

In Reply Refer To: MS 5231
LADEN

January 11, 1993

Kerr-McGee Corporation
Attention: Mr. Cary V. Bradford
Post Office Box 39400
Lafayette, Louisiana 70593-9400

Gentlemen:

Reference is made to the following plan received December 14, 1992:

Type Plan - Initial Development Operations Coordination Document
Lease - OCS-G 9704
Block - 90
Area - Main Pass
Activities Proposed - Wells and Caissons Nos. 1 and 2

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

Your control number is N-4406 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(Sgt) A. Donald Giroir

DJB

D. J. Bourgeois
Regional Supervisor
Field Operations

bcc: Lease OCS-G 9704 POD File (MS 5032)
MS 5034 w/public info. copy of the plan
and accomp. info.

MTolbert:cic:01/12/93:DOCDOM

MICROFILMED

NOTED - SCHEXNAILDRE



KERR-MCGEE CORPORATION

P.O. BOX 38400 • LAFAYETTE, LOUISIANA 70583-8400

December 30, 1992

EXPLORATION AND PRODUCTION DIVISION

PHONE

318 988-7000

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico, OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394



**ATTENTION: Regional Supervisor
Rules and Production**

**RE: "CORRECTED"
Amended Development Operations
Coordination Document
OCS-G 9704
Main Pass Block 90**


Gentlemen:

This Development Operations Coordination Document was submitted on December 11, 1992, for the installation of one 4-1/2" gas pipeline from Well No. 1 and one 4-1/2" gas pipeline from Well No. 2 both flowing to Main Pass Block 93 "A" Platform.

Enclosed are the Air Emissions Discharge and Exemption Summaries for the installation of this pipeline calculated for a project duration of 8 days.

Should you have any questions, or if additional information is required, please contact Traci Neal in our Lafayette Regional office.

Very truly yours,

for 
C.V. Bradford
Manager - Regulatory Affairs

TLN:bb1

Enclosures

Xc: Copies furnished w/Attachments

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

PUBLIC INFORMATION



KERR-MCGEE CORPORATION

P.O. BOX 39400 • LAFAYETTE, LOUISIANA 70593-9400

December 16, 1992

EXPLORATION AND PRODUCTION DIVISION

PHONE
318 988-7000

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico, OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394



**ATTENTION: Regional Supervisor
Rules and Production**

**RE: Amended Development Operations
Coordination Document
OCS-G 9704
Main Pass Block 90**

Gentlemen:

This Initial Development Operations Coordination Document is submitted for the installation of one 4-1/2" gas pipeline from Well No. 1 and one 4-1/2" gas pipeline from Well No. 2 both flowing to Main Pass Block 93 "A" Platform.

GENERAL DESCRIPTION & SCHEDULE

The installation of these two 4-1/2" pipelines is scheduled to begin January 10, 1993. Installation should be completed one week after the start date. Production will be transported from Main Pass 93 "A" platform to Main Pass Block 102 "A" platform, via existing 6" flowlines, where processing will take place. Well No. 1 and No. 2 each contain a 48" free standing caisson with deck clamps.

LOCATION

General information concerning these wells and pipelines is located on the location plat, pipeline drawing and vicinity map (Page 2 of the Environmental report) attached.

Specific data concerning the location are as follows:

<u>WELL NO.</u>	<u>SURFACE LOCATION</u>	<u>WATER DEPTH</u>
1	1164' FSL & 6808' FEL Lat 29° 39' 12.321" Long 88° 47' 49.526"	46'
2	4300' FNL & 1600' FEL Lat 29° 40' 43.085" Long 88° 46' 48.166"	40'

PUBLIC INFORMATION

Onshore base operations will be conducted from our Morgan City Base located in Morgan City, Louisiana. There will be no significant impact on the onshore support facilities as a direct result of the drilling of this well.

OIL SPILL INFORMATION

All drilling, construction and production operations shall be performed in accordance with industry standards to prevent pollution of the environment. Kerr-McGee Corporation's Regional Oil Spill Contingency Plan was submitted to MMS July 23, 1991, and approved August 26, 1991. This plan designates an Oil Spill Team consisting of Kerr-McGee'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.

Kerr-McGee Corporation is a member of Clean Gulf Associates (CGA). The CGA has two (2) permanent equipment bases in Texas, at Rockport and Galveston, and five (5) bases in Louisiana, at Venice, Grand Isle, Houma, 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 its location is listed on the CGA Manual, Volume I, Section III.

In the event a spill occurs from Main Pass 90, our company has projected the path of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sales 139 and 141.

Enclosure: A. Oil Spill Trajectory Analysis

A table indicating the response time required for a spill in this area is attached.

Enclosure: B. Oil Spill Response Time

WASTES & POLLUTANTS

Drip pans are installed under all equipment which could be a source of pollution. All waste products which contain oil will be properly transported to land and disposed at approved disposal facilities. Domestic wastes will be treated by onboard sanitation treatment facilities and will be disposed into Gulf of Mexico waters. These waters, plus formation and water base drill waters, will be discharged overboard at the site in accordance with NPDES regulations. All other solid and liquid waste which cannot be disposed at the site will be transported to land in approved containers and then disposed in accordance with local and state regulations.

PUBLIC INFORMATION

OPERATION LEASE STIPULATIONS

Lease Stipulation No. 1 applies to this lease. An Archeological and Hazard Study covering this lease was submitted January 16, 1991.

Enclosure C: Environmental Report (Includes CZM Consistency Certification)
D: Public Notice

GEOLOGICAL INFORMATION

Enclosure E: Structure Maps

GENERAL INFORMATION

Reserves for this lease have been estimated at 7.2 BCF and 0 MBO. The estimated life of the lease is 4.5 years.

Kerr-McGee Corporation plans to develop this lease with a minimum number of surface structures, which will be determined as exploratory drilling takes place.

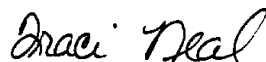
It is understood that the wells shall not be produced until final approval of a production plan is obtained.

Kerr-McGee Corporation is of the opinion that all information supplied in this communication will be exempt from disclosure under the "Freedom of Information Act" (5 U.S.C. 522) and implementing regulations (43 CFR Part 2).

It is believed that the data in this communication and its attachments provide the information required by 30 CFR Subpart B, 250.33. Therefore, it is respectfully requested that this Initial Development Operations Coordination Document be considered as soon as possible since drilling operations are to commence January 10, 1993.

Should you have any questions, or if additional information is required, please contact Traci Neal in our Lafayette Regional office.

Very truly yours,



C.V. Bradford
Manager - Regulatory Affairs

TLN:bb1

Enclosures

Xc: Copies furnished w/Attachments
U.S. Department of the Interior
Minerals Management Service
New Orleans District
1201 Elmwood Park Boulevard
New Orleans, LA 70123

PUBLIC INFORMATION

**MAIN PASS BLOCK 90
OCS-G 9704 Well No. 1**

EXEMPTION SUMMARY

D = Distance from shore in miles = 20.1 Miles

E = Emissions exemption amount of air pollutants in tons/year

Exemption Formula for Total Suspended Particulates (TSP), Sulfur
Dioxide (SO₂), and Nitrogen Oxide (NO_x)

$$E = 33.3D$$

$$E = 33.3 \times 20.1 \text{ miles}$$

$$E = 669.33 \text{ tons/year}$$

Projected Emissions for Total Suspended Particulates (TSP),
Sulphur (SO₂), and Nitrogen Oxide (NO_x)²

Part -	.27	tons/year
SO _x -	.25	tons/year
NO _x -	3.75	tons/year
HC -	.3	tons/year

Exemption Formula for Carbon Monoxide (CO)

$$E = 3400D^{2/3}$$

$$E = 3400 \times 20.1^{2/3}$$

$$E = 3400 \times 7.3926$$

$$E = 25,135$$

Projected Emissions for Carbon Monoxide

$$CO = .82 \text{ tons/year}$$

OCS-G 9704 Well No. 1
 Main Pass Block 90

Pipeline Installation
 Project Duration: 8 days

EMISSION DISCHARGE SUMMARY

LBS Emitted Per Day

Power Sources	Part	SO _x	NO _x	HC	CO	Fuel/D ay
LIFT BARGE/TUG, BOATS - Distillate Oil (Diesel): Reciprocating	67.0	62.4	938.0	75.0	204.0	2000 gals

TOTALS	Part	SO _x	NO _x	HC	CO
LBS/DAY	67.0	62.4	938.0	75.0	204.0
LBS/8 DAYS	536	499	7504	600	1632
TONS/8 DAYS	.27	.25	3.75	.3	.82

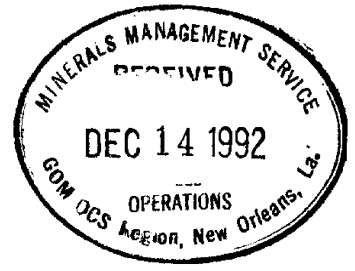
TNL/bbl
 EMISN-MP.90

PUBLIC INFORMATION



KERR-MCGEE CORPORATION

P.O. BOX 39400 • LAFAYETTE, LOUISIANA 70593-9400



PHONE

318 988-7000

December 11, 1992

EXPLORATION AND PRODUCTION DIVISION

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico, OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

**ATTENTION: Regional Supervisor
Rules and Production**

**RE: Initial Development Operations
Coordination Document
OCS-G 9704
Main Pass Block 90**

Gentlemen:

This Initial Development Operations Coordination Document is submitted for the installation of one 4-1/2" gas pipeline from Well No. 1 and one 4-1/2" gas pipeline from Well No. 2 both flowing to Main Pass Block 93 "A" Platform.

GENERAL DESCRIPTION & SCHEDULE

The installation of these two 4-1/2" pipelines is scheduled as soon as approval is granted. Installation should be completed one week after the start date. Production will be transported from Main Pass 93 "A" platform to Main Pass Block 102 "A" platform, via existing 6" flowlines, where processing will take place.

LOCATION

General information concerning these wells and pipelines is located on the location plat, pipeline drawing and vicinity map (Page 2 of the Environmental report) attached.

Specific data concerning the location are as follows:

<u>WELL NO.</u>	<u>SURFACE LOCATION</u>	<u>WATER DEPTH</u>
1	1164' FSL & 6808' FEL Lat 29° 39' 12.321" Long 88° 47' 49.526"	46'
2	4300' FNL & 1600' FEL Lat 29° 40' 43.085" Long 88° 46' 48.166"	40'

PUBLIC INFORMATION

Onshore base operations will be conducted from our Morgan City Base located in Morgan City, Louisiana. There will be no significant impact on the onshore support facilities as a direct result of the drilling of this well.

OIL SPILL INFORMATION

All drilling, construction and production operations shall be performed in accordance with industry standards to prevent pollution of the environment. Kerr-McGee Corporation's Regional Oil Spill Contingency Plan was submitted to MMS July 23, 1991, and approved August 26, 1991. This plan designates an Oil Spill Team consisting of Kerr-McGee'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.

Kerr-McGee Corporation is a member of Clean Gulf Associates (CGA). The CGA has two (2) permanent equipment bases in Texas, at Rockport and Galveston, and five (5) bases in Louisiana, at Venice, Grand Isle, Houma, 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 its location is listed on the CGA Manual, Volume I, Section III.

In the event a spill occurs from Main Pass 90, our company has projected the path of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sales 139 and 141.

Enclosure: A. Oil Spill Trajectory Analysis

A table indicating the response time required for a spill in this area is attached.

Enclosure: B. Oil Spill Response Time

WASTES & POLLUTANTS

Drip pans are installed under all equipment which could be a source of pollution. All waste products which contain oil will be properly transported to land and disposed at approved disposal facilities. Domestic wastes will be treated by onboard sanitation treatment facilities and will be disposed into Gulf of Mexico waters. These waters, plus formation and water base drill waters, will be discharged overboard at the site in accordance with NPDES regulations. All other solid and liquid waste which cannot be disposed at the site will be transported to land in approved containers and then disposed in accordance with local and state regulations.

PUBLIC INFORMATION

Initial DOCD
OCS-G 9704 - Main Pass 90
Page 3

OPERATION LEASE STIPULATIONS

Lease Stipulation No. 1 applies to this lease. An Archeological and Hazard Study covering this lease was submitted January 16, 1991.

Enclosure C: Environmental Report (Includes CZM Consistency Certification)
D: Public Notice

GENERAL INFORMATION

Reserves for this lease have been estimated at 7.2 BCF and 0 MBO. The estimated life of the lease is 4.5 years.

Kerr-McGee Corporation plans to develop this lease with a minimum number of surface structures, which will be determined as exploratory drilling takes place.

It is understood that the wells shall not be produced until final approval of a production plan is obtained.

Kerr-McGee Corporation is of the opinion that all information supplied in this communication will be exempt from disclosure under the "Freedom of Information Act" (5 U.S.C. 522) and implementing regulations (43 CFR Part 2).

It is believed that the data in this communication and its attachments provide the information required by 30 CFR Subpart B, 250.33. Therefore, it is respectfully requested that this Initial Development Operations Coordination Document be considered as soon as possible since drilling operations are to commence as soon as approval is granted.

Should you have any questions, or if additional information is required, please contact Traci Neal in our Lafayette Regional office.

Very truly yours,



C.V. Bradford
Manager - Regulatory Affairs

TLN:bb1
Enclosures

Xc: Copies furnished w/Attachments

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

PUBLIC INFORMATION

29

CHANDELEUR AREA

MAIN PASS AREA

KERR-McGEE CORP.

OCS-G-9704

BLK. 90

16

88

MOBIL
O 1
G-1624

No. 1 Final Surf. Loc'n.

X=2,805,541.61'

Y= 367,743.90'

Lat. 29° 39' 12.321"

Long. 88° 47' 49.526"

N 61° 12' 25" E 106,310.47'
From USC & GS Mon. "CHAR"

6,808.39'

MOBIL
O 2
G-1624

93

PUBLIC INFORMATION

LA SOUTH ZONE
NAD 27

I hereby certify that the above final surface location is correct.

Robert J. Champagne

Reg. Professional Land Surveyor No. 309



KERR-McGEE CORPORATION

OCS-G-9704 NO. 1

FINAL LOCATION

MAIN PASS

BLOCK 90

29

CHANDELEUR AREA

MAIN PASS AREA

KERR-McGEE CORP.

OCS-G-9704

No. 2 Prop. Surf. Loc'n.

X=2,810,750.00'

Y= 377,030.00'

Lat. 29° 40' 43.085"

Long. 88° 46' 48.166"

4.300'

1.600'

N 58° 24' 46" E
From USC & GS Mon. CHART
115.484.85'

MOBIL
O 1
G-1624

BLK. 90

MOBIL
O 2
G-1624

93

PUBLIC INFORMATION

LA SOUTH ZONE
NAD 27

I hereby certify that the above proposed surface location is correct.

Robert J. Champagne

Reg. Professional Land Surveyor No. 309



KERR-McGEE CORPORATION

OCS-G-9704

NO. 2

PROPOSED LOCATION

MAIN PASS

BLOCK 90



16

89

KERR-McGEE CORPORATION
OIL SPILL TRAJECTORY ANALYSIS

In the event a spill occurs from Main Pass Block 90, Kerr-McGee Corporation has projected the direction of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sales 139 and 141.

The EIS contains oil spill trajectory simulations using seasonal surface currents, coupled with wind data, adjusted every three (3) hours for thirty (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 (4) 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 three (3), ten (10), or thirty (30) days. Utilizing the summary of the trajectory analysis (for ten (10) days) as presented in Table IV-22 on pages IV-112 and IV-113, the probable land fall of an oil spill from this site is as follows. 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.

<u>AREA</u>	<u>LAND SEGMENT CONTACT - %</u>	<u>CGA MAP CO.</u>	
Main Pass Block 90	St. Bernard Parish	1%	La. Map 7 & 8
	Orleans Parish	1%	La. Map 8
	St. Tammany Parish	1%	La. Map 8
	St. Charles Parish	1%	
	St. John the Baptist	1%	
	Livingston Parish	1%	
	Tangipahoa Parish	1%	

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

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 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.

PUBLIC INFORMATION

330.00'

G1499

KERR MCGEE

G-9704

580.00'

G1500

KERR MCGEE

G-6805

2" METH. AIR
8.2501

TEXAS EASTERN 10" GAS P/L (A)
G-7115

FM. CA. 29 "A"

MAIN PASS
BLK. 90

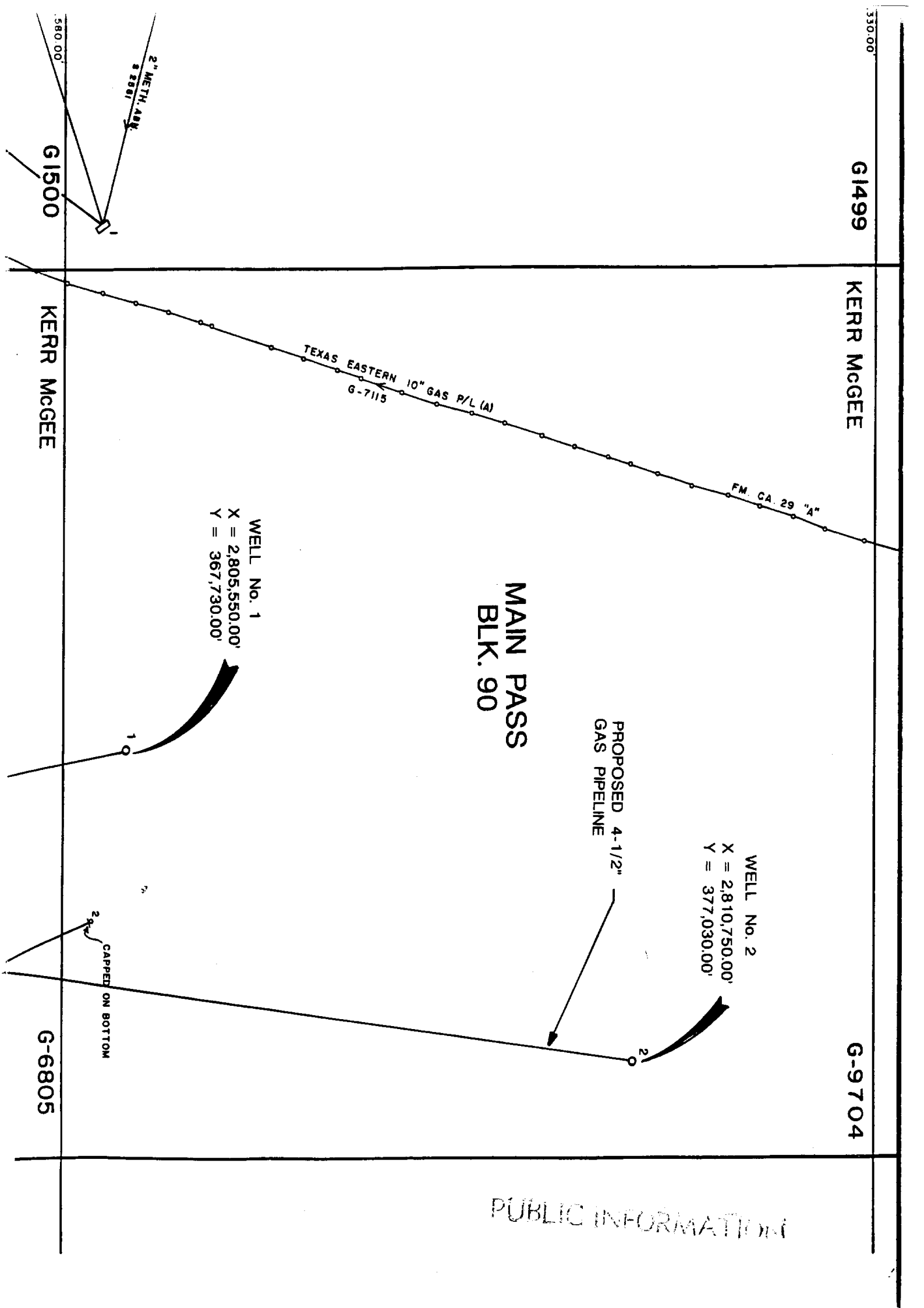
WELL No. 1
X = 2,805,550.00'
Y = 367,730.00'

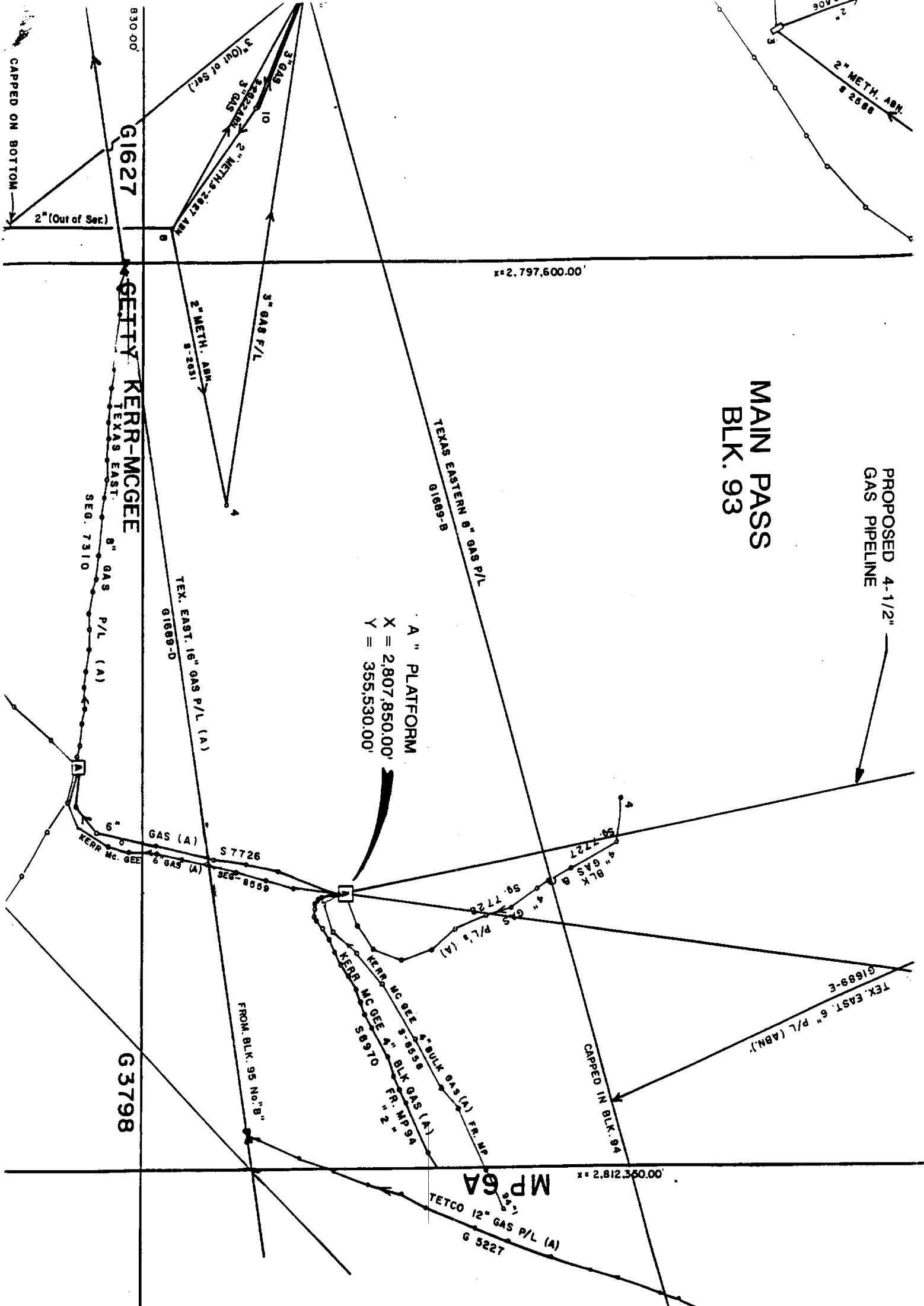
WELL No. 2
X = 2,810,750.00'
Y = 377,030.00'

PROPOSED 4-1/2"
GAS PIPELINE

CAPPED ON BOTTOM

PUBLIC INFORMATION





**MAIN PASS
BLK. 93**

PROPOSED 4-1/2"
GAS PIPELINE

A " PLATFORM
X = 2,807,850.00'
Y = 355,530.00'

G1627

G1627
GETTY KERR-MCGEE
TEXAS EAST.
SEG. 7310

G3798

TEXAS EASTERN 8" GAS P/L
G1689-B

TEX. EAST. 16" GAS P/L (A)
G1689-D

TEX. EAST. 6" P/L (ABN.)
G1689-E

MP 6A
TETCO 12" GAS P/L (A)
G 5227

FROM BLK. 95 No. "B"

KERR-MCGEE 4" BULK GAS (A) FR. MP
S 8970
KERR-MCGEE 4" BULK GAS (A)
FR. MP 94
" 2 "

830.00'
2" (Out of Ser.)
CAPPED ON BOTTOM

X=2,797,600.00'

X=2,812,360.00'

CAPPED IN BLK. 94

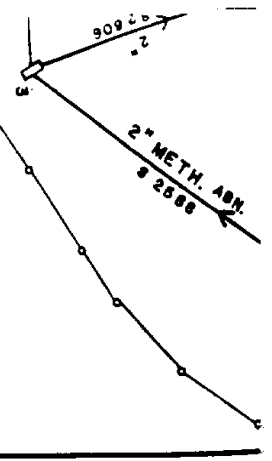
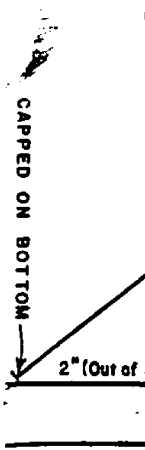
2" METH. AMN.
S 2588

8" GAS P/L (A)
SEG. 7310

S 7726
GAS (A)
KERR Mc. GEE 6" GAS (A)
SEG. 8058

4" GAS P/L (A)
S 7727
4" GAS P/L (A)
S 7728

4" BULK GAS B
S 7727



OIL SPILL RESPONSE IN HOURS

OCS-G 9704

MAIN PASS BLOCK 90

PRIMARY RESPONSE

<u>Oil Spill Equipment Location</u>	<u>Location of Transportation</u>	<u>Response Time</u>
Venice, Louisiana	Venice, Louisiana	

Procurement of Equipment & Personnel

Personnel to CGA Location	<u>1-1/2 hrs.</u>	
Unload Vessel	<u>1 hr.</u>	
Load Vessel	<u>1 hr.</u>	<u>3-1/2 hrs.</u>

Travel from CGA Location to Spill

Inland Waters (1 Way)	<u>1-1/2 hrs.</u>	
Open Waters (1 Way)	<u>5 hrs.</u>	<u>6-1/2 hrs.</u>

Time to Deploy Equipment* 1 hr.

TOTAL RESPONSE TIME 10 hrs.

SECONDARY RESPONSE

If a vessel cannot be located in Venice, a boat will be used from the field which will increase our response time by 5 hours.

*Preparation of equipment will take place while enroute to spill location. Hours shown is length of time to offload.

PUBLIC INFORMATION

Attachment B

ENVIRONMENTAL REPORT
FOR COASTAL MANAGEMENT CONSISTENCY DETERMINATION
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
GULF OF MEXICO

FOR
MAIN PASS AREA BLOCK 90 (OCS-G-9704)

SUBMITTED TO:
MS. TRACI NEAL
PETROLEUM ENGINEER
KERR-MCGEE CORPORATION
P. O. BOX 39400
LAFAYETTE, LOUISIANA 70593-9400
(318/988-7854)

DECEMBER 10, 1992

PREPARED BY:
JOHN E. CHANCE & ASSOCIATES, INC.
REGULATORY & ENVIRONMENTAL DIVISION
PROJECT NO. 92-8236

PUBLIC INFORMATION

JOHN E. CHANCE

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PUBLIC INFORMATION

JOHN E. CHANCE

LIST OF FIGURES

1 -- Vicinity Map of Main Pass Area Block 90. 2

PUBLIC INFORMATION

II. Description of the Proposed Action

This report addresses the activity proposed by Kerr-McGee Corporation for Main Pass Area Block 90 (OCS-G-9704). The approximate location of the activity is presented in Figure 1, a general vicinity map of the Outer Continental Shelf (OCS) lease areas off the coasts of Louisiana and Mississippi.

Kerr-McGee Corporation proposes to install two 4 1/2-inch pipelines, one from their OCS-G-9704 Well No. 1 and one from their OCS-G-9704 Well No. 2, to their existing processing facilities located in Main Pass Area Block 93. A detailed description of the proposed activity is included in the attached Development Operations Coordination Document.

The proposed activities will be carried out by Kerr-McGee Corporation with a guarantee of the following:

1. The best available and safest technologies will be utilized throughout the project. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, equipment and monitoring systems.
2. All operations will be covered by M.M.S. approved Oil Spill Contingency Plan.
3. All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for

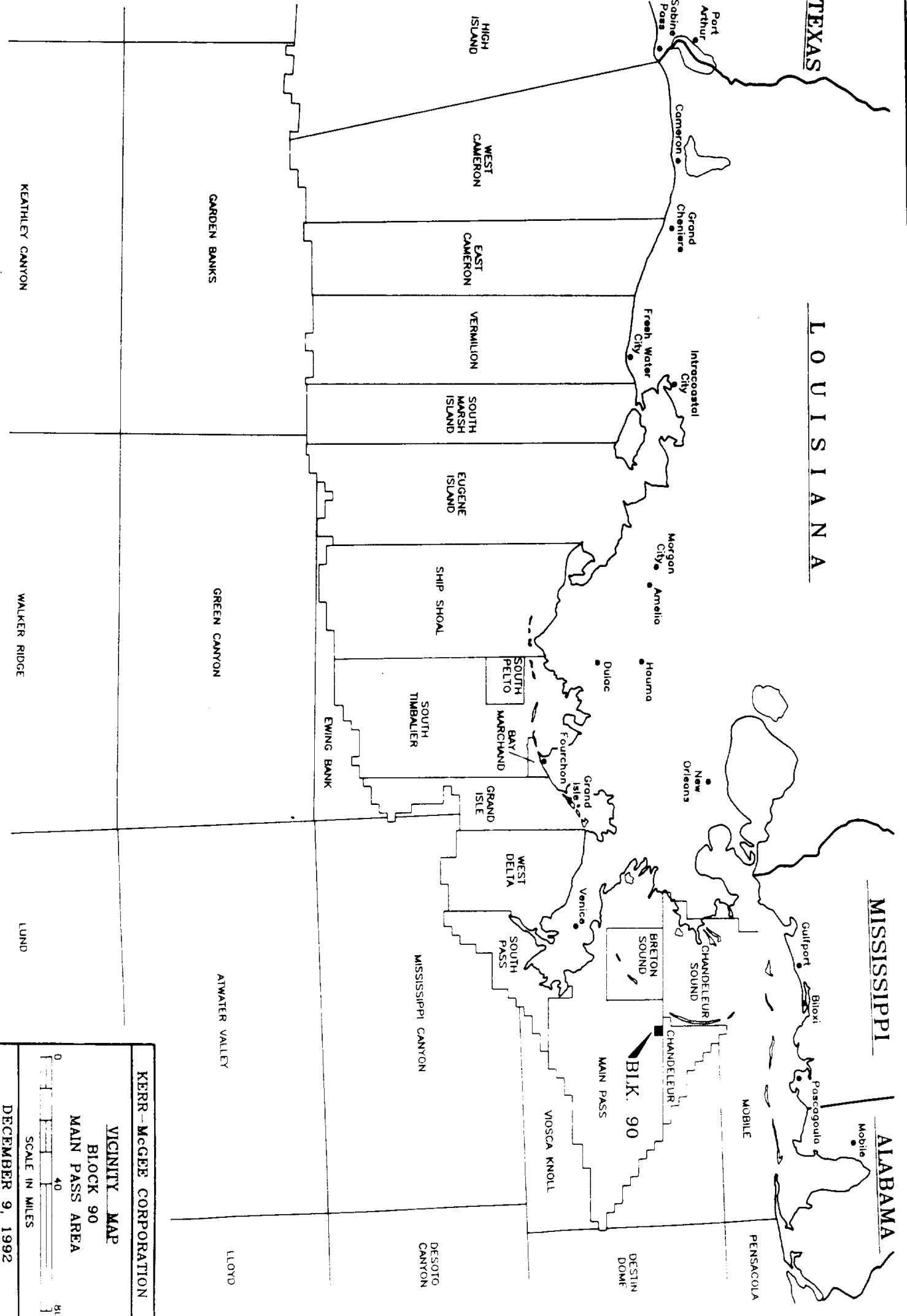
PUBLIC INFORMATION

TEXAS

LOUISIANA

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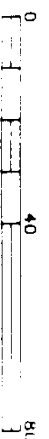
ALABAMA



KERR-McGEE CORPORATION

VICINITY MAP

BLOCK 90
MAIN PASS AREA



SCALE IN MILES

DECEMBER 9, 1992

the proposed activities, as well as any other permit conditions, will be complied with.

A. Travel Modes, Routes, and Frequencies

Kerr-McGee Corporation will operate out of their service base facilities established in Morgan City, Louisiana. Kerr-McGee Corporation anticipates using one helicopter, one supply boat, and one crew boat to support their Main Pass Area Block 90 activities.

The helicopter will travel to the location a total of fourteen times per week. The crew boat and the supply boat will both travel to the location a total of four times per week.

It is anticipated that the transportation vessels will utilize the most direct route from the Morgan City, Louisiana service base. Because a vessel supporting the Main Pass Area Block 90 production activities, as outlined in the Development Operations Coordination Document, may be scheduled for other stops in the area, the exact route for each vessel on each particular trip cannot be predetermined.

B. Support Base and New Personnel

Kerr-McGee Corporation will utilize support base facilities established in Morgan City, Louisiana. The Morgan City, Louisiana support base is located approximately one hundred forty-three miles from the block.

PUBLIC INFORMATION

Because helicopter and marine facilities are currently available at the service base and are presently and continuously manned, no additional onshore employment is expected to be generated as a result of these activities.

The initial OCS Socio-Economic Data Base Report for the service base facilities utilized by Kerr-McGee Corporation will be prepared for submission pursuant to the specific parameters to be established by the DOI/MMS and scheduled to be issued at a later date.

C. New Support Facilities

The proposed production activities for Main Pass Area Block 90 will not require the development of any new support facilities.

D. New or Unusual Technology

The production activities for Main Pass Area Block 90 will not warrant utilizing any new or unusual technology that may affect coastal waters.

E. Location of the Proposed Activities

Main Pass Area Block 90 is located approximately one hundred forty-three miles from Morgan City, Louisiana, approximately forty miles from the Louisiana coast of St. Bernard Parish, and approximately forty-five miles from the Mississippi coast of Jackson County. Figure 1 presents the location of the block in relation to the Louisiana and Mississippi coasts, as well as the

geographic relationship between Main Pass Area Block 90 and the other OCS lease areas.

F. Proposed Means of Transporting Oil and Gas

Kerr-McGee Corporation will install 4 1/2-inch pipelines from their existing OCS-G-9704 Wells No. 1 and 2 to existing processing facilities located in Main Pass Area Block 93. Hydrocarbons will be transported to shore via an existing pipeline gathering system.

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III. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS

A. Physical and Environmental

1. Commercial Fishing

The Mississippi Delta area is known as the "Fertile Fisheries Crescent" because it is one of the most productive commercial fishery grounds in the United States. Commercial fisheries are an important factor in the economy of the State of Mississippi. Although some 60 species are landed commercially, 21 species representing 12 families accounted for 90 percent of the 1989 landings valued at over \$44 million dockside in 1989 (USDC, NMFS, 1990).

Louisiana is traditionally one of the top states in the nation in terms of commercial fisheries, which amounted to 1,237,216,784 pounds worth \$271,660,631 in 1989 (USDC, NMFS, 1990). Fifteen families of finfish and shellfish represent 97 percent of the dockside value (dollars) of Louisiana's marine and estuarine commercial fishery landings.

The most valuable species to Louisiana and Mississippi are the brown shrimp (Penaeus aztecus) and white shrimp (P. setiferus), which together produce by far the greatest shrimp harvest in the Gulf of Mexico. Louisiana shrimp fishermen harvested 100,444,239 pounds (heads-on) of shrimp worth \$130,253,563 and Mississippi shrimp fishermen harvested 15,687,212 pounds (heads-on) worth \$28,714,424 in 1989 (USDC, NMFS, 1990). Although harvest data for these species are not separated for statistical purposes, the brown

shrimp dominates the Louisiana and Mississippi shrimp harvest, as it is the most abundant species in that region of the gulf (White and Boudreaux, 1977). Both of these shrimp are estuarine dependent and have similar life histories, with the major differences being the time and location that the various life stages begin and reach their maximum levels. Generally, spawning occurs offshore with the resulting larvae migrating inshore to develop in estuaries. Brown shrimp spawn from November to April in 30 to 120 meters of water, while white shrimp spawn from March to October in 8 to 34 meters (Benson, 1982). Juvenile and adult brown shrimp migrate offshore from May to July, and white shrimp migrate between June and November (Benson, 1982).

The Main Pass Area under consideration falls within the "high to moderate brown shrimp productivity area" (USDOl, MMS, 1986, Visual No. 2) wherein the possibility of shrimp fishing activity exists. Some documented impacts of petroleum exploration and production on the shrimp fishery include the removal of trawling space during the drilling and exploration phases and the possibility of fishing gear conflicts with existing well heads. These conflicts could result in loss of catch, loss of or damage to nets, vessel damage, and/or fishing downtime losses. Additional discussion of the impacts on the commercial fishing industry is contained in the Final Regional Environmental Impact Statement, Gulf of Mexico, Volume I, pages 327 to 332 (USDOl, MMS, 1983).

The Gulf menhaden (Brevoortia patronus) or "pogy" fishery is Louisiana's and Mississippi's second most valuable fishery, accounting for 1,019,168,340 pounds worth \$40,763,511 in Louisiana and 250,755,578 pounds worth \$10,601,325

in Mississippi in 1989 (USDC, NMFS, 1990). Gulf menhaden spawn offshore from mid-October through March in 40 to 140 meters of water, with the larvae subsequently moving into shallow, low salinity estuaries from February to May (Benson, 1982). Here in the shallow estuaries, the larvae metamorphose into juveniles and change from being carnivores to filter-feeding omnivores. The juveniles and subadults migrate from the estuaries into offshore waters from December through February (Benson, 1982). The adults only rarely venture far offshore (Hoese and Moore, 1977); indeed, about 93 percent of the commercial fishing effort occurs within ten miles of shore (USDO I, MMS, 1983a).

Because Main Pass Area Block 90 is within the "Principle Menhaden Harvest Area" (USDO I, MMS, 1986, Visual No. 2), the possibility of negative impacts on menhaden fishing exists. As with the shrimp fishery, these impacts potentially include loss of fishing area, gear conflicts, and associated loss of catch.

The Eastern oyster (Crassostrea virginica) is most abundant in the Gulf of Mexico from Aransas Bay, Texas to Apalachicola Bay, Florida (Beccasio et al., 1982). Louisiana oystermen landed 11,605,856 pounds of oysters worth \$32,989,663 in 1989 making oysters Louisiana's third most valuable fishery, and Mississippi oystermen landed 100,109 pounds of oysters worth \$346,617 in 1989 (USDC, NMFS, 1990). Oysters thrive at salinities between 5 and 15 parts per thousand and water depths of 2.5 to 8 meters (Beccasio et al., 1982). Oysters spawn inshore during the summer, and the free-swimming larvae attach and develop in the same estuarine habitat. The proposed activities in Main

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Pass Area Block 90 are not expected to have any impact on the oyster fishery in Louisiana and Mississippi.

The blue crab (Callinectes sapidus) ranges from Nova Scotia to Uruguay and supports the largest crab fishery in the United States (Marine Experiment Station, 1973). In 1989, 33,390,070 pounds of crabs worth \$14,781,213 were landed in Louisiana and 669,366 pounds of crabs worth \$334,390 were landed in Mississippi (USDC, NMFS, 1990). Blue crabs inhabit shallow water and can be found in high salinity sounds, bays, and channels where they spawn from March through November, with a peak from May to September (Benson, 1982). The resulting planktonic larvae pass through several molts and stages before the juveniles drop to the bottom of the estuarine nurseries, where they remain throughout the year (Benson, 1982). The fishery for blue crabs is unlikely to be significantly affected by production activities as this block is located offshore of the coastal and estuarine waters in which this fishery occurs.

Snapper landings in Louisiana amounted to 2,085,133 pounds worth \$4,465,161 and in Mississippi, 312,808 pounds worth \$487,523 in 1989 (USDC, NMFS, 1990). Red snapper (Lutjanus campechanus) and Vermilion snapper (Rhomboplites aurorubens) accounted for the majority of this total. Snappers are demersal predatory fish that are common over or near banks, coral reefs and outcrops, submarine ridges, rocks, and man-made structures such as shipwrecks and offshore drilling platforms, especially offshore Louisiana (Benson, 1982; Hardy, 1978). Red snapper spawn in the Gulf of Mexico from June to Mid-September, in water depths of 16-37 meters, over bottoms of hard sand and shell with rocky reef areas; spawning may actually take place at the

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surface (Hardy, 1978). Little or no information is available about larval red snapper, but juveniles are typically found inshore in high salinity (24 to 40 ppt) water 9-91 meters in depth (Benson, 1982). The proposed activities should create a suitable habitat for red snapper.

The drums (Sciaenidae) are one of the three most abundant families of fishes in the Gulf of Mexico in terms of biomass, and they outnumber all other families in the number of species (Hoese and Moore, 1977). Three species of drums are commercially important to Louisiana. These include black drum (Pogonias cromis), spotted seatrout (Cynoscion nebulosus), and sand seatrout (C. arenarius). In 1989, Louisiana landed a total of 5,982,058 pounds of drums worth \$3,277,128 (USDC, NMFS, 1990). Four species of drums are commercially important to Mississippi, the black drum, spotted seatrout, sand seatrout, and northern kingfish (Menticirrhus saxatilis). In 1989, Mississippi landed a total of 457,494 pounds of drums worth \$237,901 (USDC, NMFS, 1990).

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

when they move into the deeper parts of the estuary (Benson, 1982). Adult spotted seatrout rarely leave the estuaries (Benson, 1982).

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

Sand seatrout spawn from March to September offshore near passes and inlets to estuaries. Larvae migrate into shallow areas of the upper estuaries. Adults apparently move farther offshore than most members of the family (Benson, 1982). In the fall most adults and juveniles migrate to offshore waters (Benson, 1982).

Northern kingfish are commonly taken from water depths of 7 to 45 meters, but have been occasionally found at depths of 126 meters (Johnson, 1978). Spawning occurs offshore in the spring, with the larvae migrating into the estuaries and then seaward as they mature (Johnson, 1978).

Louisiana harvested 2,413,768 pounds of striped mullet (Mugil cephalus) worth \$2,040,750 and Mississippi harvested 253,152 pounds worth \$134,796 in 1989 (USDC, NMFS, 1990). Mulletts are one of the most abundant fishes in the Gulf of Mexico (Hoese and Moore, 1977). Mullet have been observed in Alabama inland as far as 607 kilometers from the Gulf, and offshore as far as 80

kilometers and as deep as 1,385 meters (Benson, 1982). Mullet spawn from October to May, and some females spawn more than once in a season (Benson, 1982). Larvae move inshore in the spring and the juveniles are found in the shallow areas of the estuaries. Offshore movement from the estuaries occurs during the fall (Beccasio et al., 1982).

Sharks are characterized by an entirely cartilaginous skeleton, lacking true bones (Castro, 1983). The most common species of sharks found in the Gulf of Mexico include the tiger shark (Galeocerdo cuvier), blacknose shark (Carcharhinus acronotus), spinner shark (C. brevipinna), blacktip shark (C. limbatus), sandbar shark (C. plumbeus), Atlantic sharpnose shark (Rhizoprionodon terraenovae), and scalloped hammerhead (Sphyrna lewini) (Branstetter, 1981). A total of 5,600,623 pounds of shark worth \$2,487,375 were landed offshore Louisiana in 1989 (USDC, NMFS, 1990).

The following discussion is summarized from Castro (1983). Relatively little is known about sharks because of the difficulties inherent in studying these large fast moving and far roving fish. Sharks appear to migrate for a variety of reasons; the most common of which are tracking their prey, responding to their reproductive cycles, and environmental changes such as temperature.

On a daily basis some sharks are known to migrate vertically while following their prey. Sharks are also known to cover thousands of miles in a year tracking prey.

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

Sharks are cold blooded and their body temperature usually corresponds to the temperature of the surrounding water. Each species lives within a relatively narrow temperature range determined by its metabolism. Many species migrate to remain within their temperature tolerance limits. In general these migrations are directed northward and inshore during the summer and southward and offshore in the winter months.

Overall, commercial fishermen have benefited from the growth of the petroleum industry in the OCS waters of the Gulf of Mexico. While technological improvements have enabled commercial fishermen to increase the volume of landings, development of the petroleum industry has also had a positive impact on fishing. Because OCS petroleum development is dependent on extensive marine vessel utilization, harbors and ports have been improved, port access waterways have been expanded and improved, and the availability and quality of marine vessel maintenance and repair facilities have increased significantly. These improvements have definitely had a positive effect on fishermen (Lassiter, 1980).

2. Shipping

A designated shipping fairway is located approximately two miles southeast of Main Pass Area Block 90. It is likely that marine vessels supporting this block will utilize the shipping fairway to gain access to the support base; however, it is unlikely that fairway traffic will be significantly affected. The production platform and each of the marine vessels will be equipped with all U. S. Coast Guard required navigational safety aids.

3. Recreation

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

Frequently, offshore rigs and platforms serve as navigation points for small commercial and recreational marine craft. Manned drilling rigs and platforms can also provide a haven for small craft operators forced to abandon their vessels during storms or following boat accidents. The installation and use of navigational aids, lifesaving equipment, and other safety requirements pursuant to Coast Guard regulations are standard procedure for production platforms and marine vessels utilized by Kerr-McGee Corporation.

4. Cultural Resources

Visual No. 4 from the Final Environmental Impact Statement (USDOl, MMS, 1986) indicates that Main Pass Area Block 90 falls within the zone designated as an area with a high probability of historic and pre-historic cultural resources. An Archeological and Hazard Study of Main Pass Area Block 90 was performed by John E. Chance & Associates, Inc. (1989), and the following has been extracted from that report.

The subaerial crests of the natural distributary levees and barrier beaches of the St. Bernard Delta Complex were inhabited by prehistoric hunters and gatherers of the Marksville Period (A.D. 250 to A.D. 700), a cultural adaption characterized by new pottery types composed of bowls, globular, and jar-shaped vessels with elaborate exterior decorations (McIntire, 1954). The subbottom profiles from Block 90 do not offer any evidence of natural distributary levees which could have been inhabited by prehistoric human groups. The former subaerially exposed Pleistocene surface, which could have been inhabited by Paleo-Indians during the Late Wisconsin low sea level cycle,

is deeply buried by approximately 150 feet of Holocene (Recent) sediment. Possible archeological remains along the Pleistocene topsoils in this region are buried beyond a reasonable recovery depth. This study area may be considered a low probability area for the recovery of prehistoric cultural resources.

There are no specific references to bottom obstructions or shipwrecks in this lease area, and ... there are no indications of any significant ferrous debris or bottom obstructions in Block 90. The geophysical data do not offer any strong evidence for probable shipwreck remains in the survey area, and the water depths are a bit too deep for any historic vessel to have run aground. The side scan sonar records did not highlight any bottom features indicative of conglomerate shipwreck remains.

5. Ecologically Sensitive Features

Main Pass Area Block 90 is located approximately eight miles east of Breton National Wildlife Refuge & Wilderness Area and approximately thirty-seven miles south of Gulf Islands National Seashore & Wilderness Area (USDOI, MMS, 1986, Visual No. 4). There are no other known ecologically sensitive areas near Main Pass Area Block 90.

The Morgan City, Louisiana support base which will be utilized as the operations base for the Main Pass Area Block 90 production activities is located approximately thirty miles northeast of Marsh Island Wildlife Refuge (USDOI, MMS, 1986, Visual No. 3).

In general if all activities are executed as planned, encountering no unusual circumstances, the environmentally sensitive areas will not be affected.

6. Existing Pipelines and Cables

A search of literature and maps in company files indicates that there are two existing pipelines located in Main Pass Area Block 90, a TETCO 6-inch pipeline and a TETCO 10-inch pipeline. Kerr-McGee Corporation is not aware of any other pipelines or cables located in this block.

7. Other Mineral Uses

There are no other known mineral resources located in or near Main Pass Area Block 90.

8. Ocean Dumping

The major sources of ocean dumping related to the proposed production activity will be the discharge of produced water and treated domestic wastes. There will be no intentional discharge of any oily or hazardous materials in violation of DOI or EPA regulations.

9. Endangered or Threatened Species

Endangered or threatened species which might occur in Main Pass Area Block 90 are blue whale (Balaenoptera musculus), finback whale (Balaenoptera physalus), humpback whale (Megaptera novaeangliae), sei whale (Balaenoptera borealis), sperm whale (Physeter catodon), Kemp's ridley turtle (Lepidochelys kempii), green turtle (Chelonia mydas), hawksbill turtle (Eretmochelys imbricata), leatherback turtle (Dermochelys coriacea) and loggerhead turtle (Caretta caretta) (USDOI, Region IV Endangered Species Notebook).

Endangered or threatened species expected to occur in the vicinity of the onshore base are bald eagle (Haliaeetus leucocephalus) and American alligator (Alligator mississippiensis) (USDOI, Region IV Endangered Species Notebook). Bald eagle nesting areas occur between Morgan City and Houma (Beccasio et al., 1982). The American alligator is classified as threatened in Louisiana due to similarity of appearance. This species is neither endangered nor threatened biologically in Louisiana and a regulated harvest is permitted under State Law (USDOI, Region IV Endangered Species Notebook). The presence of marine mammals in coastal Louisiana is considered sporadic and probably no resident populations exist. It is unlikely that onshore or exploration activities related to Main Pass Area Block 90 will have any effect on the previously named species.

B. Socio-Economic Impacts

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

IV. UNAVOIDABLE ADVERSE IMPACTS

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

It should be noted that most large crude oil and refined products spills have occurred during transportation and not during drilling or production operations. Furthermore, the probability of an oil spill occurring during exploratory drilling operations is low (Danenberger, 1976). Transportation and river runoff contribute an estimated 34.9 percent and 26.2 percent, respectively, to the hydrocarbon contamination of the world's oceans while offshore production activities account for only 1.3 percent (National Academy of Sciences, 1975). Natural seeps of petroleum and natural gas, which occur throughout the northern Gulf of Mexico (Zo Bell, 1954; Geyer, 1979), contribute an estimated 9.8 percent to the contamination of the world's oceans (National Academy of Sciences, 1975). Additionally, it was noted in the executive summary of a recent study of petroleum production platforms in the central Gulf of Mexico (Bedinger, 1981), that natural disturbances (i.e. river flooding and storms) can more greatly affect normal biological communities than the current industrial development of the Louisiana OCS. The preceding discussion is not intended to minimize the significance of major oil spills

resulting from petroleum exploration and production activities but is provided to establish a perspective relative to their probable occurrence.

Thirteen of the forty-six blow-outs on the OCS between 1971 and 1978 were associated with exploratory drilling activities, none of which released any oil to the marine environment (Danenberger, 1980). The IXTOC I spill of 1979, however, demonstrates that advanced drilling technology and available safety and pollution control systems are not infallible. Most spills are subjected to immediate containment and cleanup efforts. The ultimate fate of oil spilled in the marine environment is generally considered to be one or a combination of the following: evaporation and decomposition in the atmosphere, dispersal in the water column, incorporation into sediments, and oxidation by chemical or biological means (National Academy of Sciences, 1975).

The unavoidable adverse impacts that will occur as a result of platform installation and production are few in number and temporary in nature. The primary adverse impacts include a localized degradation of water quality in the vicinity of the production platform during disposal of produced water, domestic wastes and sewage; and the potential obstruction to commercial and recreational fishing vessels; and the disruption and/or killing of benthic and/or pelagic organisms during installation of the platform.

Discharging from the production platform is inevitable during OCS operations. Any materials that may contain oil or other hazardous materials, and therefore would have a much greater adverse impact on the environment,

will not be discharged intentionally. Any discharging will be done pursuant to all DOI and EPA regulations. The discharges to be disposed overboard as a result of the production activity will include produced water and domestic waste and sewage that is treated on the platform.

The following discussion of produced waters was summarized from the Draft Environmental Impact Statement for the Gulf of Mexico, Lease Sales 131, 135, and 137: Central, Western, and Eastern Planning Areas, March, 1990.

Produced waters discharged from production platforms into offshore waters are briny waters separated from produced hydrocarbons. The volume of produced waters is a variable dependent upon the formation and time.

The concentrations of most trace minerals found in produced waters are comparable to those in seawater. Studies of produced waters seem to indicate that the levels of the six elements most toxic to the marine environment (mercury, cadmium, silver, nickel, selenium, and lead) are not normally higher than the levels found in seawater and that no damage is caused by their presence.

Other contents and properties of produced waters which may have environmental effects are dissolved oxygen, non-hydrocarbon organic compounds, temperature, and salinity. The effects of these have been shown to be minimal and are localized near the discharge site.

Also found in produced waters are radionuclides, products of naturally occurring minerals found in shales and sandstones. The levels of these radionuclides may be up to four times greater than the concentrations found in open ocean surface waters. These higher levels seem to cause no apparent problems as there is a rapid dilution of formation waters when discharged offshore.

In offshore waters, diffusion and dispersion limit the effects of produced waters to a few meter radius of the discharge site (Harper, 1986). Few impacts have been documented in several large investigations (Boesch and Rabalais, 1985).

The following discussion of pipelines and associated impacts is summarized from the Regional Environmental Assessment, Gulf of Mexico, Pipeline Activities (USDOl, MMS, 1983b). Unavoidable impacts associated with pipeline installation include destruction of organisms and habitat by lay barge anchors and by jetting during trench excavation. Biota may also be smothered by the overburden suspended by the jetting operation. About 20 acres of sea bottom are affected by each linear nautical mile of trenched pipeline installed. The magnitude of the impact diminishes with distance from the pipeline (with decreasing sediment deposited, impacts are less severe). Currents eventually fill the trench and level the mounds essentially returning the area to pre-pipeline conditions. Suspension of sediments associated with jetting is considered a short-term impact as dilution occurs rapidly and background conditions are generally reached within 300 feet of the operation. Turbidity would have a nominal impact on phytoplankton productivity. Impacts

on fish and invertebrate larvae are considered insignificant when the limited extent of the turbidity plume and its relatively short duration are considered in view of the vast numbers of such larvae and the limited time they are in any one location.

Offshore activities generate a small but significant amount of air pollutants due to the emissions of diesel engines; therefore, the deterioration of air quality is unavoidable in an OCS operation area. In most instances, these emissions affect only the immediate production activity site and are rapidly dissipated by the atmosphere depending upon climatic conditions. An Air Quality Review Report has been prepared for Main Pass Area Block 90 and is included as an attachment to the Development Operations Coordination Document.

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

There is a remote possibility that offshore areas of historical, cultural, or biological significance could be damaged or destroyed by OCS production operations. Visual No. 3 from the Final Environmental Impact

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Statement (USDOl, MMS, 1986) indicates that no archeological, cultural, or historic areas are in the vicinity of Main Pass Area Block 90. Kerr-McGee Corporation will make every effort to avoid disturbing any historically, culturally, or biologically significant feature.

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COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATE
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
GULF OF MEXICO

FOR
MAIN PASS AREA BLOCK 90

SUBMITTED TO:
MS. TRACI NEAL
PETROLEUM ENGINEER
KERR-MCGEE CORPORATION
P. O. BOX 39400
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DECEMBER 10, 1992

PREPARED BY:
JOHN E. CHANCE & ASSOCIATES, INC.
REGULATORY & ENVIRONMENTAL DIVISION
PROJECT NO. 92-8236

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JOHN E. CHANCE

COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION

DEVELOPMENT/PRODUCTION
.....
Type of Plan

MAIN PASS AREA BLOCK 90
.....
Area and Block

The proposed activities described in detail in the attached Development Operations Coordination Document comply with Louisiana and Mississippi's approved Coastal Management programs and will be conducted in a manner consistent with such Programs.

Arrangements have been made to publish Public Notices regarding the proposed activity no later than12-16-92..... with the MORNING ADVOCATE and with the FRANKLIN BANNER, the official journal of St. Mary Parish.

KERR-MCGEE CORPORATION
.....
Lessee or Operator

Ray V. Bradford
.....
Certifying Official

12-11-92
.....
Date

John E. Chance

