UNITED STATES GOVERNMENT
MEMORANDUM

March 24, 2004

To: Public Information (MS 5034)

From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan

Control #	-	N-08053
Type	-	Initial Development Operations Coordinations Document
Lease(s)	-	OCS-G09184 Block - 643 East Breaks Area OCS-G19027 Block - 598 East Breaks Area OCS-G19028 Block - 599 East Breaks Area
Operator	-	Kerr-McGee Oil & Gas Corporation
Description	-	Wells EB 598 #1 and EB 599 #1
Rig Type	-	DP SEMISUBMERSIBLE

Attached is a copy of the subject plan.

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

Robert Stringfellow
Plan Coordinator

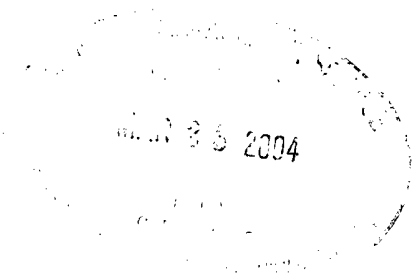
Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
SPAR/A		2317 FNL, 4177 FWL	G09184/EB/643
WELL/#1	G19027/EB/598	4350 FNL, 468 FEL	G19027/EB/598
WELL/#1	G19028/EB/599	1015 FNL, 1849 FWL	G19028/EB/599

NOTED - SCHEXNAILDRE

KERR-McGEE OIL & GAS CORPORATION

March 22, 2004

Regional Operations, Field Supervisor
Attn: Nick Wetzel (MS 5230)
Minerals Management Service
1201 Elmwood Park Blvd
New Orleans, LA 70123-2349



Re: Initial DOCD
East Breaks 558; OCS-G 19027
East Breaks 559; OCS-G 19028
Subsea Tiebacks to Boomvang

Ladies and Gentlemen:

Please find enclosed an initial Development Operations Coordination Document (DOCD) prepared in accordance with 30 CFR 250, Subpart B and NTL 2003-G17 for the subject blocks.

The following copies are being provided for your use:

Confidential	Public Information
1 Paper Copy	1 Paper Copy
4 CDs	3 CDs

The subsea wells covered in the plan were previously drilled and completed under the Exploration Plans for the blocks. The wells are currently shut in. The first activity covered under the plan is the installation of the lease term pipelines. The installation activities are planned to commence on July 1, 2004, if all permits have been granted.

Under separate cover, a Conservation Information Document is also being filed for the project.

If you have any questions or concerns, or need additional information, please contact me at 972-516-1177 or by e-mail at wanda.parker@wjpenterprises.com. Also, please fax a copy of any correspondence to 972-516-1188.

Very truly yours,

Wanda June Parker

Wanda June Parker, P. E.
Deepwater Regulatory Manager
Worldwide Facilities Engineering

Subsea Tiebacks to Boomvang Spar

East Breaks Block 558; OCS-G 19027
East Breaks Block 559; OCS-G 19028

Initial Development Coordination Document

March, 2004

PUBLIC INFORMATION

Appendix A
Contents of Plan

(A) Description, objectives and schedule

The EB 598 #1 was drilled and completed and shut-in by Kerr-McGee under the approved Exploration Plan (Control Number N-7661) filed by Kerr-McGee. The EB 599 #1 was drilled, completed and shut-in under the approved Exploration Plan (Control Number N-06881) filed by Burlington Resources Offshore Inc. Subsequently, Kerr-McGee was designated as operator of EB 599. Kerr-McGee now proposes to produce the reserves by tying both wells back to the existing Kerr-McGee operated Boomvang spar located in East Breaks Block 643 through common dual lease term pipelines and umbilical. No new wells are proposed to be drilled, completed or produced as a part of this plan.

A Conservation Information Document in accordance with NTL 2000-N05 has been filed under separate cover letter.

The following is a tentative schedule for the development and production activities proposes as a part of this plan.

Activity	Start Date	End Date	Number of Days
Install Lease term pipelines and umbilicals	July 1, 2004	July 31, 2004	30
Commence Production	Aug 1, 2004		

(B) Location

All drilling and completion activities were conducted under the Exploration Plans referenced above. The lease term pipeline installation will be conducted by DP vessel; therefore, no anchors will be required. No new wells or facilities are proposed as a part of this plan; therefore, a plat has not been provided for the wells previously drilled and completed and the facility that has been previously installed.

Please see Attachment A-1 for a table showing the location of the wells and facility.

(C) Drilling Unit

No drilling or completion activities are proposed as a part of this plan.

(D) Production Facilities

The host platform will be the existing Kerr-McGee operated Boomvang Spar, EB 643, Platform A which is located in 3457 feet of water. The EB 598 #1 and EB 599 #1 subsea wells will be tied back to the Boomvang spar via two lease term pipelines connected by a pigging loop. An umbilical will be installed from Boomvang to a SUTA located in EB 598 to control the wells.

Please see Attachment A-2 for a schematic of the development scheme.

Attachment A-1

U.S. Department of the Interior
Minerals Management Service

OMB Control Number: 1010-0049
OMB Approval Expires: August 31, 2006

OCS PLAN INFORMATION FORM

General Information

Type of OCS Plan:		Exploration Plan (EP)	X Development Operations Coordination Document (DOCD)
Company Name: Kerr-McGee Oil and Gas Corporation			MMS Operator Number: 02219
Address: 16666 Northchase			Contact Person: Wanda Parker
Houston, TX 77060			Phone Number: 972-516-1177
			E-Mail Address: wanda.parker@wjpenterprises.com

Lease(s):OCS-G 19027, 19028			Area: EB			Block(s):598/599			Project Name Northern Boomvang Loop		
Objective(s):	X	Oil		Gas		Sulphur		Salt	Onshore Base: Sabine Pass, TX		Distance to Closest Land (Miles): 112

Description of Proposed Activities (Mark all that apply)

	Exploration drilling		Development drilling
	Well completion		Installation of production platform
	Well test flaring (for more than 48 hours)		Installation of production facilities
	Installation of caisson or platform as well protection structure		Installation of satellite structure
	Installation of subsea wellheads and/or manifolds	X	Commence production
X	Installation of lease term pipelines		Other (Specify and describe)

Have you submitted or do you plan to submit a Conservation Information Document to accompany this plan?	X	Yes		No
Do you propose to use new or unusual technology to conduct your activities?		Yes	X	No
Do you propose any facility that will serve as a host facility for deepwater subsea development?		Yes	X	No
Do you propose any activities that may disturb an MMS-designated high-probability archaeological area?		Yes	X	No
Have all of the surface locations of your proposed activities been previously reviewed and approved by MMS?	X	Yes		No

Tentative Schedule of Proposed Activities

Proposed Activity	Start Date	End Date	No. of Days
Install Lease Term Pipelines	July 1, 2004	July 31, 2004	30
Commence Production	Aug 1, 2004		

Description of Drilling Rig

	Jackup		Drillship
	Gorilla Jackup		Platform rig
	Semisubmersible		Submersible
	DP Semisubmersible		Other (Attach Description)
Drilling Rig Name (If Known):			

Description of Production Platform–Existing

	Caisson		Tension leg platform
	Well protector		Compliant tower
	Fixed platform		Guyed tower
	Subsea manifold		Floating production system
X	Spar		Other (Attach Description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	To (Facility/Area/Block)	Diameter (Inches)	Length (Feet)
PLEM #B1	EB 643, Plat A (Boomvang Spar)	6.625 OD	15,000
PLEM #B2	EB 643, Plat A (Boomvang Spar)	6.625 OD	13,000
EB 599 #1	PLEM B1 (well jumper)	6.625 OD	75
EB 598 #1	PLEM B2 (well jumper)	6.625 OD	75
PLEM B1	PLEM B2 (pigging loop)	5.625 ID	4300
SUTA, EB 598	EB 599 #1 (umbilical)	NA	4600
Boomvang Spar	SUTA, EB 598 (umbilical)	NA	15,000

OCS PLAN INFORMATION FORM (CONTINUED)

Include one copy of this page for each proposed well/structure

Existing ~~Proposed~~ Well/Structure Location					
Well or Structure Name/Number (If renaming well or structure, reference previous name): EB 598 #1				Subsea Completion	
Anchor Radius (if applicable) in feet:NA				X Yes	No
	Surface Location		**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 19027				
Area Name	East Breaks				
Block No.	598				
Blockline Departures (in feet)	N/S Departure: 4350' FNL				
	E/W Departure: 468' FEL				
Lambert X-Y coordinates	X: 1,108,323				
	Y: 9,943,124				
Latitude/ Longitude	Latitude 27 23 28.502 N				
	Longitude 94 38 24.740 W				
	TVD (Feet):	MD (Feet):		Water Depth (Feet): 3200	

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)-NA

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
			X =	Y =	

Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

OCS PLAN INFORMATION FORM (CONTINUED)

Include one copy of this page for each proposed well/structure

Existing ~~Proposed~~ Well/Structure Location					
Well or Structure Name/Number (If renaming well or structure, reference previous name): EB 599 #1				Subsea Completion	
Anchor Radius (if applicable) in feet:NA				X Yes	No
	Surface Location		**Bottom-Hole Location (For Wells)**		
Lease No.	OCS-G 19028				
Area Name	East Breaks				
Block No.	599				
Blockline Departures (in feet)	N/S Departure: 1015' FNL				
	E/W Departure: 1849' FWL				
Lambert X-Y coordinates	X: 1,110,655.97				
	Y: 9,946,502.91				
Latitude/ Longitude	Latitude 27 24 02.267 N				
	Longitude 94 37 59.360 W				
	TVD (Feet):	MD (Feet):		Water Depth (Feet): 3154	

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)-NA

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
			X =	Y =	

Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

OCS PLAN INFORMATION FORM (CONTINUED)

Include one copy of this page for each proposed well/structure

Existing ~~Proposed~~ Well/Structure Location			
Well or Structure Name/Number (If renaming well or structure, reference previous name): EB 643, Platform A, Boomvang Spar			Subsea Completion
Anchor Radius (if applicable) in feet:NA			Yes ☐ No ☐
	Surface Location	**Bottom-Hole Location (For Wells)**	
Lease No.	OCS-G 09184	OCS	
Area Name	East Breaks		
Block No.	643		
Blockline Departures (in feet)	N/S Departure: 2317' FNL	N/S Departure: F___ L	
	E/W Departure: 4177' FWL	E/W Departure: F___ L	
Lambert X-Y coordinates	X: 1,112,977.00	X:	
	Y: 9,929,363	Y:	
Latitude/ Longitude	Latitude 27 21 13.034 N	Latitude	
	Longitude 94 37 31.193 W	Longitude	
	TVD (Feet):	MD (Feet):	Water Depth (Feet): 3455

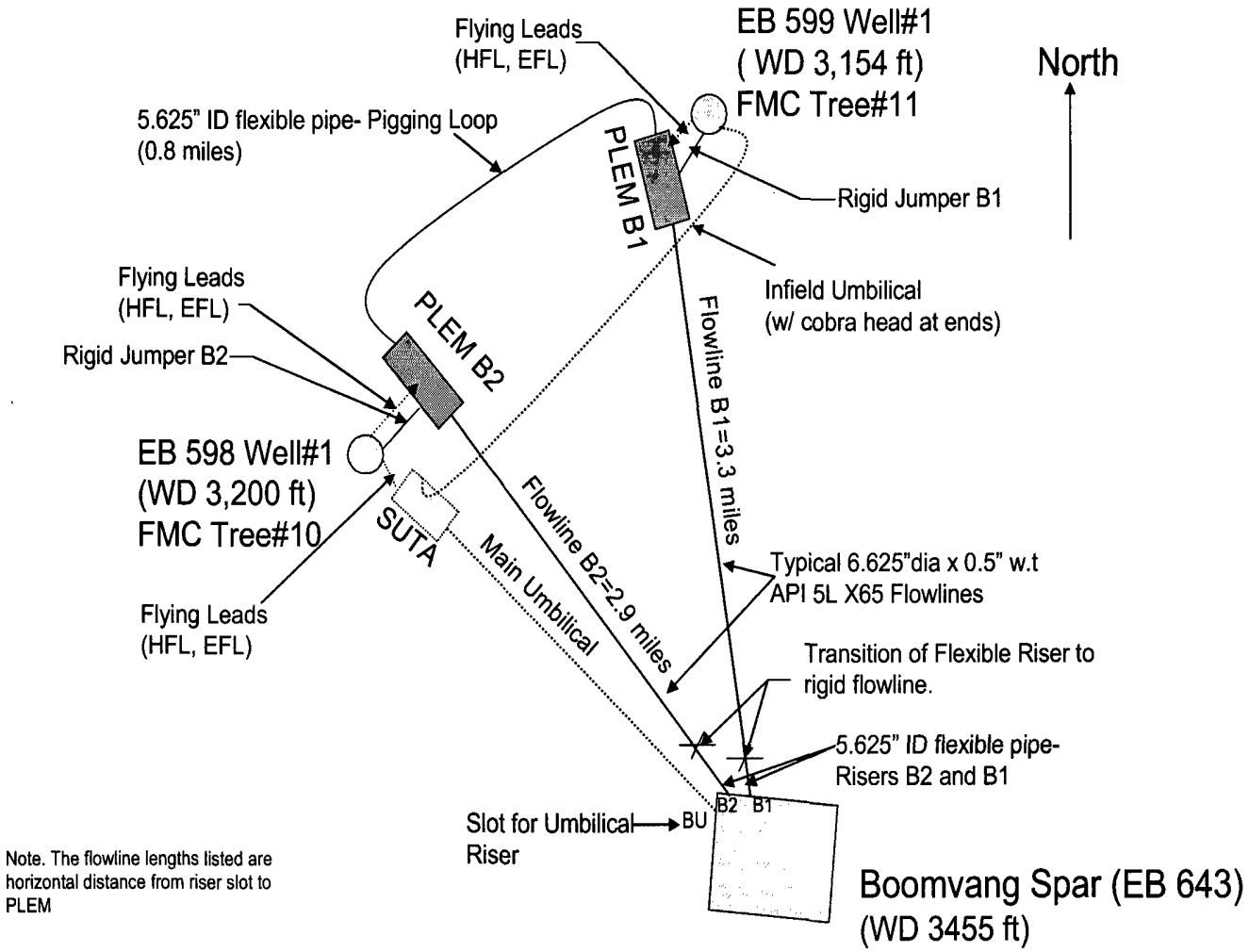
Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)-NA

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
			X =	Y =	

Paperwork Reduction Act of 1995 Statement: The Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. The use of this form is voluntary. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

KERR McGEE	EB 598/599 Subsea Tieback to Boomvang Spar East Breaks Block 598; OCS-G 19027 East Breaks Block 599; OCS-G 19028 East Breaks Block 643; OCS-G 09184 DOCD

Attachment A-2
Overview of Development Layout
Boomvang North Loop



Note. The flowline lengths listed are horizontal distance from riser slot to PLEM

Appendix B
General Information

(A) Contact

Wanda June Parker
WJP Enterprises
Plano, Texas 75075
972-516-1177 (office)
972-516-1188 (fax)
wanda.parker@wjpenterprises.com

(B) Project Name:

North Boomvang Loop

(C) Production Rates and Life of Reserves

Confidential Information

(D) New or unusual technology

No new or unusual technology is proposed to be utilized as a part of this project.

(E) Bonding Information

Kerr-McGee Oil & Gas Corp. has complied with the $3,000,000 bond option as required by the Minerals Management Service in 30 CFR 256, Subpart I.

(F) Onshore base and support vessels

An existing onshore base located in Sabine Pass, Texas will be utilized to support installation and production activities. Travel routes used by vessels normally will be from Sabine Pass directly to the Boomvang spar; however, from time to time this route may vary. Figure B-1 is a map showing the expected travel route. During production operations, no increase in vessel trips to the Boomvang spar are anticipated due to the proposed subsea tie back over that given in the EB 643 DOCD. Please see table below for installation vessel trips and trips during operations previously included in the EB 643 DOCD.

Support Vessel	Installation of Lease Term Pipelines	Production Activities[1] Trips per Week
Supply Boat	7 per week	2
Helicopters	7 per week	1

[1] No increase in vessel trips to the host platform are anticipated due to the proposed subsea tie back. The trips shown were included in the EB 643 DOCD.

(G) Lease Stipulations

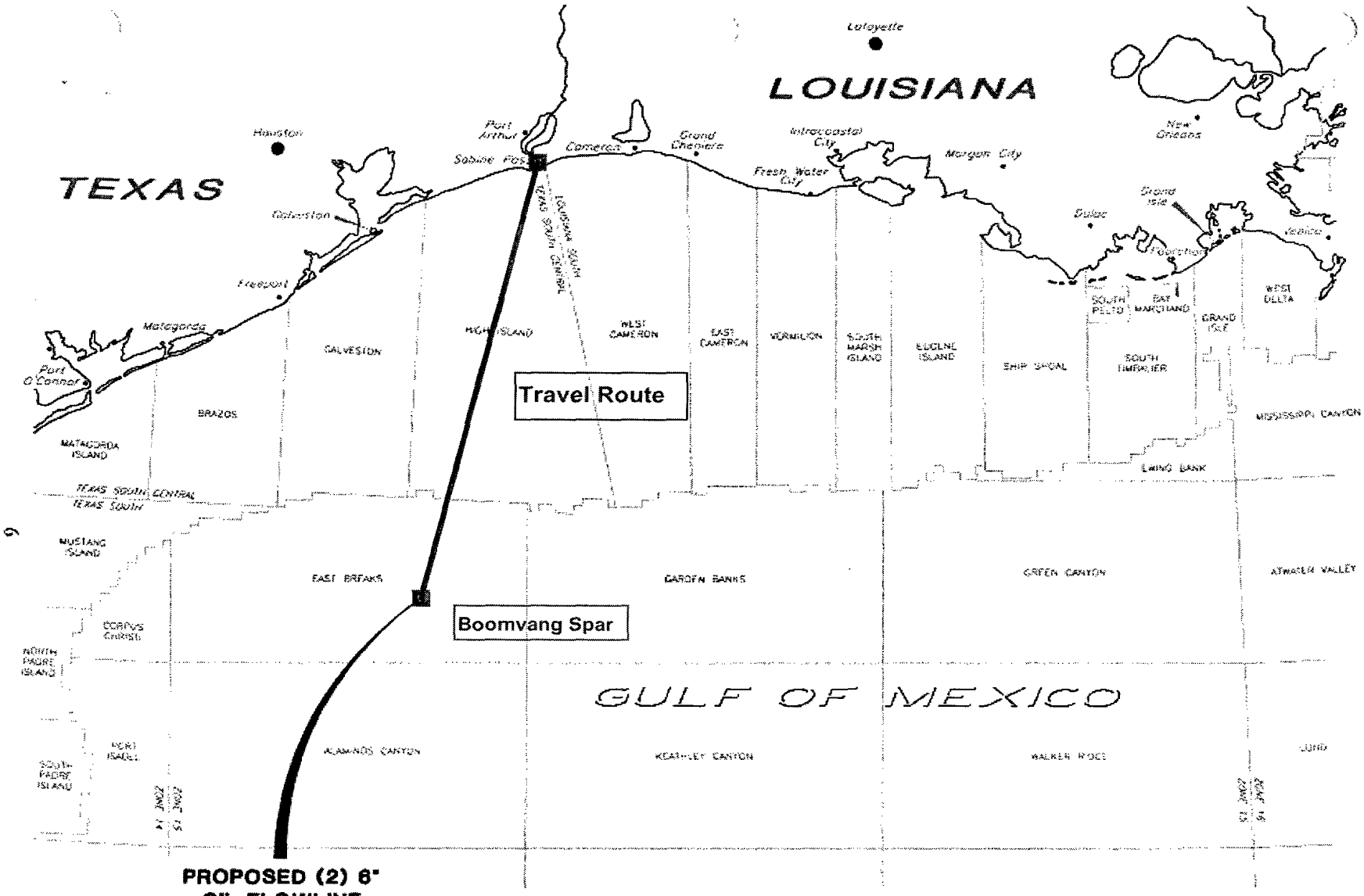
The proposed activities are located within Military Warning Area W-147D. Therefore, in accordance with the lease stipulation and NTL 2004-G02, Kerr-McGee will contact the 147th OG/DOV in order to coordinate and control the electromagnetic emissions during the proposed operations.

(H) Related OCS facilities and operations

As shown in Figure A-2, the proposed subsea wells will be tied back to the existing Boomvang spar located in EB 643 (host platform) operated by Kerr-McGee.

(I) Transportation Information

No new export pipelines, or onshore terminals are proposed as a part of this project. From the host platform, the production stream will then enter into existing infrastructure to shore.



Attachment B-1 Travel Route Map

REGIONAL MAP

BEST AVAILABLE COPY

C&C Technologies
SURVEY SERVICES

KERR-McGEE
OIL & GAS COMPANY

730 EAST KALISTE SALOOM ROAD, LAFAYETTE, LOUISIANA 70508

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Appendix C
Geological, Geophysical and H_2S Information

No new wells are planned to be drilled or completed as a part of this plan; therefore, no structure contour maps, seismic lines, geological structure cross sections, shallow hazards report, shallow hazards assessment or high-resolution seismic lines have been submitted with this plan. This information was previously submitted with the Exploration Plan covering the drilling operation for the well which will be produced as a part of this plan. A shallow hazards report and assessment will be submitted with the pipeline applications.

Conservation Information in accordance with NTL 2000-N05 has been submitted in conjunction with this DOCD under separate cover.

H_2S Information

(A) Classification
No indication of H_2S was found in the EB 589 #1 or EB 599 #1 wells to be produced as a part of this plan. In the previously approved EP, MMS has classified the area as "H_2S absent". Therefore, it is requested that for this plan, MMS classify the area as "H_2S absent".

Appendix D
Biological and Physical Information

(A) Chemosynthetic Information
No new wells are planned to be drilled or completed as a part of this plan. Chemosynthetic information was submitted with the Exploration Plan for the well which will be produced as a part of this plan.

Chemosynthetic information for the proposed lease term pipelines will be submitted with the pipeline applications.

(B) Topographic Features Information
The activities proposed in this plan are not affected by a topographic feature.

(C) Live Bottom (Pinnacle Trend) Information
The activities proposed in this plan are not located within the pinnacle trend area.

(D) Remotely Operated Vehicle (ROV) Surveys
Kerr-McGee is familiar with the requirements of NTL 2001-G04. Since no drilling is proposed as a part of this plan, no ROV surveys as required in NTL 2003-G03 are proposed to be conducted.

Appendix E
Wastes and Discharges Information

(A) Discharges

No new discharges associated with the activities proposed in this plan are anticipated other than those described in the EB 643 DOCD (Control Number N-7077).

(B) Disposed Waste

No new discharges associated with the activities proposed in this plan are anticipated other than those described in the EB 643 DOCD (Control Number N-7077).

Appendix F
Oil Spill Response and Chemical Information

(A). Statement
Activities proposed in this DOCD will be covered by Kerr-McGee's approved Regional OSRP.

(B). OSRO information
Kerr-McGee's primary equipment provider is Clean Gulf Associates (CGA). The Marine Spill Response Corporation (MSRC) STARS network will provide closest available personnel, as well as an MSRC supervisor to operate the equipment.

(C). Worst-case scenario comparison

Category	Regional OSRP	DOCD
Type of Activity	Production	Production-subsea completion
Facility Location (area/block)	EB 602	EB 598/599
Facility Designation	Platform A	EB 598 #1 and EB 599 #1
Distance to Nearest Shoreline	175 miles	112 miles
Volume (bbls)		
-Storage tanks and flowlines	**3,158**	**0**
-Lease Term Pipelines	**1,813**	**1,387**
-Uncontrolled blowout (BPD)	**8,800**	**1,600**
Total Volume	**13,771**	**2,987**
Type of Oil	Crude	Crude
API Gravity	**29°**	**27°**

Since Kerr-McGee Oil and Gas Corporation has the capability to respond to the worst-case spill scenario included in its regional OSRP approved in January, 2000 (subsequently updated) and since the worst-case scenario determined for our DOCD does not replace the worst-case scenario in our regional OSRP, I hereby certify that Kerr-McGee has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our DOCD.

(A). Facility tanks, production vessels.
Not applicable-subsea production only.

(B). Spill response sites

Primary Response Equipment Location	Preplanned Staging Locations
Galveston, TX	Galveston, TX

(C). Diesel oil supply vessels
Not required in DOCDs in which Texas is an affected State.

(D). Support vessels fuel tanks
Not required in DOCDs in which Texas is an affected State.

(E). Produced liquid hydrocarbons transportation vessels
No liquid hydrocarbons are proposed to be transported by means other than pipeline.

(F). Oil and synthetic based drilling fluids
No drilling is proposed as a part of this plan.

(G). Oils characteristics
Not required.

(H). Blowout scenario
Not required in DOCDs in which Texas is an affected State.

(I). Spill response discussion
In the event that a blow-out or other large spill should occur, Kerr-McGee would respond in accordance with our approved region OSRP. Kerr-McGee has contracted with Clean Gulf Associates (CGA) as its primary Oil Spill Removal Organization. On notification of the spill, Kerr-McGee would contact CGA and request a full mobilization of equipment. Kerr-McGee would also request permission to use dispersants. The primary staging area would be Galveston, Texas. Other staging areas would be utilized as warranted. The Incident Management System would be used to manage the response effort. The Emergency Response Operations Center would be established at Kerr-McGee's Houston office, 16666 Northchase and the Incident Command Post would be established at the USCG Marine Safety Office in Galveston, Texas.

(J). Pollution prevention measures.
Kerr-McGee believes that it has taken care to design the subsea tie back to prevent pollution in accordance with applicable regulations and recommended practices. In addition, Kerr-McGee believes that its voluntarily implemented SEMP program provides measures for safety and pollution prevention that are beyond those required by regulation.

(K). FGBNMS Monitoring Plans
Not applicable

KERR McGEE	EB 598/599 Subsea Tieback to Boomvang Spar East Breaks Block 598; OCS-G 19027 East Breaks Block 599; OCS-G 19028 East Breaks Block 643; OCS-G 09184 DOCD

Appendix G
Air Emissions Information

Screening Questions for DOCD's	Yes	No
Is any calculated Complex Total (CT) Emission amount (in tons) associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: CT $=3400D^{2/3}$ for CO, and CT = 33.3D for the other air pollutants (where D=distance to shore in miles)?		X
Do your emission calculations include any emission reduction measures or modified emission factors?		X
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells? (See note 1)		X
Do you expect to encounter H_2S at concentrations greater than 20 parts per million (ppm)?		X
Do you propose to flare or vent natural gas in excess of the criteria set forth under 150.1105(a)(2 and (3)?		X
Do you propose to burn produced hydrocarbon liquids?		X
Are your proposed development and production activities located within 25 miles from shore?		X
Are your proposed development and production activities located within 200 kilometers of the Breton Wilderness Area?		X

Note 1: The Boomvang Spar processes production from eight or more wells. No new emissions on Boomvang are anticipated due to the activities associated with this DOCD. Please see the EB 643 DOCD (Control Number N-7077) for information regarding Boomvang.

Summary Information

Air Pollutant	Plan Emission Amount (tons)	Calculated Exemption Amounts (tons)	Calculated Complex Total Emission Amounts (tons)
Carbon Monoxide (CO)	24.74	78999.49	24.74
Particulate matter (PM)	3.30	3729.6	3.30
Sulphur dioxide (SO_2)	15.13	3729.6	15.13
Nitrogen oxide (NOx)	113.39	3729.6	113.39
Volatile organic compounds (VOC)	3.40	3729.6	3.40

KERR McGEE	EB 598/599 Subsea Tieback to Boomvang Spar East Breaks Block 598; OCS-G 19027 East Breaks Block 599; OCS-G 19028 East Breaks Block 643; OCS-G 09184 DOCD

Contact Information:
Wanda Parker
WJP Enterprises
972-516-1177
wanda.parker@wjpenterprises.com

Appendix H
Environmental Impact Analysis (EIA)

(A) Impact-producing factors (IPF's)

The worksheet provided by MMS below was utilized to identify the environmental resources that could be impacted by these IPFs. An "X" has been placed in the space under each IPF category associated with the proposed activities the may impact a particular environmental resource. For those cells which are footnoted, a statement has been provided below the table as to the applicability to the proposed operations, and where there may be any effect, provide an analysis of the effect.

ENVIRONMENTAL IMPACT ANALYSIS Worksheet

Environmental Resources	Impact Producing Factors (IPFs) Categories and Examples. Refer to a recent GOM OCS Lease Sale EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacements, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g., oil spills, chemical spills, H_2S releases)	Other IPFs you identify
Site-specific at Offshore Location						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Chemosynthetic communities		X	X (4)			
Water quality					X	
Fisheries					X	
Marine mammals	X(8)				X(8)	
Sea turtles	X(8)				X(8)	
Air quality	X(9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric archaeological sites			(7)			
Vicinity of Offshore Location						
Essential fish habitat					X(6)	
Marine and pelagic birds					X	
Public health and safety					(5)	
Coastal and Onshore						
Beaches					X(6)	
Wetlands					X(6)	
Shore birds and coastal nesting birds					X(6)	
Coastal wildlife refuges					X	
Wilderness areas					X	
Other Resources You Identify						

The numbers in parentheses refer to the footnotes on page 2 of this form.

Footnotes for Environmental Impact Analysis Matrix

1. Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:
   (a) 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank,
   (b) 1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;
   (c) Essential Fish Habitat (EFH) criteria of 500 ft from any no-activity zone; or
   (d) Proximity of any submarine bank (500 ft buffer zone) with relief greater than 2 meters that is not protected by the Topographic Features Stipulation attached to an OCS lease.
2. Activities with any bottom disturbance within a OCS lease block protected through the Live Bottom (Pinnacle Trend) Stipulation attached to an OCS lease.
3. Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low-Relief) Stipulation attached to an OCS lease.
4. Activities on blocks designated by the MMS as being in water depths 400 meters or greater.
5. Exploration or production activities where H_2S concentrations greater than 500 ppm might be encountered.
6. All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that you judge would impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA can note that in a sentence or two.
7. All activities that involve seafloor disturbances, including anchor emplacements, in any OCS block designated by the MMS as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which your planned activity will occur. If the proposed activities are located a sufficient distance from a shipwreck or prehistoric site that no impact would occur, the EIA can note that in a sentence or two.
8. All activities that you determine might have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.
9. Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges.

(b) Analysis:

Site-Specific at Offshore Location

(1) Designated topographic features: There are no IPF's (including effluents, physical disturbances to the seafloor and accidents) from the proposed activities that could cause impacts to topographical features. The site-specific offshore location of the proposed activities is approximately 100 miles away from the closest designated topographic feature (Flower Garden Banks).

It is unlikely that an accidental surface or subsurface oil spill will occur from the proposed activities. Since the crests of designated topographic features in the northern Gulf are found below 10 m, concentrated oil from a surface spill is not expected to reach their sessile biota. Even if a subsurface spill were to occur very near a designated topographic feature, subsurface oil should rise to the surface, and any oil remaining at depth would probably be swept clear of the banks by currents moving around the banks. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(2) Pinnacle Trend area live bottoms: There are no IPF's (including effluents, physical disturbances to the seafloor and accidents) from the proposed activities that could cause impacts to the pinnacle trend area live bottoms. The site-specific offshore location is located in the Western planning area of the Gulf of Mexico, hundreds of miles away from the closest pinnacle trend live bottom stipulated block.

It is unlikely that an accidental surface or subsurface oil spill will occur from the proposed activities. Any surface oil spill resulting from the proposed action would likely have no impact on the biota of the pinnacle trend because the crests of these features are much deeper than 20 m. Even if a subsurface spill were to occur very near pinnacle trend live bottom areas, subsurface oil should rise in the water column, surfacing almost directly over the source location and thus not impact pinnacles. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(3) Eastern Gulf live bottoms: There are no IPF's (including effluents, physical disturbances to the seafloor, or potential accidents) from the proposed activities that could cause impact to Eastern Gulf live bottoms. The site-specific offshore location of the proposed activities is located in the Western planning area of the Gulf of Mexico, hundreds of miles away from the closest eastern gulf live bottom stipulated block.

It is unlikely that an accidental surface or subsurface oil spill will occur from the proposed activities. Any surface or subsurface oil spill resulting from the proposed action would not be expected to cause adverse impacts to eastern gulf live bottoms because of the depth of the features and dilution of spills (by currents and/or quickly rising oil). The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(4) Chemosynthetic communities: The proposed activities will occur in deepwater (water depths 400 meters or greater). Therefore, IPF's (e.g. physical disturbances to the seafloor, effluents) from the proposed activities have the potential to cause impacts to chemosynthetic communities. However, the proposed activities will be conducted in accordance with Appendix D of this plan. Accordingly, we have provided MMS with the

required maps, analysis and statement(s) prepared using the guidance in Attachment B of NTL No. 2000-G20, "Deepwater Chemosynthetic Communities." Compliance with NTL No. 2000-G20 will ensure that features or areas that could support high-density chemosynthetic communities will not be impacted.

(5) Water Quality: Effluents and accidents from the proposed activities could potentially cause impacts to water quality. However, since all discharges will be made in accordance with a general National Pollutant Discharge Elimination System (NPDES) permit issued by the U. S. Environmental Protection Agency (USEPA), operational discharges are not expected to cause significant adverse impacts to water quality.

It is unlikely that an accidental oil spill will occur from the proposed activities. If a spill were to occur, the water quality of marine waters would be temporarily affected by the dissolved components and small oil droplets. Dispersion by currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(6) Fisheries: An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects to fisheries. However, it is unlikely that an accidental surface or subsurface oil spill will occur from the proposed activities. If a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(7) Marine mammals: Marine mammals may be adversely impacted by several IPF's (including vessel traffic, noise, accidental oil spills, and loss of trash and debris), all of which could occur due to the proposed action. Chronic and sporadic sublethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from natural or anthropogenic sources. Few lethal effects are expected from oil spills, chance collisions with service vessels and ingestion of plastic material. Oil spills of any size are estimated to be aperiodic events that may contact cetaceans. Disturbance (e.g. noise) may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal.

The net result of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and

the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Collisions between cetaceans and ships could cause serious injury or death (Laist et al., 2001). Sperm whales are on of 11 whale species that are hit commonly by ships (Laist et al, 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

(8) Sea turtles: IPF's that could impact sea turtles include vessel traffic, noise, trash and debris, and accidental oil spills. Small numbers of turtles could be killed or injured by chance collision with service vessels or by eating indigestible trash, particularly plastic items, accidentally lost from drill rigs, production facilities, and service vessels. Drilling rigs and project vessels produce noise that could disrupt normal behavior patterns and create some stress potentially making sea turtles more susceptible to disease. Oil spills and oil-spill-response activities are potential threats that could have lethal effects on turtles. Contact with oil, consumption of oil particles, and oil-contaminated prey could seriously affect individual sea turtles. Oil spill response planning and the habitat protection requirements of the Oil Pollution Act of 1990 should mitigate these threats.

Most OCS related impacts on sea turtles are expected to be sublethal. Chronic sublethal effects (e.g., stress) resulting in persistent physiological or behavioral changes and/or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines.

(9) Air quality: Production of a subsea well is the only planned activity under this DOCD. There are no planned air emissions associated with this activity with the exception of short term air emissions associated with laying the lease term pipelines.

(10) Shipwreck sites (known or potential): There are no IPF's (including physical disturbances to the seafloor) from the proposed activities that could cause impacts to known or potential shipwreck sites. The proposed activities are not located in or adjacent to an OCS block designated by MMS as having high-probability for the occurrence of shipwrecks and review of the Shallow Hazards Report (submitted in accordance with NTL 2002-G08, Appendix C, and NTL 98-20) indicates that there are no known or potential shipwreck sites located within the survey area.

(11) Prehistoric archaeological sites: There are no IPF's (including physical disturbances to the seafloor) from the proposed activities that could cause impacts to prehistoric archaeological sites. This is because the proposed activities are not located in or adjacent to an OCS block designated by MMS as having high-probability for the occurrence of prehistoric archaeological sites.

Vicinity of Offshore Location

(1) Essential fish habitat: An accidental oil spill that may occur as a result of the proposed action has the potential to cause some detrimental effects on essential fish habitat. However, it is unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities. If a spill were to occur in open waters of the OCS proximate to mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(2) Marine and pelagic birds: An accidental oil spill that may occur as a result of the proposed action has the potential to impact marine and pelagic birds—birds could become oiled. However, it is unlikely that an accidental oil spill will occur from the proposed activities. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(3) Public health and safety due to accidents: There are no IPF's (including an accidental H_2S release) from the proposed activities that could cause impacts to public health and safety.

In accordance with 20 CFR 150.417(c) and Appendix C of this plan, sufficient information has been submitted to justify our request that the area of our proposed activities be classified by MMS as H_2S absent.

Coastal and Onshore

(1) Beaches: An accidental oil spill from the proposed activities could cause impacts to beaches. However, due to the distance from shore (112 miles) and the response capabilities implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(2) Wetlands: An accidental oil spill from the proposed activities could cause impacts to wetlands. However, due to the distance from shore (112 miles) and the response capabilities implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(3) Shore birds and coastal nesting birds: An accidental oil spill from the proposed activities could cause impacts to shore birds and coastal nesting birds. However, due to the distance from shore (112 miles) and the response capabilities implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(4) Coastal wildlife refuges: An accidental oil spill from the proposed activities could cause impacts to coastal wildlife refuges. However, due to the distance from shore (112 miles) and the response capabilities implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

(5) Wilderness areas: An accidental oil spill from the proposed activities could cause impacts to wilderness areas. However, due to the distance from shore (112 miles) and the response capabilities implemented, no significant adverse impacts are expected. Both the historical spill data and the combined trajectory/risk calculations referenced in the publication OCS EIS/EA MMS 2002-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources. The activities proposed in this plan will be covered by our regional OSRP as discussed in Appendix F of this plan.

Other Environmental Resources Identified

None

(C) Impacts on your proposed activities: The site specific environmental conditions have been taken into account for the proposed activities. No impacts are expected on the proposed activities from site-specific environmental conditions.

Shallow Hazards reports were submitted in accordance with Appendix C of this plan and NTL 98-20. A Shallow Hazards Assessment of the any seafloor and subsurface geological and manmade features and conditions that may adversely affect operations was submitted in accordance with Appendix C of this plan and NTL 98-20.

(D) Alternatives: No alternatives to the proposed activities were considered to reduce the potential environmental impacts of the proposed activity.

(E) Mitigation measures: No mitigation measures other than those required by regulation will be employed to avoid, diminish, or eliminate potential impacts on environmental resources.

(F) Consultation: No agencies or persons were consulted regarding potential impacts associated with the proposed activities. Therefore, a list of such entities has not been provided.

(G) References:
Although not always cited, the following were utilized in preparing the EIA:

Geraci, J.R. and D.J. St. Aubin. 1980. Offshore petroleum resource development and marine mammals: a review and research recommendations. Marine Fisheries Review 42:1-12.

Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet, and M. Podesta. 2001. Collisions between ships and whales. Mar. Mamm. Sci. 17:35-75.

U.S. Dept. of the Interior. Minerals Management Service. 2001, Grid 7 Environmental Assessment.

U. S. Dept of the Interior. Minerals Management Service 2001, Grid 10 Environmental Assessment.

U. S. Dept of the Interior. Minerals Management Service 2002, OCS EIS/EA MMS 2002-052, Gulf of Mexico OCS Oil and Gas Lease Sales: 2003-2007, Central Planning Area Sales 185, 190, 194, 198, and 201; Western Planning Area Sales 187, 192, 196, and 200; Final Environmental Impact Statement, Volume I: Chapters 1-10; Volume II: Figures and Tables.

Appendix I
Coastal Zone Management Consistency Information

(A) Consistency Certification
Attachment I-1

(B) Other Information
(1) A detailed description of the proposed activity, its associated facilities, the coastal effects and comprehensive data and information sufficient to support the consistency certification is provided in the DOCD.

(2) Information specifically identified in the State's management program as required data and information has been provided in the DOCD.

(3) An evaluation that includes a set of findings, relating the coastal effects of the proposed activities to Texas' relevant enforceable policies of the State's management program. The State of Texas has provided to MMS a list of enforceable policies.

The following assurance of compliance with existing Federal and State laws, regulations and resultant enforceable program policies in Texas's CZMP is provided:

> *The proposed activity will be carried out and completed with the guarantee that: The best available and safest technologies will be used throughout the project. These include meeting all applicable requirements for equipment types, general project layout, safety systems, and equipment and monitoring systems. All operations will be covered by an approved oil spill response plan. All applicable Federal, State and local requirements regarding air emissions and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.*

Texas Coastal Zone Management Program

Category 2: Construction, Operation and Maintenance of Oil and Gas Exploration and Production Facilities
The proposed facility is located approximately 112 miles from the Texas coast line; therefore, no impact to Texas' coastal zone is expected.

Category 3 Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities
The discharge of wastewater and disposal of waste from the proposed activities will not occur within the coastal zone of Texas; therefore, not impact to Texas's coastal zone is expected.

Category 4 Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities

No solid waste treatment, storage or disposal facilities are proposed as a part of this plan. Therefore, no impacts are to Texas' coastal zone are expected.

Category 5 Prevention, Response, and Remediation of Oil Spills

As described in the DOCD, pollution prevention has been considered in the design of the proposed facilities and in developing the operating plans. Further, the proposed activities will be covered under a Regional Oil Spill Response Plan. The proposed activities are located approximately 95 miles from the Texas coast line; therefore, no impacts to Texas coastal zone are expected.

Category 6 Discharge of Municipal and Industrial Waster Water to Coastal Waters

No discharges from the proposed activities will occur in coastal waters; therefore, no impacts to Texas's coastal zone are expected.

Category 8 Development in Critical Areas

None of the proposed activities occur in critical areas; therefore no impacts to Texas's coastal zone are expected.

Category 9 Construction of Waterfront Facilities and Other Structures on Submerged lands

The proposed activities do not include the construction of waterfront facilities or other structures on submerged lands in the coastal zone; therefore, no impacts to Texas' coastal zone are expected.

Category 10 Dredging and Dredged Material Disposal and Placement

The proposed activities do not include any dredging activities; therefore, no impacts to Texas' coastal zone are expected.

Category 11 Construction in the Beach / Dune System

The proposed activities do not include any construction in the beach/dune system; therefore, no impacts to Texas' coastal zone are expected.

Category 15 Alteration of Coastal Historic Areas

The proposed activities do not include any alteration or disturbance of a coastal historic area; therefore, not impacts to Texas' coastal zone are expected.

Category 16 Transportation

No transportation projects within the coastal zone are proposed; therefore, no impacts to Texas' costal zone are expected.

Category 17 Emission of Air Pollutants
There are no planned air emissions from the subsea production activities proposed in this plan. All of the emissions are well within the exemption level established by MMS. Therefore, no impacts to Texas' coastal zone are expected.

Category 18 Appropriations of Water
The proposed activities do not include the diversion or impoundment of state water's; therefore, no impacts to Texas' coastal zone are expected.

Category 20 Marine Fishery Management
The proposed activities are located approximately 95 miles from the coast line and are not expected to have any affect on fishery management within coastal waters. Therefore, no impacts to Texas' coastal zone are expected.

Category 22 Administrative Policies
Information has been provided for the agency to make an informed decision on the proposed action.

KERR McGEE	EB 598/599 Subsea Tieback to Boomvang Spar East Breaks Block 598; OCS-G 19027 East Breaks Block 599; OCS-G 19028 East Breaks Block 643; OCS-G 09184 DOCD

Attachment I-1

Coastal Zone Management
Consistency Certification

Development Operations and Coordination Document

East Breaks Block 598
OCS-G 19027
East Breaks Block 599
OCS-G 19028

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

Kerr-McGee Oil and Gas Corporation

Cary V. Bradford

March 17, 2004