UNITED STATES GOVERNMENT
MEMORANDUM

July 25, 2005

To: Public Information (MS 5034)

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

Subject: Public Information copy of plan

Control #	-	S-06726
Type	-	Supplemental Exploration Plan
Lease(s)	-	OCS-G15201 Block - 281 Vermilion Area
Operator	-	St. Mary Energy Company
Description	-	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.

Robert Stringfellow
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/A	G15201/VR/281	2214 FNL, 4825 FWL	G15201/VR/281
WELL/B	G15201/VR/281	2214 FNL, 4835 FWL	G15201/VR/281

NOTED - SCHEXNAILDRE

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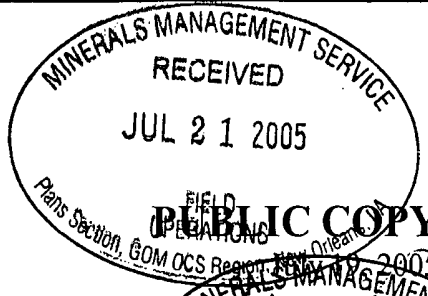

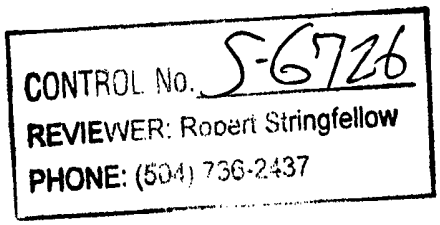

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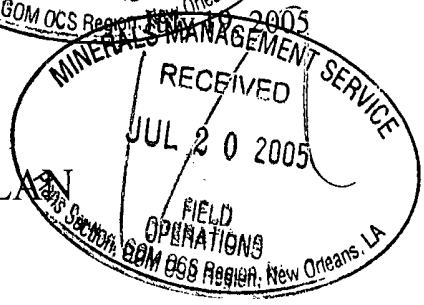


SUPPLEMENTAL EXPLORATION PLAN

Lease Number:	OCS-G 15201
Area/Block:	Vermilion Block 281
Prospect Name:	N/A
Offshore:	Louisiana

Submitted by:

St. Mary Energy Company
580 Westlake Park Blvd.
Suite 600
Houston, TX 77079

Scott Truby / Doug Selvius
(281) 677-2777 / (281) 677-2790
struby@stmaryland.com /
dselvius@stmaryland.com

Estimated start up date: October 1, 2005

Authorized Representative:

Cheryl Murphy / Carol Garcia
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
Cheryl.Murphy@jccteam.com

No. Copies Being Submitted:

Proprietary:	5
Public Info:	3
For MMS:	
Plan No.	
Assigned to:	

ST. MARY ENERGY COMPANY

SUPPLEMENTAL EXPLORATION PLAN

LEASE OCS-G 15201

VERMILION BLOCK 281

APPENDIX A	*Contents of Plan*
APPENDIX B	*General Information*
APPENDIX C	*Geological, Geophysical & H_2S Information*
APPENDIX D	*Biological and Physical Information*
APPENDIX E	*Wastes and Discharge Information*
APPENDIX F	*Oil Spill Information*
APPENDIX G	*Air Emissions Information*
APPENDIX H	*Environmental Impact Analysis*
APPENDIX I	*Coastal Zone Management Consistency Information*
APPENDIX J	*OCS Plan Information Form*

APPENDIX A
CONTENTS OF PLAN

St. Mary Energy Company (SMEC) is the designated operator of the subject oil and gas lease.

(A) DESCRIPTION, OBJECTIVES AND SCHEDULE

Appendix J contains a Plan Information Form, which provides a description of proposed activities, objectives and a tentative schedule.

(B) LOCATION

Included as ***Attachment A-1*** is a map showing the locations of proposed wells. Water depths are also indicated on the map. Additional well information is included on the OCS Plan Information Form.

(C) DRILLING UNIT

A description of the drilling unit is included on the OCS Plan Information Form. Rig specifications will be made part of each Application for Permit to Drill.

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

Operator will ensure employees and contractor personnel engaged in well control operations understand and can properly perform their duties.

Pollution prevention measures include installation of curbs, gutters, drip pans, and drains on drilling deck areas to collect all contaminants and debris.

SMEC does not propose additional safety, pollution prevention, or early spill detection measures beyond those required by 30 CFR 250.

A Surf
WD=172'
B Surf
WD=172'

281

LOCATION	CALLNS	CALLEW	X COORDINATE	Y COORDINATE	LATITIUDE	LONGITUDE	WD	TVD	MD
A SURF	2214' FNL	4825' FWL	1,591,660	-68,340	28°28'21.117"N	-92°36'14.128"W	172'		
A BHL									
B SURF	2214' FNL	4835' FWL	1,591,670	-68,340	28°28'21.118"N	-92°36'14.016"W	172'		
B BHL									

2000 0 2000 ft

St. Mary Land & Exploration Company

EXPLORATION PLAN
OCS-G-15201
BLOCK 281
VERMILION AREA
GULF OF MEXICO

GEODETIC DATUM: NAD 1927
PROJECTION: LAMBERT, LOUISIANA SOUTH
GRID UNITS: FEET

APPENDIX B
GENERAL INFORMATION

(A) CONTACT

Inquiries may be made to the following authorized representative:

Cheryl Murphy / Carol Garcia
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
E-mail address: Cheryl.Murphy@jccteam.com

(B) PROSPECT NAME

Not applicable.

(C) NEW OR UNUSUAL TECHNOLOGY

SMEC does not propose to use any new or unusual technology to carry out the proposed exploration activities. New or unusual technology is defined as equipment and/or procedures that:

1. Function in a manner that potentially causes different impacts to the environment than the equipment or procedures did in the past;
2. Have not been used previously or extensively in an MMS OCS Region;
3. Have not been used previously under the anticipated operating conditions; or
4. Have operating characteristics that are outside the performance parameters established by 30 CFR 250.

(D) BONDING INFORMATION

The bond requirements for the activities and facilities proposed in this EP are satisfied by an area wide bond, furnished and maintained according to 30 CFR 256, Subpart I; NTL No. 2000-G16, "Guidelines for General Lease Surety Bonds", dated September 7, 2000.

(E) ONSHORE BASE AND SUPPORT VESSELS

A Vicinity Map is included as ***Attachment B-1***, showing Vermilion Block 281 located approximately 76 miles from the nearest shoreline and approximately 101 miles from the onshore support base in Cameron, Louisiana.

The existing onshore base provides 24-hour service, a radio tower with a phone patch, dock space, equipment, and supply storage area, drinking and drill water, etc. The base serves as a loading point for tools, equipment, and machinery, and temporary storage for materials and equipment. The base also supports crew change activities. The proposed operations do not require expansion or major modifications to the base.

During the proposed activities, support vessels/helicopters and travel frequency are as follows:

Type	Weekly Estimate (No.) of Roundtrips
Crew Boat	7
Supply Boat	4
Helicopter	10

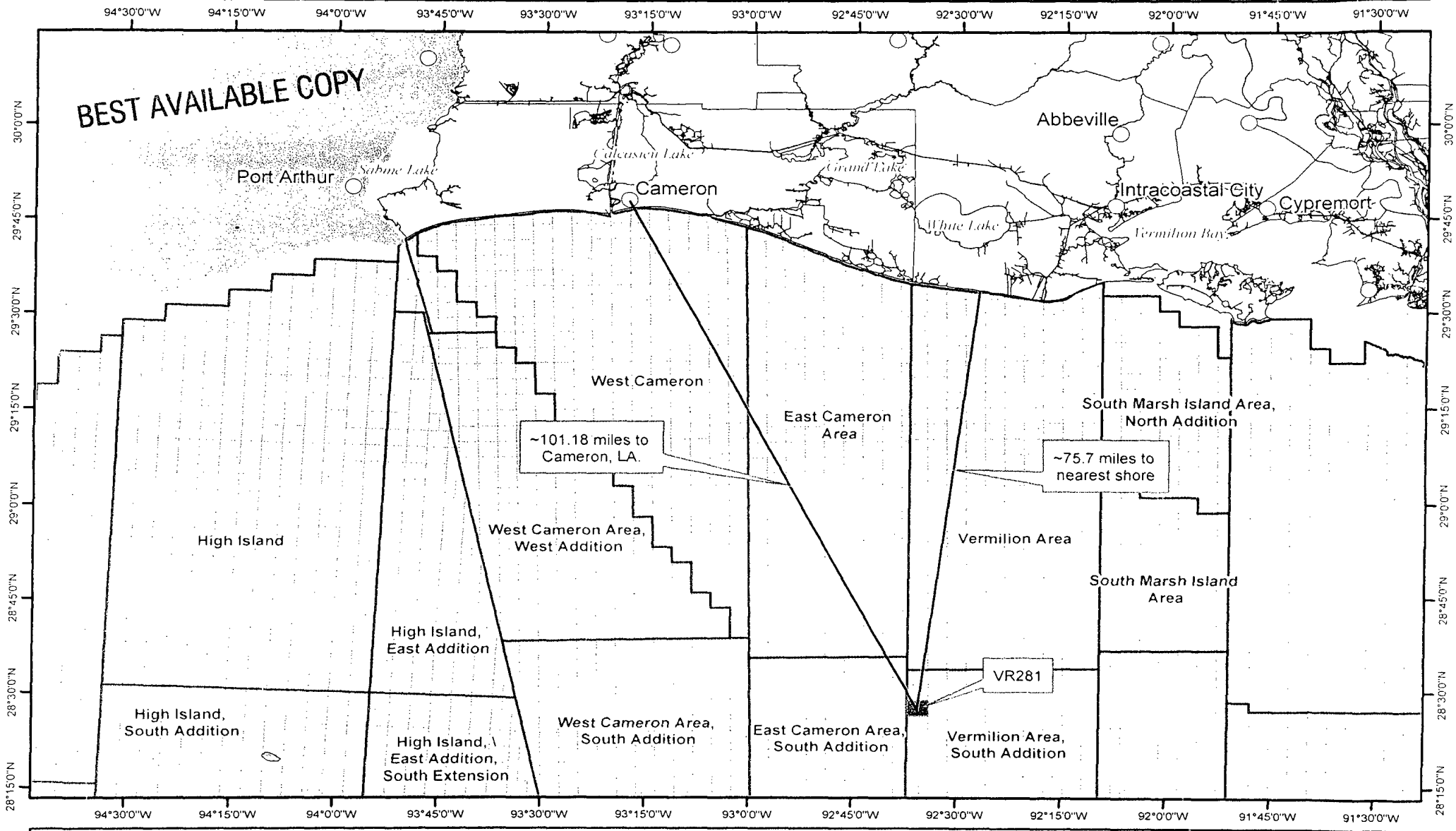
The most practical, direct route from the shorebase as permitted by weather and traffic conditions will be utilized.

(F) LEASE STIPULATION

The MMS did not invoke lease stipulations for Lease OCS-G 15201, Vermilion Block 281.

Vermilion Block 281 is located within designated MWA-W59. The Naval Air Station – JRB 159 Fighter Wing will be contacted in order to coordinate and control the electromagnetic emissions during the proposed operations.

St. Mary Energy Company VR281



Approx. 101.18 miles to shorebase located in Cameron, Louisiana.
Approx 75.7 miles to closest shore.

0 20 40 80 Miles

J. Connor Consulting, Inc.

APPENDIX C
GEOLOGICAL, GEOPHYSICAL, AND H_2S INFORMATION

(A) STRUCTURE CONTOUR MAPS
Proprietary data

(B) TRAPPING FEATURES
Proprietary data

(C) INTERPRETED 3-D SEISMIC LINES
Proprietary data

(D) GEOLOGICAL STRUCTURE CROSS-SECTIONS
Proprietary data

(E) SHALLOW HAZARDS REPORT
A shallow hazards survey was conducted over Vermilion Block 281. Two copies of a shallow hazard report are being submitted to the MMS under separate cover.

(F) SHALLOW HAZARDS ASSESSMENT
A shallow hazards assessment has been prepared for each proposed surface location, evaluating seafloor and subsurface geological and manmade features and conditions that may adversely affect drilling operations, and is included as ***Attachment C-4.***

(G) HIGH-RESOLUTION SEISMIC LINES
Proprietary data

(H) STRATIGRAPHIC COLUMN
Proprietary data

(I) TIME VS DEPTH TABLES
Proprietary data

(J) HYDROGEN SULFIDE INFORMATION
In accordance with Title 30 CFR 250. 490(c) and NTL No. 2003-G17, SMEC requests that Vermilion Block 281 be classified by the MMS as H_2S absent.

FUGRO GEOSERVICES, INC.

200 Dulles Drive
Lafayette, Louisiana 70506
Phone: (337) 237-2636
Fax: (337) 268-3221

July 7, 2005

St. Mary Energy
580 Westlake Park Blvd.
Suite 600
Houston, TX 77079

Attention: Scott Truby

Re: Exploration Plan – Site Clearance Letter
Proposed "A" Well Surface Location
Block 281 (OCS-G-15201)
Vermilion Area, Gulf of Mexico
Job No. 2405-1213 (based on Job No. 2405-1149)

Fugro GeoServices, Inc. was contracted by St. Mary Energy to assess seafloor and subbottom conditions at the proposed "A" well surface location in Block 281, Vermilion Area (VR 281). The survey area lies within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed location. The proposed surface location has been projected on the attached Bathymetry Map and Hazard Map from the original May 2005 report.

Introduction

NTL-98-20 stipulate that analysis of hazards for Exploration Plans (EP's) may be made from available geophysical and geological data. The proposed well is located within coverage provided by a 2005 Hazard Survey of Block 281, Vermilion Area conducted for St. Mary Energy by Fugro GeoServices, Inc. The survey was performed aboard the *M/V Universal Surveyor* during May 12, 2005. Sea conditions during data acquisition were moderate with winds of about 10 - 15 knots and seas from 3 to 4 feet. The quality of the collected geophysical data was good, and the data were adequate for interpretation. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

Geophysical systems included the: Simrad E.A. 500 fathometer; Seacat SBE19-01 velocimeter, O.R.E. Model 140 3.5 kHz subbottom profiler; SeaSpy GSM-19MD marine magnetometer, EdgeTech 260-TH side scan sonar, and Seismic Systems, Inc. GI GUN®.

The survey grid consisted of 8 east-west primary tracklines (Lines S100 – S107) spaced 300 meters (~984 feet) apart and seven north-south tielines (Lines S200 – S206) spaced 800 meters (~2,624 feet) apart. Survey Lines S100 and S205 were rerun to provide better data quality. The reruns are designated with an "A" following the original line number. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps and geophysical data. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems. The final report was prepared in May of 2005 by Michael Samson, Senior Geologist.

All aspects of the survey and this Exploration Plan follow current Minerals Management Service Guidelines. The following hazard analysis was determined from the prior interpretation and related maps, tables, and figures. St. Mary Energy proposes to drill the "A" surface location within VR 281 at:

2,213.57' FNL, 4,849.95' FWL
X = 1,591,660.00', Y = -68,340.00'
Latitude: 28° 28' 21.109"N, Longitude: 92° 36' 14.111"W

Geological Interpretation

- Harmonic mean velocities were calculated from the velocimeter readings and applied to each datum in order to convert record time to feet below sea level. Projected tidal variations from Lighthouse Point, Louisiana tide station were also utilized to adjust the bathymetric readings to the Mean Lower Low Water (MLLW) tide level for the area. The water depth at the proposed location is -172 feet MLLW.
- The side scan sonar records exhibit a predominantly smooth seafloor that slopes to the southeast at about 4 feet-per-mile (0.04°), Bottom sediments are reported to be silty clay (Minerals Management Service, Visual No. 3, 1983).
-
- Buried channels boundaries within 1 foot of the seafloor were seen about 600 feet to the northwest and 800 feet to the east of the proposed location. Acoustic voids were seen about 500 feet to the southwest and 1,000 feet to the northeast of the proposed location.
- Local variations in sediment shear strengths could present a stability problem for bottom-supported structures that straddle the margins of the channels and acoustic voids illustrated on Map 2. Avoidance of these sites is strongly recommended.
- The closest known man-made feature is the Col-Gulf 30-Inch Pipeline, approximately 1,200 feet southeast of the Proposed "A" Location.
- No sonar contacts were recorded within 1,000 feet of the proposed location.
- No unidentified magnetic anomalies were recorded within 1,000 feet of the proposed location.
- The analog air gun seismic records were not suitable for interpretation. Processed air gun data collected in the vicinity of the proposed well site should be inspected for evidence of potential gas anomalies and faults prior to drilling.

Conclusions

Based on the previous interpretation, the proposed "A" surface location is clear of any debris or obstacles to drilling activities. For additional information, please refer to the May 2005 Hazard Report.

Thank you, and please call me at 337-268-3246 if you have any questions or need additional information.

Sincerely,

Michael Samson
Senior Geologist

FUGRO GEOSERVICES, INC.

200 Dulles Drive
Lafayette, Louisiana 70506
Phone: (337) 237-2636
Fax: (337) 268-3221

July 7, 2005

St. Mary Energy
580 Westlake Park Blvd.
Suite 600
Houston, TX 77079

Attention: Scott Truby

Re: Exploration Plan – Site Clearance Letter
Proposed "B" Well Surface Location
Block 281 (OCS-G-15201)
Vermilion Area, Gulf of Mexico
Job No. 2405-1213 (based on Job No. 2405-1149)

Fugro GeoServices, Inc. was contracted by St. Mary Energy to assess seafloor and subbottom conditions at the proposed "B" well surface location in Block 281, Vermilion Area (VR 281). The survey area lies within the Louisiana South coordinate system. This letter is intended to address specific seafloor and subbottom conditions within 1,000 feet of the proposed location. The proposed surface location has been projected on the attached Bathymetry Map and Hazard Map from the original May 2005 report.

Introduction

NTL-98-20 stipulate that analysis of hazards for Exploration Plans (EP's) may be made from available geophysical and geological data. The proposed well is located within coverage provided by a 2005 Hazard Survey of Block 281, Vermilion Area conducted for St. Mary Energy by Fugro GeoServices, Inc. The survey was performed aboard the *M/V Universal Surveyor* during May 12, 2005. Sea conditions during data acquisition were moderate with winds of about 10 - 15 knots and seas from 3 to 4 feet. The quality of the collected geophysical data was good, and the data were adequate for interpretation. Horizontal positioning of the survey vessel was accomplished with the FUGRO STARFIX® Differential Global Positioning System, which has a field accuracy of ±3 meters.

Geophysical systems included the: Simrad E.A. 500 fathometer; Seacat SBE19-01 velocimeter, O.R.E. Model 140 3.5 kHz subbottom profiler; SeaSpy GSM-19MD marine magnetometer, EdgeTech 260-TH side scan sonar, and Seismic Systems, Inc. GI GUN®.

The survey grid consisted of 8 east-west primary tracklines (Lines S100 – S107) spaced 300 meters (~984 feet) apart and seven north-south tielines (Lines S200 – S206) spaced 800 meters (~2,624 feet) apart. Survey Lines S100 and S205 were rerun to provide better data quality. The reruns are designated with an "A" following the original line number. Each navigation fix is 12.5 meters (41 feet) apart and every tenth fix (125 meters or 410 feet) is shown on the study maps and geophysical data. The survey grid was designed to provide complete coverage of the seafloor with the sonar and a representative sampling with all other systems. The final report was prepared in May of 2005 by Michael Samson, Senior Geologist.

All aspects of the survey and this Exploration Plan follow current Minerals Management Service Guidelines. The following hazard analysis was determined from the prior interpretation and related maps, tables, and figures. St. Mary Energy proposes to drill the "B" surface location within VR 281 at:

2,213.57' FNL, 4,849.95' FWL
X = 1,591,670.00', Y = -68,340.00'
Latitude: 28° 28' 21.110"N, Longitude: 92° 36' 13.999"W

Geological Interpretation

- Harmonic mean velocities were calculated from the velocimeter readings and applied to each datum in order to convert record time to feet below sea level. Projected tidal variations from Lighthouse Point, Louisiana tide station were also utilized to adjust the bathymetric readings to the Mean Lower Low Water (MLLW) tide level for the area. The water depth at the proposed location is -172 feet MLLW.
- The side scan sonar records exhibit a predominantly smooth seafloor that slopes to the southeast at about 4 feet-per-mile (0.04°), Bottom sediments are reported to be silty clay (Minerals Management Service, Visual No. 3, 1983).
-
- Buried channels boundaries within 1 foot of the seafloor were seen about 600 feet to the northwest and 800 feet to the east of the proposed location. Acoustic voids were seen about 500 feet to the southwest and 1,000 feet to the northeast of the proposed location.
- Local variations in sediment shear strengths could present a stability problem for bottom-supported structures that straddle the margins of the channels and acoustic voids illustrated on Map 2. Avoidance of these sites is strongly recommended.
- The closest known man-made feature is the Col-Gulf 30-Inch Pipeline, approximately 1,200 feet southeast of the Proposed "B" Location.
- No sonar contacts were recorded within 1,000 feet of the proposed location.
- No unidentified magnetic anomalies were recorded within 1,000 feet of the proposed location.
- The analog air gun seismic records were not suitable for interpretation. Processed air gun data collected in the vicinity of the proposed well site should be inspected for evidence of potential gas anomalies and faults prior to drilling.

Conclusions

Based on the previous interpretation, the proposed "B" surface location is clear of any debris or obstacles to drilling activities. For additional information, please refer to the May 2005 Hazard Report.

Thank you, and please call me at 337-268-3246 if you have any questions or need additional information.

Sincerely,

Michael Samson
Senior Geologist

APPENDIX D
BIOLOGICAL AND PHYSICAL INFORMATION

CHEMOSYNTHETIC INFORMATION

This EP does not propose activities that could disturb seafloor areas in water depths of 400 meters (1312 feet) or greater; therefore, chemosynthetic information is not required.

TOPOGRAPHIC FEATURES INFORMATION

The activities proposed in this plan will not take place within 500 feet of any identified topographic feature; therefore, topographic features information is not required.

LIVE BOTTOM (PINNACLE TREND) INFORMATION

Vermilion Block 281 is not located within 100 feet of any pinnacle trend feature with vertical relief equal to or greater than 8 feet; therefore, live bottom information is not required.

APPENDIX E
WASTES AND DISCHARGES INFORMATION

DISCHARGES

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

Discharge information is not required per NTL No. 2003-G17.

WASTES

For disposed wastes, the type and general characteristics of the wastes, the amount to be disposed of (volume, rate, or weight), the daily rate, the name and location of the disposal facility, a description of any treatment or storage, and the methods for transporting and final disposal are provided in tabular format in ***Attachment E-1.*** For purposes of this Appendix, disposed wastes describes those wastes generated by the proposed activities that are disposed of by means other than by releasing them in to the waters of the Gulf of Mexico at the site where they are generated. These wastes can be disposed of by offsite release, injection, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

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
Waste Oil	200 bbl/yr	0.5 bbl/day	Newpark Environmental Services, Cameron, LA	Pack in drums and transport to a waste facility onshore.
Trash and debris	1,000 ft^3	3 ft^3 /day	Newpark Environmental Services, Cameron, LA	Transport in storage bins on crew boat to a landfill facility onshore.

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

APPENDIX F
OIL SPILL INFORMATION

1. Site-Specific OSRP N/A

2. Regional OSRP Information

St. Mary Energy Company's Regional Oil Spill Response Plan (OSRP) was approved on December 2, 2003 and the most recent modification was approved on May 16, 2005. Activities proposed in this EP will be covered by the Regional OSRP.

3. OSRO Information

SMEC'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.

4. Worst-Case Scenario Comparison

Category	Regional OSRP WCD	EP WCD
Type of Activity	Exploratory Drilling	Exploratory Drilling
Facility Location (Area/Block)	MI 701	VR 281
Facility Designation		Wells A & B
Distance to Nearest Shoreline (miles)	30	76
Volume Storage tanks (total) Uncontrolled blowout Total Volume	 1200 1200	 1200 1200
Type of Oil(s) (crude, condensate, diesel)	Condensate	Condensate
API Gravity	35°	34°

SMEC has determined that the worst-case scenario from the activities proposed in this EP do not supercede the worst-case scenario from our approved regional OSRP for exploratory drilling.

Since SMEC has the capability to respond to the worst-case spill scenario included in our regional OSRP approved on December 2, 2003, and since the worst-case scenario determined for our EP does not replace the worst-case scenario in our regional OSRP, I hereby certify that SMEC has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our EP.

5. FACILITY TANKS, PRODUCTION FACILITIES

All facility tanks of 25 barrels or more.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil (Marine Diesel)	Jack Up	500	4	2000	32.4°

APPENDIX G
AIR EMISSIONS INFORMATION

AIR EMISSIONS INFORMATION

Screen Procedures for EP's	Yes	No
Is any calculated Complex Total (CT) Emission amount (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
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_2S at concentrations greater than 20 parts per million (ppm)?		X
Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?		X
Do you propose to burn produced hydrocarbon liquids?		X

Summary Information

There are no existing facilities or activities co-located with the currently proposed activities; therefore, the Complex Total Emissions are the same as the Plan Emissions and are provided in the table below.

Air Pollutant	Plan Emission Amounts[1] (tons)	Calculated Exemption Amounts[2] (tons)	Calculated Complex Total Emission Amounts[3] (tons)
Particular matter (PM)	7.70	2530.80	7.70
Sulphur dioxide (SO_2)	35.32	2530.80	35.32
Nitrogen oxides (NO_x)	264.68	2530.80	264.68
Volatile organic compounds (VOC)	7.94	2530.80	7.94
Carbon Monoxide (CO)	57.75	61003.48	57.75

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

This information was calculated by: Carol Garcia
(281) 578-3388
carol.garcia@jccteam.com

Based on this data, emissions from the proposed activities will not cause any significant effect on onshore air quality.

APPENDIX H
ENVIRONMENTAL IMPACT ANALYSIS (EIA)

St. Mary Energy Company (SMEC)

Supplemental Exploration Plan
Vermilion Block 281
OCS-G 15201

(A) Impact Producing Factors

ENVIRONMENTAL IMPACT ANALYSIS WORKSHEET

Environment Resources	Impact Producing Factors (IPFs) Categories and Examples Refer to recent GOM OCS Lease Sale EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cutting, 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_2S releases)	Discarded Trash & Debris
Site-specific at Offshore Location						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Chemosynthetic communities			(4)			
Water quality		X	X		X	
Fisheries		X	X		X	
Marine Mammals	X(8)	X			X(8)	X
Sea Turtles	X(8)	X			X(8)	X
Air quality	X(9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric archaeological sites			(7)			
Vicinity of Offshore Location						
Essential fish habitat		X	X		X(6)	
Marine and pelagic birds	X				X	X
Public health and safety					(5)	
Coastal and Onshore						
Beaches					X(6)	X
Wetlands					X(6)	
Shore birds and coastal nesting birds					X(6)	X
Coastal wildlife refuges					X	
Wilderness areas					X	

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:
   - o 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;
   - o 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;
   - o Essential Fish Habitat (EFH) criteria of 500 ft. from any no-activity zone; or
   - o 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 an 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 H2S 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 determine 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 a 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 Vermilion Block 281

Proposed operations consist of the drilling and testing of two Wells. These operations will be conducted using a jack up rig.

1. Designated Topographic Features

Potential IPFs on topographic features include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Vermilion Block 281 is 5 miles from the closest designated Topographic Features Stipulation Block (Sonnier Banks); therefore, no adverse impacts are expected.

Effluents: Vermilion Block 281 is 5 miles from the closest designated Topographic Features Stipulation Block (Sonnier Banks); therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to benthic organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on corals. Because the crests of topographic features in the Northern Gulf of Mexico are found below 10 m, no oil from a surface spill could reach their sessile biota. Oil from a subsurface spill is not applicable due to the distance of these blocks from a topographic area. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities, which could impact topographic features.

2. Pinnacle Trend Area Live Bottoms

Potential IPFs on pinnacle trend area live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Vermilion Block 281 is 255 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Effluents: Vermilion Block 281 is 255 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills have the potential to foul benthic communities and cause lethal and sublethal effects on live bottom organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine organisms. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom (pinnacle trend) area. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact a live bottom (pinnacle trend) area.

3. Eastern Gulf Live Bottoms

Potential IPFs on Eastern Gulf live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Vermilion Block 281 is not located in an area characterized by the existence of live bottoms, and this lease does not contain a Live-Bottom Stipulation requiring a photo documentation survey and survey report.

Effluents: Vermilion Block 281 is not located in an area characterized by the existence of live bottoms; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to live bottom organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine invertebrates. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom area. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact an Eastern Gulf live bottom area.

4. Chemosynthetic Communities

There are no IPFs (including emissions, physical disturbances to the seafloor, wastes sent to shore for disposal, or accidents) from the proposed activities that could cause impacts to chemosynthetic communities.

Operations proposed in this plan are in water depths of 172 feet. High-density chemosynthetic communities are found only in water depths greater than 1,312 feet (400 meters); therefore, SMEC's proposed operations in Vermilion Block 281 would not cause impacts to chemosynthetic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in Vermilion Block 281 include disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: Bottom area disturbances resulting from the emplacement of drill rigs, the drilling of wells and the installation of platforms and pipelines would increase water-column turbidity and re-suspension of any accumulated pollutants, such as trace metals and excess nutrients. This would cause short-lived impacts on water quality conditions in the immediate vicinity of the emplacement operations.

Effluents: Levels of contaminants in drilling muds and cuttings and produced water discharges, discharge-rate restrictions and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to water quality.

Accidents: Oil spills have the potential to alter offshore water quality; however, it is unlikely that an accidental surface or subsurface spill would occur from the proposed activities. Between 1980 and 2000, OCS operations produced 4.7 billion barrels of oil and spilled only 0.001 percent of this oil, or 1 bbl for every 81,000 bbl produced. The spill risk related to a diesel spill from drilling operations is even less. Between 1976 and 1985, (years for which data were collected), there were 80 reported diesel spills greater than one barrel associated with drilling activities. Considering that there were 11,944 wells drilled, this is a 0.7 percent probability of an occurrence. If a spill were to occur, the water quality of marine waters would be temporarily affected by the dissolved components and small oil droplets. Dispersion by currents and microbial degradation would remove the oil from the water column and dilute the constituents to background levels. Historically, changes in offshore water quality from oil spills have only been detected during the life of the spill and up to several months afterwards. Most of the components of oil are insoluble in water and therefore float. The activities proposed in this plan will be covered by SMEC's Regional Oil Spill Response Plan (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions, physical disturbances to the seafloor, and wastes sent to shore for disposal) from the proposed activities which could cause impacts to water quality.

6. Fisheries

IPFs that could cause impacts to fisheries as a result of the proposed operations in Vermilion Block 281 include physical disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: The emplacement of a structure or drilling rig results in minimal loss of bottom trawling area to commercial fishermen. Pipelines cause gear conflicts which result in losses of trawls and shrimp catch, business downtime and vessel damage. Most financial losses from gear conflicts are covered by the Fishermen's Contingency Fund (FCF). The emplacement and removal of facilities are not expected to cause significant adverse impacts to fisheries.

Effluents: Effluents such as drilling fluids and cuttings discharges contain components and properties which are detrimental to fishery resources. Moderate petroleum and metal contamination of sediments and the water column can occur out to several hundred meters down-current from the discharge point. Offshore discharges are expected to disperse and dilute to very near background levels in the water column or on the seafloor within 3,000 m of the discharge point, and are expected to have negligible effect on fisheries.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on fisheries; however, it is unlikely that such an event would occur from the proposed activities (refer to **Item 5**, Water Quality). The effects of oil on mobile adult finfish or shellfish would likely be sublethal and the extent of damage would be reduced to the capacity of adult fish and shellfish to avoid the spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no IPFs from emissions, or wastes sent to shore for disposal from the proposed activities which could cause impacts to fisheries.

7. Marine Mammals

GulfCet II studies revealed that cetaceans of the continental shelf and shelf-edge were almost exclusively bottlenose dolphin and Atlantic spotted dolphin. Squid eaters, including dwarf and pygmy killer whale, Risso's dolphin, rough-toothed dolphin, and Cuvier's beaked whale, occurred most frequently along the upper slope in areas outside of anticyclones. IPFs that could cause impacts to marine mammals as a result of the proposed operations in Vermilion Block 281 include emissions, effluents, discarded trash and debris, and accidents.

Emissions: Noises from drilling activities, support vessels and helicopters may elicit a startle reaction from marine mammals. This reaction may lead to disruption of marine mammals' normal activities. Stress may make them more vulnerable to parasites, disease, environmental contaminants, and/or predation (Majors and Myrick, 1990). There is little conclusive evidence for long-term displacements and population trends for marine mammals relative to noise.

Effluents: Drilling fluids and cuttings discharges contain components which may be detrimental to marine mammals. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of debris have caused the death or serious injury of marine mammals (Laist, 1997; MMC, 1999). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm marine mammals. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA).

SMEC will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

Accidents: Collisions between support vessels and cetaceans would be unusual events, however should one occur, death or injury to marine mammals is possible. Contract vessel operators can avoid marine mammals and reduce potential deaths by maintaining a vigilant watch for marine mammals and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the twenty-eight species of whales and dolphins, and the single species of manatee that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected marine mammal species immediately, regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (800) 799-6637, or the Marine Mammal Stranding Network at

(305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the MMS must be notified within 24 hours of the strike by email to protectedspecies@mms.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

Oil spills have the potential to cause sublethal oil-related injuries and spill-related deaths to marine mammals. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to changes in cetacean behavior and/or distribution, thereby causing additional stress to the animals. The effect of oil dispersants on cetaceans is not known. The acute toxicity of oil dispersant chemicals included in SMEC's OSRP is considered to be low when compared with the constituents and fractions of crude oils and diesel products. The activities proposed in this plan will be covered by SMEC's OSRP (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact marine mammals.

8. Sea Turtles

IPFs that could cause impacts to sea turtles as a result of the proposed operations include emissions, effluents, discarded trash and debris, and accidents. GulfCet II studies sighted most loggerhead, Kemp's ridley and leatherback sea turtles over shelf waters. Historically these species have been sighted up to the shelf's edge. They appear to be more abundant east of the Mississippi River than they are west of the river (Fritts et al., 1983b; Lohoefener et al., 1990). Deep waters may be used by all species as a transitory habitat.

Emissions: Noise from drilling activities, support vessels, and helicopters may elicit a startle reaction from sea turtles, but this is a temporary disturbance.

Effluents: Drilling fluids and cuttings discharges are not known to be lethal to sea turtles. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of, debris have caused the death or serious injury of sea turtles (Balazs, 1985). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm sea turtles. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). SMEC will operate in accordance with the regulations and also avoid accidental loss of

solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

Accidents: Collisions between support vessels and sea turtles would be unusual events, however should one occur, death or injury to sea turtles is possible. Contract vessel operators can avoid sea turtles and reduce potential deaths by maintaining a vigilant watch for sea turtles and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the five species of sea turtles that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected sea turtle species immediately, regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (800) 799-6637, or the Marine Mammal Stranding Network at (305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the MMS must be notified within 24 hours of the strike by email to protectedspecies@mms.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

All sea turtle species and their life stages are vulnerable to the harmful effects of oil through direct contact or by fouling of their food. Exposure to oil can be fatal, particularly to juveniles and hatchlings. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to the possibility of collisions with sea turtles. The activities proposed in this plan will be covered by SMEC's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact sea turtles.

9. Air Quality

The projected air emissions identified in Appendix G are not expected to affect the OCS air quality primarily due to distance to the shore or to any Prevention of Significant Deterioration Class I air quality area such as the Breton Wilderness Area. Vermilion Block 281 is beyond the 200 kilometer (124 mile) buffer for the Breton Wilderness Area and is 75 miles from the

coastline. Therefore, no special mitigation, monitoring, or reporting requirements apply with respect to air emissions.

Accidents and blowouts can release hydrocarbons or chemicals, which could cause the emission of air pollutants. However, these releases would not impact onshore air quality because of the prevailing atmospheric conditions, emission height, emission rates, and the distance of Vermilion Block 281 from the coastline. There are no other IPFs (including effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal) from the proposed activities which could impact air quality.

10. Shipwreck Sites (known or potential)

IPFs that could impact known or unknown shipwreck sites as a result of the proposed operations in Vermilion Block 281 include disturbances to the seafloor. Vermilion Block 281 is not located in or adjacent to an OCS block designated by MMS as having a high probability for occurrence of shipwrecks. SMEC will report to MMS the discovery of any evidence of a shipwreck and make every reasonable effort to preserve and protect that cultural resource. There are no other IPFs (including emissions, effluents, wastes sent to shore for treatment or disposal, or accidents) from the proposed activities which could impact shipwreck sites.

11. Prehistoric Archaeological Sites

IPFs which could impact prehistoric archaeological sites as a result of the proposed operations in Vermilion Block 281 include disturbances to the seafloor (structure emplacement) and accidents (oil spill). Vermilion Block 281 is located outside the Archaeological Prehistoric high probability line. SMEC will report to MMS the discovery of any object of prehistoric archaeological significance and make every reasonable effort to preserve and protect that cultural resource.

Accidents: An accidental oil spill has the potential to cause some detrimental effects to prehistoric archaeological sites if the release were to occur subsea. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by SMEC's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix F**).

There are no other IPFs (including emissions, effluents, wastes sent to shore for treatment or disposal) from the proposed activities which could impact prehistoric archaeological sites.

Vicinity of Offshore Location

1. Essential Fish Habitat (EFH)

IPFs that could cause impacts to EFH as a result of the proposed operations in Vermilion Block 281 include physical disturbances to the seafloor, effluents and accidents. EFH includes all estuarine and marine waters and substrates in the Gulf of Mexico.

Physical disturbances to the seafloor: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from bottom disturbing activities (e.g., anchoring, structure emplacement and removal).

Effluents: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from operational waste discharges. Levels of contaminants in drilling muds and cuttings and produced-water discharges, discharge-rate restrictions, and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to EFH.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on EFH. Oil spills that contact coastal bays and estuaries, as well as OCS waters when pelagic eggs and larvae are present, have the greatest potential to affect fisheries. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (including emissions, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact essential fish habitat.

2. Marine and Pelagic Birds

IPFs that could impact marine birds as a result of the proposed activities include air emissions, accidental oil spills, and discarded trash and debris from vessels and the facilities.

Emissions: Emissions of pollutants into the atmosphere from these activities are far below concentrations which could harm coastal and marine birds.

Accidents: An oil spill would cause localized, low-level petroleum hydrocarbon contamination. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Marine and pelagic birds feeding at the spill location may experience chronic, nonfatal, physiological stress. It is expected that few, if any, coastal and marine birds would actually be affected to that extent. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Marine and pelagic birds could become entangled and snared in discarded trash and debris, or ingest small plastic debris, which can cause permanent injuries and death. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by

various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). SMEC will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass. Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually. Debris, if any, from these proposed activities will seldom interact with marine and pelagic birds; therefore, the effects will be negligible.

There are no other IPFs (including effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact marine and pelagic birds.

3. Public Health and Safety Due to Accidents

There are no IPFs (emissions, effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal or accidents, including an accidental H2S releases) from the proposed activities which could cause impacts to public health and safety. In accordance with NTL No. 2003 G-17, sufficient information is included in **Appendix C** to justify our request that our proposed activities be classified by MMS as H_2S absent.

Coastal and Onshore

1. Beaches

IPFs from the proposed activities that could cause impacts to beaches include accidents (oil spills) and discarded trash and debris.

Accidents: Oil spills contacting beaches would have impacts on the use of recreational beaches and associated resources. Due to the distance from shore (75 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Trash on the beach is recognized as a major threat to the enjoyment and use of beaches. There will only be a limited amount of marine debris, if any, resulting from the proposed activities. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). SMEC will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact beaches.

2. Wetlands

Accidents: Oil spills could cause impacts to wetlands, however, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from shore (75 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact wetlands.

3. Shore Birds and Coastal Nesting Birds

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Given the distance from shore (75 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

Discarded trash and debris: Coastal and marine birds are highly susceptible to entanglement in floating, submerged, and beached marine debris: specifically plastics. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). SMEC will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and every facility that has sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "All Washed Up: The Beach Litter Problem". Thereafter, all personnel will view the marine trash and debris training video annually.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to shore birds and coastal nesting birds.

4. Coastal Wildlife Refuges

Accidents: An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, it is unlikely that an oil spill would occur from the proposed activities (refer to Item 5, Water Quality). Due to the distance from shore (75 miles) and the response capabilities that would be implemented, no impacts are expected. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F**).

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to coastal wildlife refuges.

5. Wilderness Areas

An accidental oil spill from the proposed activities could cause impacts to wilderness areas. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from the nearest designated Wilderness Area (215 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by SMEC's Regional OSRP (refer to information submitted in **Appendix F).**

6. 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. No impacts are expected on the proposed activities from site-specific environmental conditions.

(D) Alternatives

No alternatives to the proposed activities were considered to reduce environmental impacts.

(E) Mitigation Measures

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

(F) Consultation

No agencies or persons were consulted regarding potential impacts associated with the proposed activities. Therefore, a list of such entities has not been provided.

(G) References

Authors:

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Balazs, G.H. 1985. Impact of ocean debris on marine turtles: entanglement and ingestion. In: Shomura, R.S. and H.O. Yoshida, eds. Proceedings, Workshop on the Fate and Impact of Marine Debris, 26-29 November 1984, Honolulu, HI. U.S. Dept. of Commerce. NOAA Tech. Memo. NOAA-TM-NMFS-SWFC-54. Pp 387-429.

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

- Hazard Surveys
- MMS EIS's:
  - GOM Deepwater Operations and Activities. Environmental Assessment. MMS 2000-001
  - GOM Central and Western Planning Areas Sales 166 and 168 Final Environmental Impact Statement. MMS 96-0058

APPENDIX I

COASTAL ZONE MANAGEMENT CONSISTENCY INFORMATION

A certificate of Coastal Management Consistency for the State of Louisiana is not required for the proposed Supplemental Exploration Plan.

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:	X	Exploration Plan (EP)		Development Operations Coordination Document (DOCD)
Company Name: St. Mary Energy Company				MMS Operator Number: 02246
Address: 580 Westlake Park Blvd.				Contact Person: Cheryl Murphy / Carol Garcia
Suite 600				Phone Number: (281) 578-3388
Houston, TX 77079				Email Address: cheryl.murphy@jccteam.com
Lease: OCS-G 15201	Area: Vermilion		Block: 281	Project Name (If Applicable): N/A
Objective(s): ☐Oil	☒Gas	☐Sulphur	☐Salt Onshore Base: Cameron, LA	Distance to Closest Land (Miles): 76

Description of Proposed Activities (Mark all that apply)

☒ Exploration drilling	☐ Development drilling
☐ Well completion	☐ Installation of production platform
☐ Well test flaring (for more than 48 hours)	☐ Installation of production facilities
☐ Installation of caisson or platform as well protection structure	☐ Installation of satellite structure
☐ Installation of subsea wellheads and/or manifolds	☐ Commence production
☐ Installation of lease term pipelines	☒ Other (Temporary Abandonment)

Have you submitted or do you plan to submit a Conservation Information Document to accompany this plan?		Yes	X	No
Do you propose to use new or unusual technology to conduct your activities?		Yes	X	No
Do you propose any facility that will serve as a host facility for deepwater subsea development?		Yes	X	No
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?		Yes	X	No
Have all of the surface locations of your proposed activities been previously reviewed and approved by MMS?		Yes	X	No

Tentative Schedule of Proposed Activities

Proposed Activity	Start Date	End Date	No. of Days
Drill Exploratory Well "A" and TA	10/01/05	10/25/05	25
Drill Exploratory Well "B" and TA	10/26/05	11/19/05	25

Description of Drilling Rig		Description of Production Platform	
☒ 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):		☐ Spar	☐ Other (Attach description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	To (Facility/Area/Block)	Diameter (inches)	Length (Feet)

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 (If renaming well or structure, reference previous name): A			Subsea Completion
Anchor Radius (if applicable) in feet: N/A			☐ Yes ☒ No
	Surface Location	**Bottom-Hole Location (For Wells)**	
Lease No.	OCS-G 15201		
Area Name	Vermilion		
Block No.	281		
Blockline Departures (in feet)	N/S Departure: 2214' FNL	N/S Departure:	
	E/W Departure: 4825' FWL	E/W Departure:	
Lambert X-Y coordinates	X: 1,591,660	X:	
	Y: 68,340	Y:	
Latitude/ Longitude	Latitude: 28° 28' 21.117"	Latitude:	
	Longitude: - 92° 36' 14.128"	Longitude:	
	TVD (Feet):	MD (Feet):	Water Depth (Feet): 172

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
N/A			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	

Paperwork Reduction Act of 1995 Statement: 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 St. Mary Energy Company'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.

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 (If renaming well or structure, reference previous name): B			Subsea Completion
Anchor Radius (if applicable) in feet: N/A			☐ Yes ☒ No
	Surface Location	**Bottom-Hole Location (For Wells)**	
Lease No.	OCS-G 15201		
Area Name	Vermilion		
Block No.	281		
Blockline Departures (in feet)	N/S Departure: 2214' FNL	N/S Departure:	
	E/W Departure: 4835' FWL	E/W Departure:	
Lambert X-Y coordinates	X: 1,591,670	X:	
	Y: 68,340	Y:	
Latitude/ Longitude	Latitude:28° 28' 21.118"	Latitude:	
	Longitude: - 92° 36' 14.016"	Longitude:	
	TVD (Feet):	MD (Feet):	Water Depth (Feet): 172

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
N/A			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	

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