UNITED STATES GOVERNMENT
MEMORANDUM

March 24, 2003

To: Public Information (MS 5034)

From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan

Control #	-	N-07712
Type	-	Initial Development Operations Coordinations Document
Lease(s)	-	OCS-G22765 Block - 28 Grand Isle Area
Operator	-	LLOG Exploration Offshore, Inc.
Description	-	Platform A and Well 1
Rig Type	-	Not Found

Attached is a copy of the subject plan.

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

Elmo Cooper
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
CAIS/A		1746 FNL, 4127 FEL	G22765/GI/28
WELL/A001	G22765/GI/28	1746 FNL, 4127 FEL	G22765/GI/28

NOTED-SCHEXNAILDRE

LLOG
EXPLORATION OFFSHORE, INC.

CONTROL No. N-7212
REVIEWER: Elmo Cooper
PHONE: (504) 731-3083

March 21, 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 Development Operations Coordination Document for Lease OCS-G 22765, Grand Isle Block 28, OCS Federal Waters, Gulf of Mexico, Offshore, Louisiana

Gentlemen:

In accordance with the provisions of Title 30 CFR 250.203 and that certain Notice to Lessees (NTL 2002-G08), LLOG Exploration Offshore, Inc. (LLOG) hereby submits for your review and approval nine (9) copies of an Initial Development Operations Coordination Document for Lease OCS-G 22765, Grand Isle Block 28, Offshore, Louisiana. 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 May 1, 2003.

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

Sincerely,

LLOG EXPLORATION OFFSHORE, INC.

John Guidry
Petroleum Engineer

Public Information

JG:CAG
Attachments

433 METAIRIE ROAD, SUITE 600
METAIRIE, LA 70005
PHONE: (504) 833-7700 FAX: (504) 833-8064

LLOG EXPLORATION OFFSHORE, INC.
433 Metairie Road, Suite 600
Metairie, Louisiana 70005

INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

LEASE OCS-G 22765

GRAND ISLE BLOCK 28

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
natalie@remsolutionsinc.com

DATED:

March 21, 2003

SECTION A
Contents of Plan

A. Description, Objectives and Schedule

Lease OCS-G 22765, Grand Isle Block 28, was acquired by Republic Exploration L.L.C. and Contango Operators, Inc. at the Central Gulf of Mexico Lease Sale No. 178 held on March 28, 2001. The lease was issued with an effective date of May 1, 2001 and a primary term ending date of April 30, 2006.

The current lease operatorship and ownership are as follows:

Area/Block Lease No.	Operator	Ownership
Grand Isle Block 28 Lease OCS-G 22765	LLOG Exploration Offshore, Inc.	LLOG Exploration Offshore, Inc.

On April 11, 2002, Minerals Management Service approved LLOG Exploration Offshore, Inc.'s (LLOG) Initial Exploration Plan (Control No. N-7404), providing for the drilling and completion of Well Locations A, B and C. LLOG has drilled, completed and shut-in Well No. 1.

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

Proposed Activity	*Start Up Date*	*Completion Date*
Install Platfrom A Over Existing Well No. 1 (Re-name to Well No. A001)	04/01/2003	04/03/2003
Hook-Up and Commence Production	05/01/2003	12/31/2013

LLOG does not propose any additional drilling operations; therefore, a discussion of geological trapping features is not required.

B. Location

Included as *Attachment A-1* is Form MMS-137 "OCS Plan Information Form" detailing specific information pertaining to the proposed activities.

In further support of the proposed activities, included as *Attachments A-2 through A-4* are the bathymetry map and the well location plat detailing the surface disturbance for of the subject well with the associated anchor radius for the structure installation.

C. Drilling Unit

LLOG addressed the drilling unit for this activity under the previously approved Initial Exploration Plan (Control No. N-7404).

D. Production Platform

LLOG proposes to install a braced caisson over Well No. 1 (To be designated as Platform A). An elevation view drawing of the proposed structure is included as *Attachment A-5*. The structure will be considered the initial processing facility for the subject well, and will not have test capability. The combined gas and liquid hydrocarbons from the respective well will depart the Platform A via a proposed right-of-way pipeline to a SSTI within state waters at Grand Island Block 25, then will flow onshore to the central processing facility in Section 30 T235R23E.

The proposed activities to be conducted from the respective structure will be regulated by the following agencies under the applicable regulations and policies.

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 (PINC) 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.

ATTACHMENT A-1

OMB Control No. 1010-0049
Expiration Date: September 30, 2003

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

EXPLORATION PLAN		DEVELOPMENT OPERATIONS COORDINATION DOCUMENT	X	DEVELOPMENT & PRODUCTION PLAN	

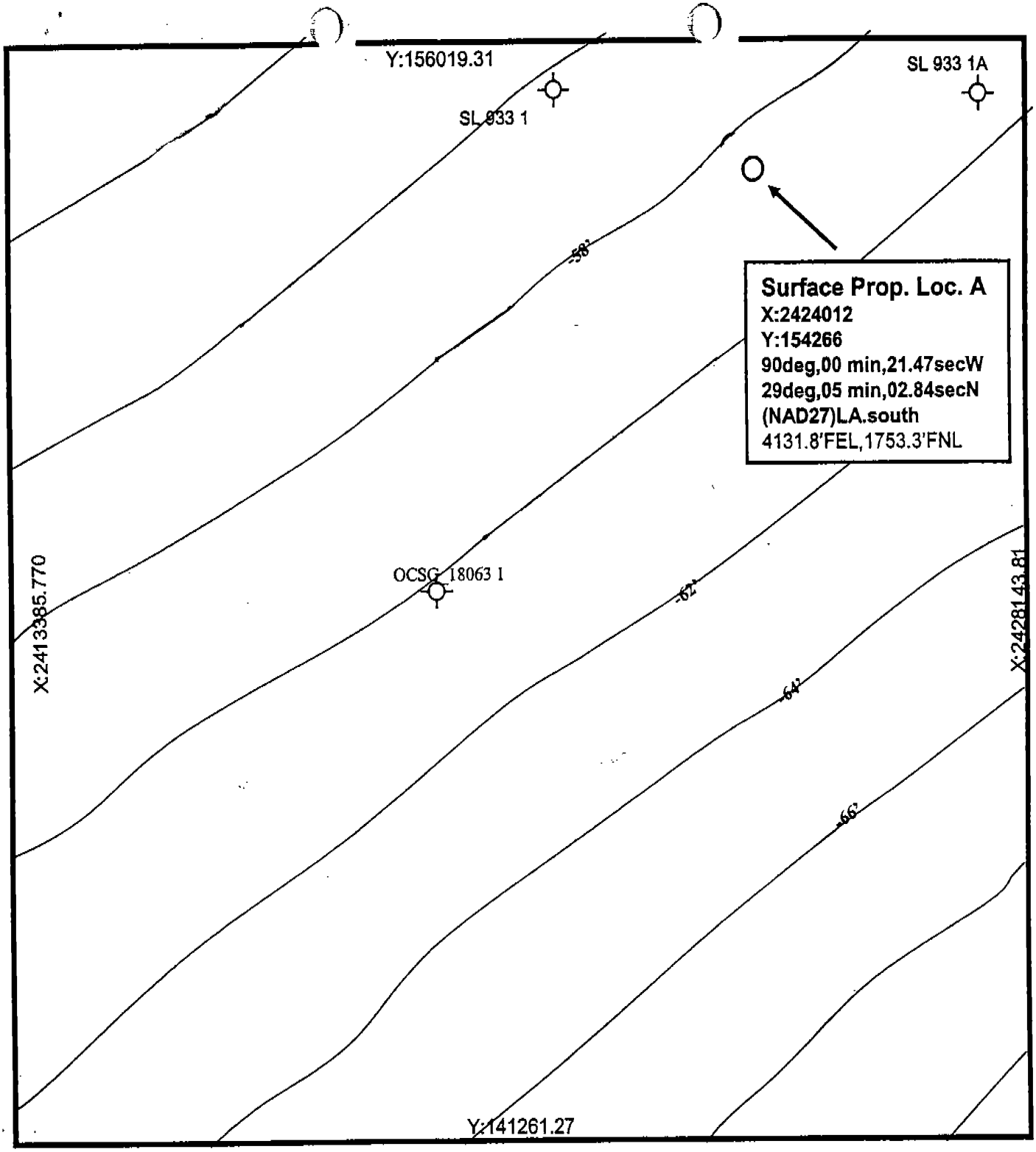
OPERATOR:	**LLOG Exploration Offshore, Inc.**	ADDRESS:	**433 Metairie Road, Suite 600, Metairie, LA 70005**
MMS OPERATOR NO.:	**02058**		
CONTACT PERSON:	**Christine Groth and Natalie Schumann R.E.M. Solutions, Inc.**	PHONE NO.	**281.492.8562**

PROPOSED START DATE:		RIG TYPE: **NA**				DISTANCE TO CLOSEST LAND (IN MILES):	**7.9**
NEW OR UNUSUAL TECHNOLOGY	YES		NO	X	ONSHORE SUPPORT BASE:	**Port Fourchon, Louisiana**	
NARRATIVE DESCRIPTION PROPOSED ACTIVITIES:	**Install Platform A over existing Well No. 1 (Re-name to Well No. A001) and commence production.**						
						PROJECT NAME, IF APPLICABLE:	**NA**

PROPOSED WELL/STRUCTURE LOCATIONS

WELL / STRUCTURE NAME	SURFACE LOCATION	BOTTOM-HOLE LOCATION (FOR WELLS)
Well No. A001	CALLS: **1746'** F **N** L and **4127'** F **~~W~~ E** L OF	CALLS:
	LEASE OCS **G 22765** , **Grand Isle** AREA,	LEASE OCS **G 22765** , **Grand Isle** AREA,
	BLOCK **28**	BLOCK **28**
Name:	X: **2,424,016.45'**	X:
	Y: **154,272.85'**	Y:
	LAT: **29°05'02.905" N**	LAT:
	LONG: **90°00'21.416" W**	LONG:
	TVD (IN FEET):	MD (IN FEET): / WATER DEPTH (IN FEET): **55'**

ATTACHMENT A-2



LLOG EXPL OFFSHORE INC.

Grand Isle 28

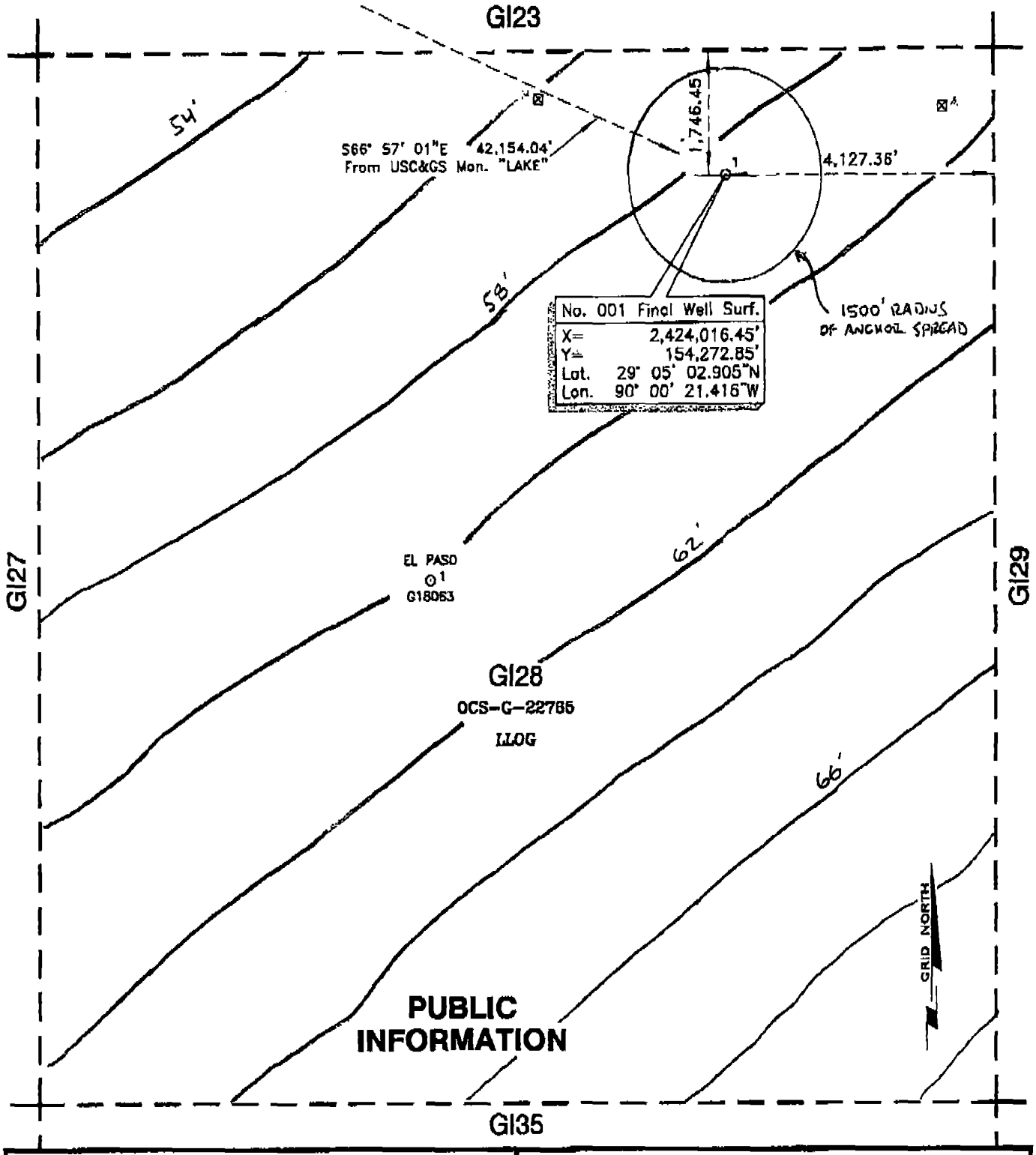
Offshore Louisiana

Gulf of Mexico

BATHYMETRY MAP

Scale: 1" = 2,000' CI:2' 02/02

ATTACHMENT A-3



STATE OF LOUISIANA
LIONEL J. CORMIER
REG. No. 4401
REGISTERED PROFESSIONAL LAND SURVEYOR

I HEREBY CERTIFY THAT THE ABOVE FINAL WELL SURFACE IS CORRECT.

Lionel J. Cormier
REG. PROFESSIONAL LAND SURVEYOR NO. 4401
STATE OF LOUISIANA

Printed: 4/30/02

LLOG
EXPLORATION COMPANY

FINAL LOCATION
OCS-G-22765 . WELL NO. 001

BLOCK 28
GRAND ISLE AREA
GULF OF MEXICO

FUGRO CHANCE INC.

GEODETIC DATUM: NAD 1927 PROJECTION: LOUISIANA SOUTH GRID UNITS: US SURVEY FEET		SCALE IN FEET 0 2,000'	
Job No.: 02-1135	Date: 4/30/02	Drwn: RDT	Chart: 1 Of: 1
Dwgfile: O:\CADBASE\WPERMIT\LASOUTH\GI\PERMIT\28F1			

(PROPRIETARY DATA)

ATTACHMENT A-4

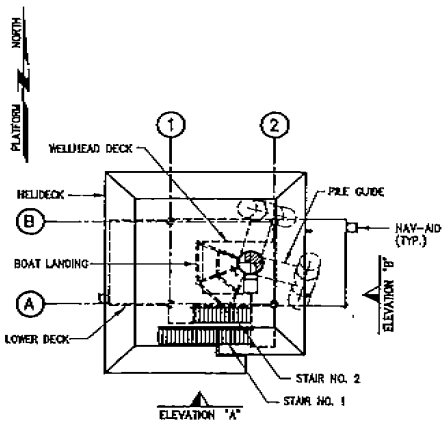
ATTACHMENT A-5

LLOG Exploration Co.

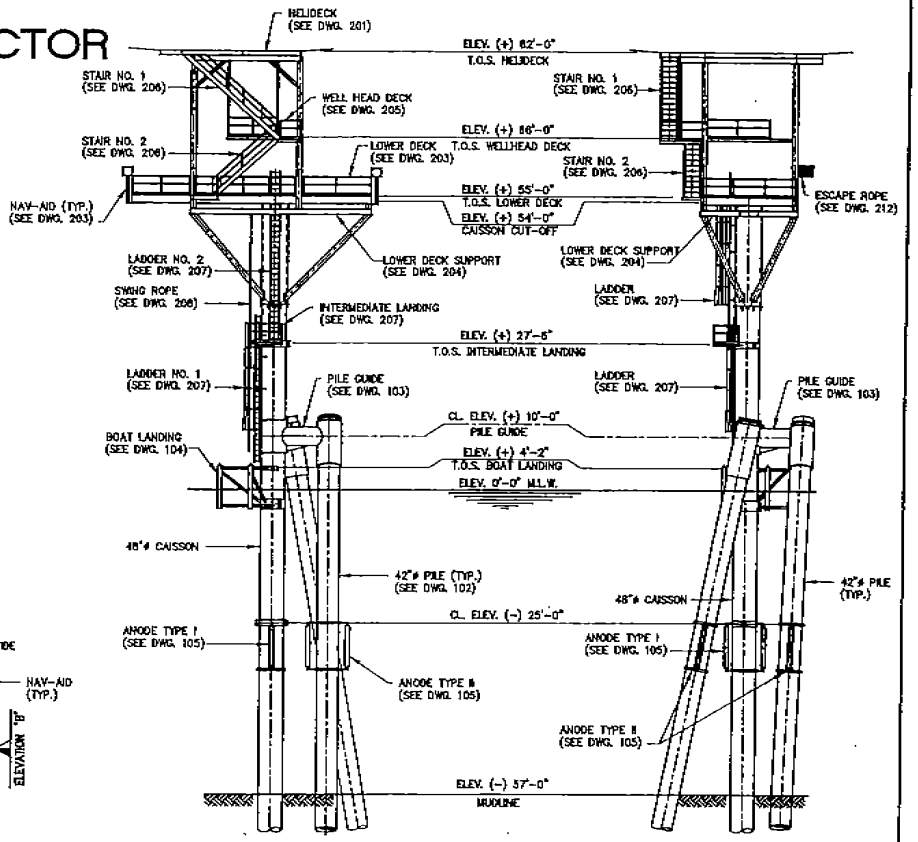
GRAND ISLE BLOCK 28 "A"
57'-0" WATER DEPTH
BRACED CAISSON WELL PROTECTOR

LIST OF DRAWINGS

LIST OF COMPONENTS	
ITEMS	TOTAL WEIGHT (TONS)
CAISSON	87.0
PILES (2)	87.0
PILE GUIDE	19.5
BOAT LANDING	1.6
LOWER DECK	13.0
LOWER DECK SUPPORT FRAME	13.0
HELIPORT	13.0
TOTAL	234.1



KEY PLAN
SCALE: 3/32"=1'-0"



ASSEMBLY ELEVATIONS
SCALE: 3/32"=1'-0"

THIS DECK AND HELIDECK WAS SALVAGED FROM A AMOCO PRODUCTION CO. GUYED CAISSON PLATFORM "A" LOCATED IN MATAGORDA ISLAND BLOCK 636. THIS DECK AND HELIDECK HAS BEEN RENOVATED FOR LLOG EXPLORATION COMPANY AND SHALL BE INSTALLED IN GRAND ISLE BLOCK 28.

NOTES:

REVISION	DRAFT	CHK'D.	APP'D.	DATE
APPROVED FOR CONSTRUCTION	CMB	CMB	SS	11/19/02
ISSUED FOR APPROVAL	CMB		SS	11/4/02
	J. EDWARDS			10/25/02

11/22/02

LLOG Exploration Co.

TECHNICAL ENGINEERING CONSULTANTS
GRETNA LOUISIANA

APPROVED	DATE
SS	10/25/02
SS	10/25/02
CMB	11/4/02
J. EDWARDS	10/25/02

TITLE: BRACED CAISSON WELL PROTECTOR GRAND ISLE BLOCK 28 "A" 57'-0" W.D.
INDEX DRAWING AND ASSEMBLY ELEVATIONS
CLIENT: LLOG EXPLORATION CO.
JOB NO. 100319 | DWG. NO. 000

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 or 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
natalie@remsolutionsinc.com

B. Project Name

LLOG does not typically provide project names to their development activity.

C. Production Rates and Life of Reserves

LLOG estimates the life of reserves for the proposed development activities to be years, with the following estimated combined production rates:

Product	*Average Rates*	*Peak Rates*
Gas		
Condensate		

D. New or Unusual Technology

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

E. Bonding Information

In accordance with Title 30 CFR Part 256, Subpart I, LLOG Exploration Offshore, Inc. 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) 98-18N to cover plugging liability of the wellbores, removal of associated well protector structures and site clearance. LLOG is aware of this requirement, and upon notice from the Minerals Management Service, will provide such supplemental bonding.

F. Onshore Base and Support Vessels

The surface disturbance in Grand Isle Block 28 is located approximately 7.9 miles from the nearest Louisiana shoreline, and approximately 20 miles from the onshore support base to be located in Port Fourchon, Louisiana.

LLOG will use an existing onshore base to accomplish the following routine operations, and does not anticipate the need for any expansion of the selected facilities as a result of the activities proposed in this Plan:

- Loading/Offloading point for equipment supporting the offshore operations,
- Dispatching personnel and equipment,
- 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 field via the transportation methods and frequencies shown below, taking the most direct route feasible as mandated by weather and traffic conditions:

Support Vessel	Production Trips Per Week
Crew Boat	1
Supply Boat	0
Helicopter	3

A Vicinity Plat showing the surface location in Grand Isle Block 28 relative to the shoreline and onshore base is included as *Attachment B-1.*

SECTION B
General Information - Continued

G. 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.

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.

Minerals Management Service did not invoke any stipulations for Lease OCS-G 22765, Grand Isle Block 28.

H. Special Conditions

Grand Isle Block 28 is located within 100 km of the Breton National Wildlife Refuge, LLOG will consider the use of best available control technology as required as Notice to Lessees 98-10 if the projected air emissions are determined to significantly affect the air quality of an onshore area.

I. Related OCS Facilities and Operations

As addressed earlier in this Plan, LLOG is proposing installation of Platform A and a right-of-way pipeline will be installed to transport the processed and combined gas and liquid hydrocarbon production to a subsea tie-in point in Louisiana State Waters at Grand Isle Block 25. The anticipated flow rates and shut-in times for the proposed pipeline are as follows:

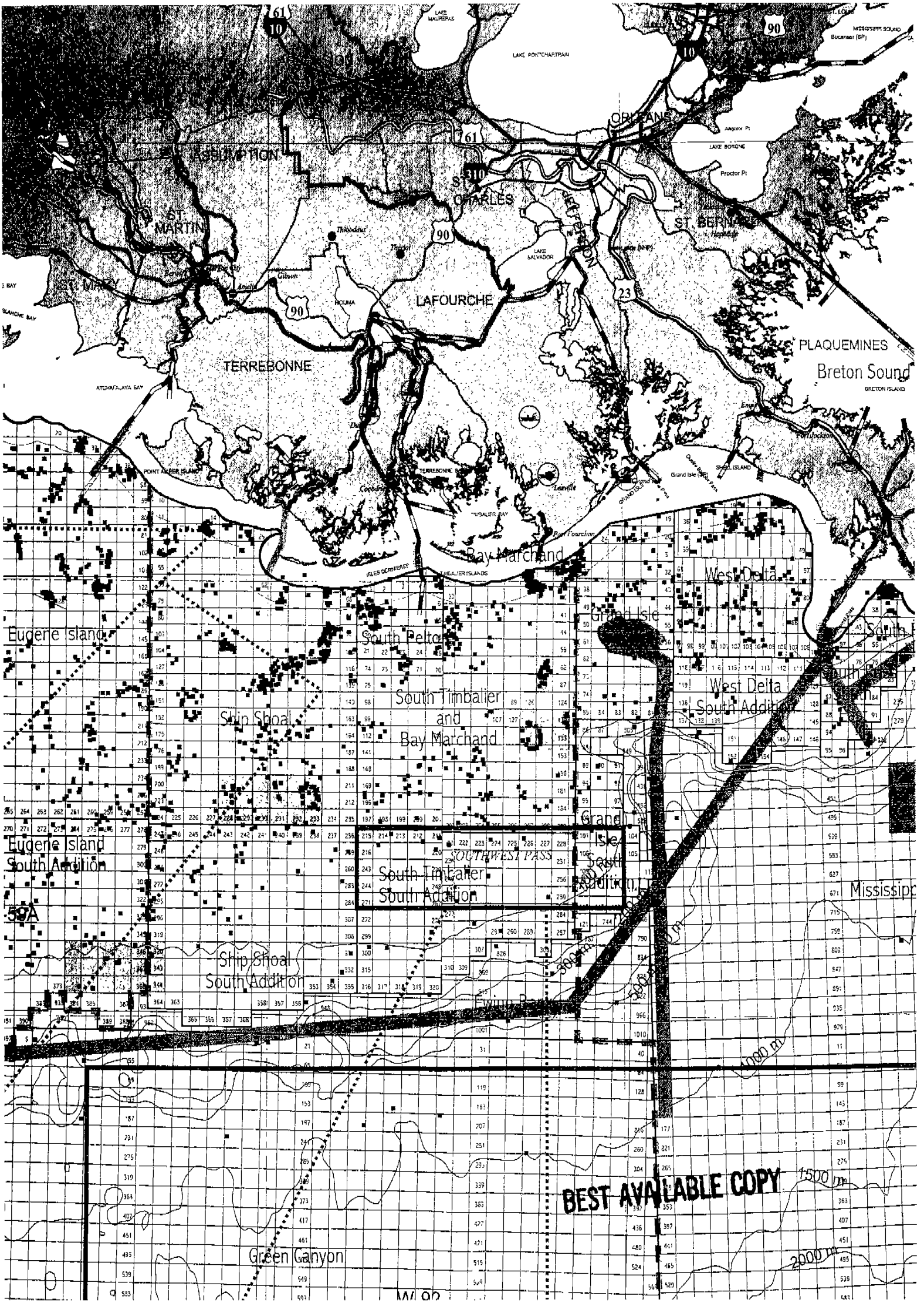
Origination Point	*Flow Rates*	*Shut In Time*
Platform A		

SECTION B.
General Information - Continued

J. Transportation Information

LLOG does not anticipate installation of any new and/or modified onshore facilities to accommodate the production of Grand Isle Block 28.

ATTACHMENT B-1


ASSUMPTION
ST. MARTIN
ST. MARY
TERREBONNE
LAFOURCHE
ST. CHARLES
ORLEANS
ST. BERNARD
PLAQUEMINES
Breton Sound
Bay Marchand
West Delta
Grand Isle
South Pelto
South Timbalier and Bay Marchand
Ship Shoal
Eugene Island
Eugene Island South Addition
South Timbalier South Addition
Ship Shoal South Addition
West Delta South Addition
Grand Isle South Addition
SOUTHWEST PASS
Green Canyon
BEST AVAILABLE COPY

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 sands. The maps depicts the bottom hole location for the respective well provided for in this Plan.

B. Interpreted Deep Seismic Lines

Copies of the migrated and annotated (shot point, time lines, well paths) deep seismic lines applicable to the well provided for in this Plan was previously provided with the Initial Exploration Plan (Control No. N-7404).

C. Geological Structure Cross Sections

Copies of the geological cross sections applicable to the well provided for in this Plan were previously provided with the Initial Exploration Plan (Control No. N-7404).

D. Shallow Hazards/Archaeological Reports

Fugro Geoservices, Inc. conducted a high resolution geophysical survey in Grand Isle Block 28 during July 1999 under expired Lease OCS-G 18063. In conjunction with this survey, an archaeological survey and report was also prepared to comply with the requirements, as Grand Isle Block 28 is listed as a potential site for prehistoric cultural resources.

Copies of these reports were submitted simultaneously with the previously approved Initial Exploration Plan (Control No. N-07404).

E. Shallow Hazards Assessment

A shallow hazards assessment for the surface disturbance was included with the previously approved Initial Exploration Plan (Control No. N-7404).

F. High Resolution Seismic Lines

Copies of the high resolution seismic lines for the subject well was provided for in this Plan, were previously provided with the Initial Exploration Plan (Control No. N-7404).

SECTION C
Geological, Geophysical & H2S Information-Continued

G. Stratigraphic Column

Copies of the generalized biostratigraphic/lithostratigraphic column from the seafloor to the total depth of the subject well provided for in this Plan were previously included with the Initial Exploration Plan (Control No. N-7404).

H. Time Vs. Depth Tables

A time versus depth table applicable to the subject well provided for in this Plan was previously included with the Initial Exploration Plan (Control No. N-7404).

I. Hydrogen Sulfide Classification

Effective April 11, 2002, Minerals Management Service classified Grand Isle Block 28 as an area where the absence of hydrogen sulfide has been confirmed.

(PROPRIETARY DATA)

ATTACHMENT C-1

SECTION D
Biological Information

A. Chemosynthetic Information

The seafloor disturbing activities in Grand Isle Block 28 are in water depths less than 400 meters (1312 feet); therefore, this section of not 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.

Grand Isle Block 28 is not located within the vicinity of a proposed live bottom area.

D. Remotely Operated Vehicle (ROV Surveys)

Pursuant to NTL No. 2001-G04, operators my be required to conduct remote operated vehicle (ROV) surveys during pre-spud and post-drilling operations for the purpose of biological and physical observations.

The proposed activities within Grand Isle Block 28 will not be subject to this requirement.

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.

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 Grand Isle Block 28 and will take applicable steps to ensure all offshore discharges associated with the proposed operations will be conducted in accordance with the permit.

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.

SECTION E
Wastes and Discharge/Disposal Information Continued

A. Composition of Solid and Liquid Wastes

Associated solid and liquid wastes generated during the proposed activities addressed in this Plan are well treatment/completion/workover fluids, produced water with associated wastes such as chemicals, cement wastes, sanitary and domestic waste, trash and debris, ballast water, storage displacement water, 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.

B. Overboard Discharges

The wastes generated by our proposed activities and released into the receiving waters of the Gulf of Mexico at the associated well/structure location are exempt from this requirement.

C. Disposed Wastes

The wastes detailed in *Attachment E-1* 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 structure and transported to shore for disposal at approved sites regulated by the State of Louisiana. LLOG Exploration Offshore, Inc. LLC is a registered State of Louisiana operator, and will utilize the UIC-28 Waste Manifest Shipping Tickets to monitor the transportation and disposition of this associated waste; and will comply with any approvals or reporting and recordkeeping requirements imposed by the State where ultimate disposal will occur.

ATTACHMENT E-1

LLOG Exploration Offshore, Inc.
Grand Isle Block 28
Examples of Wastes and Discharges Information

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

Type of Waste Approximate Composition	Amount*	Rate per day	Name/Location of Disposal Facility	Treatment and/or Storage, Transport and Disposal Method
Oil-contaminated produced sand	200 lb/yr	0.6 bbl/day	Newpark Environmental Fourchon, LA	Store in a cuttings box and transport to a land farm
Waste Oil	200 bbl/yr	0.5 bbl/yr	Newpark Environmental Fourchon, LA	Pack in drums and transported to an onshore Incineration site
Norm – contaminated wastes	1 ton	Not applicable	Newpark Environmental Fourchon, LA	Transport to a transfer station via dedicated barge
Trash and debris	1,000 ft^3	3 ft^3/day	Newpark Environmental Fourchon, LA	Transport in storage bins on crew boat to disposal facility
Chemical product wastes	50 bbl/yr	2 bbl/day	Newpark Environmental Fourchon, LA	Transport in containers to shore location
Chemical product wastes	100 bbl	2 bbl/day	Newpark Environmental Fourchon, LA	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 January 9, 2003, Minerals Management Service approved the most recent modification to LLOG Exploration Offshore, Inc.'s Regional Oil Spill Response Plan (OSRP). The Regional OSRP covers the entities of LLOG Exploration Offshore, Inc., LLOG Exploration & Production Company, LLOG Exploration Company and LLOG Exploration Texas, LP. Activities proposed in this Initial Development Operations Coordination Document 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)

Category	*Current Regional OSRP WCD*	*Proposed Development Operations Coordination Document WCD*
Type of Activity	Production	Production
Facility Surface Location	BS 41	GI 28
Facility Description	Platform A	Platform A
Distance to Nearest Shoreline (Miles)	5.8	7.9 miles
Volume: Storage Tanks (total) Facility Piping (total) Lease Term Pipeline Uncontrolled Blowout (day) **Potential 24 Hour Volume (Bbls.)**	746	1255
Type of Liquid Hydrocarbon	Condensate	Condensate
API Gravity	60°	40°

SECTION F
Oil Spill Response and Chemical Information-Continued

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 (Platform and Construction Barges):

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

E. Diesel Oil Supply Vessels

The following table details the vessels to be used for purposes other than fuel (i.e., corrosion control):

Size of Fuel Supply Vessel	Capacity of Fuel Supply Vessel	Frequency of Fuel Transfers	Route Fuel Supply Vessel Will Take
None			

F. Support Vessel Fuel Tanks

The following table details the vessel and fuel tanks on supply, service and/or crew vessels to be used to support the proposed activities:

Type of Vessel	Number in Field Simultaneously	Estimated Maximum Fuel Tank Capacity (bbls)
Service Vessels	1	500
Crew Vessels	1	500

G. Produced Liquid Hydrocarbon Transportation Vessels

LLOG is proposing to transport the produced liquid hydrocarbons via a proposed right-of-way pipeline; therefore this section of the Plan is not applicable.

SECTION F
Oil Spill Response and Chemical Information (Continued)

H. Oil and Synthetic-Based Drilling Fluids

LLOG drilled and completed the subject well under the previously approved Initial Exploration Plan (Control No. N-7404); therefore, this section is not applicable.

I. Blowout Scenario

The producible well proposed in this Plan was drilled and completed using a typical structural, conductor, surface and production casing program. The objective sand was perforated and production tubing with associated packers and downhole safety devices installed and tested. In the event of an uncontrolled blowout from Platform A, LLOG would anticipate an initial rate of approximately 14 MMCF/D and 857 BCP/D with a gravity of 46.7°. There will be minimal equipment on this structure, with liquid hydrocarbon storage/processing capacity of approximately 0 barrels. Based on analog reservoir characteristics, LLOG would estimate the completion interval bridging over in approximately two (2) days.

LLOG would immediately activate our Regional Oil Spill Response Plan and Spill Management Team to initiate potential recovery of liquid hydrocarbons on the receiving water, and review potential well intervention options. In the event a relief well is required, LLOG would not anticipate any delays in acquiring a jack-up type rig to conduct the proposed operations.

J. Oil Characteristics

The chemical and physical characteristics of the oils that will be potentially handled, stored, or transported on/by the facility is not requested by the Minerals Management Service or the Louisiana Coastal Zone Management Agency for the activities proposed in this Plan.

K. Spill Response Sites

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

Primary Response Equipment Location	Pre-Planned Staging Location(s)
Leeville, LA	Houma, LA

SECTION F
Oil Spill Response and Chemical Information (Continued)

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 for Platform A or the Shorebase Dispatcher would most likely be the initial individuals to contact the Qualified Individual (QI) on 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.

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.

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) providing for the associated production related activities.

B. Screening Questions

As evidenced by *Attachment G-1*, the worksheets were completed based of the operations provided for in this Plan are less than 25 miles to the nearest landfall.

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 for 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.

ATTACHMENT G-1

DOCD AIR QUALITY SCREENING CHECKLIST

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

COMPANY	LLOG Exploration Offshore, Inc.
AREA	Grand Isle
BLOCK	28
LEASE	OCS-G 22765
PLATFORM	A
WELL	1
COMPANY CONTACT	Christine Groth and Natalie Schumann, R.E.M. Solutions, Inc.
TELEPHONE NO.	281.492.8562
REMARKS	Install Platform A over existing Well No. 1 (Re-name to Well No. A001) and commence production.

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:

YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		

Screening Questions for DOCD'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
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells?		x
Do you expect to encounter H_2S at concentrations greater than 20 parts per million (ppm)?		x
Do you propose to flare or vent natural gas in excess of the criteria set forth under 250.1105(a)(2) and (3)?		x
Do you propose to burn produced hydrocarbon liquids?		x
Are your proposed development and production activities located within 25 miles from shore?	x	
Are your proposed development and production activities located within 200 kilometers of the Breton Wilderness Area?	x	

Air Pollutant		Plan Emission Amounts[1] (tons)	Calculated Exemption Amounts[2] (tons)		Calculated Complex Total Emission Amounts[3] (tons)
Carbon monoxide (CO)		3.21	13486.43		
Particulate matter (PM)		0.43	263.07		
Sulphur dioxide (SO_2)		1.96	263.07		
Nitrogen oxides (NOx)		14.71	263.07		
Volatile organic compounds (VOC)		1.89	263.07		

[1] For activities proposed in your EP or DOCD, list the projected emissions calculated from the worksheets.
[2] List the exemption amounts in your proposed activities calculated using the formulas in 30 CFR 250.303(d).
[3] List the complex total emissions associated with your proposed activities calculated from the worksheets.

AIR EMISSION CALCULATIONS - FIRST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
LLOG Exploration Offsho	Grand Isle	28	OCS-G 22765	A	1		Christine Groth and Natalie Schu	281.492.8562	#REF!

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	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
	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)	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
	VESSELS>600hp diesel(tugs)	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
PIPELINE INSTALLATION	PIPELINE LAY 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
	SUPPORT VESSEL 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
	PIPELINE BURY 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
	SUPPORT VESSEL 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
FACILITY INSTALLATION	DERRICK BARGE diesel	7000	338.1	8114.40	24	3	4.93	22.63	169.60	5.09	37.00	0.18	0.81	6.11	0.18	1.33
	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
	SUPPORT VESSELS>600hp diesel	2065	99.7395	2393.75	24	3	1.46	6.68	50.03	1.50	10.92	0.05	0.24	1.80	0.05	0.39
PRODUCTION	RECIP.<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
	RECIP.>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
	SUPPORT VESSEL diesel (crew)	2065	99.7395	2393.75	8	34	1.46	6.68	50.03	1.50	10.92	0.20	0.91	6.80	0.20	1.48
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0 00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	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	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			1000.0		241				0.50					1.45	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2003	YEAR TOTAL						7.84	35.99	269.67	8.59	58.84	0.43	1.96	14.71	1.89	3.21
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											263.07	263.07	263.07	263.07	13486.43
	7.9															

AIR EMISSIONS CALCULATIONS - SECOND YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
LLOG Exploration Offsho	Grand Isle	28	OCS-G 22765	A	1		Christine Groth and Natalie Schu	281.492.8562	#REFI

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	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	0.00	0.00	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	0.00	0.00	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	0.00	0 00	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 00	0.00	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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(tugs)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE INSTALLATION	PIPELINE LAY 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
	SUPPORT VESSEL 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
	PIPELINE BURY 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
	SUPPORT VESSEL 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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP.<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
	RECIP.>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
	SUPPORT VESSEL diesel (crew)	2065	99.7395	2393.75	8	52	1.46	6.68	50.03	1.50	10.92	0.30	1.39	10.41	0.31	2.27
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	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	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			1000.0		365				0.50					2.19	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2004	**YEAR TOTAL**						**1.46**	**6.68**	**50.03**	**2.00**	**10.92**	**0.30**	**1.39**	**10.41**	**2.50**	**2.27**
EXEMPTION CALCULATION	**DISTANCE FROM LAND IN MILES**											**263.07**	**263.07**	**263.07**	**263.07**	**13486.43**
	7.9															

AIR EMISSION CALCULATIONS

OMB Control No. xxxx-xxxx
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
LLOG Exploration Offshore, Inc.	Grand Isle	28	OCS-G 22765	A	1

Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	0.43	1.96	14.71	1.89	3.21
2004	0.30	1.39	10.41	2.50	2.27
2005	0.30	1.39	10.41	2.50	2.27
2006	0.30	1.39	10.41	2.50	2.27
2007	0.30	1.39	10.41	2.50	2.27
2008	0.30	1.39	10.41	2.50	2.27
2009	0.30	1.39	10.41	2.50	2.27
2010	0.30	1.39	10.41	2.50	2.27
2011	0.30	1.39	10.41	2.50	2.27
2012	0.30	1.39	10.41	2.50	2.27
2013	0.30	1.39	10.41	2.50	2.27
Allowable	263.07	263.07	263.07	263.07	13486.43

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
Site Specific at Offshore Location						
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						
Vicinity of Offshore Location						
Essential fish habitat					X	
Marine and pelagic birds					X	
Public health and safety						
Coastal and Onshore						
Beaches					X	
Wetlands					X	
Shorebirds and coastal nesting birds					X	
Coastal wildlife refuges					X	
Wilderness areas					X	
Other Resources						

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 Grand Island Block 28 is located approximately 40 miles away from the closest designated topographic feature (Sackett 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 Grand Island Block 28 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 Grand Island Block 28 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

The water depth in Grand Island Block 28 is approximately 55 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.

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

natural or antrhropogenic 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 him 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) 2002-G14 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G13 "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 crease 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 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) 2002-G14 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G13 "Marine Trash & Debris Awareness & Elimination".

9. Air Quality

The proposed activities are located approximately 7.9 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.

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 7.9 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.

2. Wetlands

An accidental oil spill release from the proposed activities could cause impacts to wetlands. However, due to the distance from shore (approximately 7.9 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 7.9 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 7.9 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.

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 7.9 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-G08 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:

Document	*Author*	*Dated*
Shallow Hazards Survey	Fugro Geoservices, Inc.	1999
MMS Environmental Impact Statement Report No. 2002-15	Minerals Management Service	2002
NTL 2002-G14 "Vessel Strike Avoidance and Injured/Dead Protective Species"	Minerals Management Service	2002
NTL 2002-G13 "Marine Trash & Debris Awareness & Elimination"	Minerals Management Service	2002
NTL 2002-G09 "Regional and Subregional Oil Spill Response Plans"	Minerals Management Service	2002
NTL 2002-G08 "Information Requirements for Exploration Plans and Development Operations Coordination Documents"	Minerals Management Service	2002
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 98-18 "Supplemental Bond Procedures"	Minerals Management Service	1998
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 Louisiana is enclosed as *Attachments I-1 and I-2.*

Listed below are the policies from the State of Louisiana that are related to OCS Plan Filings (Subpart E – Title 15 CFR Parts 930.70 to 930.85).

A. Guidelines Applicable to All Users

1.2 Air and Water Quality Standards

a. **Air emissions** associated with the proposed activities were projected using a matrix and formula supplied by the Minerals Management Service who has primacy from the Environmental Protection Agency for regulating such emissions. As detailed in *Section G* of this Plan, the resultant emissions are below the exemption levels for Carbon Monoxide, Particulate Matter, Sulphur Oxides, Nitrogen Oxides and Volatile Organic Compounds.

b. **Overboard discharges** such as produced water, well completion, treatment, workover fluids associated with the proposed activities must be tested first for toxicity and/or oil & grease 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. These wastes will be manifested and disposed as per the State of Louisiana Department of Environmental Quality's regulations.

Refer to *Section E* of the Plan for more detailed comprehensive information pertaining to the types of wastes generated, discharged and/or disposed of as a result of the provided activities.

1.6. General Factors that will be utilized by the permitting authority.

The proposed activities involving the installation of Platform A and commencement of production will be approved by the Minerals Management Service, with consistency certification from the State of Louisiana. Additional authorities will be received by the Environmental Protection Agency for overboard discharges, and the U. S. Coast Guard for marking of navigational aids, and general workplace safety.

1.7. Adverse effects from land and water uses in the coastal area.

The proposed activities are located in OCS Federal Waters, Gulf of Mexico (approximately 7.9 miles from the nearest Louisiana shoreline). The greatest potential risk to land and/or water uses in the coastal area could result from a blowout or oil spill.

Protection of the environment during the provided 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 an 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.

Please refer to *Sections B, E and F* for additional measures implemented by LLOG to avoid any adverse alteration or destruction to the coastal area.

1.9 Permitting multiple uses to avoid conflict.

The provided activities will not impact or be impacted by potential multiple use conflicts.

C. Guidelines for Linear Facilities

1.1 Linear use alignments.

LLOG's operations proposed for in the Plan are contained within the boundaries of Lease OCS-G 22765, Grand Isle Block 28.

1.2 **Linear facilities dredging or filling avoidance.**

The operations provided for in this Plan, are the installation of Platform A over the existing Well No. 1 and commencement of production in Grand Isle Block 28 and further transportation through a proposed right-of-way pipeline.

LLOG will be submitting with the pipeline, a coastal zone consistency certification.

1.3 **Linear facilities dredging or filling guidelines.**

The pipeline from Grand Isle Block 28, Platform A will be buried and will be covered with a minimum of three (3) feet of natural bottom coverage.

1.4 **Pipeline "push ditch" methodology.**

LLOG does not propose to use the "push ditch" methodology for the installation of the proposed pipeline.

1.5 **Facilities with corridors, rights-of-way, canals, and streams.**

The provided activities will be conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and will not be subject to any corridors, canals or streams.

LLOG will be submitting an application for the installation of a right-of-way pipeline, which will include the coastal zone consistency.

1.6 **Multiple uses**

The provided activities in Grand Isle Block 28 are not subject to any multiple uses.

1.7 **Barrier Island traverses.**

The provided activities addressed in this Plan did not require traversing any barrier island areas.

1.8 **Beach, tidal passes, protective reef, or shoreline traverses.**

The proposed activities addressed in this Plan do not require any beach, tidal passes, protective reef or shoreline traversing operations.

1.9 Location guidelines.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and do not impacted by any near-shore guidelines linear facilities.

1.10 Planning guidelines.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and do not impact by any near-shore planning guidelines.

1.11 Saline to freshwater channeling.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and do not have any potential adverse impacts to saline or freshwater channeling.

1.12 Directional drilling, multiuse canals, and accesses.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and do not require any directional drilling, or access of multiuse canals or other accesses.

1.13 Pipeline guidelines.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and are not subjected to any near-shore pipeline guidelines.

1.14 Restoration.

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and therefore, LLOG does not anticipate any restoration mitigation measures as may be required for near-shore pipeline installations.

1.15 Best practical techniques.

The proposed activities addressed in this Plan will be conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and will be in accordance with federal regulations and industry standards.

1.16 Dead end canals.

The proposed activities addressed in this Plan will be conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and does not require the use of any dead end canals.

D. Guidelines for Dredged Spoil Deposition

4.1 Best practical techniques.

There are no activities proposed for in this Plan involving dredge spoil.

4.2 Beneficial use of soil.

The dredged material from the pipeline installation will be used to cover the pipeline with a minimum of three (3) feet of natural seabottom material.

4.3 Preventing impounding or draining wetlands.

The dredged material will be re-used in the burial and coverage of the pipeline, and will not have any adverse impacts.

4.4 Disposal restrictions.

The dredged material was re-used in the burial and coverage of the existing pipeline, and therefore did not have any adverse impacts.

4.5 Preventing navigation, fishing, and timber growth hindrances.

LLOG does not anticipate any adverse impacts to preventing navigation or fishing as a result of the provided activities provided for in this Plan. The proposed structure will be equipped with navigational aids to warn approaching traffic, and installation of these types of structure typically enhances fishing activity within the vicinity.

4.6 **Spoil retention techniques.**

The dredged material will be re-used in the burial and coverage of the pipeline, and therefore should not have any adverse impacts.

4.7 **DNR Consent for State-Owned Property.**

The proposed activities addressed in this Plan will be conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and will not require the use of any state-owned waterbottoms.

F. Guidelines for Surface Alterations

1.1 **Industrial, commercial, urban, residential, and recreational use guidelines.**

The proposed activities proposed for in this Plan are conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28. The related support activities did not require any new surface alterations within the coastal zone (i.e., lands 5 feet or more above sea level, and/or have foundation conditions sufficiently stable to support the use), as these took place from an existing onshore support base infrastructure.

G. Guidelines for Hydrologic and Sediment Transport Modifications

7.1 **Controlled diversion of sediment-laden waters to initiate marsh building.**

The activities provided for in this Plan will be conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and will not result in the controlled diversion of sediment-laden waters.

7.3 **Undesirable deposition of sediments.**

The activities provided for in this Plan are conducted within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and did not result in the undesirable deposition of sediments; other than the temporary relocation of dredged material associated with pipeline installation.

7.9 **Withdrawal of surface and ground water.**

The proposed activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28, and did not involve the withdrawal of surface and ground water.

H. Guidelines for Disposal of Wastes

8.1 **Location and operation of waste storage, treatment, and disposal facilities.**

Wastes generated from the provided activities in Grand Isle Block 28 which cannot be discharged overboard, will be manifested and transported by an offshore supply vessel to an existing approved facility within the State of Louisiana.

Prior to transporting these wastes, LLOG will manifest same utilizing the Department of Environmental Quality Form UIC-28.

8.2 **Generation, transportation, treatment, storage, and disposal facilities.**

Waste generated from the proposed activities which cannot be discharged overboard, will be manifested and transported by an offshore supply vessel to an existing approved facility within the State of Louisiana.

Prior to transporting and/or prior to disposal of same, LLOG will manifest same utilizing the Department of Environmental Quality Form UIC-28, and conduct any required testing for toxicity, naturally occurring radioactivity.

8.8 **Approved disposal sites.**

Waste generated from the proposed activities which cannot be discharged overboard, will be manifested and transported by an offshore supply vessel to an existing approved facility within the State of Louisiana. LLOG typically utilizes the serves provided by Newpark Environmental Services, with the nearest facilities located in Fourchon, Louisiana. LLOG will utilize the site codes assigned by the state to ensure the facilities are licensed.

8.9 **Radioactive waste.**

LLOG did not anticipate any radioactive wastes associated with the provided activities.

I. Guidelines for Uses that Result in the Alteration of Waters Draining into Coastal Waters

9.2 Developed area runoff.

The provided activities addressed in this Plan are located within the boundaries of Lease OCS-G 22765, Grand Isle Block 28; therefore, LLOG will not have an area runoff which impact state waters.

J. Guidelines for Oil, Gas, and other Mineral Activities

10.3 Siting of exploration, production and refining activities.

The proposed activities are located approximately 7.9 miles from the nearest shoreline. LLOG does not anticipate the activities to impact any critical wildlife and/or vegetation areas.

10.5 Access to sites.

The related support vessels (crew boat, supply boat and construction barge) will utilize existing waterways to access the proposed Platform A provided in this Plan.

10.6 Best practical techniques for drilling and production sites.

LLOG has adopted industry standards for conducting the provided development operations. Such standards are adopted to prevent unanticipated occurrences such as a well blowout or oil spill release, which could potentially cause adverse water/air environmental consequences. Such anticipated occurrences will be handled as quickly as possible by LLOG implementing their Oil Spill Response Plan and/or well control standards and procedures.

Anticipated operations will include the overboard discharge of generated waste from the proposed activities; which are regulated by the EPA NPDES General Permit GMG290000, as well as the U.S. Coast Guard's MARPOL.

Refer to *Sections B, E, F and G* of this Plan for more comprehensive details to these issues.

10.10 Guidelines for drilling and production equipment for preventing adverse effects.

LLOG selected the surface location addressed in the Plan based on the results of a shallow hazards and/or archaeological survey reports.

The provided activities will be conducted in accordance with industry standards to minimize adverse environmental impacts.

Refer to *Sections B and C* of this Plan for more comprehensive details to these issues.

10.11 Effective environmental protection and emergency or contingency plans.

The proposed activities will be conducted in accordance with applicable state and federal regulations, supplemented with LLOG's Oil Spill Response Plan, Emergency Evacuation Plan, Subpart O Training Plan, and Waste Management Plan.

ATTACHMENT I-1

COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATION

INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

GRAND ISLE BLOCK 28

LEASE OCS-G 22765

The proposed activities described in detail in the enclosed Plan comply with Louisiana's 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: 03/21/03