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

Subject: Public Information copy of plan

Control # - N-07185
Type - Initial Exploration Plan
Lease(s) - OCS-G16433 Block - 207 South Timbalier Area
Operator - Samedan Oil Corporation
Description - Wells A, B, C and D
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

<table>
<thead>
<tr>
<th>Site Type/Name</th>
<th>Botm Lse/Area/Blk</th>
<th>Surface Location</th>
<th>Surf Lse/Area/Blk</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELL/A</td>
<td>G16433/ST/207</td>
<td>3400 FSL, 100 FEL</td>
<td>G16433/ST/207</td>
</tr>
<tr>
<td>WELL/B</td>
<td>G16433/ST/207</td>
<td>4800 FSL, 4200 FEL</td>
<td>G16433/ST/207</td>
</tr>
<tr>
<td>WELL/C</td>
<td>G16433/ST/207</td>
<td>5600 FSL, 6500 FEL</td>
<td>G16433/ST/207</td>
</tr>
<tr>
<td>WELL/D</td>
<td>G16433/ST/207</td>
<td>3549 FSL, 3456 FEL</td>
<td>G16433/ST/207</td>
</tr>
</tbody>
</table>
June 28, 2001

Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA  70123

Attention: Plans Section

Re: Samedan Oil Corporation, Block 207, OCS-G-16433, South Timbalier Area

Dear Sir,

Attached are five proprietary and four public information copies of an Initial Exploration Plan for South Timbalier Area Block 207. Should additional information be required to process this plan, please contact Joe Morton, Tim Morton & Associates, Inc., at 337/234-5124.

Sincerely,

SAMEDAN OIL CORPORATION

Steve O'Brien
Offshore Landman

jm
Attachments
INITIAL
EXPLORATION PLAN
SAMEDAN OIL CORPORATION
SOUTH TIMBALIER AREA BLOCK 207
OCS-G-16433
OFFSHORE LOUISIANA
LIST OF ATTACHMENTS

A. Vicinity Plat and Location Plat

B. BOP and Diverter Schematics

C. Shallow Hazard Analysis, Structure Map, Cross-Section Map, and Bathymetry Map

D. Drilling Fluids List

E. Consistency Certification, Environmental Report and Air Quality Screening Checklist
INITIAL

EXPLORATION PLAN

SOUTH TIMBALIER AREA BLOCK 207

OCS-G-16433

OFFSHORE LOUISIANA

Pursuant to the requirements of 30 CFR 250.33, Samedan Oil Corporation submits the following Initial Exploration Plan for activities proposed in South Timbalier Area Block 207.

I. DESCRIPTION OF ACTIVITIES

Samedan proposes to use a jack-up rig to drill four wells in South Timbalier Area Block 207. Information regarding the wells is as follows:

<table>
<thead>
<tr>
<th>Well Name</th>
<th>Surface Location</th>
<th>Bottomhole Location</th>
<th>TVD/MD</th>
<th>Lambert Coordinates</th>
<th>Water Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1000' FEL</td>
<td>PROP.</td>
<td>PROP.</td>
<td>X = 2,348,370'</td>
<td>182'</td>
</tr>
<tr>
<td></td>
<td>3400' FSL</td>
<td>INFO.</td>
<td>INFO</td>
<td>Y = -83,641'</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>4200' FEL</td>
<td>PROP.</td>
<td>PROP.</td>
<td>X = 2,345,170'</td>
<td>179'</td>
</tr>
<tr>
<td></td>
<td>4800' FSL</td>
<td>INFO.</td>
<td>INFO</td>
<td>Y = -82,241'</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>6500' FEL</td>
<td>PROP.</td>
<td>PROP.</td>
<td>X = 2,342,870'</td>
<td>176'</td>
</tr>
<tr>
<td></td>
<td>5600' FSL</td>
<td>INFO.</td>
<td>INFO</td>
<td>Y = -81,441'</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>3456' FEL</td>
<td>PROP.</td>
<td>PROP.</td>
<td>X = 2,345,914'</td>
<td>177'</td>
</tr>
<tr>
<td></td>
<td>3549' FSL</td>
<td>INFO.</td>
<td>INFO</td>
<td>Y = -83,491'</td>
<td></td>
</tr>
</tbody>
</table>

Attachment A contains a vicinity map that depicts the location of South Timbalier Area Block 207 in relation to the Louisiana coast and a location plat that depicts the well locations in relation to the lease lines. The anticipated spud date for Well A is August 1, 2001, and it is estimated that it will take approximately 70 days to drill and 30 days to complete each well. If commercial quantities of hydrocarbons are discovered, a Development Operations Coordination Document will be submitted for approval.

II. DRILLING RIG, SAFETY, AND POLLUTION PREVENTION INFORMATION

Samedan proposes to utilize a jack-up rig to drill the proposed wells. Schematics for a typical BOP and diverter are included in Attachment B. The actual rig specifications for the rig to be used will be submitted with the application for Permit to Drill for the wells.
Safety and pollution prevention will be accomplished during drilling operations through the use of adequately designed casing programs; blowout preventers, diverters, and other associated well equipment of adequate pressure rating to control anticipated pressures; mud monitoring equipment and sufficient mud volumes to insure well control; and properly trained supervisory personnel. Pursuant to Coast Guard regulations, fire drills and abandon ship drills will be conducted, and navigational aids, lifesaving equipment, and all other shipboard safety equipment will be installed and maintained.

III. GEOPHYSICAL AND GEOLOGIC INFORMATION

A structure map, cross-section maps, and a bathymetry map are provided with the confidential copies of this document as Attachment C. As stated in the Shallow Hazard Reports which are also included in Attachment C, no shallow drilling hazards are anticipated during the drilling of the proposed wells. The approximate water depths at the proposed surface locations range from 176 feet to 182 feet.

IV. OIL SPILL INFORMATION

Samedan is a member of Clean Gulf Associates (CGA), and would utilize CGA equipment in the event of an oil spill at South Timbalier Area Block 207. CGA is an oil spill cooperative which owns a large inventory of oil spill clean-up equipment which is supported by Marine Spill Response Corporation (MSRC). MSRC is responsible for storing, inspecting, maintaining and dispatching CGA’s equipment. An inventory of spill response equipment suitable for spills in the Gulf of Mexico is identified in Samedan’s Oil Spill Response Plan which was approved on November 8, 2000. Samedan Oil Corporation and Energy Development Corporation are the two entities covered under the OSRP. Samedan requests that the activities proposed in this Exploration Plan be covered by the Oil Spill Response Plan.

In the event of a spill, the primary location for the procurement of clean-up equipment would be the CGA stockpile at Houma, Louisiana. Additional cleanup equipment could be mobilized from Fort Jackson and Lake Charles, Louisiana and Galveston and Ingleside, Texas CGA stockpile areas. The Houma, Louisiana stockpile area is located approximately 83 miles from the block.

In accordance with 30 CFR 254.47, the worst case discharge is calculated as follows:

Worst Case Discharge = Daily volume from uncontrolled blowout = 200 Barrels

Following is a comparison of the worst case scenario from Samedan’s approved regional Oil Spill Contingency Plan to the worst case scenario from the proposed activities in this Exploration Plan.
<table>
<thead>
<tr>
<th>Category</th>
<th>Regional OSCP</th>
<th>EP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Activity</td>
<td>12&quot; ROW Pipeline</td>
<td>Well A</td>
</tr>
<tr>
<td>Spill Location (area/block)</td>
<td>Main Pass Block 305</td>
<td>South Timbalier Area Block 207</td>
</tr>
<tr>
<td>Facility Designation</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Distance to Nearest Shoreline (miles)</td>
<td>26 miles</td>
<td>40 miles</td>
</tr>
<tr>
<td>Volume</td>
<td>21,989 barrels</td>
<td>200 barrels</td>
</tr>
<tr>
<td>Type of Oil(s) (crude oil, condensate, diesel)</td>
<td>Crude Oil</td>
<td>Condensate</td>
</tr>
<tr>
<td>API° Gravity(s)</td>
<td>32.9</td>
<td></td>
</tr>
</tbody>
</table>

Since Samedan Oil Corporation has the capability to respond to the worst-case spill scenario included in its regional Oil Spill Contingency Plan approved on November 8, 2000, and since the worst-case scenario determined for their Exploration Plan does not replace the worst-case scenario in their regional OSRP, Samedan Oil Corporation hereby certifies that they have 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 their Exploration Plan.

V. BIOLOGICAL INFORMATION

Activities proposed in this Exploration Plan will not impact any deepwater chemosynthetic communities as the water depths at the proposed surface locations range from 176 feet to 182 feet. The proposed surface locations are not within the 3-mile zone of any identified topographic feature or within 100 feet of any pinnacle trend feature; therefore, no impacts to these features are anticipated.

VI. LEASE STIPULATIONS

There are no operational lease stipulations.

VII. SOLID AND LIQUID WASTES AND POLLUTANTS

The discharges generated at the proposed well locations by the drilling activities associated with this EP will be discharged as per NPDES discharge guidelines. Bioassay tests will be performed on the discharge effluents. Discharge rates will not exceed permit specifications.

All drill cuttings will be brought to the surface by the mud system and will be separated from the drilling fluid by shaker screens and centrifugal separators prior to discharging overboard. This discharge is composed of the cuttings, shaker washwater, and adhered drilling fluids. The projected amounts of this discharge are based on the size of the hole at each drilling interval, and are computed at 25 percent over the gauge hole at that interval. Drill cuttings are assumed to comprise 50 percent of the discharge,
washwater is assumed to comprise 42.5 percent, and adhered drilling fluids are assumed to comprise 7.5 percent. A list of drilling fluids to be utilized during the drilling operation is included as Attachment D.

Drilled solids and liquids discharge volumes for a typical well are listed below:

<table>
<thead>
<tr>
<th>Drilling Interval</th>
<th>Hole Size</th>
<th>Drilled Solids</th>
<th>Shaker Washwater</th>
<th>Adhered Drilling Fluids</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 500'</td>
<td>30.00&quot;</td>
<td>546 bbls</td>
<td>464 bbls</td>
<td>82 bbls</td>
</tr>
<tr>
<td>500 - 800'</td>
<td>20.00&quot;</td>
<td>146 bbls</td>
<td>124 bbls</td>
<td>22 bbls</td>
</tr>
<tr>
<td>800 - 4500'</td>
<td>16.00&quot;</td>
<td>1150 bbls</td>
<td>978 bbls</td>
<td>173 bbls</td>
</tr>
<tr>
<td>4500 - 11200'</td>
<td>11.875&quot;</td>
<td>1147 bbls</td>
<td>975 bbls</td>
<td>172 bbls</td>
</tr>
<tr>
<td>11200 - 16100'</td>
<td>9.625&quot;</td>
<td>551 bbls</td>
<td>469 bbls</td>
<td>83 bbls</td>
</tr>
<tr>
<td>16100 - 18000'</td>
<td>7.75&quot;</td>
<td>139 bbls</td>
<td>118 bbls</td>
<td>21 bbls</td>
</tr>
</tbody>
</table>

Batch discharges of drilling fluids will be limited to 1000 barrels per hour. This limitation should only need to be imposed upon the completion of drilling operations.

Solids wastes; typically paper, plastic, cloth, and metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage, will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse.

Sanitary wastes will be treated in approved marine sanitation devices as required by the Clean Water Act. All biodegradable wastes, such as kitchen food scraps, will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78.

Hazardous wastes from the drilling rig, such as paint, or paint thinner, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines.

VIII. H₂S AREA CLASSIFICATION

This area is not known to contain any H₂S. Samedan, therefore, requests that South Timbalier Area Block 207 be classified as a "Zone where the absence of H₂S has been confirmed".

IX. NEW OR UNUSUAL TECHNOLOGY

Exploration activities in South Timbalier Area Block 207 will not warrant utilizing any new or unusual technology that may affect coastal waters.

X. CERTIFICATE OF COASTAL ZONE CONSISTENCY

A Certificate of Coastal Zone Consistency is included in Attachment E.
XI. ENVIRONMENTAL REPORT

An Environmental Report has been prepared for the proposed activity and is included as Attachment E.

XII. CALCULATION OF AIR EMISSIONS

An Air Quality Screening Checklist is included as Attachment E.

XIII. SUPPORT BASE

South Timbalier Area Block 207 is located approximately 40 miles from the coast of Lafourche Parish, Louisiana. An existing facility in Fourchon, Louisiana will serve as the operations base for the South Timbalier Area Block 207 exploration activities. This shore base is located approximately 45 miles from South Timbalier Area Block 207. Samedan proposes to utilize one helicopter, one supply boat, and one crew boat to support the activities in this block. The helicopter will travel to the location as needed. The supply boat and crew boat will travel to the location a total of three and five times per week, respectively. The shore base will serve the following functions: loading point for tools, equipment and machinery to be delivered to the drilling rig, transportation base, and temporary storage area for materials and equipment. The base is equipped with cranes and loading docks necessary for safe operations. Twenty-four hour a day contact with offshore personnel is maintained by full time dispatchers at the shore base. The existing onshore facilities and support personnel are sufficient to support the proposed operations without modification or expansion.

XIV. SURETY BOND REQUIREMENTS

In accordance with the amendment of 30 CFR Part 256 surety bond requirements applicable to OCS lessees and operators, Samedan submitted an area-wide bond in the amount of $3,000,000.00 to the Minerals Management Service, New Orleans, Louisiana.

XV. COMPANY CONTACT

Any inquiries regarding this plan may be addressed to Mr. J. M. Ables, Samedan Oil Corporation, 350 Glenborough, Suite 240, Houston, Texas 77067-3299, telephone number 281/876-6223.
LITERATURE CITED

U. S. Department of Interior, Minerals Management Service
ATTACHMENT B

RIG BOP AND DIVERTER SCHEMATICS
ATTACHMENT C

SHALLOW HAZARDS REPORTS

GEOLOGIC STRUCTURES MAP

CROSS-SECTION MAPS

BATHYMETRY MAP
DATE: June 22, 2001

AREA/BLOCK: Offshore Louisiana, South Timbalier, Block 207
OCS-G-16433

WELL: Surface Location “A”

SURFACE LOCATION: 3400’ FSL and 1000’ FEL
X = 2348370 Y = -83640

WATER DEPTH: 182’

DATA REVIEWED

HAZARD SURVEY
High Resolution Geophysical Survey of South Timbalier, Block 207 OCS-
G-12025, acquired for CNG Producing by Gulf Ocean Services in June
1990. This survey is being used by Samedan Oil Corporation for filing a
Shallow Hazard Report. Sensing devices included side-scan sonar,
magnetometer, sparker, subbottom profiler, and echosounder. The survey
was performed on a grid spacing of 300 m x 900 m (984’ x 2952’).
Survey lines used to evaluate these locations were 9, 12, 15, and 18.

OTHER DATA
Other data reviewed for this location include a speculative 3-D seismic
survey acquired and owned by Western Geophysical, Inc. North-south
trending inline 1930 from this 3-D survey, through the “A” surface
location, is submitted for this evaluation.

CONCLUSIONS
No catastrophic slope failures or down slope sediment creep were
interpreted from the Hazard report. A number of seafloor shallow
depressions pock mark probably relick gas vents were noted on the Hazard
report. The “A” location is located 1200’ North of the nearest pock mark.
No other indications of natural or man made Hazards to drilling were
found by the evaluation.

RECOMMENDATIONS
Normal precautions should be observed during drilling operations at the
“A” surface location.

Robert C. Bruce – Division Geophysicists, Offshore
Cc: Bob Bemis – Samedan Drilling Dept.
RCB/jm
DATE: June 22, 2001
AREA/BLOCK: Offshore Louisiana, South Timbalier, Block 207
OCS-G-16433
WELL: Surface Location “B”
SURFACE LOCATION: 4800’ FSL 4200’ FEL
X = 2345170 Y = -82240
WATER DEPTH: 179’

DATA REVIEWED
HAZARD SURVEY
High Resolution Geophysical Survey of South Timbalier, Block 207 OCS-G-12025, acquired for CNG Producing by Gulf Ocean Services in June 1990. This survey is being used by Samedan Oil Corporation for filing a Shallow Hazard Report. Sensing devices included side-scan sonar, magnetometer, sparker, subbottom profiler, and echosounder. The survey was performed on a grid spacing of 300 m x 900 m (984’ x 2952’). Survey lines used to evaluate these locations were 9, 12, 15, and 18.

OTHER DATA
Other data reviewed for this location include a speculative 3-D seismic survey acquired and owned by Western Geophysical, Inc. North-south trending inline 1984 from this 3-D survey, through the “B” surface location, is submitted for this evaluation.

CONCLUSIONS
No catastrophic slope failures or down slope sediment creep were interpreted from the Hazard report. A number of seafloor shallow depressions pock mark probably relict gas vents were noted on the Hazard report. The “B” location is located 500’ West of the nearest pock mark. No other indications of natural or man made Hazards to drilling were found by the evaluation.

RECOMMENDATIONS
Normal precautions should be observed during drilling operations at the “B” surface location.

Robert C. Bruce – Division Geophysicists, Offshore
Cc: Bob Bemis – Samedan Drilling Dept.
RCB/jm
DATE: June 22, 2001
AREA/BLOCK: Offshore Louisiana, South Timbalier, Block 207
              OCS-G-16433
WELL: Surface Location "C"
SURFACE LOCATION: 5600' FSL  6500' FEL
                   X = 2342870  Y = -81440
WATER DEPTH: 176"

DATA REVIEWED
HAZARD SURVEY
High Resolution Geophysical Survey of South Timbalier, Block 207 OCS-G-12025, acquired for CNG Producing by Gulf Ocean Services in June 1990. This survey is being used by Samedan Oil Corporation for filing a Shallow Hazard Report. Sensing devices included side-scan sonar, magnetometer, sparker, subbottom profiler, and echosounder. The survey was performed on a grid spacing of 300 m x 900 m (984' x 2952'). Survey lines used to evaluate these locations were 9, 12, 15, and 18.

OTHER DATA
Other data reviewed for this location include a speculative 3-D seismic survey acquired and owned by Western Geophysical, Inc. North-south trending inline 1868 from this 3-D survey, through the "C" surface location, is submitted for this evaluation.

CONCLUSIONS
No catastrophic slope failures or down slope sediment creep were interpreted from the Hazard report. A number of seafloor shallow depressions pock mark probably relict gas vents were noted on the Hazard report. The "C" location is located 850' West of the nearest pock mark. No other indications of natural or man made Hazards to drilling were found by the evaluation.

RECOMMENDATIONS
Normal precautions should be observed during drilling operations at the "C" surface location.

Robert C. Bruce – Division Geophysicists, Offshore
Cc: Bob Bemis – Samedan Drilling Dept.
RCB/jm
DATE:       June 22, 2001
AREA/BLOCK: Offshore Louisiana, South Timbalier, Block 207
       OCS-G-16433
WELL:       Surface Location “D”
SURFACE LOCATION:  3549’ FSL  3456’ FEL
       X = 2345914  Y = -83490
WATER DEPTH:  177’

DATA REVIEWED

HAZARD SURVEY
High Resolution Geophysical Survey of South Timbalier, Block 207 OCS-
G-12025, acquired for CNG Producing by Gulf Ocean Services in June
1990. This survey is being used by Samedan Oil Corporation for filing a
Shallow Hazard Report. Sensing devices included side-scan sonar,
magnetometer, sparker, subbottom profiler, and echosounder. The survey
was performed on a grid spacing of 300 m x 900 m (984’ x 2952’).
Survey lines used to evaluate these locations were 9, 12, 15, and 18.

OTHER DATA
Other data reviewed for this location include a speculative 3-D seismic
survey acquired and owned by Western Geophysical, Inc. North-south
trending inline 1984 from this 3-D survey, through the “D” surface
location, is submitted for this evaluation.

CONCLUSIONS
No catastrophic slope failures or down slope sediment creep were
interpreted from the Hazard report. A number of seafloor shallow
depressions pock mark probably relict gas vents were noted on the Hazard
report. The “D” location is located 1000’ Southwest of the nearest pock
mark. No other indications of natural or man made Hazards to drilling
were found by the evaluation.

RECOMMENDATIONS
Normal precautions should be observed during drilling operations at the
“D” surface location.

[Signature]
Robert C. Bruce – Division Geophysicists, Offshore
Cc: Bob Bemis – Samedan Drilling Dept.
RCB/jm
STRATIGRAPHIC COLUMN

PROPRIETARY INFORMATION
ATTACHMENT D

DRILLING FLUIDS LIST
<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>APPLICATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Stearate</td>
<td>Defoamer</td>
<td>Aluminum Stearate $\text{Al}(\text{C}<em>8\text{H}</em>{15}\text{O}_2)_3$</td>
</tr>
<tr>
<td>Bac Ban</td>
<td>Preservative</td>
<td>Isothiazolin mixture</td>
</tr>
<tr>
<td>Barabuf</td>
<td>PH control</td>
<td>Magnesium oxide</td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td>Weighting Agent</td>
<td>Calcium Chloride $\text{CaCl}_2$</td>
</tr>
<tr>
<td>Cane Fiber</td>
<td>Loss Circulation</td>
<td>Sugar cane fiber (bagasse)</td>
</tr>
<tr>
<td>Caustic Potash</td>
<td>PH control</td>
<td>Potassium hydroxide (KOH)</td>
</tr>
<tr>
<td>Caustic Soda</td>
<td>PH control</td>
<td>Sodium hydroxide (NaOH)</td>
</tr>
<tr>
<td>Caustilig</td>
<td>Thinner</td>
<td>Causticized lignite</td>
</tr>
<tr>
<td>Cedar Fiber</td>
<td>Loss Circulation</td>
<td>Shredded cedar, cellulose</td>
</tr>
<tr>
<td>Congor 101</td>
<td>Corrosion Inhibitor</td>
<td>Blend of tall oil and alcohol</td>
</tr>
<tr>
<td>Congor 202</td>
<td>Corrosion Inhibitor</td>
<td>Blend of amines and alcohol</td>
</tr>
<tr>
<td>Congor 303</td>
<td>Corrosion Inhibitor</td>
<td>Blend of alkyl diamines</td>
</tr>
<tr>
<td>Congor 404</td>
<td>Corrosion Inhibitor</td>
<td>Salt of phosphate ester</td>
</tr>
<tr>
<td>Cottonseed Hulls</td>
<td>Loss Circulation</td>
<td>Cotton seed hulls</td>
</tr>
<tr>
<td>Defoam X</td>
<td>Defoamer</td>
<td>Blend of glycols and stearate</td>
</tr>
<tr>
<td>Desco</td>
<td>Thinner</td>
<td>Sulfomethylated tannin/dichromate</td>
</tr>
<tr>
<td>Diaseal M</td>
<td>Loss Circulation</td>
<td>Diatomaceous earth</td>
</tr>
<tr>
<td>Drillaid Selec Floc</td>
<td>Flocculant</td>
<td>Anionic polymer</td>
</tr>
<tr>
<td>Drispar</td>
<td>Fluid Loss Control</td>
<td>Cellulose Gum</td>
</tr>
<tr>
<td>Durogel</td>
<td>Viscosifier</td>
<td>Sepiolite clay</td>
</tr>
<tr>
<td>Fer-Ox</td>
<td>Weighting Agent</td>
<td>Iron oxide; hematite (Fe$_2$O$_3$)</td>
</tr>
<tr>
<td>Flakes</td>
<td>Loss Circulation</td>
<td>Cellophane ($C_6$H$_{10}$O$_3$)$_n$</td>
</tr>
<tr>
<td>Floxit</td>
<td>Flocculant</td>
<td>Polyacrylamide ($C_3$H$_5$NO)$_n$</td>
</tr>
<tr>
<td>Gelex</td>
<td>Viscosifier</td>
<td>Sodium polyacrylate</td>
</tr>
<tr>
<td>Gelite</td>
<td>Viscosifier</td>
<td>Saponite ($\text{Al}_2\text{MgO}_8\text{Si}_2$)</td>
</tr>
<tr>
<td>Additive</td>
<td>Description</td>
<td>Components</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Gypsum</td>
<td>Shale Control</td>
<td>Calcium sulfate (CaSO₄·2H₂O)</td>
</tr>
<tr>
<td></td>
<td>Iron Oxide (Fe₂O₃)</td>
<td>Iron oxide (Fe₂O₃)</td>
</tr>
<tr>
<td>K-17</td>
<td>Corrosion Inhibitor Thinner</td>
<td>Metal salt of lignite with potassium hydroxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blend of surfactants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blend of nut shells, cellophane and wood fibers</td>
</tr>
<tr>
<td>Kleen Up</td>
<td>Surfactant</td>
<td>Bentonite, polyacrylamide blend</td>
</tr>
<tr>
<td>Kwik Seal</td>
<td>Loss Circulation</td>
<td>Calcium hydroxide [Ca(OH)₂]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium chloride, liquid (CaCl₂)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium carbonate (CaCO₃)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blend of alcohol and esters</td>
</tr>
<tr>
<td>Kwik-Thik</td>
<td>Viscosifier</td>
<td>Barium sulfate (BaSO₄)</td>
</tr>
<tr>
<td>Lime</td>
<td>PH Control</td>
<td>Sodium carboxymethylcellulose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodiummontmorillonite (bentonite)</td>
</tr>
<tr>
<td>Liquid CaCl₂</td>
<td>Weighting Agent</td>
<td>Mica</td>
</tr>
<tr>
<td>Lo-Wato</td>
<td>Weighting Agent</td>
<td>Melanin polymer derivative</td>
</tr>
<tr>
<td>Lube-106</td>
<td>Lubricant</td>
<td>Pregelatinized starch</td>
</tr>
<tr>
<td>Lube-153</td>
<td>Lubricant</td>
<td>Biopolymer</td>
</tr>
<tr>
<td>M-I Bar</td>
<td>Weighting Agent</td>
<td>Barium sulfate (BaSO₄)</td>
</tr>
<tr>
<td>M-I CMC</td>
<td>Fluid Loss Control</td>
<td>Sodium carboxymethylcellulose</td>
</tr>
<tr>
<td>M-I Cal</td>
<td>Viscosifier</td>
<td>Sodiummontmorillonite (bentonite)</td>
</tr>
<tr>
<td>M-I Mica</td>
<td>Loss Circulation Thinner</td>
<td>Mica</td>
</tr>
<tr>
<td>Melanex-T</td>
<td></td>
<td>Melanin polymer derivative</td>
</tr>
<tr>
<td>My-Lo-Jel</td>
<td>Fluid Loss Control</td>
<td>Pregelatinized starch</td>
</tr>
<tr>
<td>N-DRL HT</td>
<td>Viscosifier and Fluid Loss Control</td>
<td>Biopolymer</td>
</tr>
<tr>
<td>N-VIS P</td>
<td>Fluid Loss Control</td>
<td>Hyperproprerlated starch</td>
</tr>
<tr>
<td>Nut Plug - All Grades</td>
<td>Loss Circulation</td>
<td>Ground nut shells</td>
</tr>
<tr>
<td>Oxygen Scavenger</td>
<td>Corrosion Inhibitor</td>
<td>Ammonium bisulfite solution</td>
</tr>
<tr>
<td>Pheno-seal</td>
<td>Loss Circulation Thinner</td>
<td>Chipped formica</td>
</tr>
<tr>
<td>Phos</td>
<td>Thinner</td>
<td>Sodium tetraphosphate</td>
</tr>
<tr>
<td>Pipelax</td>
<td>Spotting Fluid</td>
<td>Blend of surfactants dispersed in an aromatic process oil</td>
</tr>
<tr>
<td>Pipelax SF</td>
<td>Spotting Fluid</td>
<td>Blend of surfactants and low toxicity hydrocarbons</td>
</tr>
<tr>
<td>Polypac</td>
<td>Fluid Loss Control</td>
<td>A high grade carboxymethyl cellulose</td>
</tr>
<tr>
<td>Product</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Poly-Plus (liquid)</td>
<td>Polymer</td>
<td>A liquid anionic polyelectrolyte with mineral oil</td>
</tr>
<tr>
<td>Polysal</td>
<td>Fluid Loss Control</td>
<td>A modified potato starch</td>
</tr>
<tr>
<td>Polyseal</td>
<td>Loss Circulation</td>
<td>A blend of mixed fibers and cellophane Tannin</td>
</tr>
<tr>
<td>Quebracho 60/40 Resinex</td>
<td>Thinner</td>
<td>Copolymer of a lignite and a sulfonated phenol, formaldehyde urea resin</td>
</tr>
<tr>
<td>Safe Link</td>
<td>Viscosifier</td>
<td>A blend of salt, polymer and lignosulfonate</td>
</tr>
<tr>
<td>Salt</td>
<td>Weighting Agent</td>
<td>Sodium chloride (NaCl)</td>
</tr>
<tr>
<td>Salt Gel</td>
<td>Viscosifier</td>
<td>Attapulgite clay</td>
</tr>
<tr>
<td>SAPP</td>
<td>Thinner</td>
<td>Sodium acid pyrophosphate (Na₂H₂P₂O₇)</td>
</tr>
<tr>
<td>Shale Chek</td>
<td>Shale Control</td>
<td>A blend of amines and glycol</td>
</tr>
<tr>
<td>Soda Ash</td>
<td>PH Control</td>
<td>Sodium carbonate (Na₂CO₃)</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>PH Control</td>
<td>Sodium bicarbonate (NaHCO₃)</td>
</tr>
<tr>
<td>Soltex</td>
<td>Lubricant</td>
<td>Sodium asphalt sulfonate</td>
</tr>
<tr>
<td>SP-101</td>
<td>Fluid Loss Control</td>
<td>Sodium polyacrylate</td>
</tr>
<tr>
<td>Spersene</td>
<td>Thinner</td>
<td>Chrome lignosulfonate</td>
</tr>
<tr>
<td>Spersene CF</td>
<td>Thinner</td>
<td>Chrome free lignosulfonate</td>
</tr>
<tr>
<td>Sulf-X Plus Tackle</td>
<td>Corrosion Inhibitor</td>
<td>Zinc oxide blend</td>
</tr>
<tr>
<td>Tannathin</td>
<td>Thinner</td>
<td>A polyacrylamide blend</td>
</tr>
<tr>
<td>Thermpac UL</td>
<td>Fluid Loss Control</td>
<td>Oxidized lignite (naturally occurring)</td>
</tr>
<tr>
<td>XP-20</td>
<td>Thinner</td>
<td>Sodium carboxymethyl starch</td>
</tr>
</tbody>
</table>

**NOTE:**

The product names are from M-I Drilling Fluids. These product names may differ depending on the actual company selected to provide drilling fluid products.
ATTACHMENT E

CONSISTENCY CERTIFICATION

ENVIRONMENTAL REPORT

AIR QUALITY SCREENING CHECKLIST
COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATE

EXPLORATION PLAN

GULF OF MEXICO

FOR

SOUTH TIMBALIER AREA BLOCK 207

SUBMITTED TO:

MR. STEVE O'BRIEN

OFFSHORE LANDMAN

SAMEDAN OIL CORPORATION

350 GLENBOROUGH, SUITE 240

HOUSTON, TEXAS 77067

(281/876-6242)

JUNE 28, 2001

PREPARED BY:

TIM MORTON & ASSOCIATES, INC.

REGULATORY & ENVIRONMENTAL CONSULTANTS

PROJECT NO. 01-149
COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

EXPLORATION

............... Type of Plan

SOUTH TIMBALIER AREA BLOCK 207

......................... Area and Block

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

Arrangements have been made to publish Public Notices regarding the proposed activity no later than 7/17/2017 with THE ADVOCATE, the official journal of Louisiana and with THE DAILY COMET, the official journal of Lafourche Parish.

SAMEDAN OIL CORPORATION

Lessee or Operator

Certifying Official

June 29, 2001

Date
Public Notice of Federal Consistency Review of a Proposed Exploration Plan (EP) by the Coastal Management Division/Louisiana Department of Natural Resources for the Plan's Consistency with the Louisiana Coastal Resources Program.

Applicant: Samedan Oil Corporation  
350 Glenborough, Suite 240  
Houston, Texas 77067

Location: South Timbalier Area, OCS-G-16433  
Block 207

Description: Proposed Initial Exploration Plan for South Timbalier Area Block 207 provides for the exploration for oil and gas. Exploration activities shall including drilling from a jack-up rig and transport of drilling crews and equipment by cargo vessels from an onshore base located at Fourchon, Louisiana. No ecologically sensitive species or habitats are expected to be located near or affected by these activities.

A copy of the plan described above is available for inspection at the Coastal Management Division Office located on the 10th floor of the State Land and Natural Resources Bldg., 625 North 4th Street, Baton Rouge, Louisiana. Office hours: 8:00 a.m. to 5:00 p.m., Monday through Friday. The public is requested to submit comments to the Coastal Management Division, Attention: OCS Plans, P. O. Box 44487, Baton Rouge, La. 70804-4487. Comments must be received within 15 days of the date of this notice or 15 days after the Coastal Management Division obtains a copy of the plan and it is available for public inspection. This public notice is provided to meet the requirements of the NOAA Regulations on Federal Consistency with approved Coastal Management Programs.
ENVIRONMENTAL REPORT

FOR COASTAL MANAGEMENT CONSISTENCY DETERMINATION

EXPLORATION PLAN

GULF OF MEXICO

FOR

SOUTH TIMBALIER AREA BLOCK 207 (OCS-G-16433)

SUBMITTED TO:

MR. STEVE O'BRIEN

OFFSHORE LANDMAN

SAMEDAN OIL CORPORATION

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PROJECT NO. 01-149
# TABLE OF CONTENTS

I. TITLE PAGE ................................................................. i

II. DESCRIPTION OF THE PROPOSED ACTION .......................... 1
   A. Travel Modes, Routes, and Frequencies .......................... 3
   B. Support Base and New Personnel ............................... 3
   C. New Support Facilities ......................................... 4
   D. New or Unusual Technology .................................... 4
   E. Location of the Proposed Activities ......................... 4

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS .. 5
   A. Physical and Environmental .................................... 5
      1. Commercial Fishing ........................................... 5
      2. Shipping ....................................................... 11
      3. Recreation .................................................... 11
      4. Cultural Resources .......................................... 12
      5. Ecologically Sensitive Features ........................... 12
      6. Existing Pipelines and Cables .............................. 15
      7. Other Mineral Uses .......................................... 15
      8. Ocean Dumping ............................................... 15
      9. Endangered or Threatened Species ......................... 16
   B. Socio-Economic Impacts ......................................... 17

IV. UNAVOIDABLE AVERSE IMPACTS ................................. 18

V. LITERATURE CITED ................................................... 22
LIST OF FIGURES

FIGURE

1 -- Vicinity Map of South Timbalier Area Block 207 ........................................... 2
II. DESCRIPTION OF THE PROPOSED ACTION

This environmental report addresses the activity proposed by Samedan Oil Corporation for South Timbalier Area Block 207 (OCS-G-16433). The approximate location of the activity is presented on a general vicinity map of the Outer Continental Shelf (OCS) lease areas off the coast of Louisiana (Figure 1).

A jack-up rig will be utilized to drill four wells in South Timbalier Area Block 207. The activities proposed by Samedan Oil Corporation for this block are addressed in the attached Exploration Plan.

The proposed activities will be carried out by Samedan Oil Corporation with a guarantee of the following:

1. The best available and safest technologies will be utilized throughout the project. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, equipment and monitoring systems.

2. All operations will be covered by a M.M.S. approved Oil Spill Contingency Plan.

3. All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.
A. Travel Modes, Routes, and Frequencies

Samedan Oil Corporation will operate out of service base facilities established in Fourchon, Louisiana. Samedan Oil Corporation proposes to utilize one helicopter, one crew boat, and one supply boat to support the South Timbalier Area Block 207 activities.

The helicopter will travel to the location on an as needed basis. The crew boat will travel to the location a total of five times per week, and the work boat will travel to the location a total of two times per week.

Transportation vessels will utilize the most direct route from the Fourchon, Louisiana service base. However, because a vessel supporting the South Timbalier Area Block 207 exploration activities, as outlined in the Exploration Plan, may be scheduled for other stops in the area, the exact route for each vessel on each particular trip cannot be predetermined.

B. Support Base and New Personnel

Samedan Oil Corporation will utilize support base facilities established in Fourchon, Louisiana. The Fourchon, Louisiana support base is located approximately forty-five miles from the block.

Helicopter and marine facilities are currently available at the service base and are presently and continuously manned, therefore, no additional onshore employment is expected to be generated as a result of these activities. The initial OCS Socio-Economic Data Base Report for the service base
facilities utilized by Samedan Oil Corporation will be prepared for submission upon issuance of the specific parameters to be established by the DOI/MMS.

C. New Support Facilities

Exploration activities in South Timbalier Area Block 207 will not require the development of any new support facilities.

D. New or Unusual Technology

Exploration activities in South Timbalier Area Block 207 will not warrant utilizing any new or unusual technology that may affect coastal waters.

E. Location of the Proposed Activities

South Timbalier Area Block 207 is located approximately forty-five miles from Fourchon, Louisiana and approximately forty miles from the shore of Lafourche Parish, Louisiana. Figure 1 presents the location of the block in relation to the Louisiana coast, as well as the geographic relationship between other OCS lease areas and South Timbalier Area Block 207.
III. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS

A. Physical and Environmental

1. Commercial Fishing

Louisiana is traditionally one of the top states in the nation in terms of commercial fishery landings. In 1996, Louisiana's landings amounted to 480,219,375 pounds worth $274,806,770 (USDC, NMFS 1997a&b). Nine families of finfish and shellfish represented 93 percent of the dockside value (dollars) and 94 percent of the poundage of Louisiana's marine and estuarine commercial fishery landings.

The most valuable commercial species in Louisiana are the brown shrimp (Penaeus aztecus) and the white shrimp (P. setiferus), which together produce by far the greatest shrimp harvest in the Gulf of Mexico. Louisiana fishermen harvested 90,612,437 pounds (heads-on) of shrimp worth $128,030,131 in 1996 (USDC, NMFS 1997a). The brown shrimp dominates the Louisiana shrimp harvest, as it is the most abundant species in that region of the gulf (White and Boudreaux 1977). Both the white shrimp and the brown shrimp are estuarine dependent and have similar life histories, with the major differences being the time and location that the various life stages begin and reach their maximum levels. Generally, spawning occurs offshore with the resulting larvae migrating inshore to develop in estuaries. Brown shrimp spawn from November to April in water depths of 30 to 120 meters, while white shrimp spawn from March to October in water depths of 8 to 34 meters (Benson 1982). Juvenile and adult brown shrimp migrate offshore from May to July, and white shrimp migrate between June and November (Benson 1982).
The proposed petroleum activities in South Timbalier Area Block 207 are expected to have no impact on the harvest of brown or white shrimp as this block is beyond the outer limits of the harvest area for these species (USDOI, MMS 1986, Visual No. 2).

The Gulf menhaden (Brevoortia patronus) or "pogy" fish constitutes Louisiana's second most valuable fishery, accounting for 302,587,497 pounds worth $51,439,803 in 1996 (USDC, NMFS 1997b). Gulf menhaden spawn offshore from mid-October through March in 40 to 140 meters of water, with the larvae subsequently moving into shallow, low salinity estuaries from February to May (Benson 1982). In the shallow estuaries, the larvae metamorphose into juveniles and change from being carnivores to filter-feeding omnivores. The juveniles and subadults migrate from the estuaries into offshore waters from December through February (Benson 1982). Adults rarely venture far offshore (Hoese and Moore 1977); indeed, about 93 percent of the commercial fishing effort for this species occurs within ten miles of shore (USDOI, MMS 1983).

The activities as proposed are unlikely to have any adverse effect on the menhaden fishing as South Timbalier Area Block 207 lies outside the "Principle Menhaden Harvest Area" (USDOI, MMS, 1986, Visual No. 2).

The Eastern oyster (Crassostrea virginica) is most abundant in the Gulf of Mexico from Aransas Bay, Texas to Apalachicola Bay, Florida (Beccasio et al. 1982). Louisiana oystermen landed 1,999,214 pounds of oysters worth $26,676,844 in 1996. Oysters are Louisiana's third most valuable fishery (USDC, NMFS 1997b). Optimum conditions for oysters are found at salinities between 5 and 15 parts per thousand and water depths of 2.5 to 8 meters (Beccasio et al. 1982). Oysters spawn during the summer, and the free-swimming larvae attach and develop in the same estuarine habitat. The activities
proposed in South Timbalier Area Block 207 are not expected to have any impact on the oyster fishery in Louisiana.

Blue crabs (*Callinectes sapidus*) range from Nova Scotia to Uruguay and support the largest crab fishery in the United States (Marine Experiment Station 1973). In 1996, 39,871,313 pounds of crabs worth $24,480,350 were landed in Louisiana (USDC, NMFS 1997b). Blue crabs inhabit shallow water and can be found in high salinity sounds, bays, and channels where they spawn from March through November, with a peak from May to September (Benson 1982). The resulting planktonic larvae pass through several molts and stages before the juveniles drop to the bottom of the estuarine nurseries, where they remain throughout the year (Benson 1982). The blue crab fishery will not be significantly affected by exploration activities in this block because these activities will be conducted offshore of the coastal and estuarine waters in which this fishery occurs.

In 1996, Louisiana landed a total of 3,270,225 pounds of tuna (Scombridae) worth $10,149,761 (USDC, NMFS 1997b). Six species of tuna were commercially important to Louisiana. These included albacore (*Thunnus alalunga*), bluefin tuna (*T. thynnus*), little tunny (*Euthynus alletteratus*), yellowfin tuna (*T. albacares*), bigeye tuna (*T. obesus*), and blackfin tuna (*T. atlanticus*).

Most species of tuna travel in schools and feed on smaller fish or squid. Most are highly regarded both as game fish and as food fish, with some species supporting extensive commercial fisheries (Hoese and Moore 1977).
Tunas are mass spawners, so that the details of spawning behavior are difficult to observe. These fishes do not protect their eggs and young after spawning, but leave them scattered over the bottom, on aquatic plants, or drifting in the water (Moyle 1993).

Scombroids range around the world in tropical, temperate, and even cold seas (Herald 1972). Tuna are sometimes found in shallow water, especially in places where deep water is immediately adjacent. The presence of tuna at the surface or at greater depths is determined by the water temperature as well as by the composition of the pelagic community (Herald 1972). The activities proposed in South Timbalier Area Block 207 are not expected to have any impact on the scombroids.

Louisiana harvested 8,464,223 pounds of striped mullet (Mugil cephalus) worth $5,625,179 in 1996 (USDC, NMFS 1997b). Mullets are one of the most abundant fishes in the Gulf of Mexico (Hoese and Moore 1977). Mullet have been observed in Alabama inland as far as 607 kilometers from the Gulf, and offshore as far as 80 kilometers and as deep as 1,385 meters (Benson 1982). Mullet spawn from October to May, and some females spawn more than once in a season (Benson 1982). Larvae move inshore in the spring and the juveniles are found in the shallow areas of the estuaries. Offshore movement from the estuaries occurs during the fall (Beccasio et al. 1982). No impacts to mullets are anticipated as a result of the proposed activities.

Red snapper (Lutjanus campechanus) and Vermilion snapper (Rhomboplites aurorubens) accounted for the majority of the snapper landings in Louisiana which amounted to 2,629,205 pounds worth $5,122,028 in 1996 (USDC, NMFS 1997b). Snappers are common over or near banks, coral reefs and outcrops, submarine ridges, rocks, and man-made structures such as shipwrecks and offshore drilling platforms, especially offshore Louisiana (Benson 1982; Hardy 1978). Red snapper spawn in the Gulf of
Mexico from June to Mid-September, in water depths of 16-37 meters, over bottoms of hard sand and shell with rocky reef areas; spawning may actually take place at the surface (Hardy 1978). Little or no information is available about larval red snapper, but juveniles are typically found inshore in high salinity (24 to 40 ppt) water 9-91 meters in depth (Benson 1982). The vermilion snapper has a life history and habits similar to the red snapper. The proposed activities should create a suitable habitat for snapper.

The most common species of sharks found in the Gulf of Mexico include the tiger shark (Galeocerdo cuvier), blacknose shark (Carcharhinus acronotus), spinner shark (C. brevippina), blacktip shark (C. limbatus), sandbar shark (C. plumbeus), Atlantic sharpnose shark (Rhizoprionodon terraenovae), and scalloped hammerhead (Sphyra lewini) (Branstetter 1981). A total of 1,234,635 pounds of shark worth $1,993,159 were landed offshore Louisiana in 1996 (USDC, NMFS 1997b).

The following discussion is summarized from Castro (1983). Shark reproduction is achieved through internal fertilization, usually during the months of June and July. Many species migrate to specific mating areas for this purpose. After a gestation period of ten to twelve months, sharks migrate to the nursery areas for the birth of small litters of large pups. These nursery areas are typically highly productive coastal or estuarine waters able to provide ample food for the growing pups.

Sharks are cold blooded and their body temperature usually corresponds to the temperature of the surrounding water. Each species lives within a relatively narrow temperature range determined by its metabolism. Many species migrate to remain within their temperature tolerance limits. In general these migrations are directed northward and inshore during the summer and southward and offshore in the winter months. No impacts to sharks are expected as a result of the proposed activities.
The drum (Sciaenidae) are one of the three most abundant families of fishes in the Gulf of Mexico in terms of biomass, and they outnumber all other families in the number of species (Hoese and Moore 1977). Three species of drums are commercially important to Louisiana. These include black drum (Pogonias cromis), spotted seatrout (Cynoscion nebulosus), and sand seatrout (C. arenarius). In 1996, Louisiana landed a total of 2,302,703 pounds of drums worth $1,711,989 (USDC, NMFS 1997b).

Typically, sciaenids are euryhaline species that spawn in shallow nearshore Gulf waters, producing larvae that enter coastal estuaries for development (Benson 1982; Johnson 1978; Hoese and Moore 1977). Spotted seatrout spawn at night in deep channels and depressions adjacent to shallow flats, grass beds, and bayous in the estuary, from March to September with a peak from April through July (Benson 1982). The larvae associate with bottom vegetation (predominantly sea grasses) or shell rubble in channel bottoms (Johnson 1978). The juveniles spend at least their first 6 to 8 weeks on the nursery grounds, usually within 50 meters of the shoreline, until late fall when they move into the deeper parts of the estuary (Benson 1982). Adult spotted seatrout rarely leave the estuaries (Benson 1982).

Black drum spawn from February to April in or near tidal passes and in open bays and estuaries (Benson 1982). The larvae are transported to shallow estuarine marshes, but may move to deeper estuarine waters or shallow waters off sandy beaches as large juveniles (Johnson 1978). Adult migration is largely restricted to spring and fall movement through the passes between estuaries and nearshore environments (Beccasio et al. 1982).

Sand seatrout spawn from March to September offshore near passes and inlets to estuaries. Larvae migrate into shallow areas of the upper estuaries. Adults apparently move farther offshore than most
members of the family (Benson 1982). In the fall most adults and juveniles migrate to offshore waters (Benson 1982). The activities proposed are not expected to have any impact on the drums in Louisiana.

2. Shipping

A designated shipping fairway is located approximately twenty miles east of South Timbalier Area Block 207. It is unlikely that marine vessels supporting this block will utilize the shipping fairway to gain access to the support base. The drilling rig and each of the marine vessels will be equipped with all U. S. Coast Guard required navigational safety aids.

3. Recreation

The open Gulf encompasses a broad expanse of saltwater which is utilized by numerous sports fishermen. Many fishermen charter boats to fish and sport dive in the northern Gulf. The states of Alabama, Mississippi, and Louisiana support approximately 120 charter boats which conduct fishing activities in the waters of the OCS (USDOI, MMS 1983). Petroleum platforms provide recreation for fishermen and scuba divers because they act as artificial reefs attracting and establishing aquatic communities including highly sought after food and sport fishes. The reef effect created by petroleum platforms is well known and is evidenced by the numerous private boat owners who regularly fish at offshore facilities.

Offshore rigs and platforms serve as navigation points for small commercial and recreational marine craft. Manned drilling rigs and platforms can also provide a haven for small craft operators forced to abandon their vessels during storms. The installation and use of navigational aids, lifesaving equipment,
and other safety requirements pursuant to Coast Guard regulations are standard procedure for drilling
rigs and marine vessels utilized by Samedan Oil Corporation.

4. Cultural Resources

Visual No. 4 from the Final Environmental Impact Statement (USDOI, MMS 1986) indicates that
South Timbalier Area Block 207 falls outside the zone designated as an area with a high probability of
historic and prehistoric cultural resources; therefore, it is unlikely that there will be any significant
impacts upon culturally significant features.

5. Ecologically Sensitive Features

South Timbalier Area Block 207 is located approximately thirty-four miles northeast of Diaphus
Bank and approximately forty-three miles west of Sackett Bank (USDOI, MMS 1986, Visual No. 4).
There are no other known ecologically sensitive areas near South Timbalier Area Block 207.

The Fourchon, Louisiana support base which will be utilized as the operations base for the South
Timbalier Area Block 207 exploration activities is located approximately two miles south of Wisner
Wildlife Management Area (USDOI, MMS, 1986, Visual No. 3). In general, if all activities are executed
as planned, the environmentally sensitive areas will not be affected.
The following discussion of wetlands is summarized from the Final Environmental Impact Statement for Proposed Gulf of Mexico OCS Lease Sales 147 and 150 (USDOI, MMS 1993). Wetland habitat types occurring along the Gulf coast include fresh, brackish, and saline marshes; forested wetlands; and small areas of mangroves. Wetland habitats may occur along narrow bands or across broad expanses. They can support sharply delineated zones of different species, monotonous stands of a single species, or mixed communities of plant species.

Coastal wetlands are characterized by high organic productivity, high detritus production, and efficient nutrient recycling. Wetlands provide habitat for a great number and wide diversity of invertebrates, fish, reptiles, birds, and mammals. Wetlands are particularly important as nursery grounds for juvenile forms of many important fish species. The Louisiana coastal wetlands support over two-thirds of the Mississippi Flyway wintering waterfowl population and the largest fur harvest in North America.

Louisiana contains most of the Gulf coastal wetlands. These wetlands occur in two physiographic settings -- the Mississippi River Deltaic Plain and the Chenier Plain. Wetlands on the deltaic plain are situated on a series of overlapping riverine deltas that have extended onto the continental shelf during the past 6,000 years. The alluvial and organic-rich sediments found on these areas are subject to high, natural-subsidence rates. The effects of subsidence are compounded by sea-level rise. Under natural conditions, sedimentation encourages vertical accretion of wetland areas and may offset the submergence and inundation that result from subsidence and sea-level rise. Historically, areas of the deltaic plain that were located near an active channel of the Mississippi River tended to build outward, and marsh areas tended to expand. At the same time, areas located near inactive, abandoned channels tended to
deteriorate and erode as a result of the lack of sediment. Today, the Mississippi River is leved, which greatly reduces the once natural formation of deltaic wetlands.

The Chenier Plain, located to the west of the Atchafalaya Bay in the western part of coastal Louisiana, is a series of separate ridges of shell and sand, oriented parallel or oblique to the Gulf Coast. These ridges are separated by progradational mudflats that are now marshes or open water. The mudflats were built during times when the Mississippi River channel was located on the western side of the deltaic plain or when minor changes in localized hydrologic and sedimentation patterns favored deposition in the Chenier Plain.

The deterioration of coastal wetlands, particularly in Louisiana, is an issue of concern. Several factors contribute to wetlands loss in coastal Louisiana. Sediment deprivation is a result of a 50 percent decrease in the suspended-sediment load of the river since the 1950's, the channelization of the river, and the primary cause, the construction of the flood protection levees. Subsidence and sea level rise have caused submergence of lower wetland areas. Construction of ring levees have allowed drainage and development of extensive wetlands. Development activities in low areas, outside leved areas, have caused the filling of wetlands. Construction of canals have converted wetlands to open water and upland spoilbanks. Canals and subsidence have also contributed to increased tidal influence and salinities in freshwater and low-salinity wetlands, which in turn has increased erosion and sediment export.

Wetlands and estuaries could be affected by OCS-related activities. These activities include construction of new onshore facilities in wetland areas; pipeline placement in wetland areas; vessel usage of navigation channels and access canals; maintenance of navigation channels; onshore disposal of OCS-
generated oil-field wastes; and oil and chemical spills from both onshore and offshore OCS support activities. No direct wetland losses are anticipated as a result of the proposed activities.

6. Existing Pipelines and Cables

Samedan Oil Corporation is aware of several pipelines located in South Timbalier Area Block 207.

7. Other Mineral Uses

There are no other known mineral resources located in or near South Timbalier Area Block 207.

8. Ocean Dumping

The major sources of ocean dumping related to OCS petroleum exploration activity are drilling fluids, or "muds", and drill cuttings. After the exploratory drilling in South Timbalier Area Block 207 is completed, Samedan Oil Corporation does anticipate dumping their excess water-based drilling fluids. If any oil-based mud is used in the drilling operations, it will be transported to shore for proper disposal.

Drill cuttings are brought up by the drilling mud and range in size from grains of sand to pebbles. These cuttings are separated and sifted and then disposed overboard. Treated domestic wastes and drill waters will also be disposed at the proposed drilling site. There will be no intentional discharge of any oily or hazardous materials in violation of DOI or EPA regulations.
9. Endangered or Threatened Species

Endangered or threatened species which might occur in South Timbalier Area Block 207 are northern right whale (*Eubalaena glacialis*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), sei whale (*B. borealis*), sperm whale (*Physeter macrocephalus*), blue whale (*B. musculus*), Kemp's ridley turtle (*Lepidochelys kempii*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), leatherback turtle (*Dermochelys coriacea*), and loggerhead turtle (*Caretta caretta*) (USDOI, Region IV Endangered Species Notebook).

Endangered or threatened species expected to occur in the vicinity of the onshore base are Arctic peregrine falcon (*Falco peregrinus tundrius*), brown pelican (*Pelecanus occidentalis*), and American alligator (*Alligator mississippiensis*) (USDOI, Region IV Endangered Species Notebook). In the Southeast Region, the brown pelican is listed as endangered only in Louisiana, Mississippi, and in the Caribbean. Although brown pelicans were extirpated from the Louisiana coast during the 1960's, a small number have since been reintroduced. The Louisiana Department of Wildlife and Fisheries and Florida Game and Fresh Water Fish Commission jointly implemented a restoration project from 1968 to 1980. A total of 1,276 pelicans were reintroduced at three release sites in southeastern Louisiana. In 1990, Louisiana had approximately 1,333 successful nests (USDOI, Region IV Endangered Species Notebook). Arctic peregrine falcons are migrants through the area and are not considered a component of the resident bird population. The American alligator is classified as threatened in Louisiana due to similarity of appearance. This species is neither endangered nor threatened biologically in Louisiana and a regulated harvest is permitted under State Law (USDOI, Region IV Endangered Species Notebook). No impacts on American alligators are expected. The presence of marine mammals in coastal Louisiana is considered sporadic and probably no resident populations exist. It is unlikely that onshore or exploration
activities related to South Timbalier Area Block 207 will have any effect on the previously named species.

B. Socio-Economic Impacts

In accordance with DOI/MMS guidelines (OS-7-01), dated November 20, 1980, the initial OCS Data Base Report will be developed for submission on or before the prescribed due date. Subsequent Environmental Reports provided by Samedan Oil Corporation will address this data and related activity impacts as required.
IV. UNAVOIDABLE ADVERSE IMPACTS

The greatest threat to the natural environment is caused by inadequate operational safeguards that may cause or contribute to an oil spill or well blowout. These accidents can be greatly reduced in number by utilizing trained operational personnel and employing all available safety and pollution control systems. These measures are standard operating procedure for Samedan Oil Corporation. Samedan Oil Corporation has an approved Oil Spill Contingency Plan.

It should be noted that most large crude oil and refined products spills have occurred during transportation and not during drilling or production operations. Furthermore, the probability of an oil spill occurring during exploratory drilling operations is low (Danenberger 1976). Transportation and river runoff contribute an estimated 34.9 percent and 26.2 percent, respectively, to the hydrocarbon contamination of the world's oceans while offshore production activities account for only 1.3 percent (National Academy of Sciences 1975). Natural seeps of petroleum and natural gas, which occur throughout the northern Gulf of Mexico (Zo Bell 1954; Geyer 1979), contribute an estimated 9.8 percent to the contamination of the world's oceans (National Academy of Sciences 1975). Additionally, it was noted in the executive summary of a study of petroleum production platforms in the central Gulf of Mexico (Bedinger 1981), that natural disturbances (i.e. river flooding and storms) can more greatly affect normal biological communities than the current industrial development of the OCS. The preceding discussion is not intended to minimize the significance of major oil spills resulting from petroleum exploration and production activities but is provided to establish a perspective relative to their probable occurrence.
Thirteen of the forty-six blow-outs on the OCS between 1971 and 1978 were associated with exploratory drilling activities, none of which released any oil to the marine environment (Danenberger 1980). The IXTOC I spill of 1979, however, demonstrates that advanced drilling technology and available safety and pollution control systems are not infallible. Most spills are subjected to immediate containment and clean-up efforts. The ultimate fate of oil spilled in the marine environment is generally considered to be one or a combination of the following: evaporation and decomposition in the atmosphere, dispersal in the water column, incorporation into sediments, and oxidation by chemical or biological means (National Academy of Sciences 1975).

The unavoidable adverse impacts that will occur as a result of the exploratory drilling and discharging of drilling fluids, domestic wastes, and treated sewage will be few in number and temporary in nature. The primary adverse impacts include a localized degradation of water and air quality in the vicinity of the drilling site, the potential obstruction to commercial and recreational fishing vessels, and the disruption and/or killing of benthic and/or pelagic organisms during location of the drilling rig and during disposal of muds, cuttings, and domestic wastes and sewage.

Discharging from the drill site is inevitable during OCS operations, particularly during exploration. Any materials that may contain oil or other hazardous materials, and therefore would have a much greater adverse impact on the environment, will not be discharged intentionally. Any discharging will be done pursuant to all DOI and EPA regulations. The discharges to be disposed overboard as a result of the exploration activity will include domestic waste and sewage that is treated on the rig before discharging, drill cuttings, and excess water-based mud.
The environmental fate and effects of drilling muds and cuttings has been extensively addressed in a symposium (See Ayers et al. 1980 for detailed discussions). The discharging of drill cuttings and water-based mud will result in an increase in water turbidity, burial of benthic organisms, and possible toxic effects on marine organisms in the immediate vicinity of the drilling rig. A reduction in photosynthetic activity and plankton populations can also be expected as a result of discharging. It is expected, however, that pelagic and benthic organisms will repopulate the area rapidly after discharging if the effects are minimal and intermittent as expected.

Offshore activities generate a small but significant amount of air pollutants due to the emissions of diesel engines; therefore, the deterioration of air quality is unavoidable in an OCS operation area. In most instances, these emissions affect only the immediate exploration activity site and are rapidly dissipated by the atmosphere depending upon climatic conditions. An Air Quality Review Report has been prepared for South Timbalier Area Block 207 and is included as an attachment to the Exploration Plan.

Commercial and recreational fishing would be affected by OCS development, but primarily in terms of inconvenience and interference. Although the unavoidable adverse impacts could include some smothering of shellfish, snagging of trawl nets, reduction of area presently used for unrestricted fishing, and minimal finfish killing, commercial fishing activities would not be significantly affected, except in the unlikely event of an oil spill. An oil spill would result in serious economic losses due to the contamination of commercial fish species over a large area.

There is a remote possibility that offshore areas of historical, cultural, or biological significance could be damaged or destroyed by OCS exploration operations. Visual No. 3 from the Final
Environmental Impact Statement (USDOI, MMS 1986) indicates that no archeological, cultural, or historic areas are in the vicinity of South Timbalier Area Block 207. Samedan Oil Corporation will make every effort to avoid disturbing any historically, culturally, or biologically significant feature.
V. LITERATURE CITED

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White, C. J. and C. J. Boudreaux

Zo Bell, C. E.
**EXPLORATION PLAN (EP)**

**AIR QUALITY SCREENING CHECKLIST**

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>Samedan Oil Corporation</th>
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<tbody>
<tr>
<td>AREA</td>
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<tr>
<td>BLOCK</td>
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<tr>
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<td>A, B, C &amp; D</td>
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<tr>
<td>COMPANY CONTACT</td>
<td>Steve O'Leary</td>
</tr>
<tr>
<td>TELEPHONE NO.</td>
<td>281/876-6242</td>
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<th>&quot;Yes&quot;</th>
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<th>Air Quality Screening Questions</th>
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<tr>
<td>No</td>
<td>1.</td>
<td>Are the proposed activities east of 87.5° W longitude?</td>
</tr>
<tr>
<td>No</td>
<td>2.</td>
<td>Are H₂S concentrations greater than 20 ppm expected?</td>
</tr>
<tr>
<td>No</td>
<td>3.</td>
<td>Is gas flaring proposed for greater than 48 continuous hours per well?</td>
</tr>
<tr>
<td>No</td>
<td>4.</td>
<td>Is produced liquid burning proposed?</td>
</tr>
<tr>
<td>No</td>
<td>5.</td>
<td>Is the exploratory activity within 50 miles of shore?</td>
</tr>
<tr>
<td>No</td>
<td>6.</td>
<td>Are semi-submersible activities involved and is the facility within 50 miles of shore?</td>
</tr>
<tr>
<td>No</td>
<td>7.</td>
<td>Are drillship operations involved and is the facility within 120 miles of shore?</td>
</tr>
<tr>
<td>No</td>
<td>8.</td>
<td>Will the exploratory activity be collocated (same surface location) on a production facility?</td>
</tr>
</tbody>
</table>

If ALL questions are answered "No":
Submit only this coversheet with your plan; a full set of spreadsheets is not needed.

If ANY of questions 1 through 7 is answered "Yes":
Prepare and submit a full set of EP spreadsheets with your plan.

If question number 8 is answered "Yes":
Prepare and submit a full set of DOCD spreadsheets showing the cumulative emissions from both the proposed activities and the existing production platform.