

In Reply Refer To: MS 5231

December 15, 1992

Elf Exploration, Inc.  
Attention: Mr. Casey Jones  
1000 Louisiana, Suite 3800  
Houston, Texas 77002

Gentlemen:

Reference is made to the following plan received December 4, 1992:

Type Plan - Supplemental Plan of Exploration  
Lease - OCS-G 11944  
Block - 82  
Area - Eugene Island  
Activities Proposed - Well C

In accordance with 30 CFR 250.33, this plan is hereby deemed submitted and is now being considered for approval.

Your control number is S-2873 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(Sgd.) A. Donald Giroir

*DJ*

D. J. Bourgeois  
Regional Supervisor  
Field Operations

bcc: Lease OCS-G 11944 POD File (MS 5032)  
MS 5034 w/public info. copy of the plan  
and accomp. info.

AGobert:cic:12/08/92:POECOM

NOTED - SCHEXNAILDRE

INTEGRATED SERVICES REGION

DEC 22 8 23 AM '92

RECEIVED

 **elf exploration, inc.**

1000 Louisiana, Suite 3800 Houston, Texas 77002 (713) 658-9811

November 30, 1992

Airborne 

United States Department of the Interior  
Minerals Management Service  
1201 Elmwood Park Boulevard  
New Orleans, Louisiana 70123-2394



Attention: Mr. Daniel J. Bourgeois  
Regional Supervisor, Field Operations

**RE: SUPPLEMENTAL PLAN OF EXPLORATION  
EUGENE ISLAND 82  
OCS-G-11944  
OFFSHORE LOUISIANA**

Gentlemen:

Elf Exploration, Inc. (EEI), as operator, hereby submits a Supplemental Plan of Exploration (POE) for your approval covering activities proposed for the subject lease, including location "C" at Eugene Island Block 82.

In support of this Supplemental POE, EEI is attaching the following:

1. Vicinity Map
2. Location Map
3. Structure Map
4. Bathymetry Map
5. Shallow Hazards Analysis
6. Emissions Statement
7. Drilling Mud Additives List
8. Seismic Information

Nine copies of the Supplemental POE are enclosed. Five copies are considered "Proprietary Information" and four are "Public Information". All copies are marked accordingly.

If you have any questions please contact the undersigned at 713/739-2070 or 713/739-2116.

Sincerely,



Casey Jones  
Manager, Joint Operations/Regulatory

/d92172

# "Public Information"

## SUPPLEMENTAL PLAN OF EXPLORATION

### EUGENE ISLAND BLOCK 82

#### LEASE OCS-G 11944

#### 1. Brief History to Date

Eugene Island 82, Lease OCS-G 11944, was acquired by Elf Exploration, Inc. ("EEI") and Norcen Explorer, Inc. in Federal Offshore Lease Sale No. 123 held March 21, 1990. The effective date of the lease is May 1, 1990. The block is located approximately 12 miles offshore and south of St. Mary's Parish, Louisiana.

EEI originally submitted its Initial Plan of Exploration (POE) on January 24, 1992 for the drilling of two exploratory wells. The POE was approved by the Minerals Management Service on March 11, 1990 for locations "A" and "B"

Locations "A" and "B" have not been drilled. This Supplemental POE calls for the drilling of the "C" location. EEI intends to begin drilling on or about January 10, 1993.

#### 2. Description of Proposed Activities

EEI plans to evaluate the hydrocarbon potential of this lease by drilling an exploratory well. Drilling time is estimated to be approximately 37 days for this well. The necessity of drilling subsequent wells will depend on the results obtained from this initial well.

#### 3. Description of Drilling Rig

The water depth at the proposed location in Eugene Island 82 is  $\pm$  23 feet.

The tract is located approximately 12 miles off the Louisiana coastline at St. Mary's Parish.

Eugene Island Block 82  
OCS-G-11944  
Plan of Exploration  
Page -3-

A jackup rig capable of drilling in this water depth will be used for drilling this well. Safety features on this rig will include well control and blowout prevention equipment as required in 30 CFR 250.50 and 250.51. Appropriate life rafts, life jackets, rings, buoys, etc., as prescribed by the U. S. Coast Guard will be provided. Pollution prevention and control features will include all necessary combing drains and holding tanks to prevent contamination of the sea, in accordance with Subpart C, 30 CFR 250.40, Pollution Prevention and Control.

A description of the diverter system and the BOP schematic of a typical jackup rig is included as Attachment "A". Operations personnel will be in compliance with 30 CFR 250 Subpart O -Training. All personnel will be trained and will carry on drills and inspections to insure the proper maintenance and the ability to utilize all the existing equipment to the fullest extent to insure as safe an operation as possible. Mud-system monitoring procedures will be utilized on the drilling vessel as required by 30 CFR 250.60. There are no existing or planned monitoring systems for measuring environmental conditions for impact assessment in the lease area as none are required by the lease stipulations.

In accordance with 30 CFR 250.51(c), EEI may be required to collect oceanographic, meteorological and drilling unit performance data. EEI will record and report this information when required.

Eugene Island Block 82  
OCS-G-11944  
Plan of Exploration  
Page -3-

4. Well Location

Attachment "B" shows the location for proposed location "C":

<u>Location</u>	<u>Surface Location</u>	<u>Bottom Hole Location</u>	<u>Proposed Depth MD/TVD</u>
"C"	6,975' FSL 4,950' FEL		

Water Depth:  $\pm$  23'

5. Structure Map

A structure map drawn to the top of each prospective hydrocarbon accumulation showing the surface location and bottom hole location of the proposed well is shown as Attachment "C".

6. Bathymetry Map

Attachment "D" is a bathymetry map showing the surface location of the proposed "C" well.

7. Shallow Hazards

The attached statement (Attachment "E") confirms that proposed location "C" is free from seafloor anomalies, surface faults, and shallow gas sediments in its immediate vicinity.

8. Lease Stipulations

If, during the course of any operations on the leased area any cultural resources are discovered, EEI will report the discovery to the Regional Supervisor immediately.

EEI will also make every reasonable effort to preserve the cultural resources until the Regional Supervisor has told EEI how to protect it.

9. Oil Spill Contingency Plan

All construction and production operations shall be performed in accordance with industry standards to prevent pollution of the environment.

EEI's Oil Spill Contingency Plan has been approved by the MMS in accordance with 30 CFR 250.42.

This plan designates an Oil Spill Team consisting of EEI's personnel and contract personnel. This team's duties are to eliminate the source of any spill, remove all sources of possible ignition, deploy the most reliable means of available transportation to monitor the movement of a slick, and contain and remove the slick if possible.

EEI is a member of Clean Gulf Associates (CGA). The CGA has two permanent equipment bases in Texas, at Port Aransas and Galveston, and four bases in Louisiana, at Venice, Grand Isle, Intracoastal City and Cameron. Each base is equipped with fast response skimmers and there is a barge mounted high volume open sea skimmer based at Grand Isle, Louisiana. In addition to providing equipment, the CGA also supplies advisors for clean-up operations. Equipment available from CGA and the base it is located at is listed in the CGA Manual, Volume I, Section III.

Estimated response time for a spill in Eugene Island Block 82 would be 17 hours. The primary CGA base of operations would be Intracoastal City, Louisiana. Eugene Island 82 is located approximately 12 miles off the coastline and approximately 60 miles from the Intracoastal City Base. Deployment time is as follows:

- |                             |         |
|-----------------------------|---------|
| 1. Procurement of Vessel    | 4 hours |
| 2. Load-out Time            | 2 hours |
| 3. Travel Time (inland)     | 4 hours |
| 4. Travel Time (offshore)   | 6 hours |
| 5. Deployment Time at Spill | 1 hour  |

Estimated Total Deployment Time	17 hours
------------------------------------	----------

As the possibility of an oil spill always exists, EEI has projected the trajectory of a spill from Eugene Island 82 using the information in the Final Environmental Impact Statement for Lease Sales 139 and 141, dated November, 1991.

The EIS contains oil spill trajectory simulations using seasonal surface currents coupled with wind data, adjusted every three hours for thirty days or until a target is contacted.

Hypothetical spill trajectories were simulated for each potential launch site across the entire Gulf. These simulations presume 500 spills occurring in each of the four seasons of the year. The results in the EIS were presented as probabilities that an oil spill beginning from a particular launch site would contact a certain land segment within 3, 10 or 30 days. As Eugene Island 82 is in oil spill launch area C-36, and utilizing the summary of the trajectory analysis (for 10 days) as presented in pages IV 81 through IV102, the probable projected landfall of an oil spill is as shown below.

Also listed is the CGA map number corresponding to the land environmentally sensitive areas that may be affected by a spill.

<u>Area</u>	<u>Land Segment Contact</u>	<u>% Chance</u>	<u>CGA Map Number</u>
Eugene Island	New Iberia, LA-14	5	6
Block 82 (C-36)	St. Mary, LA-15	11	6
	Terrebonne, LA-16	27	6

Immediately following each referenced CGA MAP is a table identifying biologically sensitive areas within each land segment contact. A second table then identifies the specific CGA response mode which would be utilized to protect the sensitive area in the event a spill should threaten same.

If a spill should occur from the proposed location, EEI would immediately activate its Oil Spill Response Team, which would determine from current conditions the probable location and time of landfall by contacting the National Oceanic and Atmospheric Administration's (NOAA) Gulf of Mexico Scientific Support Coordinator (SSC) for assistance in predicting spill movement. Section V, Volume II of the CGA Operations Manual, which contains the maps as shown above, also includes equipment to be used for protection and clean-up should it be necessary. It includes those pieces of equipment that are stockpiled by CGA and available for use.

Section VI, Volume II of the CGA Operations Manual depicts the protection response modes that are applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment. Implementation of the suggested procedures assures the most effective use of the equipment and will result in reduced adverse impact of oil spills on the environment. Supervisory personnel have the option to modify the development and operation of equipment to more effectively respond to site-specific circumstances.

#### 10. New or Unusual Technology

No new techniques or unusual technology will be required for this operation.



11. Discharges

All discharges from the Eugene Island 82 location will comply with the Environmental Protection Agency NPDES General Permit for the Gulf of Mexico.

The estimated quantities expected to be discharged are as follows for the "C" well.

<u>Well</u>	<u>Hole Size</u>	<u>Footage Drilled</u>	<u>Quantities (bbls)</u>	
			<u>Cuttings</u>	<u>Fluids</u>
"C"	30"		62	44
			644	460
			1375	582
			1664	1188
			275	196
Estimated Total quantities to be discharged from well C:			<u>4020</u>	<u>2870</u>

The estimated discharge rate is a maximum of 1,000 barrels per hour.

Any drilling mud, drill cuttings and or other solids will not be discharged into the Gulf unless the toxicity as measured by the EPA "Drilling Fluids Toxicity Test" is above the 30,000 ppm limitation. In addition, no discharge that causes a sheen to appear on the surface of the water will be made. (See Attachment "F").

Any drilling fluids contaminated with oil and any solid domestic wastes will be transported to shore for proper disposal at an authorized disposal site.

Discharges will be free of oil and will be in compliance with and monitored as required by EPA NPDES General Permit (GMC 280000) in accordance with 40 CFR 122.6. Any oil contaminated mud will be transported to shore for proper disposal.

12. Hydrogen Sulfide

EEI requests in accordance with 30 CFR 250.67(c) that the MMS classify the area in which the proposed operations will take place, Eugene Island 82, as a zone where the absence of H<sub>2</sub>S has been confirmed.

EEI feels that this area is not a known H<sub>2</sub>S area because in the drilling and testing of the Quintana OCS-G-2897 Well numbers 1 and 2, both drilled on previous leases covering Eugene Island Block 82, no H<sub>2</sub>S was encountered. In addition, the area was deemed such by MMS in the approval letter, dated March 11, 1992, to the initial Plan of Exploration.

13. Projected Emissions

Projected Air Quality Emissions are included as Attachment "G".

14. Onshore Base

Eugene Island 82 is located approximately 12 miles from the nearest shoreline off the Louisiana coast in the Central Gulf of Mexico where the water depth range is ±23'. A vicinity map showing the relationship of Eugene Island 82 to the shoreline and onshore base is included as Attachment "H".

The proposed activities will utilize a support base at Berwick, Louisiana. The base provides 24-hour service, a radio tower with phone patch, dock space, office space, a parking lot, equipment and supply storage space, drinking and drill water, etc. During drilling activities, helicopters will make three trips per week, crew boats will make one trip per week and supply boats will make five trips per week. The proposed exploratory activities will help to maintain this base at its present level of activity. No expansion of the physical facilities or the creation of new jobs is expected to result from the work planned in conjunction with Eugene Island 82.

Eugene Island Block 82  
OCS-G-11944  
Plan of Exploration  
Page -9-

15. Authorized Representatives

Inquiries may be made to the following authorized representative of Elf Exploration, Inc.

Mr. Casey Jones  
Manager, Joint Operations/Regulatory  
Elf Exploration, Inc.  
1000 Louisiana, Suite 3800  
Houston, Texas 77002

LIST OF ATTACHMENTS

- "A" Schematic of Diverter Systems and BOP Stack for typical jackup rig.
- "B" Well Location Plat and Table
- "C" Structure Map
- "D" Bathymetry Map
- "E" Shallow Hazards Analysis
- "F" Drilling Mud Additives
- "G" Air Quality Emissions
- "H" Vicinity Map
- "I" Seismic Information

/d92172

ATTACHMEN. A

30" - 2000# BT  
Annular Preventer

6" - 2000# BT  
Manual Gate Valve

30" x 1" U.T.  
Drive Pipe

6" - 2000# BT  
hydraulic operated  
remote controlled  
gate valve

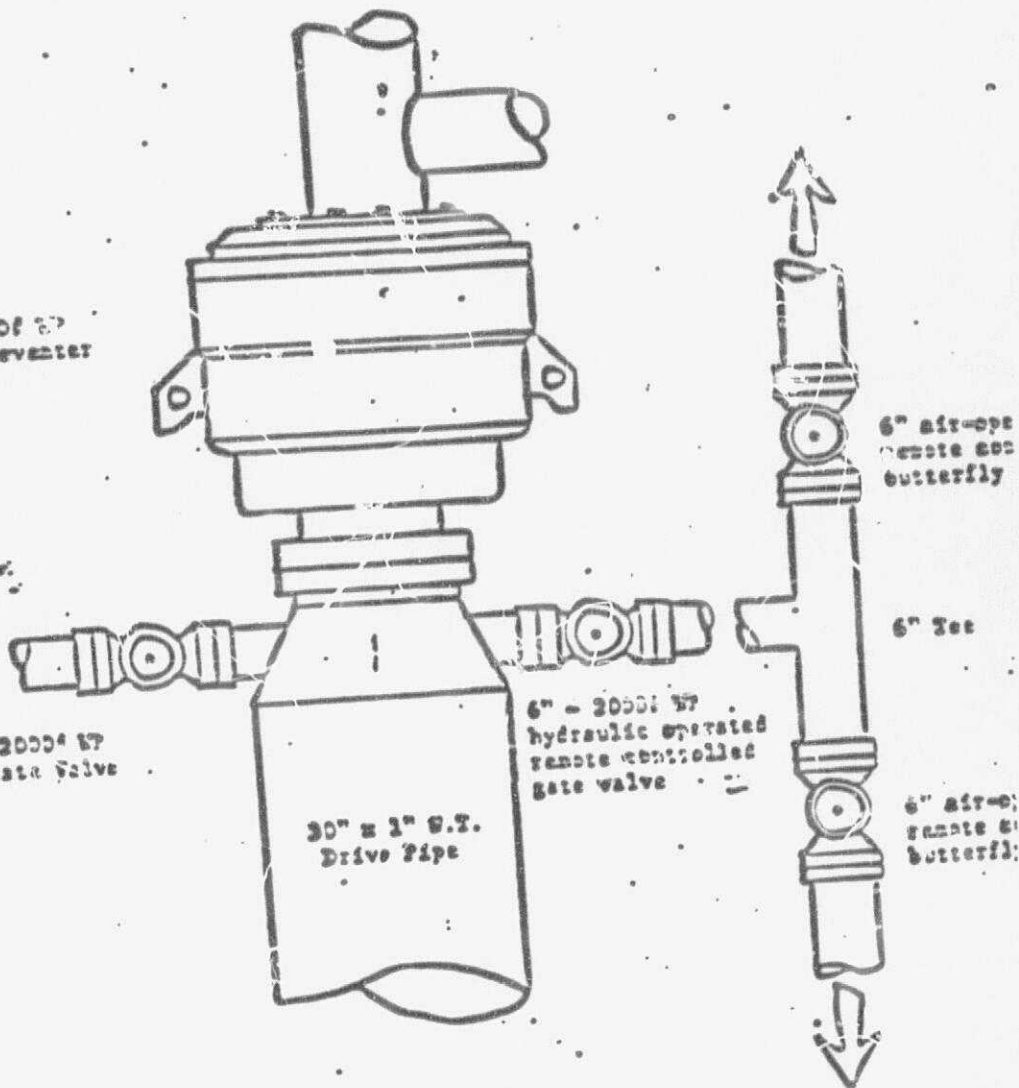
6" air-ops  
remote ops  
butterfly

6" Tee

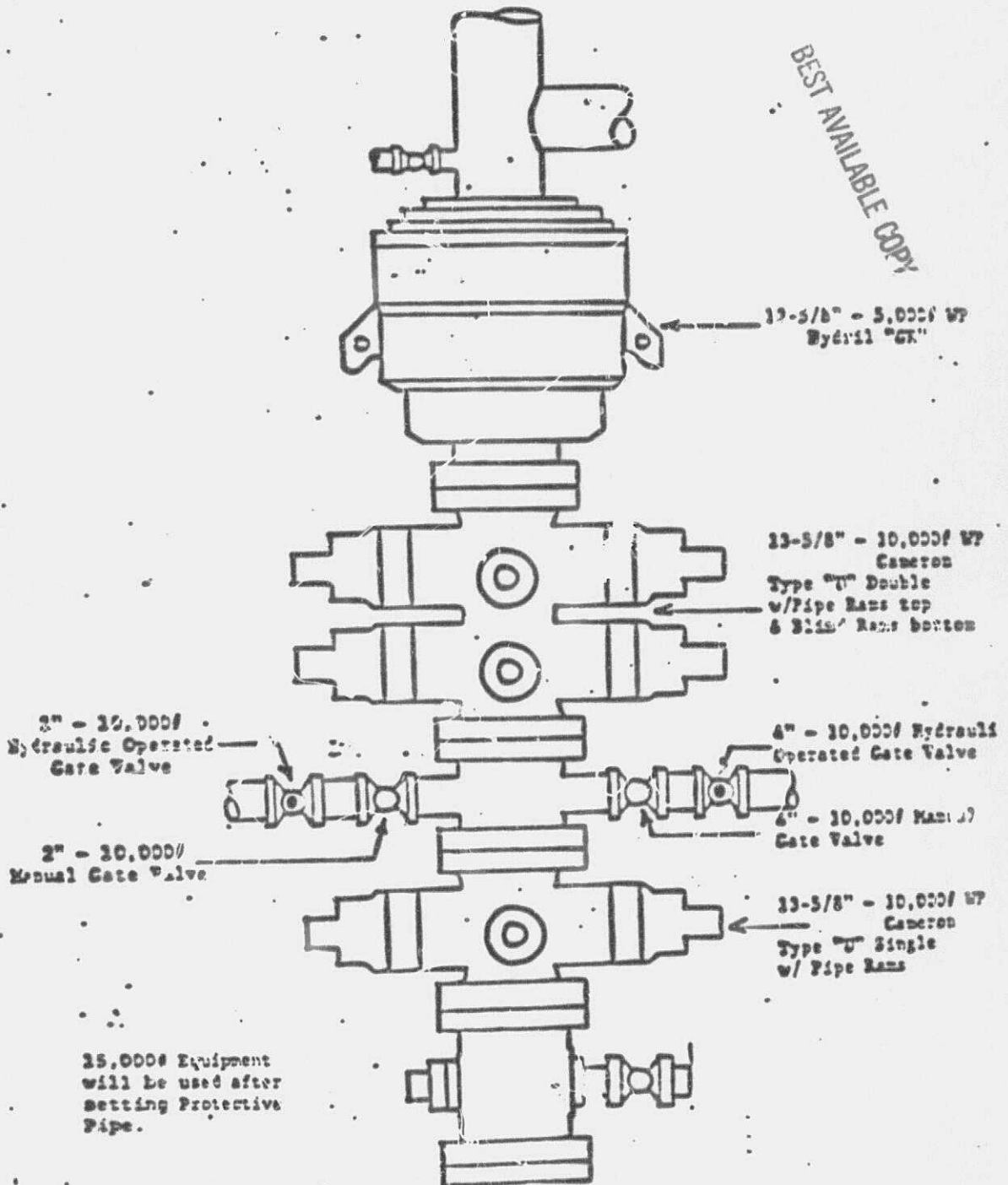
6" air-ops  
remote ops  
butterfly

Typical Diverter Hook-up

BEST AVAILABLE COPY



BEST AVAILABLE COPY



ATTACHMENT B



ATTACHMENT "B"

Eugene Island Block 82  
OCS-G-11944  
Plan of Exploration

<u>Location</u>	<u>Surface Location</u>	<u>Bottom Hole Location</u>	<u>Proposed Depth MD/TVD</u>
"C"	6,875' FSL 4,950' FEL		

Water Depth:  $\pm$  23'

EUGENE ISLAND  
OCS-G-11944

PSL "C"



4950' FEL

6875' FSL

**"Public Information"**

I hereby certify that this plot has been examined by us and that the information contained thereon is to the best of my knowledge and believed to be true, correct, and complete.

SIGNED *Casuy J. ...*

DATE 11-24-92

**PROPOSED LOCATION PLAT  
Offshore Louisiana**

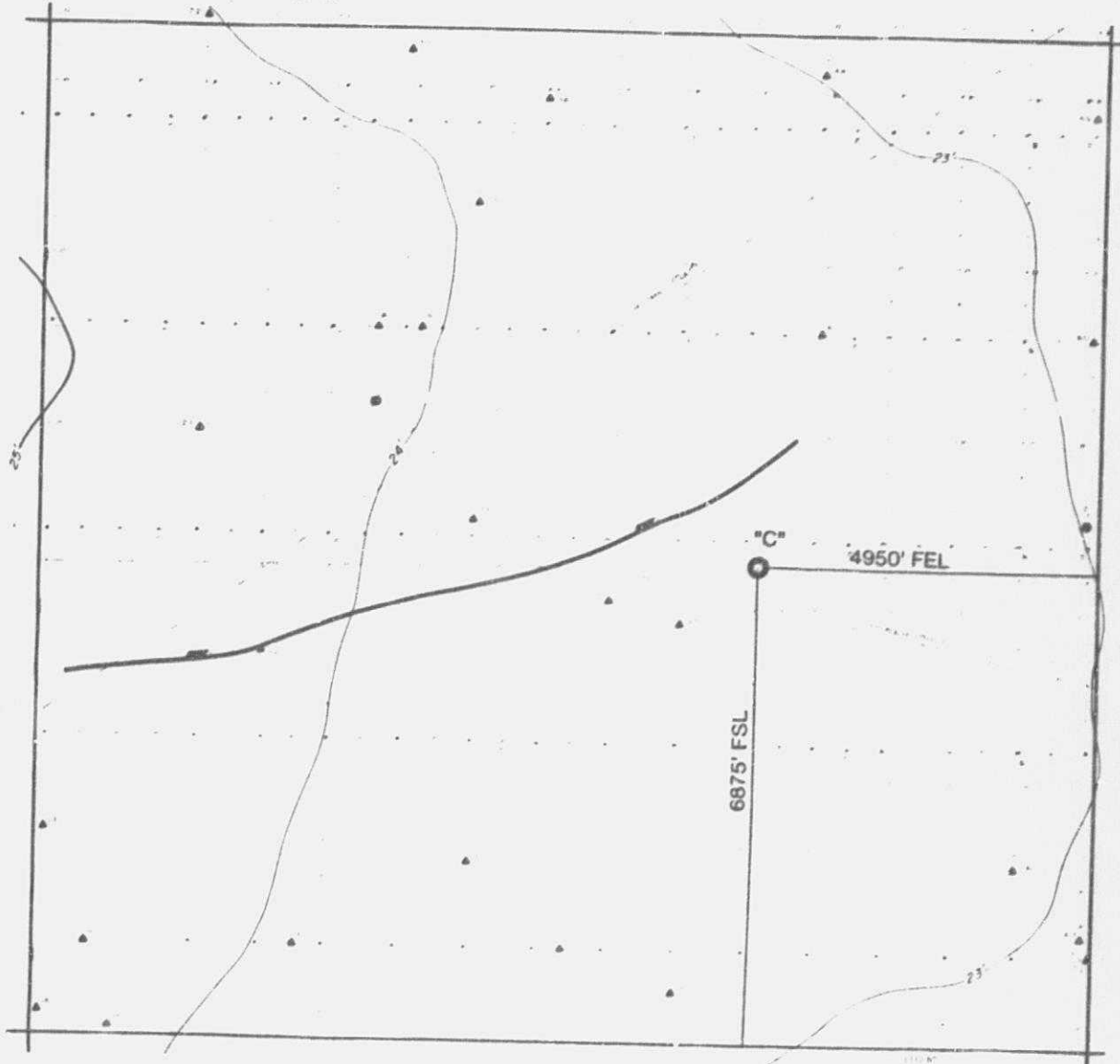
SL X 1980027'  
Y 160777'  
Long. -91° 23' 45"  
Lat. 29° 6' 32"

BHL

Scale: 1" = 2000'

ATTACHMENT C







ATTACHMENT D




X 1980027'  
Y 160777'

LONG. -91° 23' 45"  
LAT. 29° 6' 32"

BEST AVAILABLE COPY

-  STATION
-  SEAFLOOR CONTOUR
-  EMBANKMENT CONTOUR
-  PIPELINE
-  OBSTRUCTION
-  OTHER



GEOPHYSICAL SURVEY		ELF EXPLORATION, INC	
BATHYMETRIC AND SEAFLOOR FEATURES MAP		 KANSILLA COOK & ASSOCIATES, INC	
BLOCK R2 FIELD NO. 15180027 OFFSHORE CONTINENTAL SHELF		DATE: 1980	
Scale	1:50,000	Map No.	MAP 2 OF 4

ATTACHMENT E

## SHALLOW HAZARDS ANALYSIS

### Geophysical Work

Results of the geological, geophysical, and hazard survey conducted by Kinsella, Cook & Associates, Inc. have been reviewed. Water depths across Block 82, Eugene Island Area, range from -23 feet near the northeast corner of the lease to -25 feet along the southwestern corner. The seafloor displays a relatively flat and featureless profile with a gentle southwest dip. Side scan sonar data indicates an acoustically medium-textured seafloor, probably consisting of silty sands. There were no unusual topographic anomalies detected within the survey limits. At surface location "C", amplitude anomalies representing possible shallow gas pockets were not detected. No faulting or prominent accumulations of gas were detected within the deeper strata at the proposed surface location. A total of 27 unidentified magnetic anomalies were detected and until they can be proven to be something other than historic shipwrecks, they will be avoided.

Surface location "C" can be found 150 feet east of a north-south running hazard line 11 at shotpoint 16.2. The location is 850 feet west of the north-south hazard line 12 at shotpoint 16.2 and 400 feet south of the east-west line 103 at shotpoint 22.3. Location "C" is in 23½ feet of water and located 450 feet north-northeast from a 12-inch Placid oil pipeline. Preventative measures will be taken to avoid this pipeline while moving a drilling rig in and off of location "C". Magnetometer and side scan sonar profiles are absent of any anomalies beneath surface location "C". Surface location "C" is located at shotpoint 41 on north-south seismic line W-LD-128C.

ATTACHMENT F



DRILLING MUD COMPONENTS

COMMON CHEMICAL OR CHEMICAL  
TRADE NAME

Aluminum Stearate  
 "AXTAFLO-S"  
 Barite  
 Calcium Carbonate  
 Calcium Chloride  
 Calcium Oxide  
 Calcium Sulfate  
 Carboxymethyl Cellulose  
 Caustic Potash  
 Caustic Soda  
 Chrome Lignite  
 Chrome Lignosulfonate  
 Drilling Detergent  
 "E-Pal"  
 Ferrochrome Lignosulfonate  
 Gel  
  
 Gypsum  
 Lignite  
 Lignosulfonate  
 "Mud Sweep"  
 "MOR-REX"  
 "Shale-Trol"  
 Sapp  
 Soda Ash  
 Sodium Bicarbonate  
 Sodium Carboxymethyl Cellulose  
 Sodium Chloride  
 Sodium Chromate  
 Starch  
 "TX-9010"  
 "TORQ-Trim"  
 "Black Magic"  
 "Black Magic Supermix"  
 Diesel  
  
 "Jelflake"  
 MICA  
 "Pipe-Lax"  
 "Wall-Nut"  
 Wood Fibers

DESCRIPTION OF MATERIAL

Aluminum Stearate  
 Nonionic Surfactant  
 Barium Sulfate (BaSo4)  
 Aragonite (CaCo3)  
 Hydrophilite (CaCl2)  
 Lime (Quick)  
 Anhydrite (CaSO4)  
 Carboxymethyl Cellulose  
 Potassium Hydrate  
 Sodium Hydroxide (NaOH)  
 Chrome Lignite  
 Chrome Lignosulfonate  
 S  
 Biodegradable defoamer  
 wood pulp  
 bentonite, bentonite,  
 Cu.  
 Lign  
 Lignosulfonate  
 Cement Pre-flush  
 Hydrolyzed Cereal solid  
 Organo-aluminum complex  
 Sodium Acid Pyrophosphate  
 Sodium Carbonate  
 NaHCO3  
 Sodium Carboxymethyl Cellulose  
 NaCl  
 NaCrO4.10H2O  
 Corn Starch  
 Biodegradable drilling lubricant  
 Biodegradable drilling lubricant  
 Oil base mud conc.  
 Sacked concentrated oil base mud  
 Used to mix certain loss-circulation pills  
 Plastic foil, shredded cellophane  
 Loss-circulation material  
 Surfactant mixed with diesel  
 Ground walnut shells  
 Loss-circulation material

BEST AVAILABLE COPY

ATTACHMENT G

PROJECTED AIR EMISSION SCHEDULE FOR  
SUPPLEMENTAL PLAN OF EXPLORATION

GENERAL INFORMATION

Location of Facility: Eugene Island 82  
OCS-G-11944

Distance Offshore: 12 miles

Name of Rig: To be Selected

Operator: Elf Exploration, Inc.  
1000 Louisiana  
Suite 3800  
Houston, Texas 77002

Contact Person: Mr. Casey Jones  
Manager, Joint  
Operations/Regulatory

Total Well Footage to  
be Drilled in One Year:

Date Drilling Operations  
Will Begin : 1/10/93

Date Drilling Will  
End : 2/17/93

MAJOR SOURCE (OFFSHORE) - DRILLING

Power used aboard drilling vessel; approximate footage  
drilled - \*

<u>Emitted Substance</u>	<u>Projected Emissions**</u> <u>Tons/Year</u>
CO	2.98
SO	.92
NOX	13.79
VOC	1.1
TSP	.99

\* Based on 60 hp/ft. from Table 4-3, "Atmospheric Emissions from Offshore Oil and Gas Development and Production", EPA No. 450/3-77-026, June 1977.

\*\* Emission factors from Table 3.3-1, "Compilation of Air Pollutant Emission Factors, EPA Report AP-42, September, 1985.

MINOR SOURCES (OFFSHORE) - DRILLING \*

Including helicopter landing and take-off (3 trips/week), crew boats (1 trips/week), supply boats (5 trips/week) and loading and unloading operations. \*

<u>Emitted Substances</u>	<u>Projected Emissions Tons/Year</u>
CO	.002
SO <sub>2</sub>	.004
NOX	.008
VOC	.001
TSP	.001

\* Emission Factors from Table 4.4, "Atmospheric Emissions from Offshore Oil and Gas Development and Production", EPA No. 450/3-77-026, June, 1977.

TOTAL ALL SOURCES (TONS/YEAR)

	CO	SO <sub>2</sub>	NOX	VOC	TSP
Major - Drilling	2.98	.92	13.78	1.1	.99
Minor - Drilling	.002	.004	.008	.001	.001
TOTAL	<u>2.982</u>	<u>.924</u>	<u>13.788</u>	<u>1.101</u>	<u>.991</u>

ONSHORE SOURCES

These should be about the same as minor sources unless new facilities are installed at the onshore base. No additional facilities are required at this time.

EMISSION EXEMPTION DETERMINATION

For CO:  $E = 3400D^{2/3} = 3,400(12)^{2/3} = 17,821$  tons/year

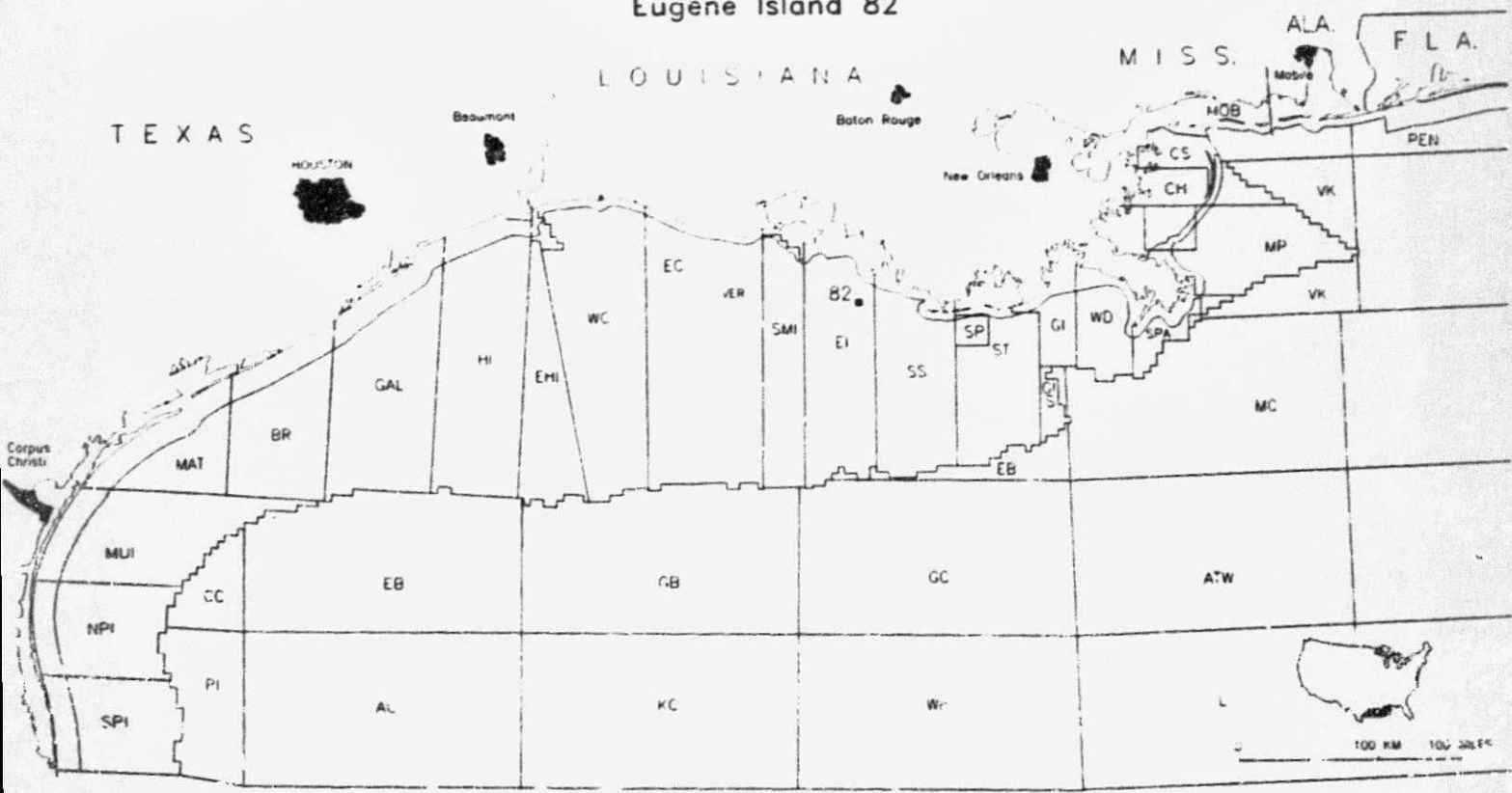
For NOX, VOC, TSP & SO<sub>2</sub> :  $E = 33.3D = 33.3(12) = 400$  tons/year

As per DOI/MMS regulations, this facility is exempt from further air quality review as it has been determined that its operations will not have significant adverse environmental impact on air quality.

ATTACHMENT H

# Gulf of Mexico Vicinity Plat

## Eugene Island 82



ATTACHMENT I

SEISMIC DATA FOR EUGENE ISLAND 82

1. Single trace seismic record (scale: 1 second) -- north-south lines 11, 12; east-west line 103.
2. Subbottom profiler -- north-south lines 11 & 12; east-west line 103.
3. Side scan sonar -- north-south lines 11 & 12; east-west line 103.
4. Magnetometer -- north-south lines 11 & 12; east-west line 103.
5. Conventional seismic line W-LD-128C (migrated AGC).
6. Conventional seismic line W-LD-128C (migrated relative amplitude).
7. Eugene Island 82 seismic structure map (Cyclamma 3).
8. Navigation Post Plot Map (scale 1" = 1,000').
9. Bathymetric and Seafloor Features Map (scale 1" = 1,000').
10. Amplitude Anomaly Map (scale 1" = 1,000').
11. Isopach Map (scale 1" = 1,000').

J. Ten Eyck  
H25W-92.287  
November 1992