandated by weather and traffic conditions:

Support Vessel	Drilling and Completion Trips Per Week
Crew Boat	4
Supply Boat	4
Helicopter	4

The proposed operations are temporary in nature and do not require any immediate action to acquire additional land, expand existing base facilities.

A Vicinity Plat showing the surface location in Galveston Block A248 relative to the shoreline and onshore base is included as ***Attachment B-1***.

**F. Lease Stipulations**

Under the Outer Continental Shelf Lands Act, the Minerals Management Service is charged with the responsibility of managing and regulating the exploration and development on the OCS.

## **SECTION B**

### **General Information - Continued**

As part of the regulatory process, an Environmental Impact Statement (EIS) is prepared for each lease sale, at which time mitigation measures are addressed in the form of lease stipulations, which then become part of the oil and gas lease terms and are therefore enforceable as part of that lease.

As part of this process, the designated operator proposing to conduct related exploratory and development activities, must review the applicable lease stipulations, as well as other special conditions, which may be imposed by the Minerals Management Service, and other governing agencies.

Lease OCS-G 24389, Galveston Block A248 is subject to the following such stipulation and conditions:

#### **Military Warning Area**

The hold and save harmless section of the Military Areas Stipulation serves to protect the U.S. Government from liability in the event of an accident involving the designated oil and gas lease operator and military activities.

The electromagnetic emissions section of the stipulation requires the operator and its agents to reduce and curtail the use of radio or other equipment emitting electromagnetic energy within some areas.

This serves to reduce the impact of oil and gas activity on the communications of military missions and reduces the possible effects of electromagnetic energy transmissions on missile testing, tracking, and detonation.

The operational section requires notification to the military of oil and gas activity to take place within a military use area. This allows the base commander to plan military missions and maneuvers that may avoid the areas where oil and gas activities are taking place or to schedule around these activities. Prior notification helps reduce the potential impacts associated with vessels and helicopters traveling unannounced through areas where military activities are underway.

The Military Areas Stipulation reduces potential impacts, particularly in regards to safety, but does not reduce or eliminate the actual physical presence of oil and gas operations in areas where military operations are conducted.

The reduction in potential impacts resulting from this stipulation makes multiple-use conflicts most unlikely. Without the stipulation, some potential conflict is likely. The best indicator of the overall effectiveness of the stipulation may be that there has never been an accident involving a conflict between military operations and oil and gas activities.

## **SECTION B**

### **General Information - Continued**

The proposed surface disturbance in Galveston Block A248 is located within Military Warning Area W-147. Therefore, in accordance with the requirements of the referenced stipulation, LLOG will contact the 147<sup>th</sup> Fighter Wing in order to coordinate and control the electromagnetic emissions during the proposed operations.

#### **Marine Protected Species**

Lease Stipulation No. 5 is to reference measures to minimize or avoid potential adverse impacts to protected species (sea turtles, marine mammals, gulf sturgeon, and other federally protected species). MMS has issued Notice to Lessees NTL 2003-G08 "Implementation of Seismic Mitigation Measures", NTL 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting" and NTL 2003-G11 "Marine Trash and Debris Awareness and Elimination".

#### **Special Conditions**

The proposed surface disturbance in Galveston Block A248 is located within the boundary of an artificial reef planning site. Therefore, LLOG will take the necessary precautions as outlined in our Shallow Hazards Assessment to conduct safe operations and avoid any potential hazards within this area.

Certain area of the Gulf of Mexico have been designated by the U.S. Coast Guard as lightering zones for the purpose of permitting single hull vessels to off-load oil within the U.S. Exclusive Economic Zone. As defined in Title 33 CFR Part 156.300, there are currently four lightering zones established in the Gulf of Mexico: Southtex, Gulfmex No. 2, Offshore Pascagoula No. 2, and South Sabine Point.

Galveston Block A248 is located within the boundaries of Southtex lightering zone. LLOG will exercise caution while conducting the proposed activities within this area.

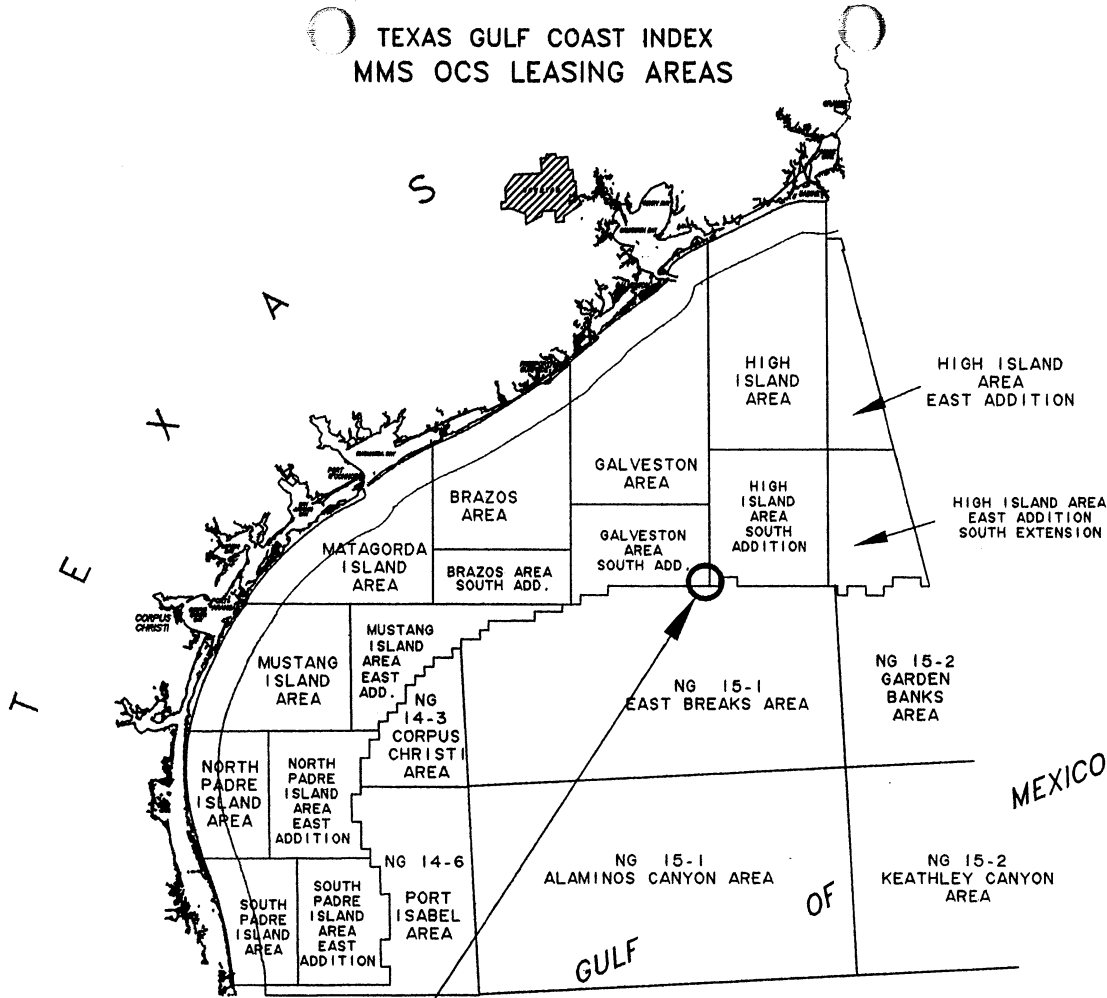
LLOG may potentially complete Well Locations A and B as subsea completions. In this event, LLOG will follow the guidelines of the applicable Notice to Lessees (NTL's) 2000-N05 and 2000-N06, which mandates the submittal and approval of separate regulatory filings entitled as a "Conservation Information Document" and a "Deepwater Operations Plan", respectively.



**Vicinity Plat**

**Attachment B-1  
(Public Information)**

TEXAS GULF COAST INDEX  
MMS OCS LEASING AREAS



VICINITY MAP

*AREA OF INTEREST*

DATUM: NAD 27	LLOG EXPLORATION OFFSHORE, INC.			
SPHEROID: CLARKE 1866	<p style="text-align: center;"><b>PROPOSED WELL LOCATION</b> <b>WELL A</b> <b>BLOCK A-248</b> <b>GALVESTON AREA, SOUTH ADDITION</b></p>			
PROJECTION: LAMBERT				
ZONE: TEXAS SOUTH CENTRAL				
<p><b>Thales GeoSolutions, Inc.</b> 3624 Westchase Drive Houston, Texas 77042 Tel: 713-784-4482 Fax: 713-784-8162</p>				DATE 8-1-2003

## SECTION C

### Geological, Geophysical & H2S Information

#### **A. Structure Contour Maps**

Included as *Attachment C-1* is a current structure map (depth base and expressed in feet subsea) depicting the entire lease coverage area; drawn on the top of each prospective hydrocarbon sand. The map depicts each proposed bottom hole location and applicable geological cross section.

#### **B. Interpreted Deep Seismic Lines**

Included as *Attachment C-2* is a page size copy of the migrated and annotated (shot point, time lines, well paths) of the deep seismic line within 500 feet of the surface location.

#### **C. Geological Structure Cross Sections**

An interpreted geological cross section depicting the proposed well locations and depth of the proposed wells is included as *Attachment C-3*. Such cross section corresponds to each seismic line being submitted under separate cover.

#### **D. Shallow Hazards Report**

Thales Geosolutions, Inc. conducted a site-specific high resolution geophysical survey in Galveston Block A248 during June 2003 on behalf of LLOG Exploration Offshore, Inc.. The purpose of the survey was to evaluate geologic conditions and inspect for potential hazards or constraints to lease development.

Three (3) copies of these reports are being submitted to the Minerals Management Service under separate cover.

#### **E. Shallow Hazards Assessment**

A shallow hazards analysis has been prepared for the proposed surface location, evaluating seafloor and subsurface geologic and manmade features and conditions, and is included as *Attachment C-4*.

#### **F. High Resolution Seismic Lines**

Included as *Attachment C-5* (original copy only) are copies of the annotated high resolution survey data lines for the surface location disturbance proposed in this Plan.

**SECTION C**  
**Geological, Geophysical & H2S Information-Continued**

**G. Stratigraphic Column**

A generalized biostratigraphic/lithostratigraphic column from the seafloor to the total depth of the proposed wells is included as *Attachment C-6*.

**H. Time Vs. Depth Tables**

A time versus depth table is included as *Attachment C-7*.

**I. Hydrogen Sulfide Classification**

In accordance with Title 30 CFR 250.417, LLOG requests that Galveston Block A248 be classified by the Minerals Management Service as an area where the absence of hydrogen sulfide has been confirmed based on the following well which was drilled to the stratigraphic equivalent of the wells proposed in this Plan:

<i>Lease</i>	<i>Area/Block</i>	<i>Well No.</i>	<i>Stratigraphic Equivalent</i>
OCS-G 14152	GA A218	A001	

**Structure Maps**

**Attachment C-1  
(Proprietary Information)**

**Deep Seismic Lines**

**Attachment C-2  
(Proprietary Information)**

**Cross Section Maps**

**Attachment C-3  
(Proprietary Information)**

**Shallow Hazards Statement**

**Attachment C-4  
(Public Information)**



## RESULTS AND CONCLUSIONS

The survey area covers a proposed wellsite located at  $X = 3,415,412.81$ ,  $Y = 49,956.00$  (5,484 ft FNL, 2,977 ft FWL) within Block A-248, Galveston Area, South Addition, offshore Texas. The survey area is a 10,000 ft by 10,000 ft square centered on the proposed wellsite which provides sufficient coverage for a semi-submersible anchor spread. Water depths in the survey area range from 360 to 485 feet BSL, 412 feet BSL at the proposed site. The seafloor is smooth and slopes up to 40 feet per mile in the southwest quadrant of the survey area.

At the proposed site are some 35 feet of acoustically turbid sediments, reported to be silty clay, overlying 300 feet of acoustically transparent sediments, probably alternating silts and clays, in turn overlying normally layered sediments which gradually commence dipping to the northwest with depth.

The proposed site is not expected to intersect any fault. The amplitude anomalies do not impinge on the proposed site, the nearest being some 1,600 feet to the northwest.

Six (6) unidentified magnetic anomalies of small amplitude ( $<11$  gammas) represent minor ferrous debris on or just below the seafloor; the nearest is some 3,000 feet from the proposed wellsite.

Of greatest concern is the proximity of the proposed site to two pipelines and a communication cable. The two pipelines were observed some 2,400 feet to the north-northwest and the cable, at its closest point, is some 400 feet to the northeast of the proposed well-site location. All the installations have minor deviations from the reported locations.

It is recommended that these installations, especially the cable, be physically located on the seafloor and buoyed in areas where anchors may be deployed. At the very minimum, anchors should not come within 500 feet of the reported locations of these installations.

*J. Wyn Prior*

J. Wyn Prior  
Geophysicist

**Shallow Hazards Lines**

**Attachment C-5**  
**(Proprietary Information)**  
***Original Copy Only***

**Stratigraphic Column**

**Attachment C-6  
(Proprietary Information)**

**Time Vs. Depth Table**

**Attachment C-7  
(Proprietary Information)**

## **SECTION D**

### **Biological Information**

#### **A. Chemosynthetic Information**

The proposed seafloor disturbing activities are in water depths less than 400 meters (1312 feet); therefore, this section of the Plan is not applicable.

#### **B. Topographic Features Information**

MMS and the National Marine Fisheries Service (NMFS) have entered into a programmatic consultation agreement for Essential Fish Habitat that requires that no bottom disturbing activities, including anchors or cables from a semi-submersible drilling rig, may occur within 500 feet of the no-activity zone of a topographic feature. If such proposed bottom disturbing activities are within 500 feet of a no activity zone, the MMS is required to consult with the NMFS.

The activities proposed in this Plan are not affected by a topographic feature.

#### **C. Live Bottom (Pinnacle Trend) Information**

Certain leases are located in areas characterized by the existence of live bottoms. Live bottom areas are defined as seagrass communities; those areas that contain biological assemblages consisting of sessile invertebrates living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; and areas where the lithotope favors the accumulation of turtles, fishes, or other fauna. These leases contain a Live Bottom Stipulation to ensure that impacts from nearby oil and gas activities on these live bottom areas are mitigated to the greatest extent possible.

For each affected lease, the Live Bottom Stipulation requires that you prepare a live bottom survey report containing a bathymetry map prepared by using remote sensing techniques. This report must be submitted to the Gulf of Mexico OCS Region (GOMR) before you may conduct any drilling activities or install any structure, including lease term pipelines in accordance with NTL 99-G16.

Galveston Block A248 is not located within the vicinity of a proposed live bottom area.

#### **D. Remotely Operated Vehicle (ROV Surveys)**

Pursuant to NTL No. 2003-G03, operators may be required to conduct remotely operated vehicle (ROV) surveys during pre-spudding and post-drilling operations for the purpose of biological and physical observations.

Galveston Block A248 is not located within an area where ROV Surveys are required.

**SECTION D**  
**Biological and Physical Information-Continued**

**E. Archaeological Reports**

In conjunction with this geophysical survey, an archaeological survey and report was also prepared to comply with the requirements of NTL 2002-G01, as Galveston Block A248 is located within a high probability pre-historic area for cultural resources. This requirement provides protection of prehistoric and historic archaeological resources by requiring remote sensing surveys in areas designated to have a high probability for archaeological resources.

The archaeological report is included in the Shallow Hazards Report being submitted under separate cover to the Minerals Management Service.

## SECTION E

### Wastes and Discharge/Disposal Information

The Minerals Management Service (MMS), U. S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (EPA) regulate the overboard discharge and/or disposal of operational waste associated with drilling, completing, testing and/or production operations from oil and gas exploration and production activities.

**Minerals Management Service** regulations contained in Title 30 CFR 250.300 require operators to "prevent the unauthorized discharge of pollutants into offshore waters". These same regulations prohibit the intentional disposal of "equipment, cables, chains, containers, or other materials" offshore. Small items must be stored and transported in clearly marked containers and large objects must be individually marked. Additionally, items lost overboard must be recorded in the facility's daily log and reported to MMS as appropriate.

**U. S. Coast Guard** regulations implement the Marine Pollution Research and Control Act (MARPOL) of 1987 requiring manned offshore rigs, platforms and associated vessels prohibit the dumping of all forms of solid waste at sea with the single exception of ground food wastes, which can be discharged if the facility is beyond 12 nautical miles from the nearest shore. This disposal ban covers all forms of solid waste including plastics, packing material, paper, glass, metal, and other refuse. These regulations also require preparation, monitoring and record keeping requirements for garbage generated on board these facilities. The drilling contractor must maintain a Waste Management Plan, in addition to preparation of a Daily Garbage Log for the handling of these types of waste. MODU's are equipped with bins for temporary storage of certain garbage. Other types of waste, such as food, may be discharged overboard if the discharge can pass through 25-millimeter type mesh screen. Prior to off loading and/or overboard disposal, an entry will be made in the Daily Garbage Log stating the approximate volume, the date of action, name of the vessel, and destination point.

**U. S. Environmental Protection Agency** regulations address the disposal of oil and gas operational wastes under three Federal Acts. The Resource Conservation and Recovery Act (RCRA) which provides a framework for the safe disposal of discarded materials, regulating the management of solid and hazardous wastes. The direct disposal of operational wastes into offshore waters is limited under the authority of the Clean Water Act. And, when injected underground, oil and gas operational wastes are regulated by the Underground Injection Control program. If any wastes are classified as hazardous, they are to be properly transported using a uniform hazardous waste manifest, documented, and disposed at an approved hazardous waste facility.

A National Pollutant Discharge Elimination System (NPDES) permit, based on effluent limitation guidelines, is required for any discharges into offshore waters. LLOG has requested coverage under the Region VI NPDES General Permit GMG290000 for discharges associated with exploration and development activities in Galveston Block A248 and will take applicable steps to ensure all offshore discharges associated with the proposed operations will be conducted in accordance with the permit.



## SECTION E

### Wastes and Discharge/Disposal Information-Continued

#### A. Composition of Solid and Liquid Wastes

The major operational solid waste in the largest quantities generated from the proposed operations will be the drill cuttings, drilling and/or completion fluids. Other associated wastes include waste chemicals, cement wastes, sanitary and domestic waste, trash and debris, ballast water, storage displacement water, rig wash and deck drainage, hydraulic fluids, used oil, oily water and filters, and other miscellaneous minor discharges.

These wastes are generated into categories, being solid waste (trash and debris), nonhazardous oilfield waste (drilling fluids, nonhazardous waste including cement and oil filters), and hazardous wastes (waste paint or thinners).

The type of discharges included in this permit application allow for the following effluents to be discharged overboard, subject to certain limitations, prohibitions and recordkeeping requirements.

#### *Overboard Discharges*

The wastes detailed in *Attachment E-1* are those wastes generated by our proposed activities and released into the receiving waters of the Gulf of Mexico at the associated well location.

#### *Disposed Wastes*

The wastes detailed in *Attachment E-2* are those wastes generated by our proposed activities that are disposed of by means of offsite release, injection, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

LLOG will manifest these wastes prior to being offloaded from the MODU, and transported to shore for disposal at approved sites regulated by the applicable State. Additionally, LLOG will comply with any approvals or reporting and recordkeeping requirements imposed by the State where ultimate disposal will occur.

**Waste Disposal Table**

**Attachment E-1  
(Public Information)**

**LLOG Exploration Offshore, Inc.**  
**Galveston Block A248**  
**Examples of Wastes and Discharges Information**

**Table 1. Discharges Table (Wastes to be discharged overboard)**

<b>Type of Waste Approximate Composition</b>	<b>Amount to be Discharged (volume or rate)</b>	<b>Maximum Discharge Rate</b>	<b>Treatment and/or Storage, Discharge Location*, And Discharge Method</b>
Water-based drilling fluids	7,800 bbl/well	200 bbl/hr	Galveston Block A248 Overboard
Drill cuttings associated with water-based fluids	2,000 bbl/well	1,000 bbl/hr	Galveston Block A248 Overboard
Muds, cuttings and cement at the seafloor	Gel – 5,000 bbl WBM – 8,000 bbl Cuttings – 20,000 bbl Seawater and caustic – 4,800 bbl	Not applicable	Galveston Block A248 Overboard
Sanitary wastes	20 gal/person/day	Not applicable	Galveston Block A248 Chlorinate and discharge
Domestic wastes	30 gal/person/day	Not applicable	Galveston Block A248 Remove floating solids and discharge
Deck Drainage	0-4,000 bbl/day Dependant upon rainfall	15 bbl per hour (maximum separator discharge)	Galveston Block A248 Treat for oil and grease and discharge
Well treatment, workover or completion fluids	Workover – 300 bbl/well Treatment – 250 bbl/well Completion – 300 bbl/well	200 bbl/well/every 4 years	Galveston Block A248 Discharge used fluids overboard, return excess to shore for credit.
Uncontaminated fresh or seawater	37,000 bbl (drilling)	Not applicable	Galveston Block A248 Discharged overboard.
Desalinization Unit water	700 bbl/day	Not applicable	Galveston Block A248 Discharged overboard.
Uncontaminated bilge water	2,000 bbl	260 m <sup>3</sup> /hr	Galveston Block A248 Discharged overboard.
Uncontaminated ballast water	20,000 bbl	2,600 m <sup>3</sup> /hr	Galveston Block A248 Discharged overboard.
Misc. discharges to which treatment chemicals have been added	100 bbl/day	10 bbl/hr	Galveston Block A248 Discharged overboard.
Miscellaneous discharges (permitted under NPDES) (Excess cement with cementing chemicals)	100 bbl	Not applicable	Galveston Block A248 Discharged at seafloor without treatment

**Waste Disposal Table**

**Attachment E-2  
(Public Information)**

**LLOG Exploration Offshore, Inc.  
Galveston Block A248  
Examples of Wastes and Discharges Information**

**Table 2. Disposal Table (Wastes to be disposed of, not discharged)**

<b>Type of Waste Approximate Composition</b>	<b>Amount*</b>	<b>Rate per day</b>	<b>Name/Location of Disposal Facility</b>	<b>Treatment and/or Storage, Transport and Disposal Method</b>
Waste Oil	200 bbl/yr	0.5 bbl/yr	Newpark Environmental Galveston, TX	Pack in drums and transported to an onshore Incineration site
Norm – contaminated wastes	1 ton	Not applicable	Galveston Block A248	Transport to a transfer station via dedicated barge
Trash and debris	1,000 ft <sup>3</sup>	3 ft <sup>3</sup> /day	Newpark Environmental Galveston, TX	Transport in storage bins on crew boat to disposal facility
Chemical product wastes	50 bbl/yr	2 bbl/day	Newpark Environmental Galveston, TX	Transport in containers to shore location
Chemical product wastes	100 bbl	2 bbl/day	Newpark Environmental Galveston, TX	Transport in barrels on crew boat to shore location

\*can be expressed as a volume, weight, or rate

## SECTION F

### Oil Spill Response and Chemical Information

#### A. Regional Oil Spill Response Plan (OSRP) Information

Effective April 28, 2003, Minerals Management Service approved LLOG Exploration Offshore, Inc.'s (LLOG's) Regional Oil Spill Response Plan (OSRP). The Regional OSRP covers the entities of LLOG Exploration Offshore, Inc., LLOG Exploration Company, LLOG Exploration Offshore, Inc., and LLOG Exploration Texas, L.P. Activities proposed in this Initial Exploration Plan will be covered by the Regional OSRP.

#### B. Oil Spill Removal Organizations (OSRO)

LLOG utilizes Clean Gulf Associates (CGA) as its primary provider for equipment, which is an industry cooperative owning an inventory of oil spill clean-up equipment. CGA is supported by the Marine Spill Response Corporation's (MSRC), which is responsible for storing, inspecting, maintaining and dispatching CGA's equipment. The MSRC STARS network provides for the closest available personnel, as well as an MSRC supervisor to operate the equipment.

#### C. Worst-Case Scenario Comparison (WCD)

<i>Category</i>	<i>Current Regional OSRP WCD</i>	<i>Proposed Exploration Plan WCD</i>
Type of Activity	Exploratory	Drilling/Completion/Testing
Facility Surface Location	Green Canyon Block 157	Galveston Block A248
Facility Description	Semi-Submersible Rig	Semi-Submersible Rig
Distance to Nearest Shoreline (Miles)	85	85
Volume: Storage Tanks (total) Facility Piping (total) Lease Term Pipeline Uncontrolled Blowout (day) <b>Potential 24 Hour Volume (Bbls.)</b>	60,000	2,500
Type of Liquid Hydrocarbon	Crude	Crude
API Gravity	33.3°	43.5°

**SECTION F**  
**Oil Spill Response and Chemical Information-Continued**

Due to the estimated flow rates from an exploratory well blowout are speculative and temporary in nature, LLOG will not modify their Regional OSRP to change the WCD.

Since LLOG has the capability to respond to the worst-case discharge (WCD) spill scenario included in its Regional OSRP approved on April 28, 2003, and since the worst-case scenario determined for our EP does not replace the worst-case scenario in our Regional OSRP, I hereby certify that LLOG has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our EP.

**D. Facility Tanks, Production Vessels**

The following table details the *tanks* (capacity greater than 25 bbls. or more) to be used to support the proposed activities (MODU and barges):

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
None					

**E. Spill Response Sites**

The following locations will be used in the event and oil spill occurs as a result of the proposed activity.

Primary Response Equipment Location	Pre-Planned Staging Location(s)
Galveston, TX	Galveston, TX Houston, TX

**F. Diesel Oil Supply Vessels**

According to NTL G2003-G17, this section of the Plan is not applicable to the proposed operations.

**G. Support Vessel Fuel Tanks**

According to NTL G2003-G17, this section of the Plan is not applicable to the proposed operations.

## **SECTION F**

### **Oil Spill Response and Chemical Information-Continued**

#### **H. Produced Liquid Hydrocarbon Transportation Vessels**

LLOG is proposing to conduct well testing operations on the proposed well locations. This process will include flaring the produced gas hydrocarbons and burning the liquid hydrocarbons; therefore, no transportation vessels will be used.

#### **I. Oil and Synthetic-Based Drilling Fluids**

LLOG does not anticipate the use of oil and/or synthetic based drilling fluids for the proposed drilling activities.

#### **J. Oil Characteristics**

According to NTL G2003-G17, this section of the Plan is not applicable to the proposed operations.

#### **K. Blowout Scenario**

According to NTL G2003-G17, this section of the Plan is not applicable to the proposed operations.

#### **L. Spill Discussion for NEPA Analysis**

In the event of an uncontrolled spill release resulting from the activities proposed in this Plan, LLOG's Person-In-Charge on the MODU or the Shorebase Dispatcher would most likely be the initial individuals to contact the Qualified Individual (QI) or our Spill Management Team (SMT) detailed in the Regional OSRP. The QI would immediately activate the SMT to ascertain the severity of the spill incident. LLOG's SMT Incident Command Center is located at O'Brien's Oil Pollution Services office in Slidell, Louisiana.

Dependent upon the severity of the spill incident, a trajectory analysis would be conducted utilizing the MMS Oil Spill Risk Analysis Model (OSRAM) as referenced in our approved Regional OSRP. This trajectory would provide the required information on percentage and timing of potential impact to the shoreline impact areas. The SMT would then identify the areas of sensitivities at potential landfall segment(s), so additional planning may be conducted for shoreline protection strategies. If surveillance indicates a potential threat to shoreline; the appropriate equipment and personnel would be deployed, as outlined in our Regional OSRP.



**SECTION F**  
**Oil Spill Response and Chemical Information-Continued**

An overflight may be conducted to determine the extent and dissipation rate of the spill, with potential sampling of the spill release. Mechanical recovery equipment may also be dispatched to the leading edge of the spill, as outlined in our Regional OSRP. If additional offshore response is required, the SMT would initiate the Dispersant Use Plan of the Regional OSRP and utilize the services of Airborne Support Inc.'s aircraft and personnel.

**M. Pollution Prevention Measures**

As indicated in the volumes noted above, LLOG does not anticipate a potential for initiating additional safety, pollution prevention and/or early spill detection measures beyond those already required by Title 30 CFR Part 250.

**N. FGBNMS Monitoring Plans**

Galveston Block A248 is not located within the vicinity of the Flower Garden Banks National Marine Sanctuary

## SECTION G

### Air Emissions Information

The primary air pollutants associated with OCS exploration activities are:

- Carbon Monoxide
- Particulate Matter
- Sulphur Oxides
- Nitrogen Oxides
- Volatile Organic Compounds

These offshore air emissions result mainly from the drilling rig operations, helicopters, and support vessels. These emissions occur mainly from combustion or burning of fuels and natural gas and from venting or evaporation of hydrocarbons. The combustion of fuels occurs primarily on diesel-powered generators, pumps or motors and from lighter fuel motors. Other air emissions can result from catastrophic events such as oil spills or blowouts.

#### **A. Calculating Emissions**

Included as *Attachment G-1* is the Projected Air Quality Emissions Report (Form MMS-138) addressing drilling, completion and potential testing operations utilizing a typical semi-submersible drilling unit, with related support vessels and construction barge information.

#### **B. Screening Questions**

As evidenced by Attachment G-1, the worksheets were completed based on the proposed flaring and burning operations.

#### **C. Emission Reduction Measures**

The projected air emissions are within the exemption level; therefore, no emission reduction measures are being proposed.

#### **D. Verification of Non-Default Emissions Factors**

LLOG has elected to use the default emission factors as provided in *Attachment G-1*.

#### **E. Non-Exempt Activities**

The proposed activities are within the exemption amount as provided in *Attachment G-1*.

**SECTION G**  
**Air Emissions Information-Continued**

**F. Review of Activities with Emissions Below the Exemption Level**

The proposed activities are below the exemption amount and should not affect the air quality of an onshore area, as provided in *Attachment G-1*.

**G. Modeling Report**

The proposed activities are below the exemption amount and should not affect the air quality of an onshore area.

**Air Emissions Report**

**Attachment G-1  
(Public Information)**

**EXPLORATION PLAN (EP)  
AIR QUALITY SCREENING CHECKLIST**

**OMB Control No. 1010-0049  
OMB Approval Expires: September 30, 2003**

<b>COMPANY</b>	LLOG Exploration Offshore, Inc.
<b>AREA</b>	Galveston
<b>BLOCK</b>	A248
<b>LEASE</b>	OCS-G 24389
<b>RIG</b>	Semi-Submersible
<b>WELL</b>	A & B
<b>COMPANY CONTACT</b>	Christine Groth and Natalie Schumann, R.E.M. Solutions, Inc.
<b>TELEPHONE NO.</b>	281.492.8562
<b>REMARKS</b>	Drill, complete, and test two wells and mudline suspend.

Screening Questions for EP's	Yes	No
Is any calculated Complex Total (CT) Emission amount (in tons associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: $CT = 3400D^{2/3}$ for CO, and $CT = 33.3D$ for the other air pollutants (where D = distance to shore in miles)?		X
Does your emission calculations include any emission reduction measures or modified emission factors?		X
Are your proposed exploration activities located east of 87.5° W longitude?		X
Do you expect to encounter H <sub>2</sub> S at concentrations greater than 20 parts per million (ppm)?		X
Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?	X	
Do you propose to burn produced hydrocarbon liquids?	X	

Air Pollutant	Plan Emission Amounts <sup>1</sup> (tons)	Calculated Exemption Amounts <sup>2</sup> (tons)	Calculated Complex Total Emission Amounts <sup>3</sup> (tons)
Carbon monoxide (CO)	115.39	65729.18	NA
Particulate matter (PM)	15.22	2830.5	NA
Sulphur dioxide (SO <sub>2</sub> )	71.07	2830.5	NA
Nitrogen oxides (NOx)	520.58	2830.5	NA
Volatile organic compounds (VOC)	15.89	2830.5	NA

<sup>1</sup> For activities proposed in your EP or DOCD, list the projected emissions calculated from the worksheets.

<sup>2</sup> List the exemption amounts in your proposed activities calculated using the formulas in 30 CFR 250.303(d).

<sup>3</sup> List the complex total emissions associated with your proposed activities calculated from the worksheets.

**EMISSIONS CALCULATIONS 1ST YEAR**

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS							
LLOG Exploration Offshore	Galveston	A248	OCS-G 24389	Semi-Submersible	A & B		Christine Groth and Nataile Schur	281.492.8562								
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
							Diesel Engines	HP	GAL/HR	GAL/D	PM	SOx	NOx	VOC	CO	PM
	Nat. Gas Engines	HP	SCF/HR	SCF/D	PM	SOx										
							Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC
DRILLING	PRIME MOVER>600hp diesel	39555	1910.5065	45852.16	24	44	27.88	127.90	958.38	28.75	209.10	14.72	67.53	506.03	15.18	110.41
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	2065	99.7395	2393.75	8	25	1.46	6.68	50.03	1.50	10.92	0.15	0.67	5.00	0.15	1.09
	VESSELS>600hp diesel(supply)	2065	99.7395	2393.75	10	25	1.46	6.68	50.03	1.50	10.92	0.18	0.83	6.25	0.19	1.36
	VESSELS>600hp diesel(tugs)	4200	202.86	4868.64	12	4	2.96	13.58	101.76	3.05	22.20	0.07	0.33	2.44	0.07	0.53
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
DRILLING	OIL BURN	250			24	2	4.38	71.15	20.83	0.10	2.19	0.11	1.71	0.50	0.00	0.05
WELL TEST	GAS FLARE		208333.33		24	2		0.12	14.87	12.56	80.94		0.00	0.36	0.30	1.94
<b>2003 YEAR TOTAL</b>							<b>38.13</b>	<b>226.10</b>	<b>1195.92</b>	<b>47.47</b>	<b>336.26</b>	<b>15.22</b>	<b>71.07</b>	<b>520.58</b>	<b>15.89</b>	<b>115.39</b>
<b>EXEMPTION CALCULATION</b>	<b>DISTANCE FROM LAND IN MILES</b>											<b>2830.50</b>	<b>2830.50</b>	<b>2830.50</b>	<b>2830.50</b>	<b>65729.18</b>
	85.0															

SUMMARY

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
LLOG Exploration Offshore, Inc.	Galveston	A248	OCS-G 24389	Semi-Submersible	A & B
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	15.22	71.07	520.58	15.89	115.39
Allowable	2830.50	2830.50	2830.50	2830.50	65729.18



## SECTION H

### Environmental Impact Analysis

#### A. IMPACT PRODUCING FACTORS (IPF'S)

The following matrix is utilized to identify the environmental resources that could be impacted by these IPF's. An "x" has been marked for each IPF category that LLOG has determined may impact a particular environmental resource as a result of the proposed activities. For those cells which are footnoted, a statement is provided as to the applicability of the proposed activities, and where there may be an effect, an analysis of the effect is provided.

Environmental Resources	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical Disturbances To the seafloor (rig or anchor emplacement, etc.)	Wastes Sent to Shore for Treatment Or disposal	Accidents (e.g. oil spills, chemical spills, H2S releases)	Other IPF's identified
<b>Site Specific at Offshore Location</b>						
Designated topographic feature						
Pinnacle Trend area live bottoms						
Eastern Gulf live bottoms						
Chemosynthetic communities						
Water quality		X			X	
Fisheries		X			X	
Marine mammals	X	X			X	
Sea turtles	X	X			X	
Air quality						
Shipwreck sites (known or potential)						
Prehistoric archaeological sites						
<b>Vicinity of Offshore Location</b>						
Essential fish habitat					X	
Marine and pelagic birds					X	
Public health and safety						
<b>Coastal and Onshore</b>						
Beaches					X	
Wetlands					X	
Shorebirds and coastal nesting birds					X	
Coastal wildlife refuges					X	
Wilderness areas					X	
<b>Other Resources</b>						

## **SECTION H**

### **Environmental Impact Analysis-Continued**

#### **B. VICINITY OF OFFSHORE LOCATION ANALYSES**

##### **1. Designated Topographic Features**

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to topographic features. The proposed surface disturbance within Galveston Block A248 is located approximately 12 miles away from the closest designated topographic feature (32 Fathom Bank). The crests of designated topographic features in the northern Gulf are found below 10 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by the currents moving around the bank; thereby avoiding the sessile biota.

##### **2. Pinnacle Trend Live Bottoms**

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to a pinnacle trend area. The proposed surface disturbance within Galveston Block A248 is located a significant distance (> 100 miles) from the closest pinnacle trend live bottom stipulated block. The crests of the pinnacle trend area are much deeper than 20 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and thus not impacting the pinnacles.

##### **3. Eastern Gulf Live Bottoms**

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to Eastern Gulf live bottoms. The proposed surface disturbance within Galveston Block A248 is located a significant distance (>100 miles) from the closest pinnacle Eastern Gulf live bottom stipulated block. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and would not be expected to cause adverse impacts to Eastern Gulf live bottoms because of the depth of the features and dilutions of spills.

##### **4. Chemosynthetic Communities**

Water depths in Galveston Block A248 range from 360 feet to 485 feet. Therefore, the proposed activities are not located within the vicinity of any known chemosynthetic communities, which typically occur in water depths greater than 400 meters.

## **SECTION H**

### **Environmental Impact Analysis-Continued**

#### **5. Water Quality**

Accidental oil spill releases from the proposed activities, and cumulative similar discharge activity within the vicinity could potentially cause impacts to water quality. It is unlikely that an accidental oil spill release would occur from the proposed activities. In the event of such a release, the water quality would be temporarily affected by the dissolved components and small droplets. Currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. LLOG will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000, which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

#### **6. Fisheries**

Accidental oil spill releases from the proposed activities, and cumulative similar discharge activity within the vicinity may potentially cause some detrimental effects on fisheries. It is unlikely a spill would occur; however, such a release in open waters closed to mobile adult finfish or shellfish would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. LLOG will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000, which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

#### **7. Marine Mammals**

As a result of the proposed activities, marine mammals may be adversely impacted by traffic, noise, accidental oil spills, cumulative similar discharge activity, and loss of trash and debris. Chronic and sporadic sublethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from

## SECTION H

### Environmental Impact Analysis-Continued

natural or anthropogenic sources. Few lethal effects are expected from accidental oil spill, chance collisions with service vessels and ingestion of plastic material.

The net results of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Collisions between cetaceans and ship could cause serious injury or death (Laist et al., 2001). Sperm whales are one of 11 whale species that are hit commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. LLOG will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000, which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality. Additionally, LLOG and its contractors will conduct the proposed activities under the additional criteria addressed by MMS in Notice to Lessee's (NTL's) 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination".

#### 8. Sea Turtles

As a result of the proposed activities, sea turtles may be adversely impacted by traffic, noise, accidental oil spills, cumulative similar discharges, and loss of trash and debris. Small numbers of turtles could be killed or injured by chance collision with service vessels or by eating indigestible trash, particularly plastic items accidentally lost from drilling rigs, production facilities and service vessels. Drilling rigs and project vessels (construction barges) produce noise that could disrupt normal behavior patterns and create some stress to sea turtles, making them more susceptible to disease. Accidental oil spill releases are potential threats, which could have lethal effects on turtles. Contact and/or consumption of this released material could seriously affect individual sea turtles. Most OCS related impacts on sea turtles are expected to be sublethal. Chronic and/or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address

## **SECTION H**

### **Environmental Impact Analysis-Continued**

available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. LLOG will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000, which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements.

As such, it is not anticipated these discharges will cause significant adverse impacts to water quality. Additionally, LLOG and its contractors will conduct the proposed activities under the additional criteria addressed by MMS in Notice to Lessee's (NTL's) 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination".

#### **9. Air Quality**

The proposed activities are located approximately 85 miles to the nearest shoreline. There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Air quality analyses of the proposed activities are below the MMS exemption level.

#### **10. Shipwreck Site (Known or Potential)**

There are no physical disturbances to the seafloor which could impact known or potential shipwreck sites, as the review of high resolution shallow hazards data indicate there are no known or potential shipwreck sites located within the surveyed area.

#### **11. Prehistoric Archaeological Sites**

There are no physical disturbances to the seafloor which could cause impacts to prehistoric archaeological sites, as the review of high resolution shallow hazards data and supporting studies did not reflect the occurrence of prehistoric archaeological sites.

### **Site Specific Offshore Location Analyses**

#### **1. Essential Fish Habitat**

An accidental oil spill that may occur as a result of the proposed activities has potential to cause some detrimental effects on essential fish habitat. It is unlikely that an accidental oil spill release would occur; however, if a spill were to occur in close proximity to finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

## **SECTION H**

### **Environmental Impact Analysis-Continued**

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **2. Marine and Pelagic Birds**

An accidental oil spill that may occur as a result of the proposed activities has potential to impact marine and pelagic birds, by the birds coming into contact with the released oil. It is unlikely that an accidental oil spill release would occur.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **3. Public Health and Safety Due to Accidents**

There are no anticipated IPF's from the proposed activities that could impact the public health and safety. LLOG has requested MMS approval to classify the proposed objective area as absent of hydrogen sulfide.

### **Coastal and Onshore Analyses**

#### **1. Beaches**

An accidental oil spill release from the proposed activities could cause impacts to beaches. However, due to the distance from shore (approximately 85 miles), and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

## **SECTION H**

### **Environmental Impact Analysis-Continued**

#### **2. Wetlands**

An accidental oil spill release from the proposed activities could cause impacts to wetlands. However, due to the distance from shore (approximately 85 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **3. Shore Birds and Coastal Nesting Birds**

An accidental oil spill release from the proposed activities could cause impacts to shore birds and coastal nesting birds. However, due to the distance from shore (approximately 85 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **4. Coastal Wildlife Refuges**

An accidental oil spill release from the proposed activities could cause impacts to coastal wildlife refuges. However, due to the distance from shore (approximately 85 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address

## **SECTION H**

### **Environmental Impact Analysis-Continued**

available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **5. Wilderness Areas**

An accidental oil spill release from the proposed activities could cause impacts to wilderness areas. However, due to the distance from shore (approximately 85 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of LLOG's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

#### **Other Identified Environmental Resources**

LLOG has not identified any other environmental resources other than those addressed above.

#### **Impacts on Proposed Activities**

No impacts are expected on the proposed activities as a result of taking into consideration the site specific environmental conditions.

A High Resolution Shallow Hazards Survey was conducted, a report prepared in accordance with NTL 2002-G01 and NTL 98-20.

Based on the analysis of the referenced data, there are no surface or subsurface geological and manmade features and conditions that may adversely affect the proposed activities. LLOG will institute procedures to avoid pipelines and abandoned wells within the vicinity of the proposed operations.

#### **Alternatives**

LLOG did not consider any alternatives to reduce environmental impacts as a result of the proposed activities.



## SECTION H

### Environmental Impact Analysis-Continued

#### Mitigation Measures

LLOG will not implement any mitigation measures to avoid, diminish, or eliminate potential environmental resources, other than those required by regulation and policy.

#### Consultation

LLOG has not contacted any agencies or persons for consultation regarding potential impacts associated with the proposed activities. Therefore, a list of such entities is not being provided.

#### References

The following documents were utilized in preparing the Environmental Impact Assessment:

<i>Document</i>	<i>Author</i>	<i>Dated</i>
Shallow Hazards Survey	Thales GeoSolutions, Inc.	2003
MMS Environmental Impact Statement Report No. 2002-15	Minerals Management Service	2002
NTL 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species"	Minerals Management Service	2003
NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination"	Minerals Management Service	2003
NTL 2002-G09 "Regional and Subregional Oil Spill Response Plans"	Minerals Management Service	2002
NTL 2003-G17 "Guidance for Submitting Exploration Plans and Development Operations Coordination Documents"	Minerals Management Service	2003
NTL 2002-G01 "Archaeological Resource Surveys and Reports"	Minerals Management Service	2002
NTL 2000-G16 "Guidelines for General Lease Surety Bonds"	Minerals Management Service	2000
NTL 98-20 "Shallow Hazards Survey Requirements"	Minerals Management Service	1998
NTL 2003-N06 "Supplemental Bond Procedures"	Minerals Management Service	2003
NTL 98-16 "Hydrogen Sulfide Requirements"	Minerals Management Service	1998
NPDES General Permit GMG290000	EPA – Region VI	1998
Regional Oil Spill Response Plan	LLOG Exploration Offshore, Inc.	2003

## SECTION I

### CZM Consistency

Under direction of the Coastal Zone Management Act (CMZA), the States of Alabama, Florida, Louisiana, Mississippi and Texas developed Coastal Zone Management Programs (CZMP) to allow for the supervision of significant land and water use activities that take place within or that could significantly impact their respective coastal zones.

A certificate of Coastal Zone Management Consistency for the State of Texas is enclosed as ***Attachment I-1***. Included as ***Attachment I-2*** are the enforceable policies from the State of Texas that are related to OCS Plan Filings.

**Texas CZM Statement**

**Attachment I-1  
(Public Information)**

**COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATION**

**INITIAL EXPLORATION PLAN**

**GALVESTON BLOCK A248**

**LEASE OCS-G 23787**

The proposed activities described in detail in the enclosed Plan comply with Texas' approved Coastal Zone Management Program and will be conducted in a manner consistent with such Program.

**By:** LLOG Exploration Offshore, Inc.

**Signed By:** Carol Eaton

**Dated:** 09/12/03

**Texas CZM Enforceable Policies**

**Attachment I-2  
(Public Information)**

## *STATE OF TEXAS*

### *COASTAL ZONE CONSISTENCY POLICIES*

#### **Category 2 – Construction, Operation and Maintenance of Oil and Gas Exploration and Development Facilities**

The General Land Office (GLO) and State Mineral Board (SMB) are the management entities for oil and gas exploration and production on state submerged lands under the authority of the Texas Natural Resources Code. The GLO and SLB serve proprietary rather than regulatory roles and determine whether a proposed use of state land is appropriate. Standards and procedures for granting permits and leases for geophysical exploration for and production of oil and gas on state-owned land are established, with rules setting out provisions to prevent damage to or pollution of all lands and waters, including restrictions on the release of solid wastes, restrictions on the use of vehicles to minimize impacts to submerged lands and marshes; provisions for the protection of natural resources, including aquatic life and wildlife, from seismic and production operations; and provisions for remediation of any surface damage from operations. .

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. LLOG Exploration & Production Company is proposing to utilize an existing onshore support infrastructure in Freeport, Texas. Due to the proposed activities being temporary and speculative in nature, we do not anticipate a need for new construction, operation and/or maintenance of facilities.

#### **Category 3 – Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities**

Under the authority of the Texas Natural Resources Code and Texas Water Code, the Railroad Commission (RRC) regulates the management of oil and gas waste and wastewater discharges from exploration and production activities. The RRC must comply with the policies for the discharge of wastewater and disposal of waste from oil and gas exploration and production activities when issuing permits and adopting rules under these authorities.

Such policies include 1) disposal of oil and gas waste in the coastal zone shall comply with the policies in the category, 2) discharge of oil and gas exploration and production wastewater in the coastal zone shall comply with policies in the category.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. LLOG Exploration & Production Company is proposing to discharge authorized effluents into the receiving waters of the Gulf of Mexico. Overboard discharges (i.e., drilling fluids and associated cuttings) associated with the proposed activities must be tested first for toxicity limitations as mandated by EPA's NPDES General Permit GMG290000. Other solid waste such as ground food will first pass through a 25-millimeter type mesh screen before being discharged overboard, as regulated by the U.S. Coast Guard's Marine Pollution Research and Control Act (MARPOL)

of 1987. Solid wastes will be collected and stored on the facility, and then transported by an offshore support vessel to an authorized onshore disposal site with the State of Texas. These wastes will be manifested and disposed as per the State of Texas regulations.

#### **Category 4 – Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities**

Under the Texas Solid Waste Disposal Act, the Texas Natural Resources Conservation Commission (TNRCC) implements a permitting program for solid waste disposal sites. The TNRCC must comply with the policies in this category when issuing permits and adopting rules governing the construction and operations of solid waste facilities in the coastal zone. These regulations establish standards and enforcement provisions to implement the state hazardous waste program, which regulates, from the point of generation to ultimate disposal, those wastes which have been identified as hazardous by the EPA. These regulations includes standards for location of certain hazardous waste facilities, including certain prohibited locations such as wetlands, barrier islands, and peninsulas, land disposal of hazardous waste, pollution prevention through hazardous waste source reduction and hazardous waste minimization; and hazardous waste closure, correction actions, and remediation activities.

Due to the proposed activities being temporary and speculative in nature, we do not anticipate a need for new construction and operation of any solid waste treatment, storage or use of disposal facilities for the proposed activities addressed in the Plan for Galveston Block A248.

#### **Category 5 – Prevention, Response, and Remediation of Oil Spills**

The General Land Office (GLO) rules govern prevention of, response to, and remediation of coastal oil spills, and the assessment of damages to natural resources injured as the result of an unauthorized discharge of oil into coastal waters. The policies require GLO to provide for measures to prevent coastal oil spills and to ensure adequate response and removal actions.

Under the authority of the Texas Natural Resources Code, the GLO promulgated rules requiring coastal facilities that handle oil to obtain a certificate of spill prevention and response capability from the GLO. These rules require that vessels carrying oil in coastal waters have a spill prevention and response plan approved by the GLO. The rules also address spill response and remediation, establishing standards for spill response plans, requiring facilities and vessels to maintain access to adequate response equipment and qualified personnel, and providing for the FLO to subject facilities and vessels to announced and unannounced drills and inspections.

The proposed activities are located in OCS Federal Waters, Gulf of Mexico, approximately 85 miles from the nearest Texas shoreline. Protection of the environment during the proposed operations is of primary concern; with LLOG mandating regulatory compliance from its contractors and vendors associated with the proposed activities.

LLOG has adopted industry standards for safe well operations to prevent potential blowout situations, as well as implementing a Regional Oil Spill Response Plan to respond to a potential spill incident.

The likelihood of land and water uses in the coastal area being impacted is minimal based on the temporary nature of the proposed activities, the implementation measures LLOG would employ in the event of a blowout or oil spill, along with the wind and wave currents which could potentially divert such an unanticipated release outside the coastal areas.

#### **Category 6 – Discharge of Municipal and Industrial Wastewater to Coastal Waters**

The Texas Water Code states that it is the policy of the state to maintain the quality of water in the state consistent with public health and enjoyment, the propagation and protection of terrestrial and aquatic life, the operation of existing industries, and the economic development of the state and to require the use of all reasonable methods to implement this policy. The TNRCC is designated as the principal authority in the state on matters relating to water quality, resources protection, include the Texas Surface Water Quality Standards, the Texas State Water Quality Management Plan, and wastewater permits.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. LLOG Exploration & Production Company is proposing to discharge authorized effluents into the receiving waters of the Gulf of Mexico as regulated by EPA's NPDES General Permit GMG290000.

LLOG does not anticipate the need for discharging any municipal or industrial type waste from these activities into coastal waters of the State of Texas.

#### **Category 8 – Development in Critical Areas**

The TNRCC and RRC shall comply with the policies in this chapter when issuing certification and adopting rules under Texas Water Code, and the Texas Natural Resources Code, governing certification of compliance with surface water quality standards for federal actions and permits authorizing development affecting critical area.

The GLO and SLB shall comply with the policies in this category when approving oil, gas, or other mineral lease plans of operations or granting surface leases, easements, and permit and adopting rules under the Texas Natural resources Code and Texas Water Code.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and due to the activities be temporary and speculative in nature, LLOG does not anticipate the need for development of facilities in critical areas.



### **Category 9 – Construction of Waterfront Facilities and Other Structures on Submerged Lands**

The GLO and SLB, in governing development on state submerged lands, shall comply with the policies in this category when approving oil, gas, and other minerals lease plans of operations and granting surface leases, easements, and permit permits and adopting rules under the Texas Natural Resources Code and Texas Water Code. These sites must be evaluated under more specific guidelines for a proposed waterfront structure including site selection to avoid restriction of water circulation, navigations, or public use of the waters, design considerations such as joint use of a moorage facility by a subdivision, motel, or multiple dwelling, and the use of a pier or a pier or catwalk in preference to solid fills to provide requirements that facilities provide proper handling of waste, refuse, and petroleum products where applicable.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and due to the activities be temporary and speculative in nature, LLOG does not anticipate construction of any waterfront facilities and other structures on submerged lands.

### **Category 10 – Dredging and Dredged Material Disposal and Placement**

The TNRCC and the RRC shall comply with specified policies when issuing certification and adopting rules under the Texas Water Code and the Texas Natural Resources Code governing certification of compliance with surface water quality standards for federal action and permit authorizing dredging or the discharge or placement of dredged material. Dredging and the disposal and placement of dredged material shall avoid and otherwise minimize adverse effects to coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches to the greatest extent practicable. The policies in the in this category are supplemented to any further restrictions or requirements relating to the beach access and use rights of the public. In implementing this policy category, cumulative and secondary adverse effects of dredging and the disposal and placement of dredged material and the unique characteristics of affected sites shall be considered.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and do not include any anticipated plans for dredging and/or disposal of material.

### **Category 11 – Construction in the Beach/Dune System**

The GLO shall comply with the policies in this category when certifying local government dune protection and beach access plans and adopting rules under the Texas Natural Resources Code. Local governments required by the Texas Natural Resources Code to adopt dune protection and beach access plans shall comply with the applicable policies in this category when issuing beachfront construction certificates and dune protection permits.

The GLO is responsible for protecting the public's right to use and have access to and from the public beaches and for providing standards to the local governments certifying that construction on land adjacent to the Gulf of Mexico is consistent with such public rights.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and due to the activities being temporary and speculative in nature, LLOG does not anticipate any construction activities impacting the beach/dune system of the State of Texas.

#### **Category 15 – Alteration of Coastal Historic Areas**

The Texas Historical Commission (THC) shall comply with the policies in this category when adopting rules and issuing permits under the Texas Natural Resources Code governing alteration of coastal historic sites by avoiding and otherwise minimizing alteration or disturbance of the site unless the site's excavation will promote historical, archaeological, educational, or scientific understanding. The THC is directed to protect and preserve the cultural resources of Texas. Cultural resources include archaeological sites, historical sites, and shipwrecks on land or underwater.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and will be located in an area determined by the Minerals Management Service as a low potential for cultural or historical resources.

#### **Category 16 – Transportation**

Texas Department of Transportation (DOT) is responsible for approving plans for the location, construction and maintenance of the state highway system and public roads and the location, construction, and maintenance of individual state highway system projects. Rules and project approvals governing transportation projects within the coastal zone must comply with the policies in this category. Standard specifications include measures for erosion and sedimentation control, waste disposal, earthwork, and revegetation during construction.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline; and due to the activities being temporary and speculative in nature, LLOG does not anticipate any construction related transportation activities within the State of Texas.

#### **Category 17 – Emission of Air Pollutants**

The Texas Natural Resource Conservation Commission (TNRCC) is charged with the responsibility under the Texas Clean Air Act to adopt any rules necessary to carry out its duties under the Act, including establishment of air quality standards and of a permitting program for air emissions. The TNRCC is also designated as the agency responsible for developing a comprehensive plan for proper control of air pollution sources.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. Utilizing a matrix with calculations and formulas supplied by the Minerals Management Service, the projected air emissions from the proposed activities should not have a long-term adverse impact on the State of Texas.

#### **Category 18 – Appropriations of Water**

The TNRCC has sole authority for the regulation and management of surface water rights in Texas as authorized by the Texas Water Code. The TRNCC rules and authorizations governing review and actions on application for new permits, or amendments proposing changes to existing permits for diversion or impoundments of state water with 200 stream miles of the coast, must comply with the policies. The TNRCC may place limitations and conditions such as flow stream restrictions to protect existing water rights holders, water quality, aquatic fish and wildlife habitat, inflows from bays and estuaries, and recreational uses; habitat mitigation measures; and water conservation measures.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. Due to the proposed activities being temporary and speculative in nature, LLOG does not anticipate an impact to State Waters of Texas.

#### **Category 20 – Major Actions**

For purposes of this category, “major actions” means an individual action relating to an activity for which a federal environmental impact statement under the National Environmental Policy Act is required.

The proposed activities addressed in the Plan for Galveston Block A248 are temporary and speculative in nature, and would not be classified as a major action.

#### **Category 22 – Administrative Policies**

The Texas Coastal Zone Management Program (TCMP) recommends the local and regional governments, as well as state designated planning agencies adhere to the planning, acquisition, conservation/preservation, restoration, research/education, pollution prevention/recycling, coastal hazards areas, coastal barriers, coastal shores, water quality, public access/recreation, visual/scenic access, fisheries management, and construction/development activities within the TCMP boundary.

The proposed activities addressed in the Plan for Galveston Block A248 are located approximately 85 miles from the nearest Texas shoreline. Due to the proposed activities being temporary and speculative in nature, LLOG does not anticipate an impact to the Texas Coastal Zone Management Program policies.