In Reply Refer To: MS 5231 March 24, 1997

Enron Oil & Gas Company
Ms. Bekki Long
Post Office Box 4362
Houston, Texas 77210-4362

Gentlemen:

Reference is made to the following plan received March 10, 1997:

Type Plan - Supplemental Development Operations Coordination Document
Lease - OCS-G 7202
Block - 634
Area - Matagorda Island
Activities Proposed - Wells C-2 and C-3 from existing Platform C

In accordance with 30 CFR 250.34, this plan is hereby deemed submitted and is now being considered for approval.

Your control number is S-4338 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(Org. Sgd.) B. J. Kruse

Donald C. Howard
Regional Supervisor
Field Operations

bcc: Lease OCS-G 7202 POD File (MS 5032)
MS 5034 w/public info. copy of the plan
and accomp. info.

AGobert:cic:03/19/97:DOCDCOM

NOTED-SCHEXNAILDRE

ENRON
Oil & Gas Company

P. O. Box 4362 Houston, Texas 77210-4362 (713) 853-6161 Telex: 765443 Answerback: ENRONCORP

March 6, 1996

U. S. Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Attention: Mr. Donald C. Howard
Regional Supervisor
Field Operations

Reference: **Supplemental Development Operations Coordination Document**
Matagorda Island Block 634-F, OCS-G 7202
Offshore, Texas

Gentlemen:

In accordance with 30 CFR 250.34, as amended, Enron Oil & Gas Company (Enron) herein respectfully submits for review and ultimate approval the attached Supplemental Development Operations Coordination Document (DOCD) for Matagorda Island Block 634, OCS-G 7202, Offshore, Texas.

The proposed activities will be covered under Enron's areawide bond which has been increased to $3,000,000 as required by 30 CFR 256.61.

The anticipated date for the commencement of these activities is April 1, 1997.

Should you have any questions concerning this submittal or require additional information, please contact the undersigned at (713) 853-5721 at your earliest convenience.

Sincerely,

ENRON OIL & GAS COMPANY

Bekki Long

Bekki Long
Regulatory Coordinator

Attachments: (5) Copies of SDOCD (Proprietary)
(4) Copies of SDOCD (Public Information)

PUBLIC INFORMATION

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

PROPOSED TYPE AND SEQUENCE OF ACTIVITIES AND TIMETABLE

Section 1

In compliance with 30 CFR 250.34, the following information is submitted for the Supplemental Development Operations Coordination Document (SDOCD) for Matagorda Island Block 634, OCS-G 7202.

DESCRIPTION

Three wells have been drilled in Matagorda Island 634, OCS-G 7202. Wells No. 1 and No. 2 were drilled from a common surface location and a well protector structure was installed. Well No. A-3 was drilled from the "A" Platform in Matagorda Island Block 633. Enron Oil & Gas Company proposes to drill two additional wells from the surface location of Matagorda Island 633, Well No. 3 (Wells C-2 and C-3). The No. 3 Caisson located at 5285' FSL & 570' FEL of Matagorda Island 633, OCS-G 6042 will be renamed Matagorda Island 633 "C" Platform and Matagorda Island 633, OCS-G 6042, Well No. 3 will be renamed Well C-1. No major modifications are expected to the structure. No unusual technology will be employed in the development drilling of this lease. Production for the proposed platform will flow full-well stream through an existing pipeline to Enron's Matagorda Island 633 "A" Platform.

SCHEDULE OF ACTIVITY

It is anticipated that these development operations should commence by April 1, 1997 when Well C-2 is drilled and completed. Well C-2 should be on production by June 23, 1997 (25 days to drill and 14 days to complete Well C-2; 30 days to drill and 14 days to complete Well C-3).

The estimated life of the reserves for Wells C-2 and C-3 is years. Production from this well is expected to be BCF and MBL.

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

DESCRIPTION OF DRILLING RIG, PLATFORM AND POLLUTION EQUIPMENT

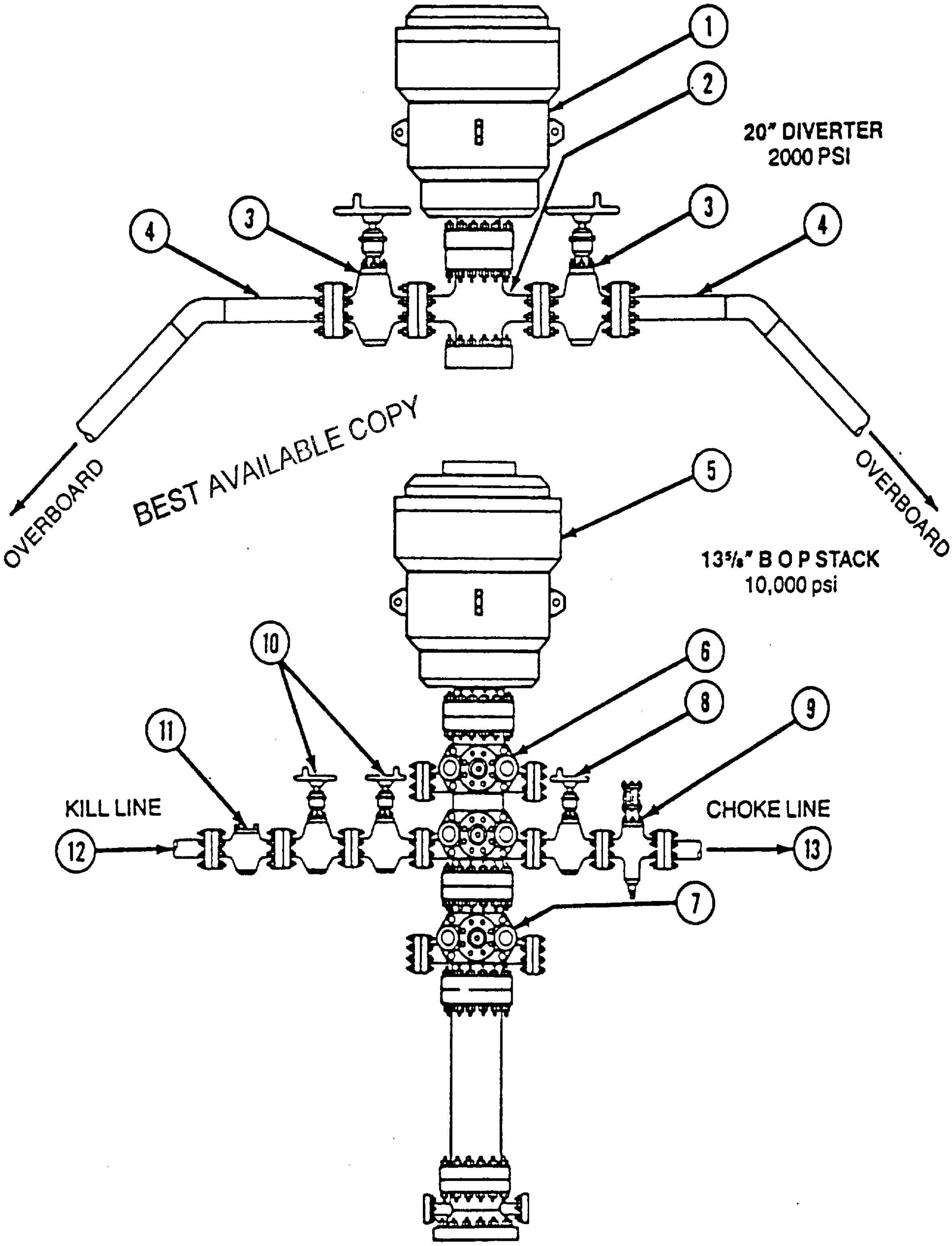
Section 2

The water depth in Block 633 (surface location for Matagorda Island 634, Wells C-2 and C-3) ranges from approximately 75' near the northwest corner to 85' near the southeast corner.

Enron anticipates utilizing a jack-up to drill and complete Wells C-2 and C-3, OCS-G 7202, Block 634. A typical schematic of the diverter system is attached along with a description of the blowout preventer.

The jack-up rig discussed will be equipped with well control and blowout prevention equipment as described in 30 CFR 250.56. Appropriate life rafts, life jackets, ring buoys, etc., as prescribed by the United States Coast Guard will be provided. Pollution prevention and control features will include all necessary coaming drains and holding tanks to prevent contamination of the sea in accordance with 30 CFR 250.40--Pollution Prevention.

BLOWOUT PREVENTER STACK
WITH A
HYDRIL DIVERTER



Refer to following page for description of individual items of this assembly.

20" HYDRIL DIVERTER 2000 psi

ITEM	DESCRIPTION
1	20" HYDRIL 2000 psi Type MSP
2	20" FLANGE SPOOL 2000 psi w/6" 2000 psi Outlets
3	10" GATE VALVE std Low Pressure (REMOTE)
4	10" DIVERTER LINE (To Overboard)

BLOWOUT PREVENTER STACK

13⅝' 10,000 psi

ITEM	DESCRIPTION
5	13⅝" HYDRIL ANNULAR BOP 5000 psi Type GK H25 Trimmed
6	13⅝" CAMERON DOUBLE BOP 10,000 psi WP H_2S Trimmed
7	13⅝" CAMERON SINGLE BOP 10,000 psi WP H_2S Trimmed
8	4 1/16" MANUAL GATE VALVE Cameron Type "F" H_2S
9	2 1/16" REMOTE HYDRAULIC VALVE Cameron Type "F" 10,000 psi H_2S
10	2 1/16" MANUAL GATE VALVE Cameron Type "F" 10,000 psi H_2S
11	2 1/16" CHECK VALVE Cameron Type "R" 10,000 psi H_2S
12	3" 10,000 psi KILL LINE from Choke Manifold
13	3" 10,000 psi CHOKE LINE from choke Manifold

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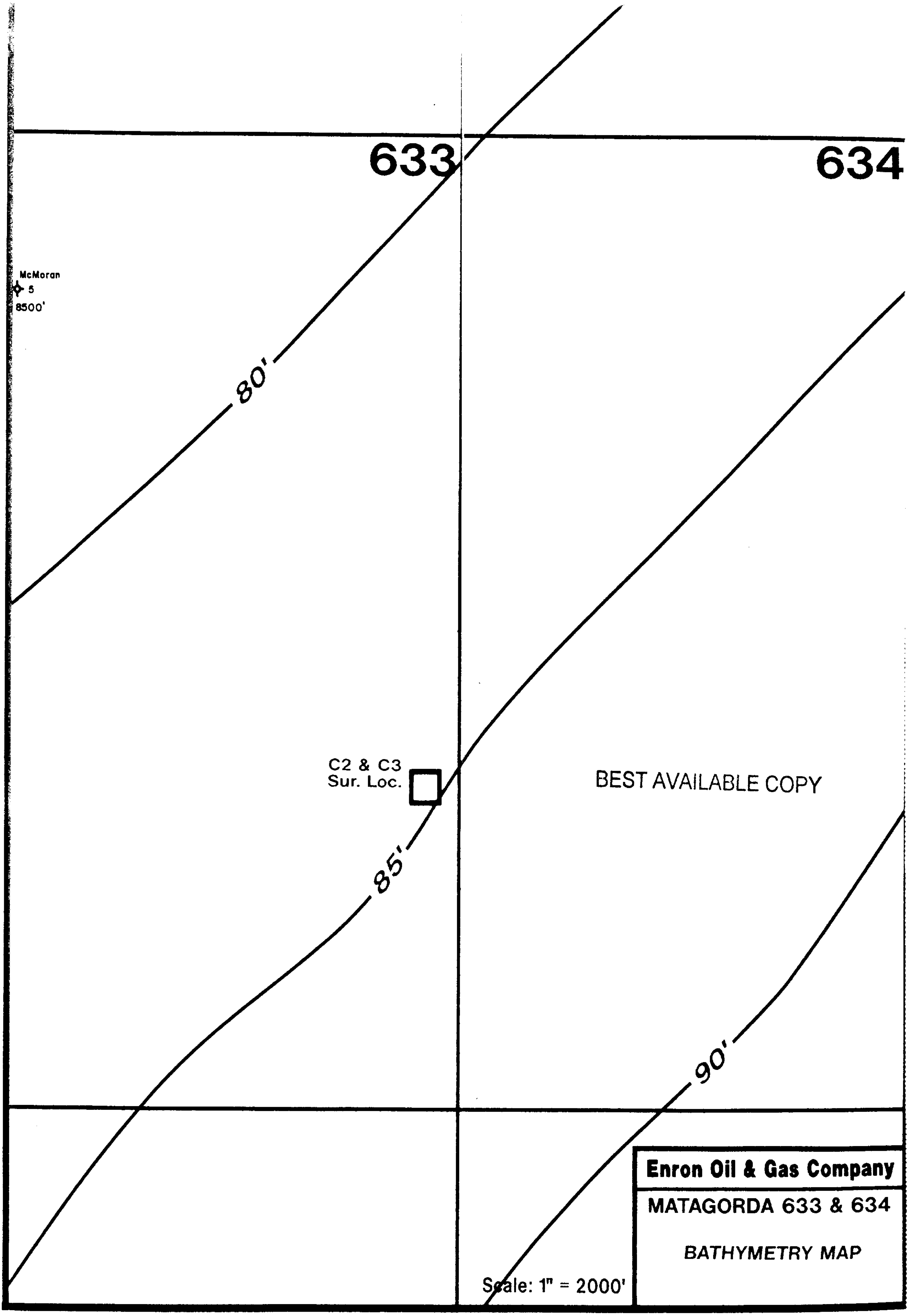
6" LINE


633
634
McMoran
5
8500'
80'
C2 & C3
Sur. Loc.
85'
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90'
Enron Oil & Gas Company
MATAGORDA 633 & 634
BATHYMETRY MAP
Scale: 1" = 2000'

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

SAFETY AND ENVIRONMENTAL SAFEGUARDS INCLUDING OIL SPILL CONTINGENCY PLAN

Section 3

Safety features during drilling operations will include well control and blowout prevention equipment that meets or exceeds the requirements of 30 CFR 250.56.

Oil in any form shall not be disposed of into waters of the Gulf.

Liquid waste materials containing substances which may be harmful to aquatic life or wildlife, or injurious in any manner to life or property shall be treated to avoid disposal of harmful substances into the waters of the Gulf.

Drilling muds containing oil are not to be disposed of into the Gulf. This type of material is loaded and barged to shore for proper disposal. Drilling mud containing toxic substances are neutralized prior to disposal.

Drill cuttings, sand, and solids containing oil are not disposed of into the Gulf, unless the oil has been removed. Matagorda Island Block 633 is covered by NPDES Permit Number GMG 290046.

Operator personnel are instructed in the techniques and methods necessary to prevent pollution. Non-operator personnel are instructed and supervised to insure non-pollution practices are adhered to.

The facilities are inspected daily.

OIL SPILL CONTINGENCY PLAN

Enron Oil & Gas Company has an approved Oil Spill Contingency Plan on file with the MMS dated December, 1982. The updated plan was submitted to the MMS on June 28, 1996. This plan designates an Oil Spill Team consisting of Enron Oil & Gas Company personnel and contract personnel.

This team's duties are to eliminate the source of the oil spill, remove all sources of possible ignition, deploy the most viable means of available transportation to monitor the movement of the slick, and contain and remove the slick if possible. Enron is a member of the Clean Gulf Associates (CGA). The CGA has four permanent bases in Louisiana; at Venice, Grand Isle, Intracoastal City, and Cameron, and two bases in Texas; at Galveston and Port Aransas. Each base is equipped with fast response skimmers and there is a barge mounted high volume open sea skimmer based at Grand Isle. In addition to providing equipment, the CGA also supplies advisors for clean up operations. Enron's primary oil spill equipment deployment base will be Port Aransas, Texas. In the event of an oil spill, the response time from the Clean Gulf base at Port Aransas, Texas to Matagorda Island Block 633 (surface location of proposed wells) will be 9.5 hours. The response time is the sum of the following estimated times:

A.	Procurement Time:	
	1. Assemble the equipment and equipment transportation vessel	2 hours
	2. Equipment load out and operating personnel	2 hours
B.	Travel Time to Deployment Sites:	
	1. 35 miles from shore at 10.0 mph	3.5 hours
	2. 8 miles inland water @ 8.0 mph	1 hour
C.	Equipment Deployment	1 hour
	Total Response Time	9.5 hours

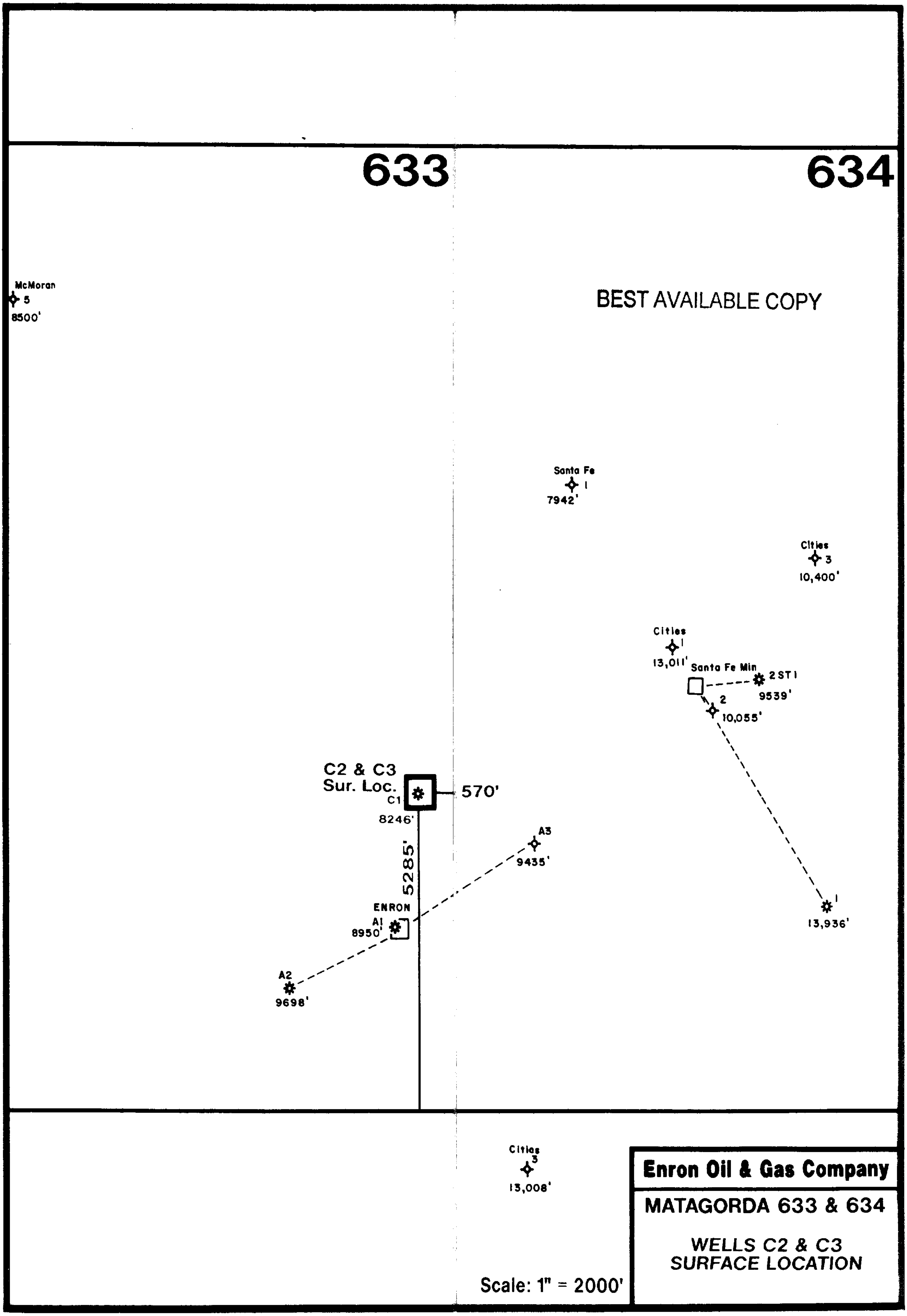
A Site-specific Oil Spill Contingency Plan as described in 30 CFR 250.42 was prepared for Matagorda Island 633 Block and is included as Section 8.

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

LOCATION OF WELL AND PLAT

Section 4

Well		Location		Depth	Water Depth	Days to Drill
C-2	Surface:	5285' FSL & 570' FEL of MI 633			79'	25'
		x = 2,809,945.32'	y = 92,404.97'			
C-3	Surface:	5285' FSL & 570' FEL of MI 633			79'	30'
		x = 2,809,945.32'	y = 92,404.97'			



Enron Oil & Gas Company

MATAGORDA 633 & 634

WELLS C2 & C3
SURFACE LOCATION

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

GEOLOGICAL AND GEOPHYSICAL DATA

Section 5

Enron Oil & Gas Company has reviewed all available data over and proximal to the surface location of the proposed well at its location in Matagorda Island Block 633. This data indicates no shallow hazards are expected prior to setting surface casing. The proposed well is being drilled from an existing platform and location has been reviewed and previously approved.

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

LOCATION OF LEASE BLOCK AND ONSHORE FACILITIES

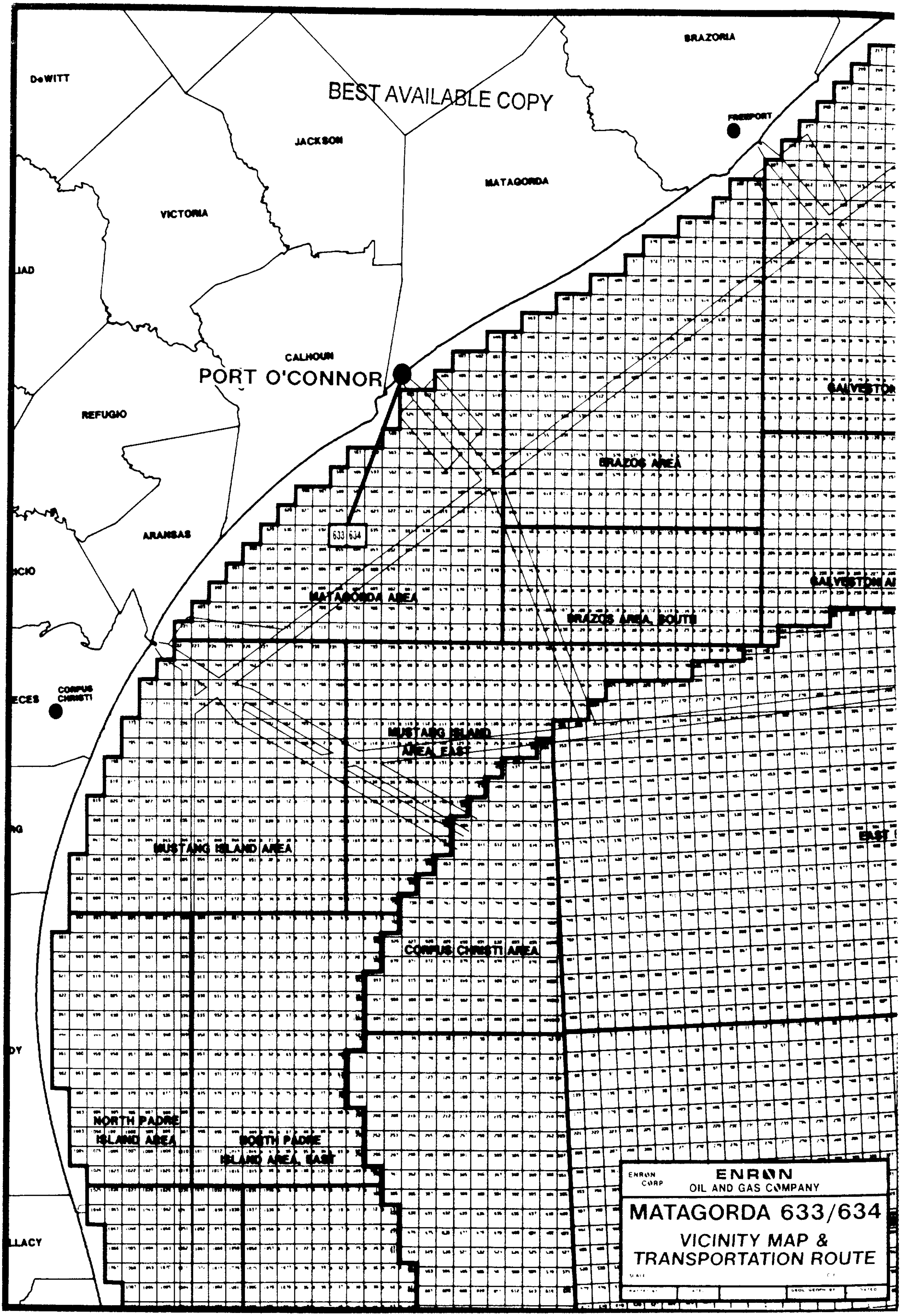
Section 6

Matagorda Island Block 633 (surface location of proposed wells) is located approximately 13 miles from shore. A vicinity map of Block 633 is attached.

Enron Oil & Gas Company will use existing onshore base facilities at Port O'Connor, Texas. This will serve as port of debarkation for supplies and crews. No onshore expansion or construction is anticipated with respect to this activity.

This base is capable of providing the services necessary for the proposed activities. It has 24 hour service, a radio tower with phone patch, dock space, equipment and supply storage space, drinking water and drill water, etc.

Both helicopters and boats will be used in the transportation mode. Depending on weather conditions, travel routes will be the most direct feasible from the Port O'Connor shorebase. A crew boat will make approximately five (5) trips per week and supply boat will each make approximately three (3) trips per week during drilling/completion operations and two (2) trips per month during production operations. Helicopter trips should average seven (7) trips per week during completion and production operations.


BEST AVAILABLE COPY
DeWITT
BRAZORIA
FREEPORT
JACKSON
MATAGORDA
VICTORIA
CALHOUN
PORT O'CONNOR
REFUGIO
ARANSAS
CORPUS CHRISTI
633
634
MATAGORDA AREA
BRAZOS AREA
BRAZOS AREA, SOUTH
GALVESTON AREA
MUSTANG ISLAND AREA EAST
MUSTANG ISLAND AREA
CORPUS CHRISTI AREA
NORTH PADRE ISLAND AREA
NORTH PADRE ISLAND AREA, EAST
ENRON CORP
ENRON OIL AND GAS COMPANY
MATAGORDA 633/634
VICINITY MAP &
TRANSPORTATION ROUTE

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SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
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LEASE STIPULATIONS

Section 7

In accordance with the Lease Stipulation 1, attached to the lease for Matagorda Island Block 633 (surface location for the proposed wells), Amoco Production Co. submitted to the MMS with the Plan of Explroation dated October 5, 1983 a Cultural Resources Report prepared by Aquatronics International, Inc. which assessed the potential existance of any cultural resources.

Lease Stipulation No. 3 is also attached to this lease, and in accordance with the stipulation, Enron Oil & Gas Company will comply with instructions from the Naval Air Training Command, Corpus Christi, Texas concerning boat and/or air traffic.

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
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OIL SPILL TRAJECTORY ANALYSIS

Section 8

In the event a spill occurs from Matagorda Island Area Block 633 (surface location of proposed wells) our company has projected trajectory of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sales 166 and 168.

The EIS contains oil spill trajectory simulations using seasonal surface currents coupled with wind data, adjusted every 3 hours for 30 days or until a target is contacted.

Hypothetical spill trajectories were simulated for each of the potential launch sites 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. Utilizing the summary of the trajectory analysis (for 10 days) as presented in Table 4 on page 98 of the Oil Spill Risk Analysis for OCS Lease Sales 157 and 161, spill launch site No. 4 (Matagorda Island Block 633) has the following probable projected land fall of an oil spill. Also listed is the CGA Map Number corresponding to the land segment which will be utilized to determine environmentally sensitive areas that may be affected by a spill.

LAND SEGMENT	CONTACT %	CGA MAP NO.
2 - Willacy, TX	1%	TX Map 1
3 - Kenedy, TX	6%	TX Map 1
4 - Kleberg, TX	5%	TX Map 1
5 - Nueces, TX et al	11%	TX Map 2
6 - Aransas, TX	19%	TX Map 2
7 - Calhoun, TX	34%	TX Map 2
8 - Matagorda, TX	17%	TX Map 2 & 3

Section V, Volume II of the CGA Manual containing maps as listed above, also includes equipment containment/cleanup protection response modes for the sensitive areas. Pollution response equipment available from CGA and its stockpile base is listed in the CGA Manual Volume I, Section III.

The CGA "Equipment 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 in areas of environmental concern. 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 deployment and operation of equipment to more effectively respond to site- specific circumstances.

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

HYDROGEN SULFIDE DETERMINATION

Section 9

Matagorda Island 633 "C" location (surface location of the proposed wells) has been deemed a "Zone where the absence of H_2S has been confirmed" in accordance with 30 CFR 250.67(c).

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

MUD COMPONENTS

Section 11

I. ITEMS USED ON A ROUTINE BASIS

M I MUD	MILPARK	MAGCOBAR	DESCRIPTION
Imco Bar	Barite/Milbar	Barite/Magcobar	Barite
Imco Gel Milgel	Magcogel	Bentoite	
Imco Lig	Ligco	Tannathin	Lignite
RD-111	Uni Cal	Spercene	Blended Lignosulfonate
Caustic Soda		Hydroxide	
Aluminum Stearate	Aluminum Stearate	Aluminum Stearate	Aluminum Stearate
Lime	Lime	Lime	Calcium Hydroxide
Imco Thin	Ligcon	XP-20	Modified Lignite
Soda Ash Bicarb	Soda Ash Bicarb	Soda Ash Bicarb	Sodium Carbonate Bicarbonate of Soda
Poly Rx	Chemtrol-X	Resinex	Selected Polymer Blend
Imco MD	M.D.	D-D	Detergent
Foamban	LD-8	Magconol	Defoamer (Usually alcohol based)

COMPONENTS (Cont'd)

II. ITEMS USED LESS FREQUENTLY

M I MUD	MILPARK	MAGCOBAR	DESCRIPTION
DMS	DMS	DMS	Nonionic Mud Surfactant
Imco Loid	Milstarch	My Lo Gel	Pregelantinized Starch
CMC	CMC	CMC	Sodium Carboxy Methyl Cellulose
Cypan	Cypan	Cypan	Sodium Polyacrylate
Permaloid	Perma-Lose	Poly Sal	Organic Polymer
Drispac	Drispac	Drispac	Polyanionin Cellulose
Gyp	Gyp	Gyp	Gypsum (Plaster of Paris)
HME/Superdril	HME/Superdril	HME/Superdril	Gilsonite (Treated) Natural Hydrocarbons + Wetting Agent
Black Magic Supermix	Black Magic Supermix	Black Magic for spotting fluid	Mud Concentrate
Lubrikleen	Lubrisal	Magolube	Organic Lubricant
Imco Myca	Mil-Mica	Mago-Mica	Mica-Flakes
Imco Plug	Mil Plug	Nut Plug	Ground Walnut or other nut hulls
Ironite	Ironite	Ironite	Synthetic Iron Oxide, H_2S Scavenger
- - - -	Mil Gard	- - - -	H_2S Scavenger (Zinc Carbonate)

COMPONENTS (Cont'd)

II. ITEMS USED LESS FREQUENTLY

M I MUD	MILPARK	MAGCOBAR	DESCRIPTION
Separan	Separan	Separan	Polyacrylamide Polymer
Salt	Salt	Salt	Sodium Chloride
SAPP	SAPP	SAPP	Sodium Acid Pryophosphate
- - - -	Shale Trol	- - - -	Ograno/Aluminum Compound
KCL	KCL	KCL	Potassium Chloride

III. OIL BASE MUD

Imco Spot	Mil-Free	Pipe Lax	Emulsifiers for spotting fluid
Kenol-S	Carbo-Tec	Oilfaze & Vertoil	Emulsifiers, gelling agents and fluid loss agents for oil muds
Ken-Gel	Carbo-Gel	VG-69	Organiphilic clays for viscosifying
- - - -	- - - -	- - - -	Asphaltic Viscosifier
Ken-Cal-L	Carbo-Mul	DV-33	Organic wetting agents
VR	Carbo-Trol	DV-22	Fluid loss agents

ENRON OIL & GAS COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 634
OCS-G 7202

Air Quality Review

Section 12

The Supplemental Development Operations Coordination Document for Matagorda Island Block 634 describes drilling and completing Wells C-2 and C-3 from an existing platform. Drilling operations are expected to commence by April 1, 1997 and should take 55 days with completion operations 28 days. Activities proposed under this DOCD should be completed by June 23, 1997.

Following is an estimate of trips during drilling/completion operations:

Crew Boat	5 trips per week
Supply Boat	3 trips per week
Helicopter	7 trips per week

Following is an estimate of trips during production operations:

Supply Boat	2 trips per month
Helicopter	7 trips per week

AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS
Enron Oil & Gas Compa	Matagorda Island	634	OCS-G 7202	N/A	C-2, C-3	0		Bekki Long	(713) 853-5721	Drilling: 55 Days, Completion: 28 Days

OPERATIONS	EQUIPMENT		MAX. FUEL	ACT. FUEL	RUN TIME		POUNDS PER HOUR					TONS PER YEAR				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	1325	63.9975	1535.94	24	83	0.70	4.35	32.10	0.96	7.00	0.70	4.33	31.98	0.96	6.98
	PRIME MOVER>600hp diesel	1325	63.9975	1535.94	24	83	0.70	4.35	32.10	0.96	7.00	0.70	4.33	31.98	0.96	6.98
	PRIME MOVER>600hp diesel	1325	63.9975	1535.94	24	83	0.70	4.35	32.10	0.96	7.00	0.70	4.33	31.98	0.96	6.98
	PRIME MOVER>600hp diesel	1325	63.9975	1535.94	24	83	0.70	4.35	32.10	0.96	7.00	0.70	4.33	31.98	0.96	6.98
	AUXILIARY EQUIP<600hp diesel	190	9.177	220.25	24	8	0.42	0.39	5.86	0.47	1.27	0.04	0.04	0.56	0.04	0.12
	AUXILIARY EQUIP<600hp diesel	24	1.1592	27.82	24	8	0.05	0.05	0.74	0.06	0.16	0.01	0.00	0.07	0.01	0.02
	AUXILIARY EQUIP<600hp diesel	330	15.939	382.54	8	4	0.73	0.68	10.18	0.81	2.20	0.01	0.01	0.16	0.01	0.04
	AUXILIARY EQUIP<600hp diesel	330	15.939	382.54	8	4	0.73	0.68	10.18	0.81	2.20	0.01	0.01	0.16	0.01	0.04
	AUXILIARY EQUIP<600hp diesel	90	4.347	104.33	8	7	0.20	0.18	2.78	0.22	0.60	0.01	0.01	0.08	0.01	0.02
	VESSELS>600hp diesel	2500	120.75	2898.00	4	60	1.32	8.20	60.57	1.82	13.22	0.16	0.98	7.27	0.22	1.59
	VESSELS>600hp diesel	2500	120.75	2898.00	6	36	1.32	8.20	60.57	1.82	13.22	0.14	0.89	6.54	0.20	1.43
	VESSELS>600hp diesel	650	31.395	753.48	1	83	0.34	2.13	15.75	0.47	3.44	0.01	0.09	0.65	0.02	0.14
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP.<600hp diesel	100	4.83	115.92	1	31	0.22	0.21	3.08	0.25	0.67	0.00	0.00	0.05	0.00	0.01
	RECIP.>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	2500	120.75	2898.00	6	13	1.32	8.20	60.57	1.82	13.22	0.05	0.32	2.36	0.07	0.52
	SUPPORT VESSEL diesel	650	31.395	753.48	1	191	0.34	2.13	15.75	0.47	3.44	0.03	0.20	1.50	0.05	0.33
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			62.0		191				0.00					0.00	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
1997 YEAR TOTAL							9.80	48.46	374.44	12.88	81.64	3.27	19.88	147.32	4.48	32.14
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES															
	13.0											432.90	432.90	432.90	432.90	18959.24

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COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT		PHONE	REMARKS					
Enron Oil & Gas Compan	Matagorda Island	634	OCS-G 7202	N/A	C-2, C-3	0		Bekki Long		(713) 853-5721	Drilling: 44 Days		Completion: 126 Days			
OPERATIONS	EQUIPMENT		MAX. FUEL	ACT. FUEL	RUN TIME		POUNDS PER HOUR					TONS PER YEAR				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP.<600hp diesel	100	4.83	115.92	1	60	0.22	0.21	3.08	0.25	0.67	0.01	0.01	0.09	0.01	0.02
	RECIP.>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	2500	120.75	2898.00	6	24	1.32	8.20	60.57	1.82	13.22	0.10	0.59	4.36	0.13	0.95
	VESSELS>600hp diesel	650	31.395	753.48	1	365	0.34	2.13	15.75	0.47	3.44	0.06	0.39	2.87	0.09	0.63
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			62.0		365				0.00					0.01	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
1998	YEAR TOTAL						1.89	10.54	79.41	2.54	17.32	0.16	0.99	7.33	0.23	1.60
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											432.90	432.90	432.90	432.90	18959.24
	13.0															

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AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
Enron Oil & Gas Compa	Matagorda Island	634	OCS-G 7202	N/A	C-2, C-3
Year	Emitted			Substance	
	TSP	SOx	NOx	HC	CO
1997	3.27	19.88	147.32	4.48	32.14
1998	0.16	0.99	7.33	0.23	1.60
1999	0.16	0.99	7.33	0.22	1.60
2000	0.16	0.99	7.33	0.22	1.60
2001	0.16	0.99	7.33	0.22	1.60
2002	0.16	0.99	7.33	0.22	1.60
Allowable	432.90	432.90	432.90	432.90	18959.24

API/OOC GULF OF MEXICO AIR QUALITY TASK FORCE
GENERAL INSTRUCTIONS
GULF OF MEXICO AIR EMISSION CALCULATIONS

General

This document (MMS.XLW) was prepared through the cooperative efforts of those professionals in the oil industry including the API/OOC Gulf of Mexico Air Quality Task Force, who deal with air emission issues. This document is intended to standardize the way we estimate an air emission inventory for Plans of Exploration (POE) and Development, Operations, Coordination Documents (DOCD) approved by the Minerals Management Service (MMS). It is intended to be thorough but flexible to meet the needs of different operators.This first file gives the basis for the emission factors used in the emission spreadsheet as well as some general instructions.
The following files, Title Sheet, Factors Sheet,Emissions Spreadsheet,and Summary Sheet will describe and calculate emissions from an activity.

Title Sheet

The Title Sheet requires input of the company's name, area, block, OCS-G number, platform and/or well(s) in the necessary lines. This data will automatically be transferred to the spreadsheet and summary sheet.

Factor Sheet

The emission factors were compiled from the latest AP-42 references or from industry studies if no AP-42 reference was available. Factors can be revised as more data becomes available. A change to this Factor Sheet will be automatically changed in Emission Spreadsheet.

The basis for the factors is as follows:

1. NG Turbines — Fuel usage scf/hr = HP X 9.524 (10,000 btu/HP-hr / 1050 btu/scf)
2. NG Engines — Fuel usage scf/hr = HP X 7.143 (7,500 btu/HP-hr / 1050 btu/scf)
3. Diesel — Fuel usage gals/hr = HP X 0.0483 (7,000 btu/HP-hr / 145,000 btu/gal)

Emission Factors

Natural Gas Prime Movers

1. TNMOC refers to total non-methane organic carbon emissions and these can be assumed equivalent to VOC emissions.

3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down.

Diesel-Fired Prime Movers

1. Diesel sulfur level 0.4% by wt

2. For boats use > 600 HP factors based on AP-42 Vol. II, Table II-3-3.
   Those figures closely match the above values. Include only the emissions from the boats within 25 mile radius of the well/platform.

3. For diesel engines <600 HP VOC emissions equal total HC emissions; for diesel engines>600 HP VOC emissions equal non-methane HC emissions.

Heaters/Boilers/Firetubes/NG-Fired

1. NG Sulfur content is 2000 grains per million cu ft

2. VOCs emissions based on total non-methane HCs

Gas Flares

1. Flare is non-smoking

2. 1050 btu/cu. ft. for NG heating value

3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down or you may use the following formula:

   H_2S flared (lbs/hr) = Gas flared (cu ft/hr) X ppm H_2S X 10E-06 X 34/379

   SO_x emis (lbs/hr) = H_2S flared (lbs/hr) X 64/34

Liquid Flares

1. Assume 1% by wt Sulfur maximum in the crude oil.

2. VOC equals non-methane HCs

3. Particulate emissions assumes Grade 5 oil.

Tanks

1. Tank emissions assumes uncontrolled fixed roof tank.

Fugitives

1. Fugitives are based on the 1993 Star Environmental Report. It requires that you count or estimate your components.

Glycol Dehydrator Vent

1. The dehydrated gas rate in SCF/HR must be entered in the spreadsheet. The emission factor is from the compilation of the Louisiana Survey and an average emissions per gas rate.

Gas Venting

1.The emission factor is based on venting unburned natural gas of average weight.

<u>Emissions Spreadsheet</u>

The emissions from an operation should be presented for a calendar year (1994, 1995, etc.). The operation may include drilling only or drilling in conjunction with other activities such as pipeline installation or production operations. For additional years the Emissions Spreadsheet is renamed Emissions 2, 3, etc.The different operating parameters for each year should entered to calculate revised emissions for that year. The spreadsheet will calculate maximum fuel usage (UNIT/HR) using the known horsepower. It will assume maximum fuel usage is equal to actual fuel (UNIT/DAY) usage unless the actual fuel usage is known. If so, insert actual fuel usage in appropriate column. The emissions will be calculated as follows:

Emission rate (lb/hr) = (HP or fuel rate) X Emission Factor (Potential to emit)

Emissions (tpy)=Emission rate (lb/hr) X load factor(Act Fuel/Max Fuel) X hrsX daysX ton/2000 lbs (Actual emissions)

To customize the spreadsheet for your application it is possible to delete lines for non-applicable equipment/activities or copy/insert an entire line if more than one similiar type of equipment is present.

Also, the production equipment can be customized further by adding the use of the equipment behind each type of engine, i.e.,

Turbine
Turbine - Gas Compressor

Burner
Burner - Line Heater

Summary Sheet

The Summary Sheet is designed to show a proposed estimate of emissions from an activity over a future period of time. In this example ten years was chosen. The first line (Row 7-1994) of the summary sheet is linked to the yearly totals in the Emissions Spreadsheet. The second line (Row 8-1995) is referenced to Emissions2 Spreadsheet. The third line (Row 9- 1996) is referenced to Emissions3 Spreadsheet. If more years of calculations are necessary to reach a constant then the spreadsheet can be copied and linked to the summary sheet for years 1997,1998 etc. Once emissions are constant the values are carried to the end of the ten year period.

ENRON OIL & GAS COMPANY
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
MATAGORDA ISLAND BLOCK 586
OCS-G 14791

Coastal Zone Consistency Certifiation

Section 13

The proposed activities described in this plan comply with Texas' approved Coastal Zone Management Program and will be conducted in a manner consistent with such Program.

Enron Oil & Gas Company
Lessee or Operator

Certifying Official

March 6, 1997
Date

Section 14

ENVIRONMENTAL REPORT

OCS-G 7202

MATAGORDA ISLAND 634

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

OFFSHORE, TEXAS

Prepared by:

Enron Oil & Gas Company
P. O. Box 4362
Houston, TX 77210-4362
(713) 873-5721

March, 1997

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I. DESCRIPTION OF PROPOSED ACTION

Enron Oil & Gas Company (Enron) plans to conduct development activities in Matagorda Island 634, OCS-G 7202. As proposed, the Supplemental Development Operations Coordination Document for Matagorda Island 634 will include drilling two (2) additional wells from a existing structure in Matagorda Island 633 and rename the structure "C" platform. Production will flow through an existing pipeline to Matagorda Island 633 "A" platform.

At this time, the planned commencement date for the proposed activities is on or about April 1, 1997.

A. Description of Proposed Travel Modes, Routes and Frequency

Support vessels will be dispatched from a support base located in Port O'Connor, Texas. The boats will normally move to the block via the most direct route from Port O'Connor, Texas, however, boats operating in the field may travel from other facilities nearby. Following is an estimate of trips to the proposed operations.

	Drilling Operations	Production Operations
Crew Boat	5 trips per week	
Supply Boat	3 trips per week	2 trips per month
Helicopter	7 trips per week	7 trips per week

B. Onshore Support Base

The proposed activities will utilize a support base located in Port O'Connor, Texas. This base provides 24-hour service, a radio tower with phone patch, dock space, office space, parking lot, equipment and supply storage space, drinking and drill water, etc. The proposed development 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 this block.

C. New or Unusual Technology

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

D. Vicinity Map

Matagorda Island 633 (surface location of proposed wells) is located approximately 13 miles from shore. Water depth at the platform is 79 feet.

II. DESCRIPTION OF AFFECTED ENVIRONMENT

A. Commercial Fishing

The Gulf of Mexico yielded the nation's second largest regional commercial fishery by weight and value in 1993. Commercial landings of all fisheries in the Gulf totaled nearly 1.7 billion pounds, valued at about $631 million during 1993. The Gulf fisheries landings were nearly 20% of the national total by weight and 20% by value.

Most commercial species harvested from Federal waters of the Gulf are considered to be at or near an over fished condition. Continued fishing at the present levels may result in rapid declines in commercial landings and eventual failure of certain fisheries. Despite substantial increases in fishing effort, the commercial landings of traditional fisheries such as shrimp, red snapper, spiny lobster and mackerel have declined over the past decade. Commercial landings of recent fisheries, such as shark, black drum, and tuna have increased exponentially over the past five years and those fisheries are thought to be in need of conservation.

The Gulf's shrimp fishery is the most valuable in the United States accounting for 71.5 percent of the total domestic production. Three species of shrimp--brown, white, and pink dominate the landings. The status of the stocks are either as follows: (1) brown yields are at or near the maximum sustained levels; (2) white yields are beyond maximum sustainable levels with signs of over fishing occurring; and (3) pink are at or beyond maximum sustainable levels.

The most important Gulf species in quantity landed was Menhaden, with landings of 1.2 billion pounds, valued at $59.2 million. Shrimp was the most important Gulf species in value landed during 1993 with landings of 206.4 million pounds, valued at $335 million. The oyster fishery accounted for 41% of the national total with landings of 20 million pounds of meats, valued at about $51.6 million and the blue crab fishery for 25% of the national total with landings of 63.3 million pounds, valued at $32.3 million.

Louisiana ranked first among Central and Western Gulf States in total commercial fishery landings for 1993 with nearly 1.4 billion pounds landed, valued at $274.6 million. The highest quantity finfish landed was Menhaden, with 1.0 billion pounds landed, valued at $49.0 million. The highest value shellfish was shrimp with 87.6 million pounds landed, valued at $158 million. In addition, the following twelve species each accounted for landings valued at over $1 million: black drum, flounder, black mullet, Atlantic sheepshead, Vermilion snapper, red mullet roe, red snapper, spotted sea trout, swordfish, yellowfin tuna, blue crab, and the American oyster. In 1991 and 1992, Louisiana had about 19,923 and 19,241 commercial saltwater, licensed fishermen.

Texas ranked second among Central and Western Gulf of Mexico states in total commercial fishery landings for 1993 with nearly 93.1 million pounds landed, valued at $156.7 million. Shrimp ranked first, both in quantity and value, with about 78 million pounds landed, valued at $141.9 million. In addition, during 1993, the following seven species each accounted for landings valued at over $500,000: black drum, Vermilion snapper, swordfish, red snapper, blue crab, yellowfin tuna and American oyster. In 1992 and 1993, respectively, Texas had about 17,483 and 14,519 commercial saltwater, licensed fishermen and 5,410 and 5,093 commercial fishing craft.

B. Shipping

The establishment of a series of safety fairways or traffic separation schemes (TSS's), and anchorage areas provide unobstructed approach for vessels using U.S. ports. Shipping safety fairways are lanes or corridors in which no fixed structure, whether temporary or permanent, is permitted. TSS's increase navigation safety by separating opposing lanes of vessel traffic. Fairway anchorage are areas contiguous to and associated with a fairway, in which fixed structures may be permitted within certain spacing limitations.

Fairways play an important role in the avoidance of collisions on the OCS, particularly in the case of the large oceangoing vessels, but not all vessels stay within the fairways. Many others, such as fishing boats and OCS support vessels, travel through areas with high concentration of fixed structures. In such cases the most important mitigation factor is the requirement for adequate marking and lighting of structures. After a structure has been in place for a while, it often becomes a landmark and an aid to navigation for vessels that operate in the area on a regular basis.

Most oceangoing vessels are equipped with radar capable of aiding navigation in all weather conditions. This has contributed to safe navigation on the OCS.

Matagorda Island 633 (surface location of proposed wells) has no shipping fairways. All marine vessel operations will be in accordance with the U. S. Coast Guard's regulations regarding navigation standards and the drilling unit and each of the marine vessels servicing this operation will be equipped with all U. S. Coast Guard required navigational safety aids.

C. Pleasure Boating, Sport Fishing and Recreation

The northern Gulf of Mexico coastal zone is one of the major recreational regions of the United States, particularly in connection with marine fishing and beach related activities. The Gulf Coast shorelines offer a diversity of natural and developed landscapes and seascapes. The coastal beaches, barrier islands, estuarine bays and sounds, river deltas, and tidal marshes are major recreational resources. Publicly-owned and administered areas such as National seashores, parks, beaches, and wildlife lands, as well as specially designated preservation areas such as historic and natural sites and landmarks, wilderness areas, wildlife sanctuaries, and scenic rivers attract residents and visitors throughout the year. Commercial and private recreational facilities and establishments, such as resorts, marinas, amusement parks, and ornamental gardens, also serve as primary interest areas and support services for people who seek enjoyment from the recreational resources associated with the Gulf.

The two major recreational areas most directly associated with the offshore leasing and potentially affected by it are the offshore marine environment and the coastal shorefront of the adjoining states. The major recreational activity occurring on the OCS is offshore marine recreational fishing and diving. Studies, reports, and conference proceedings published by the MMS and others have documented a substantial recreational fishery, including scuba diving directly associated with oil and gas production platforms. Studies indicate there are about 4 million resident participants in marine recreational fishing and over 2 million tourists who angle for Gulf marine species. According to the NMFS, over 40% of the nation's marine recreational fishing catch comes from the Gulf of Mexico, and marine anglers made over 15 million fishing trips in 1991, exclusive of Texas. Texas marine anglers using private boats expended over 4.5 million man-hours to land almost 1.5 million saltwater fish during the 1990-91 fishing years.

Marine recreational fishing trips and catch along the Gulf Coast began to rebound in 1991 after several years of decline. Speckled trout are the most sought sport fish in coastal marine waters, whereas snapper and mackerel are some of the more popular offshore sport fish.

Marine recreational fishing in the Gulf Region from Texas to Alabama is a major industry important to these States' economies. The recreational marine fishing industry accounts for an estimated $769 million in sales (equipment, transportation, food, lodging, insurance, and services) and employment for over 15,000 people, earning more than $158 million annually.

Padre Island National Seashore and Gulf Islands National Seashore are the predominant public recreation areas abutting the Gulf of Mexico. These seashores account for approximately 110 miles of exposed Gulf beachfront, which accommodates over 1.5 million recreational visits a year. Besides beaches these seashores contain nationally significant forts, shipwrecks, wetlands, lagoons and estuaries, sea grasses, fish and wildlife, and archaeological sites.

The coastal shorelines contain extensive public parks and recreation areas, private resorts and commercial lodging. Most outdoor recreational activity of the Gulf shorefront is associated with accessible beaches. Beach use is a major economic factor for many Gulf Coast communities as they are a major inducement for tourism as well as a primary source for resident recreational activity. Tourism in the coastal zone of the five Gulf Coast States has been valued at an estimated $20 billion per year.

D. Potential or Known Cultural Resources

Archaeological resources are any prehistoric or historic site, building, structure object or feature which is man-made or modified by human activity.

With the exception of the Ship Shoal Lighthouse, historic archaeological resources on the OCS consist of shipwrecks. A 1977 MMS archaeological resource baseline study for the northern Gulf of Mexico indicated that 2% of the pre-20th century shipwrecks and 10% of all wrecks reported lost between 1500 and 1945 have known and/or verified locations. A recent Texas A&M University study updated this database. Statistical analysis of over 4,000 potential shipwrecks in the northern Gulf indicated that many of the OCS shipwrecks occur in clustered patterns related mainly to navigation hazards and port entrances.

Geomorphic features that have a high probability for associated prehistoric sites in the Central and Western Gulf include barrier islands and back barrier embayments, river channels and associated floodplain and terraces, and salt-dome features. These areas contain Holocene deltaic deposits.

A Shallow Hazards Survey was conducted on Matagorda Island Block 633 for Amoco Prodcution Company in October, 1983. The eleven magnetic anomalies noted in the magnetometer records are the result of modern ferruginous debris and do not represent a significant cultural resource. The subbottom data indicate no evidence of any geomorphic features which would fulfill the criteria for prehistoric settlement locations listed above.

E. Ecologically Sensitive Features

Coastal barriers of the Western and Central Gulf consist of relatively low land masses that can be divided into several interrelated environments. The beach itself consists of the foreshore and back shore. The foreshore is nonvegetated and slopes up from the ocean to the beach berm-crest. The back shore is sometimes absent due to storm activity; however, if present, it is found between the beach berm-crest and the dunes and may be sparsely vegetated. The dune zone can consist of a single dune ridge, several parallel dune ridges or a number of curving dune lines stabilized by vegetation. These elongated, narrow landforms are composed of sand and other unconsolidated, predominantly coarse sediments transported and deposited by waves, currents, storm surges, and wind.

The habitats found among the coastal barrier landform provide a variety of niches that support many avian, terrestrial, aquatic and amphibious species some of which are endangered or threatened. Stability of these habitats is primarily dependent upon the rates of geodynamic change in each coastal vicinity. Storms, subsidence, delta abandonment, deltaic sedimentation, and human activity are the major sources of pressure that cause barrier landform to change.

The headlands found on the barrier coasts from east to west along the Central and Western Gulf Coast include Baldwin County Headland in Alabama, the barrier islands of the Mississippi Sound, the Chandeleur Islands, the Modern Mississippi River Delta and its developing barrier islands, the Bayou Lafourche Headland and accompanying barrier islands, Isles Dernieres, the Chenier Plain of Louisiana and Texas, Trinity River Delta, Brazos-Colorado River Delta and its accompanying barrier islands, barrier islands of Espiritu Santo Bay and Laguna Madre, and the Rio Grande Delta.

The Mississippi Sound barrier islands are relatively young, are well vegetated, and are generally regressive with high beach ridges and prominent sand dunes. Although there is no observed trend toward erosion or thinning of the islands, there is a trend toward westward migration in response to the predominantly westward-moving long shore currents.

Louisiana has the most rapidly retreating beaches in the nation. The statewide average for 1956 - 1978 was 8.29 m/yr. More recent analyses reveal Louisiana shorelines are retreating at an average rate of 4.2 m/yr. In comparison, the average shoreline retreat for the Gulf of Mexico, Atlantic Seaboard and Pacific Seaboard were reported at 1.8, 0.8, and 0.0 m/yr respectively.

In Louisiana, the highest reported rates of coastal retreat occurred along the coastal plain of the Mississippi River. Barrier beaches along the deltaic plain in Louisiana fit into one of these categories, depending on the stage of the deltaic cycle that the nearby landmass is experiencing. When a major distributary of the Mississippi River is abandoned, submergence due to subsidence and sea-level rise transforms the abandoned delta into an erosional headland with flanking arcs of barrier sand pits that generate barrier islands as workover channels occur. The Bayou Lafourche Headland is an example of a transgressive headland. Isles Dernieres is a more advanced example where subsidence has caused the barrier arc of islands to separate from the headland. With continued subsidence and no source of sediment, Isles Dernieres will eventually submerge and form a submarine inner-shelf shoal.

The coast of the Chenier Plain is fronted by sand beaches and coastal mudflats. The source of the mud is the discharge of the Mississippi and Atchafalaya Rivers. Their fine sediments drift westward with the prevailing nearshore currents. Fluid mud which extends from the seaward edge of the marsh grasses to a few hundred meters offshore is an extremely effective wave energy absorber. Consequently, the mainland shore is rarely exposed to effective wave action. Much of the Chenier coast is fairly stable.

The Texas coast between Louisiana and Rollover Pass is a physiographic continuation of the Chenier Plain. Here, thin accumulations of sand, shell, and coliche nodules make up beaches that are migrating landward over tidal marshes. These beaches are narrow and have numerous overwash features and local, poorly developed sand dunes. The barrier islands and spits of the rest of the Texas coast were formed and are maintained by sediments supplied from the three deltaic headlands discussed above.

The importance of coastal wetlands to the coastal environment has been well documented. Coastal wetlands are characterized by high organic productivity, high detritus production, and efficient nutrient recycling. Wetland habitat types along the Gulf Coast include fresh, brackish, and saline marshes; forested wetlands; and small areas of mangroves. They provide habitat for a great number and wide variety 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. The deterioration of coastal wetlands, particularly in Louisiana, is an issue of concern. In Louisiana, the annual rate of wetlands loss has been measured at 130 km2 for the period 1955-1978. A recent study has shown that current rate of land loss on the Deltaic Plain area of the Louisiana coast has decreased to about 90 km^2 per year. Several factors contributed to wetlands loss in coastal Louisiana. The suspended-sediment load of the Mississippi River has been reduced by 50% since the 1950's due to channelization and farmland soil conservation efforts. However, the primary cause of reduced sedimentation rates is levee construction, which has excluded river borne sediment from the flanking deltaic wetlands. Subsidence and sea level rise have caused submergence of lower wetland areas. Development activities in low areas, outside levee areas, have caused filling of wetlands. Construction of canals converts 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 increase erosion and sediment export.

In Mississippi and Alabama, the mainland marshes behind Mississippi Sound occur as discontinuous wetlands associated with estuarine environments. The most extensive wetlands in Mississippi occur east of the Pearl River delta near the western border of the State and in the Pascagoula River delta area near the eastern border of the State. The wetlands in Mississippi seem to be more stable than those in Louisiana, perhaps reflecting the more stable substrate and more active sedimentation per unit of wetland area. Also there have been only minor amounts of canal dredging in the Mississippi wetlands.

Most of the wetlands in Alabama occur on the Mobile River delta along northern Mississippi Sound. Between 1955 and 1979, fresh marshes and estuarine marshes declined in these area by 69% and 29%, respectively. Major causes of non-fresh wetland losses were industrial development and navigation, residential and commercial development, natural succession, and erosion and subsidence. Loss of fresh marsh was mainly attributable to commercial and residential development and silviculture.

In Texas, coastal marshes occur along bays, on rivers and their deltas, and on the inshore side of barrier islands. Wetland changes in Texas during the past several decades appear to be driven by subsidence and sea level increases. Open water areas are appearing in wetlands along their seaward margins, while new wetlands are encroaching onto previously non-wetland habitat along the landward margin of wetland areas on the mainland, on the back side of barrier islands, and onto spoil banks. In addition, wetlands are being affected by human activities including canal dredging, impoundments, and accelerated subsidence caused by fluid withdrawals. The magnitudes of these wetland areage changes in most of Texas have not been determined at the present. In the Freeport, Texas area and along the Louisiana border, wetlands loss is occurring at rates similar to those in adjacent parts of the Louisiana Chenier Plains. In the Sabine Basin area, for example, 20,548 ha wetlands were lost between 1952 and 1974.

There are an estimated 3 million ha of submerged sea grass beds in the exposed, shallow coastal waters of the northern Gulf of Mexico. An additional 166,000 ha are found in natural embayments and are not considered exposed to OCS impacts. Hence sea grass beds are not dealt with in detail in this report. The area off Florida contains the vast majority of such beds, which in turn contain approximately 98.5 percent of all coastal sea grasses in the northern Gulf of Mexico. Coastal sea grass beds in Texas and Louisiana comprise approximately 0.5 percent of the exposed sea grasses, with Alabama and Mississippi the remaining 1 percent of the habitat.

The sea grass beds grow in shallow, relatively clear and protected waters with predominantly sand bottoms. Their distribution depends on an interrelationship among a number of environmental factors including temperature, water depth, turbidity, salinity, and substrate suitability. Previously because of low salinity and high turbidity, robust sea grass beds are found only within a few scattered protected locations in the Central and Western Gulf of Mexico.

Sea grasses dominate the aquatic flora habitat of low salinity in the estuarine communities along the Texas Coast. Dominate species include shoal grass and widgeon grass. These inshore sea grasses provide an important habitat for immature shrimp, black drum, spotted seatrout, juvenile southern flounder and several other fish species and a food source for several species of wintering waterfowl. These species occur in abundance due to their ability to tolerate salinity variations that occur in a number of lagoon and bay systems in Texas. The Laguna Madre and Copano-Aransas estuaries account for the major portion of the sea grass population.

The turbid waters and soft highly organic sediments of Louisiana's estuaries limit widespread distribution of sea grass beds. Consequently, there are only a few areas in coastal Louisiana where sea grass beds occur, the most extensive beds occur in Chandeleur Sound. Sea grasses also occur within the Mississippi Sound.

The shelf and shelf edge of the Central and Western Gulf are characterized by topographic features which are inhabited by benthic hard-bottom communities. The habitat created by the topographic features is important because they support hard-bottom communities of high biomass, high diversity, and high numbers of plant and animal species; they support, either as shelter, food, or both, large numbers of commercially and recreationally important fishes, they are unique to the extent that they are small isolated areas of communities in vast areas of lower diversity; they provide a relatively pristine area suitable for scientific research; and they have an aesthetically sensitive attractive intrinsic value.

Seven distinct biotic zones on the banks of the Gulf have been identified. None of the banks contain all of the seven zones. The Central Gulf of Mexico lists 16 topographic features and the Western Gulf of Mexico contains 23 banks. None of these banks are located in Matagorda Island 633 (surface location of wells).

The northeastern portion of the Central Gulf of Mexico exhibits a region of topographic relief, the "pinnacle trend", found at the outer edge of the Mississippi-Alabama shelf between the Mississippi River and DeSoto Canyon. The pinnacles appear to be carbonate reefal structures in an intermediate stage between growth and fossilization. The region contains a variety of features from low-relief rocky areas to major pinnacles, as well as ridges, scarps, and relict patch reefs. The heavily indurated pinnacles provide a surprising amount of surface area for growth of sessile invertebrates and attract large numbers of fish.

Additional hard-bottom features, which are located outside the actual pinnacle trend on the outer continental shelf are areas on the Alabama Northwest Florida inner-shelf. Other rock outcrops have been reported at various depths around the head of DeSoto Canyon.

The features of the pinnacle trend offer a combination of topographic relief and hard substrate for the attachment of sessile organisms and therefore have a greater potential to support live-bottom communities than surrounding areas on the Mississippi-Alabama Shelf.

Chemosynthetic communities are defined as persistent, largely sessile assemblages of marine organisms dependent upon chemosynthetic bacteria as their primary food source. Chemosynthetic clams, mussels, and tube worms have been discovered in association with hydrocarbon seeps in the northern Gulf of Mexico. Initial discoveries of cold water seep communities indicated that they are primarily associated with seismic wipe out zones and hydrocarbon and H_2S seep areas. Although these communities are widespread across the northern Gulf of Mexico slope, they are normally found in very sparse concentrations of less than one animal per m^2. The most dense aggregations of these organisms have been found at water depths of around 500 m and beyond. The best known of the dense communities is named Bush Hill and is located in Green Canyon Block 185.

There are four general chemosynthetic community types. These are communities dominated by vestimentiferan; feran tube worms, mytilid mussels, epifaunal vesicomyid clams and infaunal lucinid or thyasirid clams. These communities are distributed across a wide range of environmental conditions, but in all cases, their presence strongly indicates active localized seepage. To date there are 43 sites across the northern Gulf of Mexico continental slope where the presence of chemosynthetic metazoans (dependent on hydrocarbon seepage) have been documented.

F. Pipelines and Cables

As a prudent operator, Enron will avoid all pipelines and/or cables in the vicinity of the proposed operations.

G. Other Mineral Uses

The activities proposed will have no direct or indirect impact on other mineral uses.

H. Ocean Dumping

Ocean dumping is prohibited in this area.

I. Endangered and Threatened Species and Critical Habitat

Although a large number of endangered and threatened species inhabit the Gulf Coast States and their adjoining waters, only a small percentage occupy coastal and marine habitats. An even smaller number are likely to be affected by OCS oil and gas exploration and production activities.

The Alabama, Choctawhatchee, and Perdido Key beach mice, subspecies of the old field mouse occupy restricted habitats in the mature coastal dunes of Florida and Alabama. The beach mice feed nocturnally on the lee side of the dunes and remain in burrows during the day. Their population has declined as a result of loss of habitat from coastal development, competition, loss of genetic diversity, disease and predation.

The Kemp's ridley sea turtle is the most imperiled of the world's marine turtles. The population of nesting females has dwindled from an estimated 47,000 in 1947 to less than 1,000 today. Nesting in the United States occurs infrequently from May to August on Padre and Mustang Islands in south Texas. In the Gulf, Kemp's ridley sea turtles appear to inhabit nearshore areas, have been recorded off the mouth of the Mississippi River. Although adult Kemp's ridleys primarily inhabit the Gulf of Mexico, subadults range along the Atlantic Coast to Massachusetts. However, there is speculation that young turtles found beyond the Gulf of Mexico are lost to the breeding population.

The loggerhead sea turtle occurs worldwide and is the most common marine turtle in the U.S. In the Gulf of Mexico, recent surveys indicate that the Florida Panhandle accounts for approximately 1/3 of the nesting on the Florida Gulf Coast. In the Central Gulf, nesting has been reported on Gulf Shores and Dauphin Island, Alabama; Ship Island, Mississippi, and the Chandeleur Islands, Louisiana. Nesting in Texas occurs primarily on North and South Padre Islands although occurrences are recorded throughout coastal Texas. Banks offshore the central Louisiana coast and near the Mississippi Delta are also important marine turtle feeding areas.

The green turtle population has not completely recovered since the collapse of the fishery around the turn of the century. Report of nesting in the northern Gulf are isolated and infrequent, except on Santa Rosa Island, Walton County, Florida.

Leatherbacks, the largest most oceanic of the marine turtles, seasonally enter coastal and estuarine habitats where jellyfish are plentiful. Their nesting is concentrated on coarse-grain beaches in tropical latitudes, but there are rare occurrences on the Panhandle and Flagler County coasts of Florida.

The hawksbill is the least commonly reported marine turtle in the Gulf. Stranded turtles are regularly reported in Texas, and recently in Louisiana. These tend to be either hatchlings or yearlings.

Six species of baleen whales (northern right, blue, fin, sei, minke, and humpback) and one species of toothed whale (sperm) found within the Gulf of Mexico are currently listed as endangered species. All are uncommon to rare in the Gulf except for the sperm whale which has been spotted on most surveys conducted in deeper waters.

The piping plover numbers are currently on the decline. Preliminary information indicates Texas is the most important wintering area. In Texas, the extensive sand flats of the Laguna Madre and sand flats associated with barrier island passes and river mouths are the most important. In Louisiana, barrier islands appear to provide the most favorable habitat. The plover nests on sandy beaches along coasts or inland lakeshores preferring areas with scant vegetation cover. Uncontrolled hunting in the early 1900's decimated its historic populations, which have remained depressed because of expanded recreational use of its specific nesting and wintering habitat requirements.

The whooping crane is the tallest bird in North America. The breeding population winters along the Texas coast on salt flats and islands in and around Aransas National Wildlife Refuge. Cranes are omnivorous and feed during the winter months on a wide variety of foods gathered from the coastal environment.

The Arctic peregrine falcon is a subspecies of the peregrine falcon. It nests in tundra areas of North American and Greenland and migrates south to the Gulf Coast. Coastal areas along the Gulf Coast are well known as foci for migrant peregrines, where beaches, flats, and wetlands are used for hunting and resting. Peregrines feed almost exclusively on various bird species, and, similar to the brown pelican and bald eagle, experienced drastic declines as a result of the effects of DDT and its metabolite, dichloro diphenyl dichlorethane (DDE). Recent surveys indicate many local and regional populations of Peregrines are reproducing well and are either stable or increasing.

Bald eagles are the only species of sea eagle regularly occurring on North America. There are two subspecies of bald eagles: the smaller, southern race and the northern race. The two subspecies are separated by an arbitrary geographic line across the southern U.S., although migration and interbreeding creates uncertainty in racial distinction. The bulk of the bald eagle's diet is fish, combined with opportunistic capture of a variety of vertebrate species. The bald eagle requires a large area for hunting. Factors contributing to its declines were widespread application of DDT from 1940-1972, habitat loss and alteration, shooting, poisoning, and electrocution. The historical nesting range within the Southeast U.S. includes the entire coastal plan and along the major rivers and lakes.

The eastern brown pelican is one of two species of pelicans in North America. It is a colonial nesting species that feeds entirely upon fishes captured by plunge diving in coastal waters. They rarely venture beyond 20 miles from shore. A severe population reduction in the 1950's was attributed to the toxic effects of DDT and DDE; however, there has been a marked increase in population since the ban on the use of DDT in 1972. The brown pelican remains classified as endangered within the states of Texas, Louisiana, and Mississippi. Surveys conducted from 1990 to 1992 show one large nesting colony in Alabama, none in Mississippi, six in Louisiana, and three colonies in Texas.

The eskimo curlew is a small American curlew that nests on Arctic tundra and migrates to wintering habitat in the pampas grasslands of southern South America. On migration, it formerly occurred in large flocks on the prairies and on coastal grasslands, but was greatly reduced by hunting from 1850 to 1890 and perhaps by habitat alteration. In 1929 it was thought to be extinct, but has occasionally been seen in very small numbers. The last confirmed sightings were in Texas during 1981, Alaska in 1983 and Canada in 1985. Efforts are underway to determine if it is extinct.

The least tern is the smallest North American tern. Surveys from 1990 to 1992 showed 10 tern colonies in Mississippi, 14 in Louisiana, and 35 in Texas. Least terns are the only nesting tern species in Louisiana to use mainland beaches, and they will use human-made and managed spill sites as well.

J. Socioeconomic

The offshore oil exploration industry including oil companies, drilling contractors, and oilfield suppliers provide a major input to Louisiana's economy. Of the Gulf Coast states, Louisiana has historically been most dependent on oil and gas activity. A number of ports in the Central and Western Gulf have developed into important centers for offshore support. The onshore support base for operations in Matagorda Island 586 is Port O'Connor, Texas.

III. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

A. Water Quality

Several impact-producing factors may adversely affect offshore water quality. Resuspension of bottom sediments may result from drilling operations, platform and pipeline installation, and platform removal operations. Some water quality parameters may vary from background levels; however, these changes would have little effect on most water uses, and the impact level from this factor is considered to be low. Routine operational discharges (drilling muds and cuttings, produced waters, deck drainage, and sanitary and domestic wastes) may degrade water quality. High impacts may occur within a few meters to tens of meters from the source. However, these impacts will decrease to very low with distance (500-1,000m) from the source. Accidential oil spills may degrade water quality somewhat, changing the measurements from background levels, but with little effect on most water uses, and then only in a very limited area close to the source. The impact level from this factor is considered to be low. All activities resulting from this proposed action result in low impacts limited to very close to the structure.

B. Effects on Marine Organisms

Some organisms will be killed and some will be temporarily functionally impaired as a result of development activities. The most affected groups will be plankton and benthos immediately around the platform. Damage will be both mechanical and toxicological. These impacts are considered to be localized, short term and reversible at the population level.

An oil spill could affect a broad spectrum of marine organisms. However, most effects would be localized and short term.

C. Effects on Threatened or Endangered Species

The major impact-producing factors related to this proposed activity that may effect threatened or endangered species include operational discharges, helicopter and service-vessel traffic, platform noise, explosive platform removals, seismic surveys, oil spills, and oil-spill response activities. The effects of the majority of these activities are estimated to be sublethal, and expected impact levels range from very low to low. Lethal effects are estimated only from large oil spills. The expected impact levels from different sizes of oil spills range from low to high.

Anchoring, pipe and structure emplacement, dredging, operational discharges, and possible oil spill impacts will result in disturbances of the sea grass and benthic fauna and food sources utilized by these species. The impact on these species is estimated to be moderate to low.

D. Wetlands and Beach

In the unlikely event of a spill occurring and reaching shore, organisms in wetland and beach habitats could be killed or functionally impaired. Human community disruption could also occur. Although all such effects would be localized, any affects on endangered species and/or critical habitats would be significant.

E. Air Quality

Emissions of pollutants into the atmosphere from the proposed activities are likely to have a low impact on offshore air quality because of the prevailing atmospheric conditions, emission heights, and pollutant concentrations. The major impact producing factors on air quality are due to combustion, evaporation, or venting of hydrocarbons. Anticipated emissions are expected to be below MMS guidelines limits and air quality should return to normal once operations are measurably completed.

Onshore impact from these activities is expected to be low because of the atmospheric regime, the emission rates, and distance of these emissions from the coastline. There will be days of low mixing heights and wind speeds, however, that could increase impact levels. These conditions are characterized by fog formation, which in the Gulf occurs about 35 days a year, mostly during winter. Impact from these conditions is reduced in winter because the onshore winds have the smallest frequency and rain removal is greatest. The impact of these proposed activities on air quality within the potentially affected area is estimated to be low.

F. Commercial Fishing

The major impact producing factors on fishing activities from the proposed operations is platform placement, OCS drilling fluid discharges, sale-related oil spills, and underwater OCS obstructions such as pipelines and debris.

Oil spills that contact the coastal marshes, bays, estuaries, and open Gulf areas with high concentrations of floating eggs and larvae have the greatest potential for damage to commercial fisheries. The majority of the Gulf's fishes are estuarine dependent. An oil spill could seriously affect commercial fisheries such as menhaden, shrimp, and blue crab that use these areas as nursery or spawning grounds.

The emplacement of one structure eliminates approximately 9 acres of commercial trawling space, and underwater OCS obstructions cause gear conflicts which result in such losses as trawls, shrimp catch, business downtime, and vessel damage.

Commercial fishery resources may also be affected by the discharge of drilling muds which may contain material toxic to marine fishes; however, this is only at concentrations four or five orders of magnitude higher than those found more than a few meters from the discharge point. Further dilution is extremely rapid in offshore waters.

In conclusion, although these factors impact the commercial fisheries, the level of impact is expected to be negligible.

G. Ship Navigation

Very little interference can be expected between the drilling rig and marine vessels during exploration activities and ships that use established fairways. However, at night and during rough weather, fog, and heavy seas, ships not using established fairways could collide with the rig. Approved aids to navigation will be installed on the rig and all marine vessels servicing these operations in accordance with U.S. Coast Guard regulations.

H. Cultural Resources

The greatest potential impact to an historic and/or prehistoric cultural resource as a result of the proposed activities would result from a contact between an OCS offshore activity (platform installation, drilling rig emplacement, dredging or pipeline project) and an historic shipwreck or prehistoric site located on the continental shelf. A recently completed, MMS-funded study has resulted in the refinement of the high probability areas for the location of historic period shipwrecks. The archaeological surveys and archaeological clearance of sites that are required prior to an operator beginning operations in a lease block are estimated to be 90% effective at identifying possible prehistoric sites.

No new onshore infrastructure construction or pipeline landfalls are expected from these activities and therefore impact from these factors is considered very low. The chance of contact from an oil spill is very low. Furthermore, the major impact from an oil spill contact on an historic coastal site, such as a fort or lighthouse, would be visual due to oil contamination. Should an oil spill contact a coastal prehistoric site, the potential for dating the site using radiocarbon methods could be destroyed. The probability of a large oil spill occurring and contacting a coastal site within 10 days is very low (2%) and it is assumed that no contact will occur.

I. Recreation and Aesthetic Values

The drilling rig and marine vessels may represent an obstacle to some sport fishermen, but such an effect is expected to be negligible and not permanent.

The effects of normal operations or a minor oil spill would have on any fish stocks important to sport fishermen are also considered negligible.

A minor oil spill and/or non-petroleum floating debris could foul beaches inshore of the lease area. The fouling of beaches would be an aesthetic detriment that could adversely affect recreation. Any effects on beach recreation could adversely affect tourism, and consequently, the local economy.

IV. SUMMARY

The proposed activities will be carried out and completed with the guarantee of the following items:

A. 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, and equipment and monitoring systems.

B. All operations are covered by a Minerals Management Service approved Oil Spill Contingency Plan.

C. All applicable Federal, State, and Local requirements regarding air emission and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

D. The proposed activities described in detail in the Development Operations Coordination Document will comply with Texas' Coastal Management Program and will be conducted in a manner consistent with such Program.

References

1 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 139 and 141, Central Gulf of Mexico, OCS EIS/EA, MMS 91-0054

2 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 142 and 143, Central and Western Planning Areas, OCS EIS/EA, MMS 92-0054

3 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 147 and 150, Central and Western Planning Areas, OCS EIS/EA, MMS 93-0065

4 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 152 and 155, Central and Western Planning Areas, OCS EIS/EA, MMS 94-0058

5 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 157 and 161, Central and Western Planning Areas, OCS EIS/EA, MMS 95-0058

6 Final Environmental Impact Statement, proposed Oil and Gas Lease Sales 166 and 168, Center and Western Planning Areas, OCS EIS EA, MMS 96-0058