

UNITED STATES GOVERNMENT
MEMORANDUM

February 1, 2005

To: Public Information (MS 5034)
From: Plan Coordinator, FO, Plans Section (MS 5231)
Subject: Public Information copy of plan
Control # - N-08319
Type - Initial Exploration Plan
Lease(s) - OCS-G24915 Block - 36 Ship Shoal Area
Operator - Gryphon Exploration Company
Description - Well Protector and Well A
Rig Type - JACKUP

Attached is a copy of the subject plan.

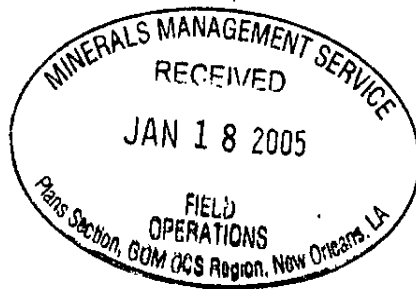
It has been deemed submitted as of this date and is under review for approval.


Karen Dunlap
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WP/A		4400 FSL, 3500 FEL	G24915/SS/36
WELL/A	G24915/SS/36	4400 FSL, 3500 FEL	G24915/SS/36

ISS FEB 1'05PM 2:15

NOTED - SCHEXNAILDRE



PUBLIC COPY

January 14, 2005

INITIAL EXPLORATION PLAN

Lease Number (s): OCS-G 24915
Area/Block: Ship Shoal Block 36
Prospect Name: Not Applicable
Offshore:

Submitted by: Gryphon Exploration Company
1200 Smith Street
Suite 1700
Houston, Texas 77002

Jack Shelledy
(713) 756-2400
jds@gryphon-exploration.com

Estimated start up date: March 1, 2005

Authorized Representative:
Valerie Land
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
valerie.land@jccteam.com

No. Copies Being Submitted:

Proprietary:	<u>5</u>
Public Info:	<u>4</u>

For MMS:	
Plan No.	
Assigned to:	

GRYPHON EXPLORATION COMPANY

INITIAL EXPLORATION PLAN

LEASE OCS-G 24915

SHIP SHOAL BLOCK 36

APPENDIX A	<i>Contents of Plan</i>
APPENDIX B	<i>General Information</i>
APPENDIX C	<i>Geological, Geophysical & H₂S Information</i>
APPENDIX D	<i>Biological and Physical Information</i>
APPENDIX E	<i>Wastes and Discharge Information</i>
APPENDIX F	<i>Oil Spill Information</i>
APPENDIX G	<i>Air Emissions Information</i>
APPENDIX H	<i>Environmental Impact Analysis</i>
APPENDIX I	<i>Coastal Zone Management Consistency Information</i>
APPENDIX J	<i>Plan Information Form and Well Information Form</i>

APPENDIX A CONTENTS OF PLAN

Gryphon Exploration Company (Gryphon) is the designated operator of the subject oil and gas lease.

(A) DESCRIPTION, OBJECTIVES AND SCHEDULE

This Initial Exploration Plan provides for the drilling, completion and testing of Well Location A in Lease OCS-G 24915, Ship Shoal Block 36 and the installation of well protective structure over the proposed well location. The well protective structure will be installed with the drilling unit. There are no associated anchors with these operations.

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

(B) LOCATION

Included as *Attachments A-1 and A-2* are the proposed well location plat and the bathymetry map showing the surveyed water depths in this area, additional well information on the proposed well location are on the Well Information Form included as *Attachment A-3*.

(C) DRILLING UNIT

A description of the drilling unit is included in Appendix J, on the Plan Information Form. Rig specifications will be made a 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.

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

N.O.S. "DE LARGE"

X = 2,088,344.48

Y = 187,701.49

LAT. = 29° 10' 57.100"N

LONG. = 91° 03' 23.422"W

Y = 155,515.07

15,600.00'



36
OCS-G 24915

OCS-G 24915 WELL 'A'

4,400' FSL

3,500' FEL

X = 2,074,500.00

Y = 145,953.53

LAT. = 29° 04' 04.108"N

LONG. = 91° 06' 00.554"W

WATER DEPTH = 10'

OCS 342
WELL NO. 1

OCS 342
WELL NO. 2

43,983.65'
N 18° 20' 48" E

13,961.54'
X = 2,078,000.00

BEST AVAILABLE COPY

15,600.00'

Y = 141,553.53



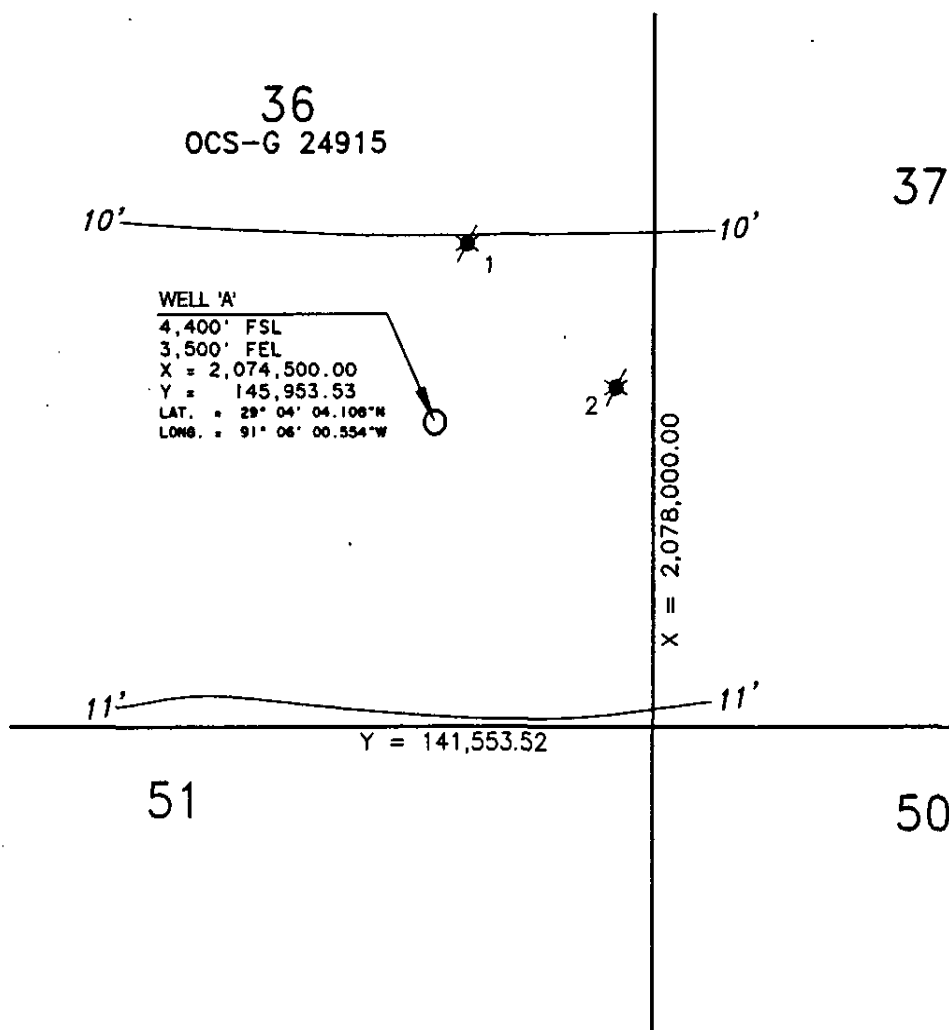
SCALE 1" = 2,000'

PUBLIC INFORMATION

SHEET 2 OF 3

DATUM: NAD 27		GRYPHON EXPLORATION COMPANY		GRYPHON
SPHEROID: CLARKE 1866				
PROJECTION: LAMBERT				
ZONE: LOUISIANA SOUTH		PROPOSED WELL LOCATION		
 36499 Perkins Road Prairieville, Louisiana 70769 Tel: 225-673-2163 Fax: 225-744-3116		OCS-G 24915 WELL 'A'		
		BLOCK 36		
		SHIP SHOAL AREA		
		GULF OF MEXICO		
DRAWN BY: R. KYLE	DATE: 08/24/2004	CHECKED BY:	DRAWING No.: 04-133-PERM	
REV. DATE:	REV. No.:	SCALE: AS-SHOWN	JOB No.: 04-133	

ATTACHMENT A-1



SCALE IN FEET

SURVEY PERFORMED BY TESLA OFFSHORE, LLC IN JUNE, 2004

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

LEGEND:

10' ——— BATHYMETRIC CONTOURS IN 1' INTERVAL

ATTACHMENT A-2

GEOPHYSICAL SURVEY			
BATHYMETRY			
BLOCK 36 SHIP SHOAL AREA			
GULF OF MEXICO			
GRYPHON EXPLORATION COMPANY			GRYPHON
TESLA OFFSHORE, LLC			
36439 Perkins Road Prairieville, Louisiana 70769 Tel: 225-673-2163 Fax: 225-744-3116			
PREP. KBR	INT.	CAD KBR	APP. J40
CHK. J52	CHK.	CHK. J52	DATE 8-24-2004
FILE NO. 04-133SMBAT			

WELL INFORMATION FORM
(USE SEPARATE FORM FOR EACH LEASE)

PROPOSED WELL/STRUCTURE LOCATIONS

WELL / STRUCTURE NAME	SURFACE LOCATION		BOTTOM-HOLE LOCATION (FOR WELLS)	
Well Location A	CALLS: 4400 F S L and 3500 F E L OF LEASE OCS G24915 , SHIP SHOAL AREA, BLOCK 36			
	X: 2074500.00 Y: 145953.53			
	LAT: 29° 04' 04.108" LONG: 91° 06' 00.554"			
	TVD (IN FEET):	MD (IN FEET):	WATER DEPTH (IN FEET): 10	

APPENDIX B GENERAL INFORMATION

(A) CONTACT

Inquiries may be made to the following authorized representative:

Valerie Land/ Brenda Montalvo
J. Connor Consulting, Inc.
16225 Park Ten Place, Suite 700
Houston, Texas 77084
(281) 578-3388
E-mail address: valerie.land@jccteam.com/ brenda.montalvo@jccteam.com

(B) PROSPECT NAME

Not applicable

(C) NEW OR UNUSUAL TECHNOLOGY

Gryphon 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 Ship Shoal Block 36 located approximately 8 miles from the nearest shoreline and approximately 47 miles from the onshore support base in Berwick, 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	3
Supply Boat	4
Helicopter	2

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

(F) LEASE STIPULATION

Exploration activities are subject to the following stipulation attached to Lease OCS-G 24915 Ship Shoal Block 36.

1. Marine Protected Species

Lease Stipulation No. 6 is meant to reduce the potential taking of marine protected species. Gryphon will operate in accordance with NTL 2003-G10, to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species, and NTL 2003-G11 to prevent intentional and/or accidental introduction of debris into the marine environment.

SPECIAL CONDITIONS

Ship Shoal Block 36 is located within the boundary of the "8G Zone", established for joint review by the designated State agency for comments on the proposed activity to determine if the activities impact a common reservoir overlying State and federal acreage. Therefore, Gryphon will submit the required surface and bottom hole location information to the State Governor's Office in order to make this determination.

ARCHAEOLOGY SURVEY BLOCKS

Ship Shoal Block 36 has been determined as potentially containing historic and prehistoric archaeological properties; therefore, an Archaeological Survey Report has been prepared in accordance with NTL 2002-G01, and is being submitted with this plan under separate cover.

A compass rose with a circle in the center containing the letter 'N'. Above the circle is an arrow pointing upwards, labeled 'NORTH'. Below the circle is a rectangular block with a dashed line, labeled 'GRID'.

LOUISIANA

CAMERON VERMILION IBERIA ST. MARY TERREBONNE LAFORCHE JEFFERSON ST. BERNARD

LAKE PONCHARTRAIN NEW ORLEANS CHANDELEUR SOUND

1 WEST CAMERON AREA

1A WEST CAMERON AREA WEST ADDITION

1B WEST CAMERON AREA SOUTH ADDITION

2 EAST CAMERON AREA

2A EAST CAMERON AREA SOUTH ADDITION

3 VERMILION AREA

3B VERMILION AREA SOUTH ADDITION

3D SOUTH MARSH ISLAND NORTH ADDITION

3A SOUTH MARSH ISLAND AREA

3C SOUTH MARSH ISLAND AREA SOUTH ADDITION

4 EUGENE ISLAND AREA

4A EUGENE ISLAND AREA SOUTH ADDITION

5 SHIP SHOAL AREA

5A SHIP SHOAL AREA SOUTH ADDITION

6 SOUTH PELTO AREA

6A S. TIMBALIER AREA SOUTH ADDITION

7 GRAND ISLE AREA

7A GRAND ISLE AREA SOUTH ADDITION

8 WEST DELTA AREA

8A WEST DELTA AREA SOUTH ADDITION

9 SOUTH PASS AREA

9A SOUTH PASS AREA SOUTH AND EAST ADDITION

10 MAIN PASS AREA

10A MAIN PASS AREA SOUTH & EAST ADDITION

11 CHANDELEUR AREA

11A CHANDELEUR AREA SOUTH & EAST ADDITION

12 VIOUCA KNOLL AREA

13 SOUTH PASS AREA SOUTH AND EAST ADDITION

14 WEST DELTA AREA SOUTH ADDITION

15 NG 16-10 MISSISSIPPI CANYON AREA

16 NG 15-2 GARDEN BANKS AREA

17 NG 15-3 GREEN CANYON AREA

18 NG 16-1 ATWATER VALLEY AREA

MISSISSIPPI RIVER

LAKE CHARTRAIN

CHANDELEUR SOUND



BRETON SOUND

LAQUEMINES

MEXICO

GULF OF MEXICO

BEST AVAILABLE COPY

DATUM: NAD 27 SPHEROID: CLARKE 1866 PROJECTION: LAMBERT ZONE: LOUISIANA SOUTH		GRYPHON EXPLORATION COMPANY			
 <p> 36499 Perkins Road Prairieville, Louisiana 70769 Tel: 225-873-2163 Fax: 225-744-3116 </p>		PROPOSED WELL LOCATION OCS-G 24915 WELL 'A' BLOCK 36 SHIP SHOAL AREA			
		GULF OF MEXICO			
		DRAWN BY: R. KYLE	DATE: 08/24/2004	CHECKED BY:	DRAWING No.: 04-133-PERM
REV. DATE:		REV. No.:	SCALE: AS-SHOWN	JOB No.: 04-133	

Attachment B-1

APPENDIX C

GEOLOGICAL, GEOPHYSICAL, AND H₂S INFORMATION

(A) STRUCTURE CONTOUR MAP

Proprietary Information.

(B) TRAPPING FEATURES

Proprietary Information.

(C) DEPTH OF GEOPRESSURE

Proprietary Information.

(D) INTERPRETED DEEP SEISMIC LINE(S)

Proprietary Information.

(E) GEOLOGICAL STRUCTURE CROSS-SECTIONS

Proprietary Information.

(F) SHALLOW HAZARDS REPORT

A shallow hazards survey was conducted over Ship Shoal Block 36.

Three copies of a shallow hazard report are being submitted to the MMS under separate cover.

(G) SHALLOW HAZARDS ASSESSMENT

A shallow hazards assessment has been prepared for the 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-1*.

(H) HIGH-RESOLUTION SEISMIC LINES

Proprietary Information.

(I) STRATIGRAPHIC COLUMN

Proprietary Information.

(J) TIME VS DEPTH TABLES

Proprietary Information.

(K) HYDROGEN SULFIDE INFORMATION

In accordance with Title 30 CFR 250. 490(c) and NTL No. 2003-G17, Gryphon requests that Ship Shoal Block 36 be classified by the MMS where the absence of H₂S has been confirmed.



Tesla Offshore, LLC
36499 Perkins Road
Prairieville, Louisiana 70769
Telephone: (225) 673-2163
Fax: (225) 744-3116

August 24, 2004

Minerals Management Service (MS 5230)
Gulf of Mexico OCS Region
1201 Elmwood Park Blvd.
New Orleans, LA 70123-2394

RE: Gryphon Exploration Company
Proposed OCS-G 24915 'A' Surface Location
Block 36, Ship Shoal Area
Archaeological & Shallow Hazard Analysis

Dear Staff:

Gryphon Exploration Company proposes to drill from the OCS-G 24915 'A' Surface Location at:

- 4,400' FSL & 3,500' FEL of Block 36, Ship Shoal Area

Tesla Offshore, LLC. surveyed the SE/4 of Block 36 along a 30-meter by 900-meter grid. Gryphon Exploration Company operates the lease and contracted Tesla Offshore, LLC to provide this *shallow hazard analysis (NTL No. 98-20)* and *archaeological assessment (NTL No. 2002-G01)* in accordance with the Minerals Management Service Gulf of Mexico OCS Region.

Geophysical record copies are enclosed for the magnetometer, side scan sonar, subbottom profiler, echo sounder, and seismic sections from the line nearest the proposed well site as required in *NTL No. 2003-G17 Appendix C, Paragraph F* for EP and DOCD submittals.

- **Water depth** is 10 feet surrounding the proposed drill site.
- **Seafloor soils** are primarily sands.
- **Identified Man-Made features** include an abandoned Apache 4" pipeline (Segment 9062) approximately 400 feet NNW of the proposed location; the PetroQuest 8" pipeline (Segment 5830) approximately 1,100 feet SW of the planned drill site; and a Transco 14" pipeline (Segment 1535) approximately 1,700 feet SW of the site. The P&A No. 1 Well is 2,600 feet NNE and the P&A No. 2 Well is 3,000 feet ENE of the planned well site.
- **Magnetic Anomalies** closest to the planned well site include #27 approximately 400 feet ENE of the proposed well site. The 7nT (gamma) positive anomaly along 50 feet of survey line will not be disturbed by rig moves or drilling operations. The side scan sonar showed that the seafloor was clear of obstructions or shipwrecks except for the buried pipelines and former well sites.
- **Subbottom Data** showed 5 feet of densely packed sand over 15 feet of acoustically transparent deposits within the Holocene section that is 110 to 120 feet thick. The top of the Pleistocene section appears as a relatively strong reflector at 45 milliseconds or 115 feet BSL. No faults or amplitude anomalies were noted in the analog records.

Gryphon Exploration Company
Proposed OCS-G 24915 'A' Surface Location
Block 36, Ship Shoal Area
Archaeological & Shallow Hazard Analysis
Page 2

Processed 3-D data will be scrutinized for resolution of deeper features below 375 feet of high-resolution boomer seismic penetration.

The operator has identified the primary hazards to rig movements, anchor deployments, and drilling. No shipwrecks or prehistoric archaeological features will be disturbed by the proposed drilling. The proposed well site, pipelines, P&A well sites, and magnetic anomalies designated with avoidance criteria will be marked with appropriate marine survey equipment to comply with the **MMS On-Site Requirements specified in NTL No. 98-20, Section IV, Item B.** In lieu of using buoys as stipulated in Item B-1, the operator requests MMS approval to mark potential hazards with best available technology using computer graphic screens that are integrated to DGPS positioning units aboard the drilling rig and all support vessels.

In further compliance with Item B-2, a map at a scale of 1:12,000 will be provided to key personnel on the drilling rig and anchor handling vessels. The field map will depict the location of the proposed drilling site, any projected anchor patterns, existing pipelines, P&A well sites, and magnetic anomaly avoidance patterns in the area. **The pipelines will be avoided by 500 feet when deploying any anchors. Designated magnetic anomalies will be avoided by 100 feet.**

Gryphon Exploration Company and subcontractors will apply the safest and best available technologies during drilling and future lease installations.

Yours truly,



Robert J. Floyd Ph.D.
Marine Archaeologist
Shallow Hazard Analyst

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

Ship Shoal Block 36 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
Spent oil-based drilling fluids and cuttings	0 bbl/well	0 bbl/day	NA	NA
Spent synthetic- based drilling fluids and cuttings	0 bbl/well	0 bbl/day	NA	NA
Oil-contaminated produced sand	0 lb/yr	0 bbl/day	NA	NA
Waste Oil	183 bbl/yr	0.51 bbl/day	Chemical Waste Management, Carlyss, La.	Loaded in tote tanks and transported by boat to shorebase.
Produced water	NA	NA	NA	NA
Norm- contaminated wastes	0 tons	NA	NA	NA
Trash and debris	1,000 ft ³	3 ft ³ /day	Waste Management, Berwick, La.	Transported to shorebase
Chemical product wastes	0 bbl/yr	0 bbl/day	NA	NA
Chemical product wastes	0 bbl	0 bbl/day	NA	NA
Workover fluids	0 bbl	0 bbl/day	NA	NA

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

APPENDIX F OIL SPILL INFORMATION

1. Regional OSRP Information

Gryphon Exploration Company's Regional Oil Spill Response Plan (OSRP) was approved on November 3, 2004 through October 31, 2006. Activities proposed in this EP will be covered by the Regional OSRP.

2. OSRO Information

Gryphon'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.

3. Worst-Case Scenario Comparison

Category	Regional OSRP WCD	EP WCD
Type of Activity	Exploratory Drilling	Exploratory Drilling
Facility Location (Area/Block)	GA313	SS36
Facility Designation		
Distance to Nearest Shoreline (miles)	13	8
Volume Storage tanks (total) Uncontrolled blowout Total Volume	1500 bbls	1500 bbls
Type of Oil(s) (crude, condensate, diesel)	Condensate	Condensate
API Gravity	43°	43°

Gryphon has determined that the worst-case scenario from the activities proposed in this EP does not supercede the worst-case scenario from our approved regional OSRP.

Since Gryphon has the capability to respond to the worst-case spill scenario included in our regional OSRP approved on November 3, 2004, 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 Gryphon 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.

4. 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)	Jackup	1100	2	2200	34.2
Dirty Oil Tank	Jackup	100	1	100	Dirty Oil Tank

5. PRODUCED LIQUID HYDROCARBONS TRANSPORTATION VESSELS

Gryphon does not propose the transfer of stored production or well test fluids under this EP.

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 ₂ S at concentrations greater than 20 parts per million (ppm)?		X
Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?		X
Do you propose to burn produced hydrocarbon liquids?		X

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)	4.71	266.40	4.71
Sulphur dioxide (SO ₂)	21.61	266.40	21.61
Nitrogen oxides (NO _x)	162.26	266.40	162.26
Volatile organic compounds (VOC)	5.16	26.40	5.16
Carbon Monoxide (CO)	37.27	13600.00	37.27

¹For activities proposed in your EP, list the projected emissions calculated from the worksheets.

²List the exemption amounts for your proposed activities calculated by using the formulas in 30 CFR 250.303(d).

³List the complex total emissions associated with your proposed activities calculated from the worksheets.

This information was calculated by: Brenda Montalvo
(281) 578-3388
brenda.montalvo@jcccteam.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)

Please find enclosed as *Attachment H-1* an Environmental Impact Analysis covering the proposed drilling and completion operations in Ship Shoal Block 36.

Gryphon Exploration Company (Gryphon)

Initial Exploration Plan

Ship Shoal Block 36

OCS-G 24915

(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 ₂ S 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)			X(7)			
Prehistoric archaeological sites			X(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 Ship Shoal Block 36

Proposed operations consist of the drilling, completion and testing of Well Location A and installation of well protective structure of this surface location.

1. Designated Topographic Features

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

Physical disturbances to the seafloor: Ship Shoal Block 36 is 62 miles from the closest designated Topographic Features Stipulation Block (Ewing Bank); therefore, no adverse impacts are expected.

Effluents: Ship Shoal Block 36 is 62 miles from the closest designated Topographic Features Stipulation Block (Ewing Bank); 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 Gryphon'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: Ship Shoal Block 36 is 158 miles from the closest live bottom (pinnacle trend) area; therefore, no adverse impacts are expected.

Effluents: Ship Shoal Block 36 is 158 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 Gryphon'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: Ship Shoal Block 36 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: Ship Shoal Block 36 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 Gryphon'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 10 feet. High-density chemosynthetic communities are found only in water depths greater than 1,312 feet (400 meters); therefore, Gryphon's proposed operations in Ship Shoal Block 36 would not cause impacts to chemosynthetic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in Ship Shoal Block 36 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 Gryphon'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 Ship Shoal Block 36 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 Gryphon'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 Ship Shoal Block 36 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).

Gryphon 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 Gryphon'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 Gryphon'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; Lohoefer 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). Gryphon 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 Gryphon'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

Ship Shoal Block 36 is located 117 miles from the Breton Wilderness Area and 8 miles from shore. Applicable emissions data is included in Appendix G of the Plan.

There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Plan Emissions for the proposed activities do not exceed the annual exemption levels as set forth by MMS. 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 Ship Shoal Block 36 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 would impact air quality.

10. Shipwreck Sites (known or potential)

IPFs that could cause impacts to known or unknown shipwreck sites as a result of the proposed operations in Ship Shoal Block 36 are disturbances to the seafloor. Ship Shoal Block 36 is located within the area designated by MMS as high-probability for occurrence of shipwrecks. Gryphon 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 that could cause impacts to shipwreck sites.

11. Prehistoric Archaeological Sites

IPFs that could cause impacts to prehistoric archaeological sites as a result of the proposed operations in Ship Shoal Block 36 are physical disturbances to the seafloor and accidents (oil spills).

Physical Disturbances to the seafloor: Ship Shoal Block 36 is located inside the Archaeological Prehistoric high probability lines. Gryphon 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 Gryphon'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 that could cause impacts to 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 Ship Shoal Block 36 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 Gryphon'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 Gryphon'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). Gryphon 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 H₂S 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 response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by Gryphon'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). Gryphon 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

Salt marshes and seagrass beds fringe the coastal areas of the Gulf of Mexico. Due to the distance from shore (8 miles), accidents (oil spills) represent an IPF which could impact these resources.

Accidents: Level of impact from an oil spill will depend on oil concentrations contacting vegetation, kind of oil spilled, types of vegetation affected, season of the year, pre-existing stress level of the vegetation, soil types, and numerous other factors. Light-oiling impacts will cause plant die-back with recovery within two growing seasons without artificial replanting. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). If a spill were to occur, response capabilities as outlined in Gryphon's Regional OSRP (refer to information submitted in Appendix F) would be implemented.

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 wetlands.

3. Shore Birds and Coastal Nesting Birds

Atchafalaya Delta WMA and Isles Dernieres WMA (both within 25 miles of Ship Shoal Block 36) are highly productive habitats for wildlife. Thousands of shore birds use the refuges as a wintering area. Also, wading birds nest on the refuges. The Atchafalaya Delta WMA and Isles Dernieres WMA provide habitat for colonies of nesting wading birds and seabirds as well as wintering shorebirds and waterfowl. The most abundant nesters are brown pelicans, laughing gulls, and royal, Caspian, and sandwich terns. IPFs from the proposed activities that could cause impacts to shore birds and coastal nesting birds are accidents (oil spills) and discarded trash and debris.

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. The birds most vulnerable to direct effects of oiling include those species that spend most of their time swimming on and under the sea surface, and often aggregate in dense flocks (Piatt et al., 1990; Vauk et al., 1989). Coastal birds, including shorebirds, waders, marsh birds, and certain water fowl, may be the hardest hit indirectly through destruction of their feeding habitat and/or food source (Hansen, 1981; Vermeer and Vermeer, 1975). Direct oiling of coastal birds and certain seabirds is usually minor; many of these birds are merely stained as a result of their foraging behaviors. Birds can ingest oil when feeding on contaminated food items or drinking contaminated water.

Oil-spill cleanup operations will result in additional disturbance of coastal birds after a spill. 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 being 8 miles, Gryphon would immediately implement the response capabilities outlined in their 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). Gryphon 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: Ship Shoal Block 36 is approximately is within 25 miles of the Atchafalaya Delta WMA and Isles Dernieres WMA. Management goals of the Atchafalaya Delta WMA and Isles Dernieres WMA are waterfowl habitat management, marsh restoration, providing sanctuary for nesting and wintering seabirds, and providing sandy beach habitat for a variety of wildlife species. IPFs from the proposed activities that could cause impacts to this coastal wildlife refuge are accidents (oil spills) and discarded trash and debris.

Impacts to shore birds and coastal nesting birds and to the beach, was covered in previous sections. Other wildlife species found on the refuges include nutria, rabbits, raccoons, alligators, and loggerhead turtles. Impacts to loggerhead turtles were also covered under a previous section.

It is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). Response capabilities would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Gryphon'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 (117 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 Gryphon'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

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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

Relevant enforceable policies were considered in certifying consistency for Louisiana. A certificate of Coastal Zone Management Consistency for the state of Louisiana is enclosed as *Attachment I-1*.

**COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION**

INITIAL EXPLORATION PLAN

SHIP SHOAL BLOCK 36

OCS-G 24915

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

Gryphon Exploration Company

Lessee or Operator



Certifying Official

January 14, 2005

Date

BEST AVAILABLE COPY

PLAN INFORMATION FORM

GENERAL INFORMATION										
Type of OCS Plan:	X	Exploration Plan (EP)	Development Operations Coordination Document (DOCD)							
Company Name:	Gryphon Exploration Company				MMS Operator Number:					
Address:	1200 Smith Street Suite 1700			Contact Person:	Valerie Land/ Brenda Montalvo					
				Phone Number:	(281) 578-3388					
	Houston, TX 77002			Email Address:	Valerie.land@jccteam.com /brenda.montalvo@jccteam.com					
Lease:	G24915	Area:	SS	Block:	36	Project Name (If Applicable):				NA
Objective(s):	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Gas	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Salt	Onshore Base:	Berwick, LA		Distance to Closest Land (Miles):		8
Description of Proposed Activities (Mark all that apply)										
<input checked="" type="checkbox"/> Exploration drilling					<input type="checkbox"/> Development drilling					
<input checked="" type="checkbox"/> Well completion					<input type="checkbox"/> Installation of production platform					
<input checked="" type="checkbox"/> Well test flaring					<input type="checkbox"/> Installation of production facilities					
<input checked="" type="checkbox"/> Installation of well protection structure					<input type="checkbox"/> Installation of satellite structure					
<input type="checkbox"/> Installation of subsea wellheads and/or manifolds					<input type="checkbox"/> Installation of lease term pipelines					
<input type="checkbox"/> Temporary well abandonment					<input type="checkbox"/> Commence production					
<input type="checkbox"/> Other (specify and describe)										
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?								X	Yes	No
Tentative Schedule of Proposed Activities										
Proposed Activity							Start Date	End Date	No. of Days	
Drill, complete, and install well protective structure over Well Location A							03/01/05	04/14/05	45	
Description of Drilling Rig					Description of Production Platform					
<input checked="" type="checkbox"/> Jackup		<input type="checkbox"/> Drillship			<input type="checkbox"/> Caisson		<input type="checkbox"/> Tension leg platform			
<input type="checkbox"/> Gorilla Jackup		<input type="checkbox"/> Platform rig			<input checked="" type="checkbox"/> Well protector		<input type="checkbox"/> Compliant tower			
<input type="checkbox"/> Semisubmersible		<input type="checkbox"/> Submersible			<input type="checkbox"/> Fixed platform		<input type="checkbox"/> Guyed tower			
<input type="checkbox"/> DP Semisubmersible		<input type="checkbox"/> Other (Attach Description)			<input type="checkbox"/> Subsea manifold		<input type="checkbox"/> Floating production system			
<input type="checkbox"/> Drilling Rig Name (If Known):					<input type="checkbox"/> Spar		<input type="checkbox"/> Other (Attach description)			