In Reply Refer To: MS 5231

April 28, 1993

Chevron U.S.A. Inc. Attention: Ms. Linda F. Granger Post Office Box 39100 Lafayette, Louisiana 70593-9100

Gentlemen:

Reference is made to the following plan received April 5, 1993:

Type Plan - Initial Development Operations Coordination Document Leases - OCS-G 6359 and 11458 Blocks - 191 and 147 Area - Garden Banks Activities Proposed - Platform A and 14 Wells

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-4471 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(Orig. Sgd.) Kent E. Stauffer

D. J. Bourgeois Regional Supervisor Field Operations

bcc: Lease OCS-G 6359 POD File (MS 5032) Lease OCS-G 11458 POD File (MS 5032) MS 5034 w/public info. copy of the plan and accomp. info.

BNewton:cic:04/27/93:DOCDCOM

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Information
Section

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April 9, 1993

Development Operations Coordination Document Garden Banks Block 191/147 OCS-G-6359 and OCS-G-11458

United States Department of the Interior Minerals Management Service 1201 Elmwood Park Blvd. New Orleans, LA 70123-2394

Attention: Regional Director

Gentlemen:

Attached are five (5) Proprietary copies and four (4) Public Information Copies of our captioned DOCD which was originally submitted on March 31, 1993.

We have made the requested changes to our Proposed Schedule of Activities, Location of Proposed Wells and have included the necessary maps renaming the proposed wells. Because the changes were extensive and not confined to one page, we wish to resubmit the entire plan. We would appreciate your disposing of the original copies and substituting the enclosed copies in their place.

If additional information is needed, please contact me at (318) 989-3203.

Yours very truly,

Linda F. Granger Linda F. Granger Technical Assistant

Environmental & Safety

Attachments

CONTACT: LINDA F. GRANGER

318/989-3203

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT GARDEN BANKS 191 AND GARDEN BANKS 147 OCS-G-6359 AND OCS-G-11458

MARCH 31, 1993



To comply with the requirements of 30 CFR 250.34, Chevron U.S.A. Inc. is submitting the following information about our proposed drilling and production activities in the captioned block:

PROPOSED SCHEDULE OF ACTIVITIES

Chevron originally acquired Garden Banks Block 191 in October 1983 and Garden Banks Block 147 in August 1989. Four (4) wells were subsequently drilled and suspended under a Plan of Exploration. Three (3) wells, GB 191 #3, GB 147 #1 and #3 were drilled from a surface location in Block 191, Block 147 is bottom hole location for two of these wells. The fourth well, GB 191 #1 was drilled from a remote location.

Chevron plans to tie-back and complete Wells #1 & #3 in Block 147 and Well #3 in Block 191 and install a 16-slot drilling and production platform from surface location 6300' FNL and 4300' FEL of Garden Banks Block 191. The GB #1 well will remain suspended.

Processing of the production will include testing and measurement at the proposed platform. Upon completion of the existing wells, eleven (11) additional wells will be drilled as soon as practical to increase production.

Future plans are to file a request for unitization of Garden Banks Block 147 and Block 191. Garden Banks Block 191 is being held by a Suspension of Production through October 31, 1993.

All of the above work will be done according to the following schedule:

	<u>Begin</u>	<u>End</u>	Total Days
Install Platform	08/01/93	10/01/93	62 Days
Mobilize P/F Rig	10/02/93	10/16/93	15 Days
Tieback & Complete OCS-G-6359 and OCS-G-11458 (3 wells)	10/17/93	01/14/94	90 Days
Begin Production	02/01/94		

The additional wells submitted in this Document will be drilled at some time in the future.

LOCATION OF PROPOSED WELLS

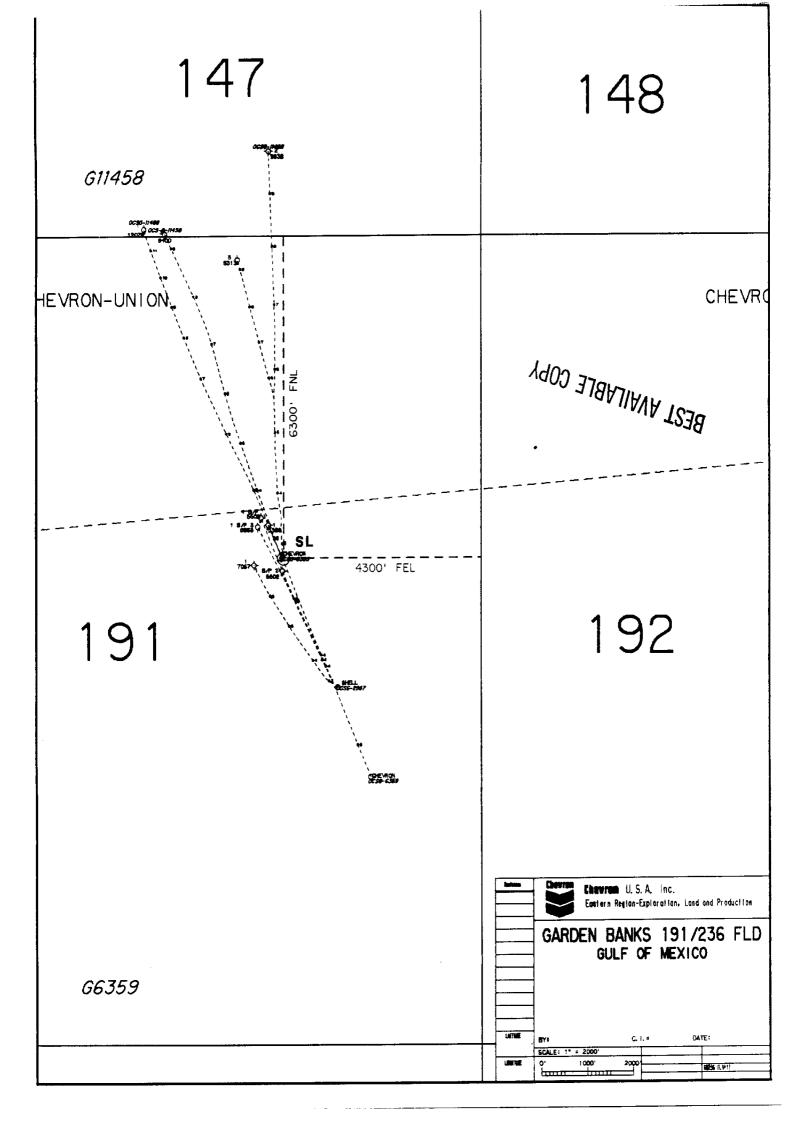
The surface location for additional wells to be drilled in this Document is 6300' FNL and 4300' FEL of Garden Banks Block 191. The Lambert X-Y Coordinates are 10,083,780 Y and 1,579,700 X. Required drilling days are as follows:

"F" Well	Drilling Days:	45
"G" Well	Drilling Days:	45
"H" Well	Drilling Days:	45
"I" Well	Drilling Days:	45
"J" Well	Drilling Days:	45
"K" Well	Drilling Days:	45
"L" Well	Drilling Days:	45
"M" Well	Drilling Days:	45
"D" Well	Drilling Days:	45
"E" Well	Drilling Days:	90
"N" Well	Drilling Days:	45

A location plat with these wells spotted thereon is enclosed as Attachment I. A Bathymetry Map is also included in that Attachment.

ESTIMATED LIFE OF PRODUCTION FROM LEASE

The various wellbore producing life is forecast to range between 2 to 7 years while the estimated life of individual completions would be shorter, ranging between 1 to 4 years. Initial production rates are predicted to range between 11 to 31 MMCFPD, averaging approximately 15 MMCFPD per well during the first year of simultaneous drilling and production. Following drilling operations, the development's peak production rate could reach 130 MMCFPD. Cumulative water production over life of the lease is expected to be less than 850 MBBLS.



After the eleven (11) additional wells addressed in this Document are drilled and completed lease life is expected to increase by seven (7) years. Initial production rates will likely be curtailed due to simultaneous drilling operations, but peak production rates should be achieved within the first year following release of drilling rig. Initially water production rates may be small volumes of completion fluids produced as the wells clean up and flow back load volumes. Water production may ultimately occur as individual completions water out.

The wells will be completed with sand control utilizing cased hole gravel packing technology. An individual well may have multiple gravel packed completions set up initially depending upon the location and number of pay intervals. These multiple completions maybe either, 1) a primary gravel packed completion plus a shallower selective gravel packed completion or where economically and technically feasible, 2) dual gravel packed completions with dual tubing strings. Emphasis will be placed on maximizing wellbore flow efficiency by utilizing the most cost effective drilling and completion technology.

Wells in superior structural positions and possessing multiple pay intervals may necessitate future recompletions requiring mobilization of a workover rig. The recompletions will likely also be set up as primary completions with selectives or possibly duals. The reservoir(s) drive mechanism and areal continuity will dictate the eventual depletion scenario for the development.

DRILLING EQUIPMENT

A self contained drilling platform rig will be used to drill the wells in this Document. The rig will have a maximum rated drilling depth capacity of 20,000'.

Safety features will include well control and blowout prevention equipment with specifications greater than or equal to those described in 30 CFR 250.56. Appropriate life rafts, life jackets, ring buoys, etc., as prescribed by the United States Coast Guard will be provided. Pollution prevention and control features will include all necessary coaming drains and holding tanks to prevent contamination of the sea in accordance with 30 CFR 250.40 - Pollution Prevention.

PLATFORM AND PRODUCTION EQUIPMENT

The 16-slot platform discussed in Section I is shown on drawings enclosed as Attachment II.

The Platform will not have production equipment installed on it - only test separators and metering equipment will be on board. Consequently there will be no discharges into the Gulf.

GEOLOGICAL/GEOPHYSICAL INFORMATION

A Shallow Hazards Report is not being submitted with this Document since all wells submitted will be drilled from a previously drilled surface location.

ARCHEOLOGICAL INFORMATION

A Hazard Survey conducted over Lease OCS-G-6359 was filed with the Minerals Management Service on March 2, 1984. No magnetic anomalies were found within 500' of the surface location addressed in this Document.

LOCATION OF NEAREST COASTAL ZONE AND ONSHORE FACILITIES

Garden Banks Block 191 is located in 720 feet of water approximately 119 miles from the nearest shoreline off the Louisiana Coast and 131 miles from our Intracoastal City Base. A Vicinity map showing this block and its relation to shore and Intracoastal City Base is being submitted with this document as Attachment IV.

As mentioned above, our existing Intracoastal City Base will be used to service our operations in Garden Banks Block 191. Numerous service facilities, including mud companies, pipe companies, dock space, warehouses, heliports and the like are found there. The existing facilities are considered adequate to handle the various tasks mentioned in this Document without expansion or significant changes in activity levels.

Helicopters will travel to and from this location and Chevron's Intracoastal City Base, and other platforms in the area. During drilling operations, one or two flights per day may be made, similarly, boats will travel to this location from Intracoastal City and other Chevron platforms. One to two trips per day may be made.

Once production commences from the lease, helicopter traffic will remain the same, but boat traffic will be reduced to approximately two trips per week.

ENVIRONMENTAL SAFEGUARDS AND POLLUTION PREVENTION EQUIPMENT

Chevron has on file with the appropriate supervisors of the Minerals Management Service an Oil Spill Contingency Plan approved by letter dated November 9, 1990. Revisions to the Plan submitted on February 16, 1993, are presently being considered for approval.

Additionally, Chevron is a member of Clean Gulf Associates and they have oil spill equipment stationed at Intracoastal City, LA., which is 131 nautical miles away. Should a spill occur that would require activating our Contingency Plan, the equipment at Intracoastal City would immediately be prepared and dispatched. It is anticipated that a maximum of 19.1 hours would be required to have equipment transported to Garden Banks Block 191. The time breaks down as follows:

Two (2) hours to secure a boat and load necessary equipment

Four (4) hours inland travel time; and

Thirteen hours, six minutes (13.1) travel time in open waters to our location in Garden Banks Block 191.

The Oil Spill Launch Area Map, issued by the MMS on July 2, 1992 shows Garden Banks Block 191 falls within Segment 19. An oil spill occurring in that segment has less than a 0.5% chance that a spill occurring in this segment would affect any land mass within ten days.

ANTICIPATED DISCHARGES

All drilling discharges are regulated by the EPA's Region 6 General NPDES Permit for the Gulf of Mexico. They include the following type and estimated volumes.

Drilling Fluids

Although drilling mud is generally recycled, excess mud is sometimes discharged overboard. The volume and rate of discharge depend upon downhole conditions. In no case will the discharge rate exceed 1,000 barrels per hour. Constituents of the mud are described in the list of mud additives. A generic list of mud and chemicals is included in this Document as Attachment V.

Drill Cuttings

The drill cuttings are separated from the mud through the use of solids control equipment. Cuttings discharge rates and volumes will vary during the duration of the well, and are measured by estimating the volume of hole drilled. Constituents of the drill cuttings include sand, shale and limestone from the wellbore.

The wells proposed to be drilled in this Document are projected to have total discharges in volumes by types listed below:

	<u>Vol</u>	<u>umes</u>
	<u>Cuttings</u>	<u>Mud</u>
OCS-G-6359 "F"	15,700 cu. ft.	1150 bbls.
OCS-G-6359 "G"	14,400 cu. ft.	950 bbls.
OCS-G-6359 "H"	15,500 cu. ft.	1090 bbls.
OCS-G-6359 "I"	15,200 cu. ft.	1050 bbls.
OCS-G-6359 "J"	14,700 cu. ft.	990 bbls.
OCS-G-6359 "K"	17,500 cu. ft.	1375 bbls.
OCS-G-6359 "L"	13,000 cu. ft.	775 bbls.
OCS-G-6359 "M"	19,490 cu. ft.	1695 bbls.
OCS-G-11458 "D"	20,495 cu. ft.	2240 bbls.
OCS-G-11458 "E"	23,000 cu. ft.	3500 bbls.
OCS-G-6359 "N"	975 cu. ft.	500 bbls.

Excess Cement Slurry

Occasionally, excess slurry will be generated while cementing casing strings. The volume of cement discharges is calculated by subtracting the volume inside the well from the total volume pumped downhole.

Well Treatment, Completion or Workover Fluids

These fluids (primarily seawater that has been circulated downhole) are sometimes discharged when in excess. The volume is calculated as for excess cement.

Sanitary and Domestic Waste

The rate of discharge from the marine sanitation unit is approximately 25 gallons/man/day. An equal amount of domestic waste (from sinks, galleys, showers and laundries) is normally discharged.

Deck Drainage

Consisting of rain water and wash water with no free oil, the volume of deck drainage is calculated by multiplying average rainfall by exposed deck area.

Uncontaminated Water

This includes non-contact cooling water, discharges from the firewater system, and freshwater maker blowdown. Ballast water, which is sometimes used to maintain the stability of a drilling rig, might also be discharged. Volumes and rates of discharge are not normally monitored.

Produced Water

This discharge would occur only in the instance that a production test is conducted after drilling the wells. The test would typically last 24 hours and much of the produced water would be vaporized as the hydrocarbon is burned. Excess water would be processed in a gravity separator so that the discharge is in compliance with NPDES Permit limitations.

Wastes which cannot be discharged overboard will be transported to an appropriate treatment or disposal site, in accordance with all Federal, State and Local rules and regulations.

H,S DETERMINATION

During previous drilling operations on this block, no H₂S was encountered. Therefore, we request that the MMS make a determination that the absence of H₂S has been confirmed in this area.

AIR EMISSIONS

The air emissions calculated for our installation activities on this block are as follows:

Major Source		Emiss	ions in (1t	s/day) To	ns/Year
Power used by	TSP	SO ₂	NO _x	VOC	СО
drilling Equipment. Total footage drilled: 94,862'*	(23.22)	(21.61)	(325.03)	(26.00)	(70.35)
	6.27	5.83	87.76	7.02	18.99
Power used by	(192.63)	(179.40)	(2696.75)	(215.63)	(586.50)
derrick barge: 30 Days	2.89	2.69	40.45	3.23	8.80

* Based on emissions factors from Table 3.3.3-1, "Compilation of Air Pollutant Emission Factors", Third Edition, EPA Report AP-42, August, 1977.

Minor Sources

Support Vessels: Helicopters, crewboats and support vessels will travel to and from the drilling locations shown in this Document for the duration of this drilling project. The definition of "facility" in Part 250.2 (22) exempts vessels not transporting production. Thus, none of the vessels to be utilized are included in this project.

Emissions Exemption

Distance from shore - 119 miles.

For CO:
$$3,400 \text{ D}^{2/3} = 3,400(119)^{2/3} = 82,258 \text{ tons/year}$$

Onshore Sources

Same as "Minor Sources" since no new facilities are being installed at the onshore base.

All projected emissions are less than the allowable emissions.

CONSISTENCY CERTIFICATE

A statement attesting to Chevron's consistency with Louisiana's Coastal Zone Management Program, signed by our Company's authorized representative, is submitted with this Document.

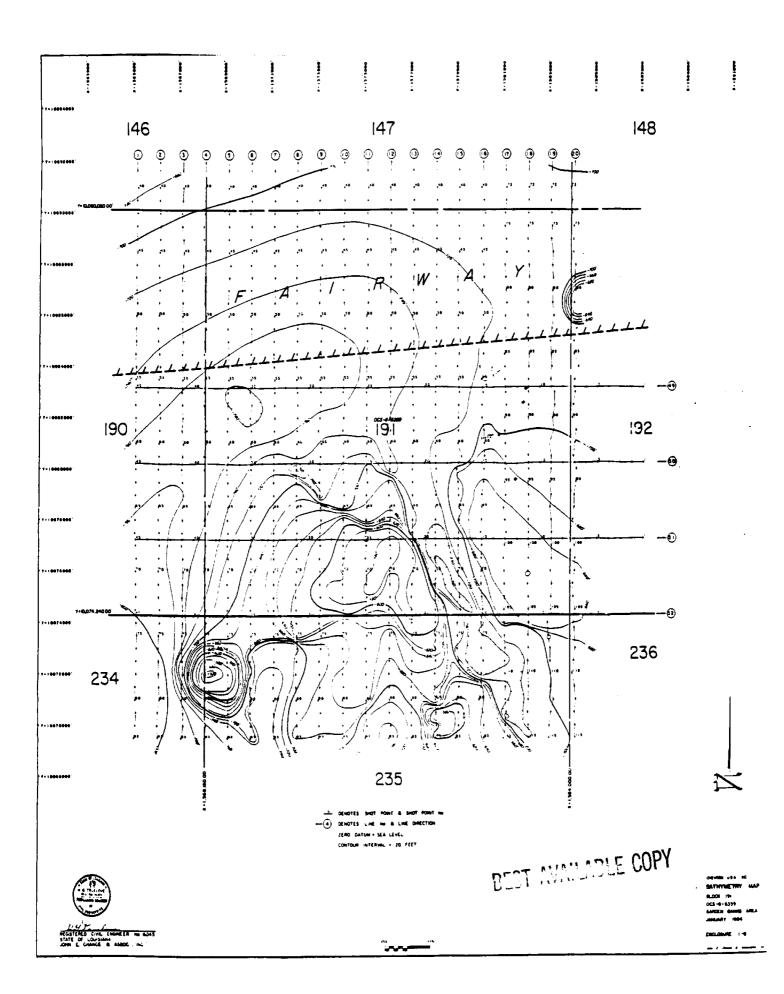
ENVIRONMENTAL REPORT

Our Environmental Report prepared for Garden Banks Block 191 is being submitted with this Document.

Chevron U.S.A. Inc., as lessee of Garden Banks Block 191 believes that the structure maps and structural cross-section submitted with this Development Operations Coordination Document are exempt from disclosure under the Freedom of Information Act and should, therefore, not be made available to the public or provided to any affected State or to the executive of any local government.

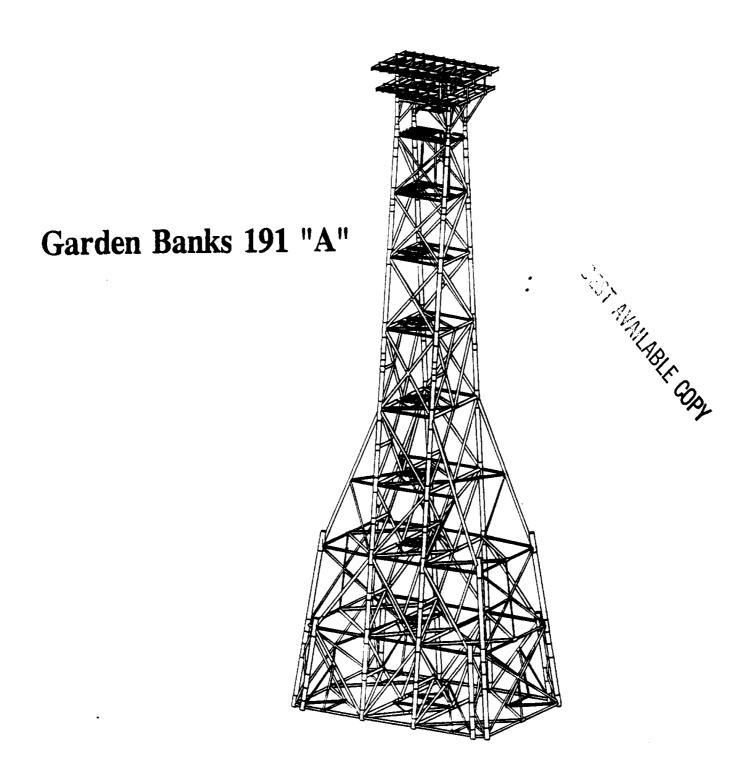
ATTACHMENT I

Location Plat Bathymetry Map



ATTACHMENT II

Structure Map



"A" STRUCTURE PILINGS WELL NUMBER(S) 16 LEASE NO. OCS-G-6358 MAINS: 4 EA. $66^{\circ}\phi$, PENETRATION = 210° GARDEN BANKS BLOCK ____191 SKIRTS: 8 EA. 72"ø, PENETRATION = 205' OPERATOR _____CHEVRON CRANE CRANE-T.O.S. HELIDECK /ENT BOOM-T.O.S. MAIN DECK EL.(+) 100'-7" T.O.S. CELLAR DECK EL.(+) 74'-6"
O.S. SUB CELLAR DECK EL.(+) 59'-0 VENT BOOM M.L.W. 0'-0" BEST AVAILABLE COPY **PLATFORM WEIGHTS** Jacket 8,500 s.t. 1.250 s.t. Deck 4,500 s.t. Equip. and ICP 600 s.t. 721.-0 MUDLINE EL.(-) 721'-0" 301'-7 1/4" 209-6 5/6 5-28-9 FRONT ELEVATION R.J.P. END ELEVATION חברינטון ביים ביים וויים ביים ביים

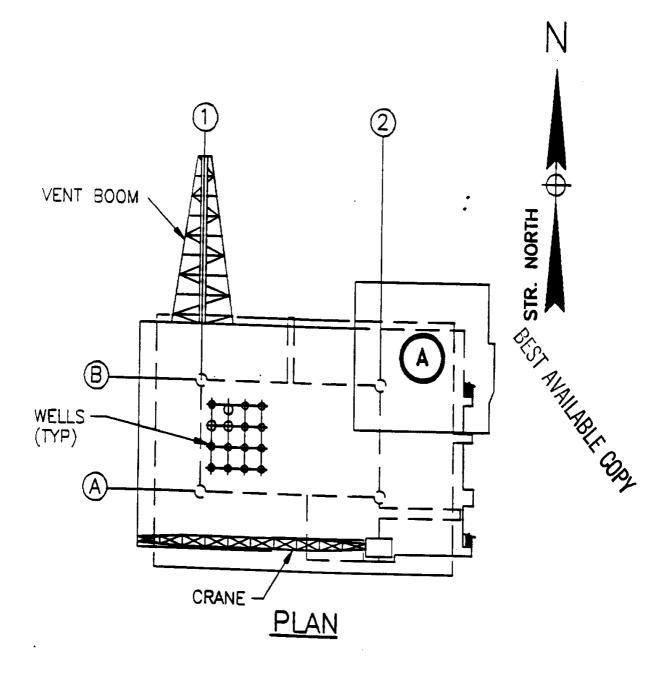
SANGEN BANKS BLOCK 191

GARDEN BANKS BLOCK 191 "A" STRUCTURE

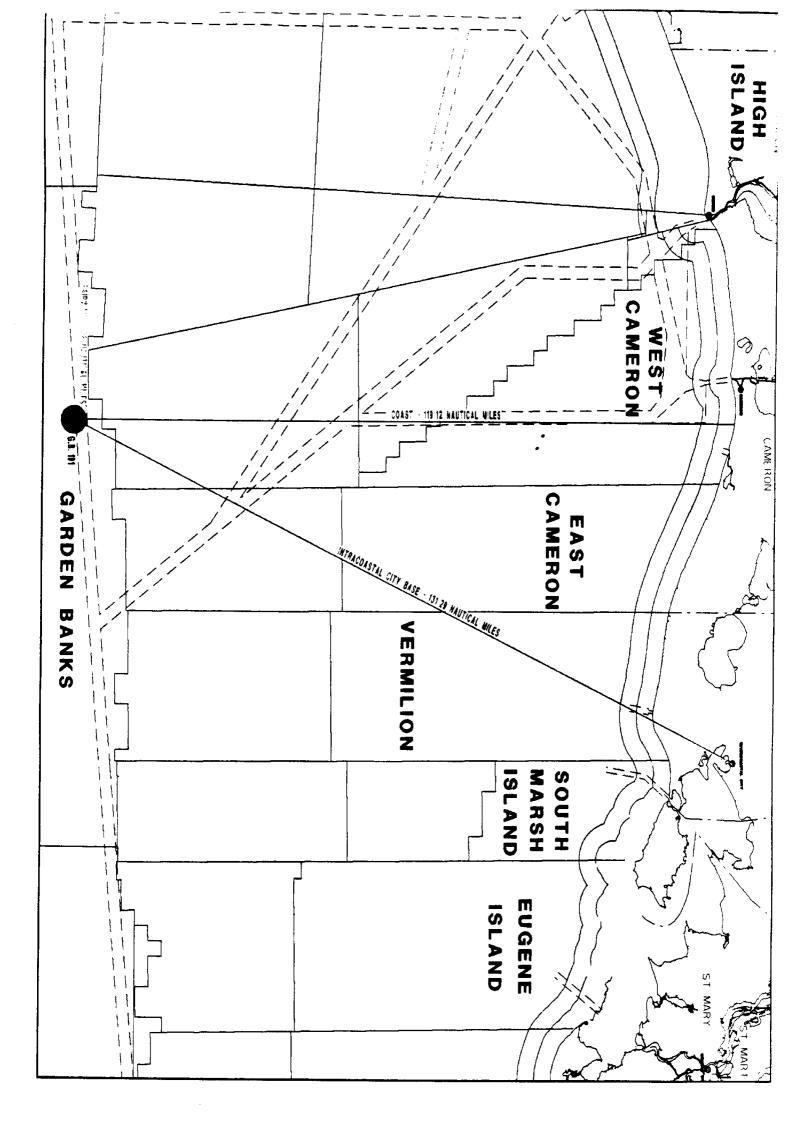
WELL NUMBER(S) 18 LEASE NO. 0CS-G-6358

AREA GARDEN BANKS BLOCK 191

OPERATOR CHEVRON



ATTACHMENT IV
Vicinity Map





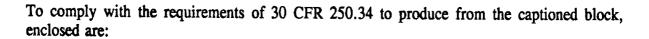
March 31, 1993

Development Operations Coordination Document Garden Banks Block 191/147 OCS-G-6359 and OCS-G-11458

United States Department of the Interior Minerals Management Service 1201 Elmwood Park Blvd. New Orleans, LA 70123-2394

Attention: Regional Director

Gentlemen:



- a) Five (5) Proprietary copies of DOCD, including Attachments I through Attachment IV.
- b) Four (4) Public Information copies with confidential information (Attachment III) withheld.
- c) Nine (9) copies of our Consistency Certification with Louisiana's Coastal Zone Management Program.
- d) Nine (9) copies of our Environmental Report for subject block.

It is requested that the information contained in the Proprietary copies by kept confidential.

Yours very truly,

Linda F. Granger Technical Assistant

Environmental & Safety

Attachments

CONTACT: LINDA F. GRANGER

318/989-3203

COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT GARDEN BANKS BLOCK 191 AND GARDEN BANKS BLOCK 147 OCS-G-6359 AND OCS-G-11458

The proposed activities described in detail in this Document comply with Louisiana's approved Coastal Management Program and will be conducted in a manner consistent with such Program.

Arrangements have been made with the <u>State-Times</u> in Baton Rouge, Louisiana, to publish a public notice of the proposed activities no later than April 23, 1993. Additionally, arrangements have been made with the <u>Cameron Parish Pilot</u> in Cameron, Louisiana to publish notice of the proposed activities no later than April 23, 1993.

CHEVRON U.S.A. INC. West Cameron Profit Center

Environmental and Safety

Linda F. Kranger

Technical Assistant March 31, 1993



Public Notice of Federal Consistency review of a Development Operations Coordination Document (DOCD) by the Coastal Management Section/Louisiana Department of Natural resources for the plan's consistency with the Louisiana Coastal Resources Program.

Applicant:

Chevron U.S.A. Inc.

P. O. Box 39100

Lafayette, LA 70593-9100

Location:

Garden Banks Blocks 191/147 OCS-G-6359 and OCS-G-11458

Description:

Proposed DOCD for the above area provides for the development of production of oil and gas. Support activities are to be conducted from an onshore base located at Intracoastal City, LA. No ecologically sensitive species or habitat are expected to be located near or affected by these

activities.

A copy of the Plan described above is available for inspection at the Coastal Management Section Office located on the 10th Floor of the State Lands and Natural resources Building, 625 North 4th Street, Baton Rouge, Louisiana. Office Hours: 7:30 a.m. to 5:00 p.m., Monday through Friday. The public is requested to submit comments to the Coastal Management Section, Attention: OCS Plans, P. O. Box 44487, Baton Rouge, LA 70804-4487. Comments must be received within 15 days of the date of this notice or 15 days after the Coastal Management Section obtains a copy of the plan and it is available for public inspection. This public notice is provided to meet the requirements of the NOAA Regulations on Federal Consistency with approved Coastal Management Programs.

ENVIRONMENTAL REPORT DEVELOPMENT/PRODUCTION GARDEN BANKS 191 AND GARDEN BANKS 147 OCS-G-6359 AND OCS-G-11458

MARCH 31, 1993

Inquiries to:

Linda F. Granger

Environmental & Safety

Permit Section P. O. Box 39100

Lafayette, LA 70593-9100 Phone: (318) 989-3203



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ENVIRONMENTAL REPORT DEVELOPMENT/PRODUCTION GARDEN BANKS 191 AND GARDEN BANKS 147 CHEVRON U.S.A. INC

I. <u>INTRODUCTION</u>

Chevron U.S.A. Inc., West Cameron Profit Center, Lafayette, Louisiana plans to conduct development drilling and production operations in the subject block. This report is being submitted with the proposed Development Operations Coordination Document (DOCD), in accordance with the regulations of 30 CFR 250.34.

Throughout this report, reference is made to the Environmental Impact Statement prepared by the Bureau of Land Management (BLM) and the Minerals Management Service (MMS) for the Outer Continental Shelf (OCS) lease sale in which the lease addressed in the Document was purchased. Only the EIS for Sale No. 74 was used in preparing this report since Garden Banks Block 191 was purchased in that Sale and all surface operations discussed will take place in that block. Reference is also made to the accompanying Document as noted above and the Air Emissions report contained therein.

II. DESCRIPTION OF THE PROPOSED ACTION

This report concerns the environmental effects of the proposed work outlined below. In summary, the proposed activities will have no adverse impact on the onshore and offshore environment or on the Socio-Economic aspects of the area.

Chevron, as operator of Garden Banks Block 191, plans to install a platform and tie-back and complete three existing wells from a surface location in Garden Banks Block 191 (refer to Surface Locations, Appendix I). Processing of the production will include testing and measurement at the proposed platform. Work is expected to begin on August 1, 1993. Production is anticipated to begin by February, 1994. Once the block is on production, eleven (11) wells will be drilled to increase production from the block.

A. Travel

Helicopters will travel to this location during installation and drilling operations from Chevron's Intracoastal City Base and from other Chevron Platforms in the vicinity. One to two flights per day may be made to this location. Similarly, boat traffic will travel to this location from Intracoastal City and from other platforms. One to two trips per day may be made by boat (refer to Travel Routes, Appendix II)). In addition, depending on conditions and problems encountered, service company boats and helicopters will arrive at various times as needed to bring personnel and supplies.

Once production commences from the platform, helicopter traffic will remain the same but boat traffic will be reduced to approximately two trips per week.

B. Socio-Economic Data Base

The service base for this area will be Intracoastal City, Louisiana. Numerous service facilities, including mud companies, pipe companies, dock space, warehouse, helipads and the like are found in Intracoastal City. These existing facilities will be utilized and are considered adequate to handle the various jobs without any expansion or significant changes in activity levels.

The drilling will require services of approximately the following number of employees:

<u>OFFSHORE</u>	TOTAL NUMBER OF EMPLOYEES
Contract Rig Crews Service Support Company Supervision	72 (7/7 Shift) 12 (7/7 Shift) 2 (7/7 Shift)
ONSHORE	
Dockside Support Company Supervision	4 (5/2 Shift) 2 (5/2 Shift)
TRANSPORTATION	
Air Marine	4 (7/7 Shift) 16 (7/7 Shift)
TOTAL PERSONS	112

Note: Only 50% of these people would be on the rig for a given shift.

During drilling operations, workers will come from the local labor force with the majority of them simply switching to this job as their present jobs are completed. Essentially, the current level of activity will be maintained. After construction is completed, these workers will continue on to other activity in the Gulf.

New Jobs

No new jobs are anticipated as a result of this project.

Socio-Economic Data Base Report

The above report will be prepared within three (3) months after the Minerals Management Service guidelines are issued.

C. New Facilities

No new or additional land space will be required to operate this activity, since existing land-based facilities are sufficient for drilling requirements.

New support facilities will not be needed for this project. Chevron's Intracoastal City base is adequately sized and staffed to handle this activity. The existing helicopter pads and fueling facilities at the Base are capable of handling the anticipated increase in activity resulting from this project.

D. New Technology

No new or unusual technology is planned for this project.

E. Location of Coastal Zone

Garden Banks Block 191 is located 119 miles from Louisiana's Gulf Coast and 131 miles from Intracoastal City, Louisiana (see Travel Routes, Appendix II).

F. Coastal Zone Management Consistency

This project is consistent with Louisiana's program for Coastal Zone Management, as provided in 15 CFR 930 and the Louisiana State and Local Coastal Resources Management Act of 1978 (Act 361). The operation takes place on the OCS outside of Louisiana's 3-mile limit. Coastal effects of the base operation are minor and are consistent with the Coastal Resources Program.

III. DESCRIPTION OF AFFECTED ENVIRONMENT AND IMPACTS

The environment of this area of the Gulf of Mexico is adequately described in detail in various Environmental Statements prepared by BLM and the Minerals Management Service. Attention is called to those reports in the reference section (Part V) of this report.

A. Physical and Environmental Parameters

For a more complete discussion of the environment and possible impacts of oil and gas operations, refer to the FEIS for Sale No. 74, 1983 noted below:

1. Commercial Fishing

The commercial fishing in the area of the proposed development consists largely of shrimp and finfish. The proposed operations in this area can be expected to impact the commercial fishing industry in the following ways: Removal of a section of the sea floor from use while the rig is on location; underwater obstructions resulting from the remote chance that a piece of equipment of significant size is lost overboard and all retrieval attempts fail; and oil pollution in the unlikely event that a well could blowout. Discharge of small quantities of produced waters and domestic wastewaters may occur around the rig, however, these discharges meet all effluent limitations and are not expected to impact the area's marine life. None of the above impacts are expected to significantly effect the annual catch.

2. Shipping

A safety fairway crosses the northern one-third of Garden Banks 191 in an east-west direction. However, very little navigational interference can be expected to result from ships navigating outside of the fairway.

3. Pleasure Boating, Sport Fishing, Recreation

Impacts on the above listed activities as a direct result of the proposed development will include oil pollution in the rare event of an oil spill, enhancement of sport fishing and diving around the platform; and contribution to the financing of the development of outdoor recreation facilities and public land acquisitions using monies from lease bonuses and royalties paid on resultant production of oil and gas.

4. Cultural Resources

The proposed area for development contains no known cultural resources, either shipwrecks or former human habitation sites. The area is contained within that area considered to have a low probability (as proposed to high) of containing such resources.

5. Ecologically Sensitive Features

The proposed area of development contains no known biologically sensitive features.

6. Existing Pipelines

There are existing pipelines in the general area of this block.

Chevron has no plans to install new pipelines to shore.

7. Other Mineral Uses

Development of the lease will necessarily utilize fabricated metal products. Recovery of some portion of these products is probable upon abandonment of the well. Some of the mineral products utilized, however will be irretrievably committed.

8. Ocean Dumping Activities

The proposed area of development is not contained within any of the EPA approved ocean dumping sites.

No production facilities will be installed on this lease block; therefore, no discharges will be made overboard at this location.

9. Endangered or Threatened Species

Within the central and western Gulf of Mexico the sei, finblue, and sperm whales are listed as endangered cetaceans species. Since the population status and migration patterns of these species in the Gulf are unknown, the proposed activity may or may not effect the species current status. No other endangered or threatened species are known to exist in the area.

Little or no impact will occur on the nine (9) parameters above due to this project. Refer to FEIS, Sale 74, 1983. The presence of numerous platforms and rigs in the area will greatly lessen the impact of this project. Intracoastal City is an active center for oil and gas activities in the Gulf. Local fishermen are aware of both the hazards and benefits that the industry brings to the waters.

B. New Onshore Employment

No new onshore jobs are expected as a result of this operation. Refer to Section II.B of this report.

IV. UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

Garden Banks Block 191 is given a minimal impact value in the matrix analyses of the environmental impact, (see FEIS, Sale 74, 1983). This means that development of the block under existing orders, regulations and safety requirements should provide little or no adverse effects on or disruptions of the environment.

Impact resulting from the development of Garden Banks Block 191 can be expected to be more conflictual with other activities in the Block than ecological in nature. Past experience shows that these conflicts can most always be worked out. In conclusion, the following areas should feel little or no adverse effects as a result of the proposed project.

- (1) Refuge/Management Areas.
- (2) Unique and Highly Productive Areas.
- (3) Biota.
- (4) Beaches.
- (5) Shipping.
- (6) Outdoor Recreation.
- (7) Commercial Fishing
- (8) Sport Fishing.

Impact on the environment from cuttings brought up from the well would come in the form of an initial burying of any benthic organisms at the immediate drill site. Duration of the impact would be short as the cuttings themselves may be worked into the surrounding sediments and/or recolonized by benthic organisms.

It should be noted that there is not a 100% reclamation of drilling muds. Some is lost in the hole and some adheres to the cuttings that are dumped. Before the cuttings are dumped they are processed on a shaker table to remove as much of the drilling mud as possible for recycling. The cuttings are then discharged and a small amount of drill mud may enter the environment. This may produce a plume or area of turbidity near the drill site. The plume is rapidly dispersed due to dilution and water action. The total amount of mud lost in this fashion is unknown at this time, but it is considered to be minor.

Experience in the Gulf of Mexico indicates that such effects are of short duration in a small area, and that there is no long-term impact (Zingula, "Effects of Drilling Operations on the Marine Environment," 1975).

There are no anticipated adverse effects on the geology of the area other than that caused by the actual drilling. If allowed, the drilling may be considered unavoidable and irreversible impact. However, this impact is considered negligible.

No adverse effects are anticipated to the biota, physical oceanography, ambient air quality, or water quality as a result of this operation. The onshore water quality and land environment is not expected to change as a result of this project.

V <u>REFERENCES</u>

AP-42, Compilation of Air Pollutant Emission Factors. U.S. Environmental Protection Agency, Research Triangle Park, N. C. 1977. 3rd ed., Part. A.

Atmospheric Emissions from Offshore Oil and Gas Development and Production. U.S. Environmental Protection Agency, Research Triangle Park, N. C. 1977.

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Koons, McAuliffe, Weiss. Environmental Aspects of Produced Waters from Oil and Gas Extraction Operations in Offshore and Coastal Waters. Sheen Technical Subcommittee of the Offshore Operators Committee. September 1975.

Monaghan, McAuliffe, Weiss. Environmental Aspects of Drilling Muds and Cuttings from Oil and Gas Extraction Operations in Offshore and Coastal Water. Sheen Technical Subcommittee of the Offshore Operators Committee. May, 1976.

Zingula, R. P. 1975. Effects of Drilling Operations on the Marine Environment. In: Environmental Aspects of Chemical Use in Well Drilling Operations. EPA-56011375-004. U. S. Environmental Protection Agency.

Louisiana Department of Natural Resources. Louisiana Coastal Resources Program Final Environmental Impact Statement. Baton Rouge, Louisiana. 1980.

VI <u>STATEMENT</u>

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

- 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 and equipment and monitoring systems.
- 2. All operations will be covered by an MMS approved Oil Spill Contingency Plan.
- 3. All applicable Federal, State and local requirements regarding air emission and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with."

APPENDIX I
Surface Locations

APPENDIX II

Travel Routes

