


UNITED STATES GOVERNMENT  
MEMORANDUM

February 25, 2005

To: Public Information (MS 5034)  
From: Plan Coordinator, FO, Plans Section (MS 5231)  
Subject: Public Information copy of plan  
Control # - N-08337  
Type - Initial Exploration Plan  
Lease(s) - OCS-G21591 Block - 69 Vermilion Area  
Operator - Apex Oil & Gas, Inc.  
Description - Well Protectors & Wells A and B  
Rig Type - JACKUP

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
WP/WP A		271 FSL, 3214 FEL	G21591/VR/69
WP/WP B		271 FSL, 3214 FEL	G21591/VR/69
WELL/A	G21591/VR/69	271 FSL, 3214 FEL	G21591/VR/69
WELL/B	G21591/VR/69	271 FSL, 3214 FEL	G21591/VR/69

ISS FEB25'05pm 1:47

NOTED - SCHEXNAILDRE



350 N. Sam Houston Pkwy E.  
Suite 295 Houston, TX 77060  
Phone: 281.591.8880 Fax: 281.591.8881



February 10, 2005

Mr. Donald C. Howard  
Regional Supervisor, Office of Field Operations  
Minerals Management Service  
1201 Elmwood Park Boulevard  
New Orleans, LA 70123-2394

Attn: MS 5230

RE: Initial Exploration Plan  
Lease OCS-G 21591, Vermilion Block 69  
OCS Federal Waters, Gulf of Mexico, Offshore, Louisiana

Gentlemen:

In accordance with the provisions of Title 30 CFR 250.203 and NTL 2003-G17, Apex Oil & Gas, Inc. hereby submits for your review and approval two (2) hard copies of an Initial Exploration Plan (Plan) for Lease OCS-G 21591, Vermilion Area, Block 69, Offshore Louisiana. One (1) copy is "Proprietary Information" and one (1) copy is "Public Information". There are two (2) CD-ROM's in a PDF format each for MMS Public and Proprietary copies and one (1) CD-ROM (Public Information Only) for the State of Louisiana CZM.

Excluded from the Public Information copies are certain Geologic discussions, depths of well(s) and structure maps.

The primary term of Lease OCS-G 21591 expires on April 30, 2005. Apex anticipates activities will commence under this proposed Plan on or about March 15, 2005.

Should additional information be required, please contact the undersigned or Kathy Camp, regulatory consultant at 713.201.9627.

Sincerely,

APEX OIL & GAS INC.

*Gary J. Patin /uc*  
Gary J. Patin  
Vice President

Enclosures

CONTROL No. <u>N-8337</u>
REVIEWER: Michelle Griffitt
PHONE: (504) 736-2975

**PUBLIC INFORMATION**

**Apex Oil & Gas, Inc.  
Initial Exploration Plan  
Vermilion Area, Block 69  
Lease OCS-G 21591  
February 10, 2005**

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<b>Attachment C-1a thru C-1d</b>	<b>Structure Map</b>
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## **Appendix A**

### **CONTENTS OF PLAN**

In accordance with 43 CFR 2.13 (c)(9), those items considered proprietary have been omitted from the Public Information copy and have been referenced accordingly.

#### **A. LEASE DESCRIPTION / ACTIVITY**

Apex Oil & Gas, Inc. (Apex) is the designated operator of Lease OCS-G 21591 by virtue of a farmout agreement from Hunt Oil. The referenced lease was purchased at the Central Gulf of Mexico Lease Sale 175. The lease was issued with an effective date of May 1, 2000 and primary term ending date of April 30, 2005.

Under this Initial Exploration Plan, Apex Oil & Gas plans to drill, complete and test two (2) wells (Locations A & B) in Vermilion Block 69. If producible, a typical well protector caisson will be installed with the rig while on location.

#### ***PROPRIETARY DATA***

**Attachment A-1** is MMS Form 137 with details of the proposed drilling, completion and potential testing as provided for in this Plan along with a tentative schedule.

#### **B. LOCATION / MAPS**

Included in this section is the Well Location Map, **Attachment A-2** and Bathymetry Map **Attachment A-3**. The map shows the surface locations of all well(s) proposed with any associated anchors (if applicable). The proposed bottom hole location(s), depth of well(s) and the associated water depths are provided in tabular format. There will be no anchors utilized for the operations proposed in this plan.

#### **C. DRILLING**

Offshore exploratory and development activities are carried out from mobile drilling rigs. The five most common types of mobile rigs employed for exploratory drilling offshore are submersible drilling rigs, semi-submersible drilling rigs, jack-up drilling rigs, drill ships, and drill barges.

The proposed well(s) will be drilled and completed with a typical jack up rig. Rig specifications will be made a part of the appropriate Application for Permit to Drill.

## **Appendix A**

### **CONTENTS OF PLAN**

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#### ***PROPRIETARY DATA***

**Attachment A-1** is MMS Form 137 with details of the proposed drilling, completion and potential testing as provided for in this Plan along with a tentative schedule.

#### **B. LOCATION / MAPS**

Included in this section is the Well Location Map, **Attachment A-2** and Bathymetry Map **Attachment A-3**. The map shows the surface locations of all well(s) proposed with any associated anchors (if applicable). The proposed bottom hole location(s), depth of well(s) and the associated water depths are provided in tabular format.

#### **C. DRILLING**

Offshore exploratory and development activities are carried out from mobile drilling rigs. The five most common types of mobile rigs employed for exploratory drilling offshore are submersible drilling rigs, semi-submersible drilling rigs, jack-up drilling rigs, drill ships, and drill barges.

The proposed well(s) will be drilled and completed with a typical jack up rig. Rig specifications will be made a part of the appropriate Application for Permit to Drill.

Safety features on the MODU will include well control, pollution prevention, welding procedure, and blowout prevention equipment as described in Title 30 CFR Part 250, Subparts C, D, E, G and O; and as further clarified by MMS Notice to Lessees, and current policy making invoked by the MMS, Environmental Protection Agency and the U.S. Coast Guard. The appropriate life rafts, life jackets, ring buoys, etc., as prescribed by the U.S. Coast Guard will be maintained on the facility at all times.

In accordance with Title 30 CFR Part 250, Subpart O, an operator is to ensure Well Control Training is provided for lessee and contractor personnel engaged in oil and gas operations in the OCS Gulf of Mexico. Further, the operator is charged with the responsibility to not create conditions that will pose unreasonable risk to the public health, life, property, aquatic life, wildlife, recreation, navigation, commercial fishing, or other uses of the ocean.

Supervisory and certain designated personnel on-board the facility are to be familiar with the effluent limitations and guidelines for overboard discharges into the receiving waters, as outlined in the NPDES General Permit GMG290000. Some of these pollution prevention measures include installation of curbs, gutters, drip pans, and drains on drilling deck areas to collect all contaminants and debris.

The MMS is required to conduct 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. The MMS also inspects the stockpiles of equipment listed in the operator's approved Oil Spill Response Plan that would be used for the containment and cleanup of hydrocarbon spills.

## ATTACHMENT A-1

U.S. Department of the Interior  
Minerals Management Service

OMB Control Number: 1010-0049  
OMB Approval Expires: August 31, 2006

## OCS PLAN INFORMATION FORM

General Information													
Type of OCS Plan:	<input checked="" type="checkbox"/>	Exploration Plan (EP)		Development Operations Coordination Document (DOCD)									
Company Name:	Apex Oil & Gas, Inc.			MMS Operator Number:		01963							
Address:  350 N. Sam Houston Pkwy E. Suite 295 Houston, TX 77060				Contact Person:		Kathy Camp							
				Phone Number:		713 / 201-9627							
				E-Mail Address:		kathy.camp@kcampaassociates.com							
Lease: OCS-G	21591	Area:	Vermilion		Block:	69		Project Name (If Applicable):				NA	
Objective(s):	<input checked="" type="checkbox"/>	Oil	<input checked="" type="checkbox"/>	Gas	<input type="checkbox"/>	Sulphur	<input type="checkbox"/>	Salt	Onshore Base: Freshwater City, LA		Distance to Closest Land (Miles):	15	
Description of Proposed Activities (Mark all that apply)													
<input checked="" type="checkbox"/>	Exploration drilling								Development drilling				
<input checked="" type="checkbox"/>	Well completion								Installation of production platform				
<input checked="" type="checkbox"/>	Well test flaring								Installation of production facilities				
<input checked="" type="checkbox"/>	Installation of well protection structure								Installation of satellite structure				
	Installation of subsea wellheads and/or manifolds								Installation of lease term pipelines				
	Temporary well abandonment								Commence production				
	Other (Specify and describe)												
Do you propose to use new or unusual technology to conduct your activities?										Yes	<input checked="" type="checkbox"/>	No	
Do you propose any facility that will serve as a host facility for deepwater subsea development?										Yes	<input checked="" type="checkbox"/>	No	
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?										Yes	<input checked="" type="checkbox"/>	No	
Tentative Schedule of Proposed Activities													
Proposed Activity					Start Date		End Date		No. of Days				
Drill and Complete Location A					03/15/2005		04/05/2005		20				
Test Well					04/06/2005		04/07/2005		2				
Drill and Complete Location B					04/08/2005		04/23/2005		15				
Test Well					04/24/2005		04/25/2005		2				
Description of Drilling Rig					Description of Production Platform								
<input checked="" type="checkbox"/>	Jackup				Drillship				Caisson				Tension leg platform
	Gorilla Jackup				Platform rig				Well protector				Compliant tower
	Semisubmersible				Submersible				Fixed platform				Guyed tower
	DP Semisubmersible				Other (Attach Description)				Subsea manifold				Floating production system
Drilling Rig Name (If Known):					TBD				Spar				Other (Attach Description)
Description of Lease Term Pipelines													
From (Facility/Area/Block)			To (Facility/Area/Block)			Diameter (Inches)			Length (Feet)				
NA													

**MMS** Form MMS-137 (August 2003 – Supersedes all previous editions of form MMS-137, which may not be used)  
Page 1 of 3

PUBLIC INFORMATION COPY

**OCS PLAN INFORMATION FORM (CONTINUED)**  
Include one copy of this page for each proposed well / structure

Proposed Well/Structure Location					
Well or Structure Name/Number: <b>Location A</b>				Subsea Completion	
Anchor Radius (if applicable) in feet:                      NA				<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No
	Surface Location		Bottom-Hole Location (For Wells)		
Lease No.	OCS-G 21591				
Area Name	Vermilion				
Block No.	69				
Block line Departures (in feet)	N/S Departure:                      271 FSL				
	E/W Departure:                      3214 FEL				
Lambert X-Y coordinates	X:                      1,703,200.364				
	Y:                      229,305.529				
Latitude/ Longitude NAD 27	Latitude:                      29° 17' 38.097" N				
	Longitude:                      92° 15' 51.822" W				
	TVD (Feet):		MD (Feet):	Water Depth (Feet): <b>22</b>	
Anchor Locations for Drilling Rig or Construction Barge					
Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
1					
2					
3					
4					
5					
6					
7					
8					
<p><b>Paperwork Reduction Act of 1995 Statement:</b> The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.</p>					

**PUBLIC INFORMATION COPY**



**OCS PLAN INFORMATION FORM (CONTINUED)**  
**Include one copy of this page for each proposed well / structure**

Proposed Well/Structure Location					
Well or Structure Name/Number: <b>Location B</b>				Subsea Completion	
Anchor Radius (if applicable) in feet: <b>NA</b>				<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No
	Surface Location		Bottom-Hole Location (For Wells)		
Lease No.	OCS-G 21591				
Area Name	Vermilion				
Block No.	69				
Block line Departures (in feet)	N/S Departure: 271 FSL				
	E/W Departure: 3214 FEL				
Lambert X-Y coordinates	X: 1,703,200.364				
	Y: 229,305.529				
Latitude/ Longitude NAD 27	Latitude: 29° 17' 38.097" N				
	Longitude: 92° 15' 51.822" W				
	TVD (Feet):	MD (Feet):	Water Depth (Feet): <b>22</b>		
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Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
1					
2					
3					
4					
5					
6					
7					
8					
<p><b>Paperwork Reduction Act of 1995 Statement:</b> The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.</p>					

Y = 243,792.577

14,758.048'



69  
OCS-G 21591

X = 1,691,656.316  
14,758.048'

14,758.048'  
X = 1,706,414.384

## PROPOSED WELL LOCATIONS

LOCATION	CALLS N/S	CALLS E/W	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE	WD	TVD	MD
#1 SURFACE	271' FSL	3214' FEL	1,703,200.384	229,305.529	29° 17' 38.097"N	92° 15' 51.822"W	22'		
#2 SURFACE	271' FSL	3214' FEL	1,703,200.384	229,305.529	29° 17' 38.097"N	92° 15' 51.822"W	22'		

PUBLIC INFORMATION  
SHEET 2 OF 3

1,000 0 1,000 2,000

SCALE 1" = 2,000'

2 (OCS-G 4103)

1 (OCS-G 4103)

14,758.048'

Y = 229,034.529

(A) (B)  
#1 & #2  
SURFACE  
O

DATUM: NAD 27

SPHEROID: CLARKE 1866

PROJECTION: LAMBERT

ZONE: LOUISIANA SOUTH



36499 Perkins Road  
Prairieville, Louisiana 70769  
Tel: 225-673-2163  
Fax: 225-744-3116

APEX OIL & GAS, INC.

## EXPLORATION PLAN

OCS-G 21591  
BLOCK 69  
VERMILION AREA

GULF OF MEXICO

DRAWN BY:  
D. ADAMS

DATE:  
02/10/2005

CHECKED BY:  
K. CODD

DRAWING No.:  
05-008PER-exp

REV. DATE:

REV. No.:

SCALE:  
1" = 2,000'

JOB No.:  
05-008



69  
OCS-G 21591

70 Loc A/B

OCS-G 21591 WELL #1+2  
271' FSL  
3,214' FEL  
X = 1,703,200.364  
Y = 229,305.529  
LAT. = 29° 17' 38.097"N  
LONG. = 92° 15' 51.822"W

Y = 229,034.529

74  
OCS-G 21594

73



DATUM:	NAD 27
SPHEROID:	CLARKE 1866
PROJECTION:	LAMBERT
ZONE:	LOUISIANA SOUTH

SITE SPECIFIC SURVEY BATHYMETRY BLOCK 69 VERMILION AREA GULF OF MEXICO					
APEX OIL & GAS, INC.					
TESLA OFFSHORE, LLC 36499 Paradise Road Prairieville, Louisiana 70769 Tel: 225-873-3163 Fax: 225-744-3118					
PROP. DIA	INT.	GRID DIA	APP. XAC	FILE NO. 05-00560401	
CHK. XAC	CHK.	CHK. XAC	DATE 2/3/2005		

## **Appendix B**

### **GENERAL INFORMATION**

#### **A. CONTACT**

Inquiries may be made to the following authorized representative:

Kathy Camp  
713.201.9627  
Email: Kathy.camp@kcampassociates.com

#### **B. NEW OR UNUSUAL TECHNOLOGY**

Apex Oil & Gas, Inc. does not propose the use of any new or unusual technology to carry out the proposed activities provided for in this Plan.

#### **C. BONDING INFORMATION**

In accordance with regulations contained in Title 30 CFR Part 256, Subpart I, and further clarified by NTL 2000-G16 pertaining to general lease surety bonds, Apex has on file with the Minerals Management Service a \$50,000 Lease Bond.

Additionally, NTL 2003-N06 provides clarification on the method MMS utilizes to require additional security to cover full plugging, site clearance and other associated lease liabilities that may be in excess of the general lease surety bonds. These activities are reviewed on a case-by-case basis, and if deemed warranted, Minerals Management Service will provide such notification to Apex.

#### **D. ONSHORE BASE AND SUPPORT VESSELS**

Vermilion Block 69 is located approximately 15 nautical miles south of Tigre Point, Louisiana (the nearest Louisiana shoreline) and approximately 35 miles from the onshore support base located in Freshwater City, Louisiana. A Vicinity Plat showing the location of Vermilion Block 69 relative to the shoreline and the onshore base is included as **Attachment B-1**.

Name	Location	Existing, New or Modified
PHI or ELI dock	Freshwater City, LA	Existing

This base is capable of providing the services necessary for the proposed activities. It has 24-hour service, a radio tower with a phone patch, dock space, equipment and supply storage base, drinking and drill water, etc. The base will also serve as a loading point for tools, equipment and machinery to be delivered to the MODU, crew change and transportation base, and temporary storage for materials and equipment. The facilities typically include outdoor storage, forklift and crane service, dock, trailer facilities, a radio tower with a phone patch and parking, as well as 24-hour service. Support vessels and travel frequency during the proposed drilling, completion activities are as follows:

Type	Trips / Week – Drilling	Hours on Location
Crew Boat	5	6
Supply Boat	5	8
Helicopter	As Needed	
Anchor Handling Tugs	NA	

Personal vehicles will be the main means of transportation to carry personnel from various locations to the onshore base area. During drilling operations, they will be transported to the MODU by the crew boat. A supply boat will also be utilized to transport small supplies, and on occasion, personnel. Helicopters will be utilized on an as needed basis. The most practical, direct route permitted by the weather and traffic conditions will be utilized.

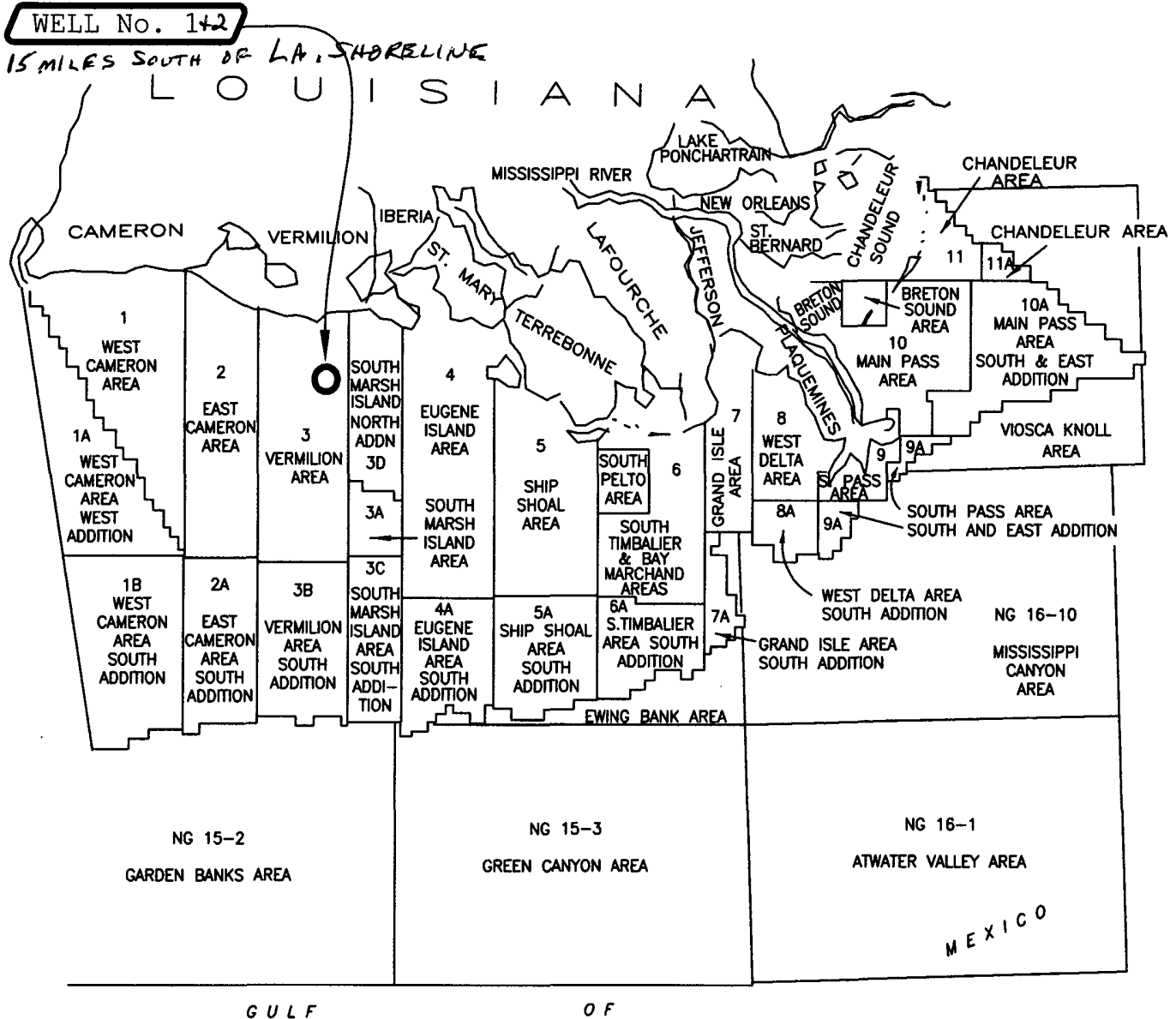
During the proposed operations, Apex and contractor personnel will be employed on the rig conducting drilling and completion activities. During these periods of time, approximately 35-50 personnel may be engaged in designated activities. Personnel engaged in onshore operations will be the dispatcher at the pre-determined support base, contract personnel for off loading equipment and materials required to support the activities, as well as the personnel needed to transport same to the offshore facility.

#### **E. LEASE STIPULATIONS**


Oil and gas exploration and development activities on the OCS are subject to stipulations developed before the lease sale and would be attached to the lease instrument, as necessary, in the form of mitigating measures. The MMS is responsible for ensuring full compliance with stipulations.

Minerals Management Service did not invoke any lease stipulation(s) for Lease OCS-G 21591, Vermilion Block 69.

LOUISIANA GULF COAST INDEX  
M.M.S. O.C.S. LEASING AREAS



SHEET 1 OF 3

DATUM: NAD 27 SPHEROID: CLARKE 1866 PROJECTION: LAMBERT ZONE: LOUISIANA SOUTH		<b>APEX OIL &amp; GAS, INC.</b>  PROPOSED WELL LOCATION  OCS-G 21591 WELL No. 1 BLOCK 69 VERMILION AREA  GULF OF MEXICO	
 36499 Perkins Road Prairieville, Louisiana 70769 Tel: 225-673-2163 Fax: 225-744-3116			
DRAWN BY: D. ADAMS	DATE: 02/03/2005	CHECKED BY: K. CODD	DRAWING No.: 05-008PER1
REV. DATE:	REV. No.:	SCALE: NOT TO SCALE	JOB No.: 05-008

**Appendix C**  
**Geological, Geophysical & H<sub>2</sub>S INFORMATION**

In accordance with 43 CFR 2.13 (c)(9), those items considered proprietary have been omitted from the Public Information copy and have been referenced accordingly.

**A.     STRUCTURE CONTOUR MAPS – Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**B.     INTERPRETED 2-D or 3-D SEISMIC LINES - Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**C.     GEOLOGICAL STRUCTURE CROSS-SECTIONS – Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**D.     SHALLOW HAZARDS REPORT – Proprietary Data (Omitted from PI Copy)**

Tesla Offshore LLC performed a site specific Geophysical Survey and Archaeological assessment of Block 69, Vermilion Area, Offshore, Louisiana in January 2005. The purpose of the survey was to evaluate geologic conditions and inspect for potential hazards or constraints to lease exploration and development.

Copies of the report are included with this plan.

**E.     SHALLOW HAZARDS ASSESSMENT – Proprietary Data (Omitted from PI Copy)**

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

**F.     HIGH RESOLUTION SEISMIC LINES – Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**G.     STRATIGRAPHIC COLUMN – Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**H.     TIME VERSUS DEPTH TABLES – Proprietary Data (Omitted from PI Copy)**

**PROPRIETARY DATA**

**I. ESTIMATED DEPTH OF GEOPRESSURE**

***PROPRIETARY DATA***

**J. HYDROGEN SULFIDE INFORMATION – Proprietary Data (Omitted from PI Copy)**

In accordance with Title 30 CFR 250.417(c), Apex requests Vermilion Block 69 be classified by the Minerals Management Service as an area where the absence of hydrogen sulfide has been confirmed based upon the following:

***PROPRIETARY DATA***

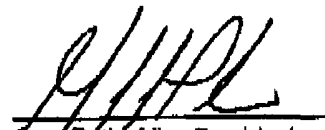


**VERMILION 69**  
**OCS-G 21591**  
**SHALLOW HAZARD STATEMENT**

During January of 2005, a high resolution geophysical survey of Vermilion 69 was performed by Tesla Offshore LLC. Instrumentation included a 500kHz dual channel side scan sonar, 200kHz echo sounder, chirp (2.0-16 kHz) subbottom profiler, a total field magnetometer and a sparker seismic source with a single channel streamer.

Recently, Apex Oil and Gas reviewed these data. The data indicate the proposed surface location to be clear of near surface faulting and near surface channels and shallow gas.

Apex Oil and Gas does not anticipate any shallow drilling problems and will operate this well in a safe and workmanlike manner.

  
\_\_\_\_\_  
Gary Patin, Vice President  
Apex Oil and Gas, Inc.

## **Appendix D**

### **BIOLOGICAL INFORMATION**

#### **CHEMOSYNTHETIC INFORMATION**

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

#### **TOPOGRAPHIC FEATURES INFORMATION**

MMS and the National Oceanic and Atmospheric Administration - Fisheries (NOAA-Fisheries) 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 NOAA-Fisheries.

A topographic feature does not affect the activities proposed in this plan.

#### **LIVE BOTTOM (PINNACLE TREND) INFORMATION**

MMS and the National Oceanic and Atmospheric Administration - Fisheries (NOAA-Fisheries) have entered into a programmatic consultation agreement for Essential Fish Habitat that relates to bottom-disturbing activities occurring within 100 feet of any pinnacle trend feature with vertical relief greater than or equal to 8 feet. If any bottom-disturbing activities are proposed (including anchors or cables from a semi-submersible drilling rig), within 100 feet of any pinnacle trend feature as defined above, the MMS is required to consult with the NOAA-Fisheries.

The activities proposed in this plan are not affected by a live bottom (pinnacle trend) stipulation.

#### **REMOTELY OPERATED VEHICLE (ROV) SURVEYS**

Vermilion Block 69 is not located in water depths  $\geq$  400 meters (1312 feet) and therefore does not require Apex to submit an ROV Monitoring Survey Plan.

**Appendix E**  
**WASTES AND DISCHARGES INFORMATION**

All offshore discharges associated with Apex's proposed operations will be conducted in accordance with the regulations implemented by Minerals Management Service (MMS), U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (EPA).

Apex has requested coverage under EPA Region VI NPDES General Permit GMG290176 by NOI dated February 10, 2005; which regulates overboard discharges, including restrictions and limitations of waste generated from oil and gas operations in the Western and Central Gulf of Mexico.

**A. Discharges**

The type and general characteristic of the wastes, the amount to be discharged (volume or rate), the maximum discharge rate, a description of any treatment or storage, and the discharge location and method for each type of discharge is provided for in tabular format as **Attachment E-1**.

**B. Disposed Wastes**

The type and general characteristics of the wastes, the amount to be disposed of (volume, rate, or weight), the daily disposal rate, the name and location of the disposal facility, a description of any treatment or storage, and the methods for transporting and final disposal is provided for in tabular format as **Attachment E-2**.

**Attachment E-1**  
**WASTE AND DISCHARGE INFORMATION**

**Projected Ocean Discharges:**

Type of Waste / approximate composition	Amount to be Discharged (volume, weight or rate)	Maximum Discharge Rate	Treatment and /or Storage, Discharge Location and Discharge Method
Water-based drilling fluids	2235 bbls / well	400 bbls/hr	VR 69 – discharged overboard
Drill cuttings associated with water-based fluids	894 bbls / well	400 bbls/hr	VR 69 – discharged overboard
Drill cuttings associated with synthetic drilling fluids	NA	NA	NA
Mud, cuttings and cement at the seafloor	Gel - 70 bbls WBM - 70bbls Cuttings – 70 bbls SW & caustic – 70 bbls	NA	VR 69 – discharged overboard
Sanitary wastes	20 gal/person/day	NA	VR 69- chlorinate and discharge
Domestic waste	30 gal/person/day	NA	VR 69 – remove floating solids and discharge
Deck drainage	3309 bbl/year Based on 65" / year rainfall average	102 bbl Based on 2" / hour of rainfall	VR 69 – filter oil and grease and discharge
Well treatment, workover or completion fluids	800 bbl/ well	100 bbl / hr	VR 69- Discharge used fluids overboard, return excess to shore for credit
Uncontaminated fresh or seawater	NA – Unmanned	NA	NA
Desalinization unit water	110 bbl/day (max unit capacity)	NA	VR 69 – discharge overboard
Uncontaminated bilge water	NA	NA	NA
Uncontaminated ballast water	NA	NA	NA

**Attachment E-2**  
**Projected Wastes to be Disposed of:**

Type of Waste / approximate composition	Amount (volume, weight or rate)	Rate per day	Name/Location of Disposal Facility	Treatment and /or Storage, Transport and Disposal Method
Spent oil-based drilling fluids and cuttings	NA	NA	NA	NA
Spent synthetic-based drilling fluids and cuttings	NA	NA	NA	NA
Waste Oil	NA	NA	NA	NA
Trash and debris	20 ft <sup>3</sup> / day	20 ft <sup>3</sup> / day	PHI or ELI Docks, Freshwater City, LA	Transport in storage bins on crew boat to shore base – Picked up at shore base and trucked to public facility

**Appendix F**  
**OIL SPILL INFORMATION**

**Information to Comply with the Oil Pollution Act of 1990 (OPA) and the Coastal Zone Management Act (CZMA)**

**A. Site-Specific OSRP**

Lease OCS-G 21591 is not located in the Eastern Gulf of Mexico therefore a site-specific OSRP is not required.

**B. Regional OSRP Information**

Apex Oil & Gas, Inc. is the only entity covered in their Regional Oil Spill Response Plan (OSRP) has been reviewed and approved on November 5, 2003 for period ending August 31, 2005. Recent updates were approved on September 22, 2004 and October 19, 2004. The Regional OSRP will cover activities proposed in this Initial EP.

**C. OSRO Information**

Apex's primary equipment provider is Clean Gulf Associates (CGA). The Marine Spill Response Corporation's (MSRC) STARS network will provide closest available personnel, as well as an MSRC supervisor to operate the equipment.

Apex has contracted Response Management Associates (RMA) to act as Incident Commander and Spill Management Team to provide trained personnel capable of providing rapid, efficient and comprehensive supervisory management of the oil spill response. RMA will direct the activities of Apex Oil & Gas, Inc.'s existing response plan and identify additional contractors as necessary for an adequate response. RMA will act as liaison with Apex's response contractors, equipment provider organization and other related consultants to achieve a coordinated, efficient response to the spill.

**D. Worst Case Scenario Comparison**

The worst-case discharge (WCD) proposed in this Initial EP does not supersede the worst-case discharge as approved in our Regional OSRP. See below:

Category	Regional OSRP	Initial EP
Type of Worst-case Scenario <sup>1</sup>	Drilling	Drilling
Facility Location (area/block)	VR 128	VR 69
Facility Designation <sup>2</sup>	MODU	MODU
Distance to Nearest Shoreline	27 miles	15 nautical miles
Worst-case Scenario Volume <sup>3</sup>		
Storage tanks (maximum capacity)		NA
Flowlines (maximum capacity)		NA
Lease term pipelines (calculated)		NA
Uncontrolled blowout (daily volume)	2250 bbls	1001 bbls
Total Worst-case Scenario Volume	<b>2250 bbls</b>	<b>1001 bbls</b>
Type of Oil (crude oil, condensate)	Gas	Diesel
API Gravity(s) <sup>4</sup>	48°	Unknown°

- <sup>1</sup> Types of worst-case discharge scenarios include (1) oil production platform, including caissons, subsea completions or manifolds, (2) exploratory or development drilling operations including subsea completion or manifold, and mobile drilling rig, and (3) pipeline facility (see 30 CFR 254.47(a),(b), and (c)).
- <sup>2</sup> E.g., Well No. 2, Platform JA, Pipeline Segment No. 6373.
- <sup>3</sup> Take your regional OSRP worst-case scenario volume from the appropriate section of your regional OSRP. For EP's, determine the worst-case scenario volume using the criteria at 30 CFR 254.47(b). For DOCD's, determine the worst-case scenario volume using the criteria at 30 CFR 254.47(a), (b), and (c), as appropriate.
- <sup>4</sup> Provide API gravity of each oil given under "Type of Oil" above. Estimate for EP's.

Since Apex has the capability to respond to the WCD spill scenario included in its Regional OSRP and since the WCD scenario determined for our Initial EP does not replace the WCD scenario determined for our Regional OSRP, I hereby certify that Apex Oil & Gas has the capability to respond, to the maximum extent practicable, to a WCD resulting from the activities proposed in this Initial EP.

### **Information for MMS to Comply with the National Environmental Policy Act (NEPA) and Coastal Zone Management (CZMA)**

#### **Facility tanks, production vessels**

Tanks with a capacity of 25 bbls or more of oil as defined at 30 CFR 254.6 are listed below.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
NA	NA	NA	NA	NA	NA

#### **Diesel oil supply vessels**

There will be no supply vessels required for the operations proposed in this exploration plan.

Size of Fuel Supply Vessel	Capacity of Fuel Supply Vessel	Frequency of Fuel Transfers	Route Fuel Supply Vessel will Take
NA	NA	NA	NA

#### **Support vessels fuel tanks**

Type of Vessel	Number in Field Simultaneously	Estimated Maximum Fuel Tank Storage Capacity
Tug boat(s)	0	140,000 gals
Supply boat(s)	1	25,000 - 35,000 gals
Service boat(s)	0	25,000 - 35,000 gals
Crew boat(s)	1	25,000 - 35,000 gals

#### **Produced Liquid Hydrocarbons Transportation Vessels**

If liquid hydrocarbons are produced, they will not be transported by means other than a pipeline.

### **Oil-base and synthetic-based drilling fluids**

Type of Fluid	Est. Vol. of Mud Used/Well	Mud Disposal Method	Est. Vol. of Cuttings Generated/Well	Cuttings Disposal Method
NA	NA	NA	NA	NA

### **Spill Response Sites**

Primary Response Equipment Location	Preplanned Staging Location(s)
Houma, LA and Lake Charles, LA	Morgan City, LA

### **Spill response Discussion for NEPA Analysis**

Should a WCD spill scenario occur from this exploration operation, Apex Oil & Gas, Inc.'s Qualified Individual (QI) would notify Response Management Associates (RMA) who will call together the Incident Command (IC) Team. The Incident Command Post would be determined. The IC would relay the actual conditions to determine the trajectory of the spill and the probability of impacting a land segment.

An over flight will be conducted to determine the extent of the spill and how quickly it is dissipating. Mechanical recovery (Skimmers) may include a fast response unit. If an offshore response is necessary, dispersants, if approved by the USCG would be applied by Airborne Support Inc. The dispersant rational would depend upon the size of the slick. PHI or Air Logistics would supply the spotter aircraft and spotter personnel.

If the spill went unabated, shoreline impact would depend upon existing environmental conditions. Onshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom on vegetated areas. Strategies would be based upon surveillance and real time trajectories that depict areas of potential impact given actual sea and weather conditions. Detailed spill response discussions are included in Appendix H of Apex Oil & Gas, Inc.'s Regional Oil Spill Response Plan.



The probability that an oil spill starting within West Cameron Block 442 and 447 will contact a County or Parish has been projected utilizing information from the MMS Oil Spill Risk Analysis Model (OSRAM). The results are as follows:

Area / Block	Lease No.	Launch Area	Land Segment	% Probability within 3 / 10 / 30 days
VR69	G-21591	34	Kenedy, TX	- / - / 1
			Kleberg, TX	- / - / 1
			Nueces, TX	- / - / 1
			Aransas, TX	- / - / 2
			Calhoun, TX	- / - / 3
			Matagorda, TX	- / 1 / 9
			Brazoria, TX	- / 1 / 5
			Galveston, TX	- / 4 / 12
			Jefferson, TX	- / 2 / 6
			Cameron, LA	- / 3 / 11
			Vermilion, LA	- / 1 / 3
			Iberia, LA	- / - / 1
			Terrebonne, LA	- / - / 1

NOTE:        "-" equals < .5 percent

Apex will make every effort to respond to the Worst Case Discharge as effectively as possible.

### **Pollution Prevention Measures**

Apex Oil & Gas, Inc. does not propose any additional safety, pollution prevention, or early spill detection measures beyond those required by 30 CFR 250.

Apex Oil & Gas, Inc. will utilize the best management practices available for ensuring all operations are performed in a safe and workmanlike conduct.

**Appendix G**  
**AIR EMISSIONS INFORMATION**

Included in this section, as **Attachment G-1** is the Projected Air Quality Emissions Report prepared in accordance with Appendix G of NTL No. 2003-G17 addressing drilling and potential completion and testing operations.

There are no existing facilities or activities co-located with the current proposed activities; therefore, the Complex Total Emissions are the same as the Plan Emissions.

Screening Questions for EP	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 other other air pollutants (where D = distance to shore in miles)?		X
Do 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 hours from any proposed well?		X
Do you propose to burn produced hydrocarbon liquids?		X

The following information was prepared by:

Kathy Camp  
K. Camp & Associates, Inc.  
713.201.9627  
Email: Kathy.camp@kcampassociates.com

**EXPLORATION PLAN (EP)**

OMB Control No. 1010-0049

**AIR QUALITY SCREENING CHECKLIST**

OMB Approval Expires: August 31, 2006

<b>COMPANY</b>	Apex Oil & Gas
<b>AREA</b>	Vermilion
<b>BLOCK</b>	69
<b>LEASE</b>	G-21591
<b>PLATFORM</b>	NA
<b>WELL</b>	A & B
<b>COMPANY CONTACT</b>	Kathy Camp
<b>TELEPHONE NO.</b>	713.201.9627
<b>REMARKS</b>	Drill, complete and test (2) wells

# SUMMARY

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
Apex Oil & Gas	Vermilion	69	G-21591	NA	A & B
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2005	5.88	27.00	203.00	6.67	48.02
Allowable	499.50	499.50	499.50	499.50	20679.49

## Appendix H

### ENVIRONMENTAL IMPACT ANALYSIS (EIA)

#### A. ENVIRONMENTAL IMPACT ANALYSIS MATRIX

ApexOil & Gas has placed an "X" in each IPF category that we believe (by using good engineering judgment) would be impacted by the activity proposed in this plan.

Environmental Resources	Impact Producing Factors (IPFs) Categories and Examples					
	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacements, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g., oil spills, chemical spills, H <sub>2</sub> S releases)	Other IPFs you identify
<b>Site-specific at Offshore Location</b>						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Chemosynthetic communities		(4)	(4)		(4)	
Water quality			X			
Fisheries			X	X		
Marine mammals	(8)X			X	(8)X	
Sea turtles	(8) X			X	(8) X	
Air quality	(9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric archaeological sites			(7)			
<b>Vicinity of Offshore Location</b>						
Essential fish habitat		X			(6) X	
Marine and pelagic birds	X			X	X	
Public health and safety					(5)X	
<b>Coastal and Onshore</b>						
Beaches				X	(6) X	
Wetlands					(6) X	
Shore birds and coastal nesting birds					(6) X	
Coastal wildlife refuges					X	
Wilderness areas					X	
<b>Other Resources You Identify</b>						
None						

#### Footnotes for Environmental Impact Analysis Matrix

1. Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:
  - (a) 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank,
  - (b) 1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;
  - (c) Essential Fish Habitat (EFH) criteria of 500 ft from any no-activity zone; or

- (d) Proximity of any submarine bank (500 ft buffer zone) with relief greater than 2 meters that is not protected by the Topographic Features Stipulation attached to an OCS lease.
2. Activities with any bottom disturbance within a OCS lease block protected through the Live Bottom (Pinnacle Trend) Stipulation attached to an OCS lease.
  3. Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low-Relief) Stipulation attached to an OCS lease.
  4. Activities on blocks designated by the MMS as being in water depths 400 meters or greater.
  5. Exploration or production activities where H<sub>2</sub>S concentrations greater than 500 ppm might be encountered.
  6. All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that you judge would impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA can note that in a sentence or two.
  7. All activities that involve seafloor disturbances, including anchor emplacements, in any OCS block designated by the MMS as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which your planned activity will occur. If the proposed activities are located a sufficient distance from a shipwreck or prehistoric site that no impact would occur, the EIA can note that in a sentence or two.
  8. All activities that you determine might have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.
  9. Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges.

## B. ANALYSIS

### Site-specific at Offshore Location

#### 1. Designated Topographic Features

The topographic features of the Central Gulf provide habitat for coral reef community organisms. Since 1973 stipulations have been made a part of leases on or near these biotic communities so that impacts from nearby oil and gas activities were mitigated to the greatest extent possible. This stipulation does not prevent the recovery of oil and gas resources, but serves to protect valuable and sensitive biological resources.

There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities in Vermilion Block 69 that could cause impacts to topographic features. There are no topographic features located near the site-specific offshore location of the proposed activities. The nearest topographic feature is the Sonnier Bank located with Vermilion South Area Block 305 over 60 miles away.

It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. Since the crests of designated topographic features in the northern Gulf are found below 10 meters, concentrated oil from a surface spill is not expected to reach their sessile biota. Even if a subsurface spill were to occur very near a designated topographic feature, subsurface oil should rise to the surface, and any oil remaining at depth would probably be swept clear of the bank by currents moving around the bank.

The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

#### 2. Pinnacle Trend Area Live Bottoms

A small portion of the northeastern Central Planning Area includes portions of 70 lease blocks that are characterized by a pinnacle trend. The pinnacle trend extends into the northwest portion of the Eastern Planning Area. The pinnacles are a series of topographic irregularities with variable biotal coverage, which provide structural habitat for a variety of pelagic fish. The Live Bottom (Pinnacle Trend) Stipulation is intended to

protect the pinnacle trend and associated hard-bottom communities from damage and, at the same time, provide for recovery of potential oil and gas resources.

There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities in Vermilion Block 69 that could cause impacts to pinnacle trend area live bottoms. The nearest pinnacle trend live-bottom stipulated block occurs in Main Pass Area Block 290.

It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. Any surface oil spill resulting from the proposed action would likely have no impact on the biota of the pinnacle trend because the crests of these features are much deeper than 20 meters. Even if a subsurface spill were to occur very near pinnacle trend live bottom areas, subsurface oil should rise in the water column, surfacing almost directly over the source location and thus not impact pinnacles.

The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

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

A small portion of the northeastern Central Planning Area includes portions of 70 lease blocks that are characterized by a pinnacle trend. The pinnacle trend extends into the northwest portion of the Eastern Planning Area. The pinnacles are a series of topographic irregularities with variable biotal coverage, which provide structural habitat for a variety of pelagic fish. The Live Bottom (Pinnacle Trend) Stipulation is intended to protect the pinnacle trend and associated hard-bottom communities from damage and, at the same time, provide for recovery of potential oil and gas resources.

There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities in Vermilion Block 69 that could cause impacts to Eastern Gulf live bottoms. The nearest live-bottom stipulation occurs in Main Pass Area Block 290.

It is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. Any surface oil spill resulting from the proposed action would not be expected to cause adverse impacts to Eastern Gulf live bottoms because of the depth of the features and dilution of spills (by currents and / or quickly rising oil).

The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

### **4. Chemosynthetic Communities**

There are no IPF's (including effluents, physical disturbances to the seafloor, and accidents) from the proposed activities in Vermilion Block 69 that could cause impacts to Chemosynthetic Communities.

Chemosynthetic biologic communities that lie in water depths in excess of 400 meters (1312 feet) are of concern for environmental protection measures. Water depth in Block 69 varies from 21 to 23 feet. The site-specific offshore location of the proposed activity is in water depths less than 400 meters (1312 feet).

## **5. Water Quality**

Effluents, physical disturbances to the seafloor and accidents from the proposed activities in Vermilion Block 69 could potentially cause impacts to water quality. Routine impact-producing factors that could result in water quality degradation from offshore OCS oil and gas operations include rig / anchor emplacement, platform and pipeline installation and removal, and the discharge of operational wastes.

***There are no platforms or pipeline proposed for installation under this plan.***

With regards to marine trash and debris, effective June 19, 2003, the Minerals Management Service issued NTL 2003-G11 pursuant to 30 CFR 250.103 to provide guidance and assist the operators in preventing intentional and / or accidental introduction of trash and debris into the marine environment. With this assistance and with laws such as MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U.S. Coast Guard and the U.S. Environmental Protection Agency, our employees will ensure that all offshore personnel, including contractors and other support services-related personnel have complete understanding of the requirement that Operators be proactive in avoiding accidental loss of solid waste items on the OCS.

The activities proposed in this plan will be covered by our Regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

## **6. Fisheries**

Effects on commercial fisheries from activities associated with this plan could come from emplacement of production platform(s), underwater OCS obstructions, oil spills, and subsurface blowouts (See Section 5, Water Quality above).

An accidental oil spill that may occur as a result of the proposed action in Vermilion Block 69 has the potential to cause some detrimental effects to fisheries. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. If a spill were to occur in open waters of the OCS proximate to mobile adult 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. The effect of oil spills on fisheries is expected to cause less than 1 percent decrease in commercial populations or in commercial fishing. At the expected level of effect, the resultant influence on Central Gulf fisheries is negligible and will be indistinguishable from natural population variations. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

## **7. Marine Mammals**

Marine mammals may be adversely impacted by several IPF's (including vessel traffic, noise, accidental oil spills, and loss of trash and debris, all of which could occur due to the proposed action in Vermilion Block 69. 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 anthropogenic sources. Few lethal effects are expected from oil spills, chance collisions with service vessels and ingestion of plastic material. Oil spills of any size are estimated to be aperiodic events that may contact cetaceans. Disturbance (e.g., noise) may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal.

The net result 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 ships 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.

The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

The Minerals Management Service issued NTL 2003-G10 pursuant to 30 CFR 250.103, 250.23(o) and 250.204(s) to explain how Operators must implement measures to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species effective June 19, 2003. We will ensure that our contract vessel operators are aware of their requirement to report sightings of any injured or dead protected species immediately to the MMS Protected Species Biologist by telephone.

With regards to marine trash and debris, effective June 19, 2003, the Minerals Management Service issued NTL 2003-G11 pursuant to 30 CFR 250.103 to provide guidance and assist the operators in preventing intentional and / or accidental introduction of trash and debris into the marine environment. With this assistance and with laws such as MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U.S. Coast Guard and the U.S. Environmental Protection Agency, our employees will ensure that all offshore personnel, including contractors and other support services-related personnel have complete understanding of the requirement that Operators be proactive in avoiding accidental loss of solid waste items on the OCS.

## **8. Sea Turtles**

IPF's that could impact sea turtles include vessel traffic, noise, trash and debris, and accidental oil spills. 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 drill rigs, production facilities, and service vessels. Drilling rigs and project vessels produce noise that could disrupt normal behavior patterns and create some stress potentially making sea turtles more susceptible to disease. Oil spills and oil-spill-response activities are potential threats that could have lethal effects on turtles. Contact with oil, consumption of oil particles, and oil-contaminated prey could seriously affect individual sea turtles. Oil-spill-response planning and the habitat protection requirements of the Oil Pollution Act of 1990 should mitigate these threats.

Most OCS-related impacts on sea turtles are expected to be sublethal. Chronic sublethal effects (e.g., stress) resulting in persistent physiological or behavioral changes and / or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines.

The activities proposed in this plan for Vermilion Block 69 will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F). The Minerals Management Service issued NTL 2003-G10 pursuant to 30 CFR 250.103, 250.23(o) and 250.204(s) to explain how Operators must implement measures to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species effective June 19, 2003. We will ensure that our contract vessel operators are aware of their requirement to report sightings of any injured or dead protected species immediately to the MMS Protected Species Biologist by telephone.

With regards to marine trash and debris, effective June 19, 2003, the Minerals Management Service issued NTL 2003-G11 pursuant to 30 CFR 250.103 to provide guidance and assist the operators in preventing intentional and / or accidental introduction of trash and debris into the marine environment. With this assistance and with laws such as MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U.S. Coast Guard and the U.S. Environmental Protection Agency, our employees will ensure that all offshore personnel, including contractors and other support services-related personnel have complete understanding of the requirement that Operators be proactive in avoiding accidental loss of solid waste items on the OCS.

## **9. Air Quality**

There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities in Vermilion Block 69. The Projected Air Quality Emissions Report (Attachment G-1) indicates that the MMS exemption level will not be exceeded during the operations proposed in the Exploration Plan. There are no existing facilities or activities co-located with the current proposed activities; therefore, the Complex Total Emissions are the same as the Plan Emissions.

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

There are no IPF's (including physical disturbances to the seafloor) from the proposed activities that could cause impacts to known or potential shipwreck sites. The proposed activities are located in an OCS Block designated by MMS as having high-probability for the occurrence of shipwrecks and review of the Shallow Hazards and Archaeological Report (submitted in accordance with NTL 2003-G17, Appendix C, and NTL 98-20) indicates there is no known or potential shipwreck sites located within the survey.

Tesla Offshore LLC performed a site specific survey on Vermilion Block 69 during January 2005. The magnetometer and side scan sonar records were reviewed for evidence of shipwrecks within the survey grid. No side scan sonar contacts of possible shipwrecks occurred within the survey grid.

However, in the event items of significant cultural resource potential are discovered during the proposed operations, Apex will immediately halt all operations and notify the appropriate department at the Minerals Management Service for further evaluation and assistance.

## **11. Prehistoric Archaeological Sites**

There are no IPF's (including physical disturbances to the seafloor) from the proposed activities that could cause impacts to prehistoric archaeological sites. The proposed activities are located in an OCS Block designated by MMS as having high-probability for the occurrence of prehistoric archaeological sites. A review of the Shallow Hazards and Archaeological Report prepared by Tesla Offshore indicates that this survey area does not contain any in situ prehistoric archaeological sites.

In the event items of significant cultural resource potential are discovered during the proposed operations, Apex will immediately halt all operations and notify the appropriate department at the Minerals Management Service for further evaluation and assistance.

### **Vicinity of Offshore Location:**

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

IPF's that could impact essential fish habitats as a result of the proposed operations in Vermilion Block 69 include effluents and accidents. The major effluent discharges from offshore oil and gas exploration and production activities include produced water, drilling fluids and cuttings, ballast water, and uncontaminated seawater (see Section 5, Water Quality, above). Minor discharges from the offshore oil and gas industry include drilling-waste chemicals, fracturing and acidifying fluids, and well completion and workover fluids; and from production operations, deck drainage, and miscellaneous well fluids (cement, BOP fluid); and other sanitary and domestic wastes, gas and oil processing wastes, and miscellaneous discharges. Since all discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency (USEPA), operational discharges are not expected to cause significant adverse impacts to water quality.

An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects on essential fish habitat. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities.

Offshore oil spillage from OCS operations is small compared with the volume of oil produced. Since 1980, OCS operators have produced about 5.5 BBO of oil, while the amount of oil spilled offshore totaled about 61,500 bbl (0.001%) or 1 bbl spilled for every 89,500 produced. In 1994, MMS revised its oil-spill occurrence rates for large spills (Anderson and LaBell3, 1994). An examination of the two major sources of OCS-related offshore spills (platforms and pipelines) shows that the greater risk of a large spill is from a pipeline. There have been no spills  $\geq 1000$  bbls from OCS platforms since 1980.

If a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of damage would be limited and lessened due to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

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

IPF's that could impact marine and pelagic birds as a result of the proposed operations in Vermilion Block 69 include air emissions, accidents and discarded trash and debris. Emissions of pollutant into the atmosphere from the activities associated with the proposed operations in this plan are not projected to have significant impacts on air quality that could harm marine and pelagic birds because of the prevailing atmospheric conditions, emission heights, emission rates and pollutant concentrations.

An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects on marine and pelagic birds. Some physical oiling could occur during dives, as well as secondary toxic effects through the uptake of prey. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

With regards to marine trash and debris, coastal and marine birds can commonly become entangled and snared in discarded trash and debris. Effective June 19, 2003, the Minerals Management Service issued NTL 2003-G10 pursuant to 30 CFR 250.103 to provide guidance and assist the operators in preventing intentional and / or accidental introduction of trash and debris into the marine environment. With this assistance and with laws such as MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U.S. Coast Guard and the U.S. Environmental Protection Agency, our employees will ensure that all offshore personnel, including contractors and other support services-related personnel have complete understanding of the requirement that Operators be proactive in avoiding accidental loss of solid waste items on the OCS.

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

The primary IPF that could cause impacts to public health and safety from the proposed activity in Vermilion Block 69 is an accidental H<sub>2</sub>S release.

In accordance with 30 CFR 250.417(c) and NTL 2003-G17 (Appendix C) Apex has submitted sufficient information to justify our request that the area of proposed activities be classified by MMS as H<sub>2</sub>S absent.

## Coastal and Onshore:

### 1. Beaches

Primary IPF's associated with offshore oil and gas exploration and development, and most widely recognized as major threats to the enjoyment and use of recreational beaches, are oil spills (accidents) and marine trash and debris. The operations proposed in Vermilion Block 69 are not projected to have significant impacts on coastal beaches.

An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects on coastal beaches. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. Apex is aware of the close proximity of Vermilion Block 69 to shore (15 miles). The level of response to a spill will be based on volume, weather, and the characteristics of the product spilled. Apex's objectives for spill response are to ensure the safety of citizens and response personnel; control the source of the spill, have a coordinated response effort; maximize the protection of environmental sensitive areas; contain, recover and remove as much of the spill product as possible; recover and rehabilitate injured wildlife; minimize economic impacts; and keep the general public informed of the response activities. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

With regards to marine trash and debris, effective June 19, 2003, the Minerals Management Service issued NTL 2003-G11 pursuant to 30 CFR 250.103 to provide guidance and assist the operators in preventing intentional and / or accidental introduction of trash and debris into the marine environment. With this assistance and with laws such as MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the U.S. Coast Guard and the U.S. Environmental Protection Agency, our employees will ensure that all offshore personnel, including contractors and other support services-related personnel have complete understanding of the requirement that Operators be proactive in avoiding accidental loss of solid waste items on the OCS.

### 2. Wetlands

The primary IPF associated with offshore oil and gas exploration and development, and most widely recognized as major threats to the wetlands are oil spills (accidents). The operations proposed in this plan are not projected to have significant impacts on wetlands.

The probability that an oil spill starting within Vermilion Block 69 will contact a County or Parish (thereby encountering any wetlands within same) has been projected utilizing information from the MMS Oil Spill Risk Analysis Model (OSRAM). The results can be found in Appendix F of this plan, under the "Spill Response Discussion for NEPA Analysis".

If the spill went unabated, shoreline impact would depend upon existing environmental conditions. Onshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom on vegetated areas. Strategies would be based upon surveillance and real time trajectories that depict areas of potential impact given actual sea and weather conditions. Detailed spill response discussions are included in

Appendix H of Apex Oil & Gas, Inc.'s Regional Oil Spill Response Plan. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

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

The primary IPF associated with offshore oil and gas exploration and development, and most widely recognized as major threats to the shore birds and coastal nesting birds are oil spills (accidents). The operations proposed in this plan are not projected to have significant impacts on shore birds and coastal nesting birds.

An accidental oil spill that may occur as a result of the proposed action in Vermilion Block 69 has the potential to cause some detrimental effects on shore birds and coastal nesting birds. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. Apex is aware of the close proximity of Vermilion Block 69 to shore (15 miles). The level of response to a spill will be based on volume, weather, and the characteristics of the product spilled. Apex's objectives for spill response are to ensure the safety of citizens and response personnel; control the source of the spill, have a coordinated response effort; maximize the protection of environmental sensitive areas; contain, recover and remove as much of the spill product as possible; recover and rehabilitate injured wildlife; minimize economic impacts; and keep the general public informed of the response activities. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

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

The primary IPF associated with offshore oil and gas exploration and development, and most widely recognized as major threats to the coastal wildlife refuges are oil spills (accidents). The operations proposed in this plan are not projected to have significant impacts on coastal wildlife refuges.

The probability that an oil spill starting within Vermilion Block 69 will contact a County or Parish (thereby encountering any coastal wildlife refuges within same) has been projected utilizing information from the MMS Oil Spill Risk Analysis Model (OSRAM). The results can be found in Appendix F of this plan, under the "Spill Response Discussion for NEPA Analysis".

If the spill went unabated, shoreline impact would depend upon existing environmental conditions. Onshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom on vegetated areas. Strategies would be based upon surveillance and real time trajectories that depict areas of potential impact given actual sea and weather conditions. Detailed spill response discussions are included in Appendix H of Apex Oil & Gas, Inc.'s Regional Oil Spill Response Plan. The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

## 5. Wilderness Areas

The primary IPF associated with offshore oil and gas exploration and development, and most widely recognized as major threats to wilderness areas are oil spills (accidents). The only wilderness area in Louisiana, as designated by Congress, is Kisatchie Hills, which is located in central Louisiana, hundreds of miles from the proposed activity and land locked. The operations proposed in this plan are not projected to have significant impacts on wilderness areas.

The activities proposed in this plan will be covered by our regional OSRP (refer to information submitted in accordance with NTL 2003-G17 Appendix F).

Other Environmental Resources Identified:      None

## C. IMPACTS ON YOUR PROPOSED ACTIVITIES

The site-specific environmental conditions have been taken into account for the proposed activities under this plan. No impacts are expected on the proposed activities from site-specific environmental conditions.

A Shallow Hazards and Archaeological Report is being submitted to the Minerals Management Service with this plan. A Shallow Hazards Assessment of any seafloor and subsurface geological manmade features and conditions that may adversely affect operations is included elsewhere in this Plan.

## D. ALTERNATIVES

No alternatives to the proposed activities described in this Initial EP were considered to reduce environmental impacts.

## E. MITIGATION MEASURES

No mitigation measures other than those required by regulation will be considered to avoid, lessen or eliminate potential impacts on environmental resources.

## F. CONSULTATION

Robert J. Floyd with Tesla Offshore LLC was consulted regarding the potential environmental impacts associated with the activities proposed under this Initial EP.

## G. REFERENCES

Although not always cited, the following were utilized in preparing the EIA:

Site Specific Geophysical Survey and Archaeological Report of Block 69, Vermilion Area, OCS-G 21591, prepared for Apex Oil & Gas, Inc. by Tesla Offshore LLC during January 2005.

Gulf of Mexico OCS Oil and Gas Lease Sales 169, 172, 175, 178, 182 and 185; Central Planning Area, Final EIS (OCS EIS/EA MMS 97-0033)

Gulf of Mexico OCS Oil and Gas Lease Sales 2003-2007; Central and Western Planning Area Sales; Final EIS (OCS EIS/EA MMS 2002-052)

Brief Overview of Gulf of Mexico OCS Oil and Gas Pipelines: Installation, Potential Impacts, and Mitigation Measures, OCS Report MMS 2001-067.

NTL 2003-G11, effective June 19, 2003, for Marine Trash and Debris Awareness and Elimination

NTL 2003-G10, effective June 19, 2003 for Vessel Strike Avoidance and Injured / Dead Protected Species Reporting

NTL 2003-G17, effective August 27, 2003 for Information Requirements for Exploration Plans and Development Operations Coordination Documents

U.S. Department of the Interior, Minerals Management Service, Visual No. 3, MMS 2001-074, October 2001.



**Appendix I**  
**Coastal Zone Management Consistency Information**

The States of Texas, Louisiana, Mississippi, Alabama and Florida have federally approved coastal zone management programs (CZMP). Applicants for an OCS plan submitted to the Minerals Management Service must provide a certification with necessary data and information for the affected State to determine that the proposed activity(s) complies with the enforceable policies of each States' approved program, and that such activity will be conducted in a manner consistent with the program.

A Coastal Zone Management Consistency Certification for the State of Louisiana is required for the exploratory activities proposed in this plan and is included as **Attachment I-1**.

**COASTAL ZONE MANAGEMENT**  
**CONSISTENCY CERTIFICATION**  
**INITIAL EXPLORATION PLAN**  
**Vermilion Block 69**  
**LEASE OCS-G 21591**

The proposed activities described in detail in this OCS Plan comply with Louisiana's approved Coastal Management Program and will be conducted in a manner consistent with such Program.

Apex Oil & Gas, Inc.  
Lessee or Operator

Gary J. Patin /Kc  
Gary J. Patin  
Certifying Official

February 10, 2005  
Date

**Appendix J**  
**OCS Plan Information Form**

An OCS Plan Information Form was prepared in accordance with the requirements in Appendix J of NTL 2003-G17 and is included as **Attachment A-1**.