OCS-G-6280

U-583

DATE 1-30-89

TO: OPS-3-4

FROM: FO-2-1

Unit ~~Plan of Exploration~~/DOCD ~~and Environmental Report~~

Lease(s) OCS -6280 Control No. U- 583

SOHIO PETROLEUM COMPANY

9401 SOUTHWEST FREEWAY
SUITE #1200
HOUSTON, TEXAS 77074
713-981-1150

CONTINENTAL & OFFSHORE DIVISION

January 27, 1989

Mr. Mike Tolbert
U.S. Department of Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Re: Supplemental Development
Operations Coordination Document
East Breaks Block 165 Unit
Contract No: 754388012

Dear Mr. Tolbert:

In compliance with 30 CFR 250.34, Sohio Petroleum Company submits the following information to be added to our Supplemental Developmental Operations Coordination Document (DOCD) for proposed activities in East Breaks Block 165.

1. East Breaks Block 165 is not an H_2S environment.

2. Sohio plans to continue the two rig drilling program from the Snapper platform. We currently have two platform type drilling units, H&P 105 and H&P 91, under contract for the drilling and completion of these next eleven wells. Rig specifications, along with safety and environmental information on both rigs, has previously been submitted to the MMS Lake Jackson District office.

If you have any questions or require additional information, please contact me at (713) 552-3810.

Sincerely,

Cynthia L. Arnold

Cynthia L. Arnold
Regulatory Specialist

CLA/dh:1503U

SOHIO PETROLEUM COMPANY

9401 SOUTHWEST FREEWAY
SUITE #1200
HOUSTON, TEXAS 77074
713 [illegible]

CONTINENTAL & OFFSHORE DIVISION

January 23, 1989

Mr. Ralph Melancon
Regional Supervisor
Office of Production and Development
U.S. Department of Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Re: Supplemental Development
Operations Coordination Documment
East Breaks Block 165 Unit
Contract No: 754388012

Dear Mr. Melancon:

Please find enclosed five (5) confidential and two (2) public information copies of the Supplemental Development Operations Coordination Document (DOCD) for proposed activities in East Breaks Block 165. Two (2) copies of the Hazard Study were submitted with the initial POE for this block on January 17, 1984. Side scan sonar, sub-bottom profile and pinger profile data for the lines closest to the platform location (lines 4, 5, 16, 17 and 28) were previously submitted directly to the Lake Jackson District Office.

If you have questions or require additional information, please contact Cynthia L. Arnold at (713) 552-3810.

Sincerely,

Cary W. Kerlin

Cary W. Kerlin
Regulatory Supervisor

CWK/CLA/dsh:1490U
Enclosure

cc: Mr. W. D. Harris

PUBLIC INFORMATION

LIST OF ATTACHMENTS

A. Vicinity, Platform and Spider Maps

B. Structure Maps & Geologic Cross Section

C. Drilling Mud Components

D. Calculations for Air Emissions

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
EAST BREAKS BLOCK 165
OCS-G-6280
OFFSHORE TEXAS

In compliance with 30 CFR 250.34, Sohio Petroleum Company submits the following Supplemental Development Operations Coordination Document (DOCD) for proposed activities in East Breaks Block 165.

I. DESCRIPTION OF ACTIVITIES

Sohio Petroleum Company proposes to continue development of East Breaks Block 165 with the drilling of eleven (11) additional development wells to be drilled from the existing Snapper Production "A" Platform. The Snapper platform is located 6645'FEL and 8710'FNL of East Breaks Block 165 in a water depth of 813'. Attachment A includes a vicinity map and a platform location plat indicating the relation of the block to the Texas Coast and the relation of the platform to the lease lines.

The Snapper Platform is designed to accommodate two drilling rigs. Simultaneous drilling and production operations will be conducted in strict accordance with MMS regulations 30 CFR Parts 250 and 256.

II. SCHEDULE OF ACTIVITIES

Engineering and geological development studies have been completed for wells 23 through 33. Anticipated spud date for well 23 is March 1, 1989 with projected completion date for all eleven wells targeted for May, 1990.

Production is expected to commence on or about May 30, 1989, with the completion of well 23. The estimated life of reserves is 14 years, with a production schedule as follows:

YEAR	OIL & CONDENSATE MM BARRELS	GAS BCF
1989	5.9	11.2
1990	7.7	23.1
1991	5.9	30.6
1992	3.8	22.0
1993	2.6	14.7
1994	1.8	9.9
1995	1.4	5.6
1996	0.9	2.8
1997	0.6	1.4
1998	0.5	2.0
1999	0.5	1.9
2000	0.4	1.3
2001	0.4	0.9
2002	0.3	0.7

III. LOCATION

A location map of the lease block in relation to the Texas coast is included in Attachment A. Sohio will utilize existing support facilities in Galveston, Texas, as the base of operations for proposed drilling and production operations in East Breaks Block 165. The base will serve the following functions: (1) loading point for tools, equipment and machinery to be delivered to the offshore platform; (2) transportation and crew change base; and (3) temporary storage for materials and equipment. The base is equipped with loading docks and cranes necessary for safe operations. The existing onshore facilities are sufficient to support the proposed operations without modification or expansion.

IV. GEOLOGICAL AND GEOPHYSICAL DATA

The eleven development wells included in this Supplemental DOCD will be drilled from the Snapper Platform "A", located 8710' FNL and 6645' FEL of East Breaks Block 165. Water depth at the platform location is 863'. The bottom hole location of each well is as follows:

WELL	PBHL
23	150'FSL & 2870'FWL
24	10,295'FNL & 3655'FEL
25	1600'FSL & 3600'FEL
26	8100'FNL & 4315'FEL
27	8800'FNL & 10,340'FEL
28	2925'FNL & 830'FEL
29	1715'FSL & 3840'FWL
30	10,080'FNL & 3635'FEL
31	10,875'FNL & 8275'FEL
32	9245'FNL & 5700'FEL
33	9245'FNL & 8845'FEL

Geologic structure maps and cross sections are included in the confidential copies of this document as Attachment B.

Two (2) copies of the shallow hazard report entitled "Hazard Study Block 165, East Breaks Area", prepared by John Chance & Associates, Inc. were submitted to the MMS with the initial Plan of Exploration on January 17, 1984.

An archaeological survey is not required for this block.

V. OIL SPILL INFORMATION

Sohio Petroleum Company is a member of Clean Gulf Associates (CGA), and would utilize CGA equipment in the event of an oil spill at East Breaks Block 165. The closest CGA equipment stockpiles are at Galveston and Texas City, Texas, and Cameron, Louisiana, respectively. The deployment time from each of these locations is 15, 16 and 18 hours, respectively. Manpower to operate CGA equipment would be provided by Peterson Maritime Services, whose personnel are trained for oil spill clean up operations. Sohio's supervisory personnel would direct clean up operations until successfully completed. Additional details of oil spill clean up planning are included in Sohio's 1988 Oil Spill Contingency Plan, approved by MMS on August 18, 1988.

VI. List of Mud Components

Attachment C includes a list of drilling mud components and additives proposed for use in East Breaks Block 165. Sohio will fully comply with the EPA/NPDES permit which was issued for this operation.

VII. Calculation For Air Emissions

Projected emissions resulting from activities described in this document have been calculated and are included in Attachment D.

VIII. Discharges, Solid and Liquid Wastes and Pollutants

All drill cuttings will be brought to the surface by the mud system and separated by shaker screens and centrifugal separators prior to discharging overboard. The average daily discharge of drill cuttings and drilling fluid is dependent upon the size hole drilled and the number of days drilled. The following discussion provides a breakdown of a typical well at East Breaks Block 165. Calculations were taken from the average of four wells, A-10, A-11, A-12, and A-15 using past penetration rates.

1) Solids (cuttings)

a) Total volume of drill cuttings based on a typical wellbore at East Breaks Block 165 calculates at 4,240 bbls per well. Total projected volume of drill cuttings for the additional eleven wells is 46,640 bbls.

b) Rates of Discharge

28" hole	270 bbls/day	for 2 hours drilling
26" hole	2066 bbls/day	for 24 hours drilling
17-1/2" hole	1039 bbls/day	for 50 hours drilling
12-1/4" hole	508 bbls/day	for 168 hours drilling
8-1/2" hole	246 bbls/day	for 144 hours drilling

c) The composition of these solids is sand, shale and other earthen materials.

2. Liquids (mud)

a) Quantity is the average of 4 wells using:

A-11 = 11,425 bbls
A-15 = 5,963 bbls
A-12 = 6,257 bbls
A-10 = 20,245 bbls

Average quantity is 10,973 bbls discharged.

Estimated total discharge for the eleven wells is 120,703 bbls.

b) Rates - Average daily rate of discharge while drilling is 25 bbls per hour using data from past bbl/hr data sheets.

c) Composition - Potassium Lignite System:

Chemical characterization of additives, amount required, requested use rate of concentration, total volume.

K-MAG FORMULATION*
SOHIO PETROLEUM COMPANY

PRINCIPLE COMPONENT	TRADE NAME	CONCENTRATIONS
Barite	Density	10.8 ppg with barite
Bentonite	Magcogel	10 ppb (prehydrated)
Potassium Lignite	K-17	5 ppb
Modified Lignite	XP-20	5 ppb
Xanthan Gum Derivative	XC Polymer	0.5 ppb
Anionic Liquid Polymer	Rapid Mud	0.25 ppb
Poly Anionic Cellulose	Drispac	0.5 ppb
Guar Gum Derivative	ES-828M	5 ppb
Potassium Hydroxide	KOH approximately	1.0 ppb for a 10.0 pH
Seawater		150 ppb

NOTE: This mud formulation would represent an active mud system of 1200 bbl with a total volume of approximately 1800 bbl.

*The mud weight of this formulation is approximately 15 ppg.

3. Produced Water - The total produced water from the Snapper "A" Platform is currently 1450 bbls per day measured from 16 producing wells. Composition is less than 44 mg/liter oil and grease. The produced water is discharged overboard.

4. Sewage - Sanitary wastes prior to discharge are treated in two approved marine sanitation devices as required by the Clean Water Act, Section 312.

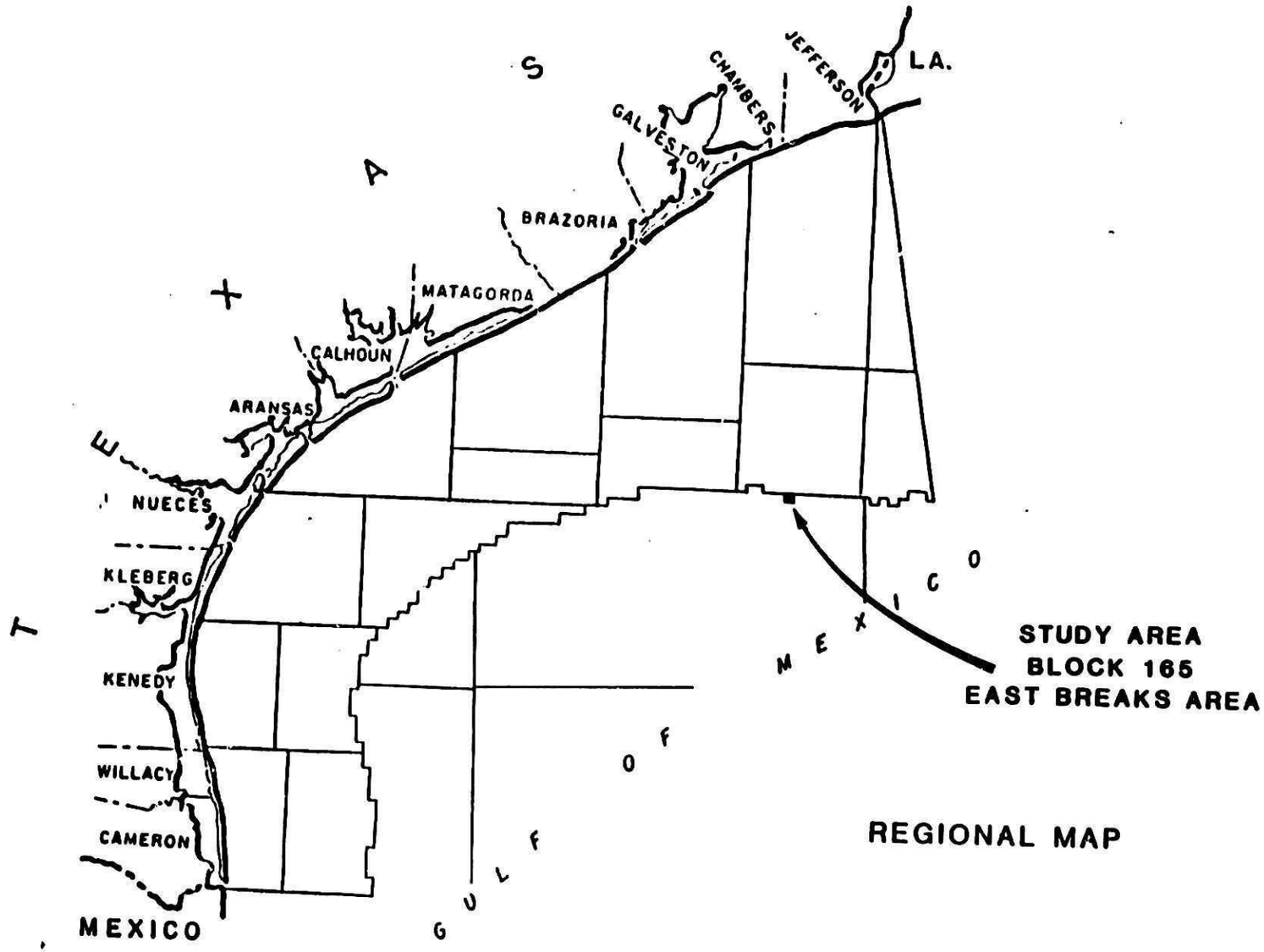
5. Chemical Discharge - No chemicals will be discharged except Calicium Bromide as a completion fluid.

6. Waste Disposal - All biodegradeable garbage such as kitchen food scraps will be discharged on site. Solid wastes, in addition to the drill cuttings that are generated and discharged offshore, include mud sacks, paper, plastic, cloth and metal. All of these wastes, except for the metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage, will be collected and returned to shore for disposal with the rig refuse. Scrap metal and other metal wastes are either recycled or sold as scrap and are, therefore, not treated in the same manner as the solid waste discussed earlier.

Less than trace amounts of any pollutants will be handled at the drillsite. Hazardous wastes from operations such as paint, or paint thinner, if applicable, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines.

IX. Environmental Report and CMZ Consistency

An Environmental Report and Coastal Zone Consistency Certification is not required for the activities described in this document.



REGIONAL MAP

ATTACHMENT A

SOHIO PETROLEUM COMPANY

DRILLING MUD COMPONENTS

Products of IMCO Services and Sun Drilling Products are listed in this program for illustration purposes. Equivalent or comparable products are available from other service companies such as NL Baroid, Magcobar, and Milchem.

Trade Name	Composition	Purpose
IMCO GEL	Western Bentonite; A natural occuring element containing plates of Silica & alumina (Inert)	Primary wall building, filtrate control, & suspending agent for water based drilling fluid
IMCO SURLIFT	Preshaped, wet processed, high density chrysotile asbestos (a native calcium magnesium silicate)	Viscosifier for upperhole fluids
IMCO GELEX	Co-polymer of polyvinyl acetate & maleic anhydride	Bentonite extender
IMCO LOYD	Pregelantinized Starch	Fluid loss control
IMCO PLUG	Crushed walnut hulls	Lost circulation & bit balling
IMCO MENTOR-28	Mineral Oil	Lubricant/Fluid loss control
IMCO RD-111	A proprietary blend containing modified lignosulfonates, modified lignite and chromate	Thinner and filtrate control for water base drilling fluids
IMCO C-COR	An organic filming amine	Corrosion inhibitor and oxygen scavenger
IMCO XO_2	An inorganic compound of the bisulfite family	Oxygen scavenger
IMCO BAR	Mined barite (Ground barium sulfate)	Weighting agent
CAUSTIC SODA	Sodium hydroxide	Alkalinity control
IMCO LIG	Lignite, ground & refined	Thinner & water loss control
SODA ASH	Sodium carbonate	Removing hardness (calcium) from drilling fluid
SUN LUBRA-GLIDE	Stirene, divinalbenzene copolymer spheral beads	Reduces torque & drag
SUN LUBRA-SEAL	Micronized callulose fiber cotton seed hairs	Improve wall cake

ATTACHMENT C

Supplemental Air Quality Review
For
East Breaks Area Block 165
OCS-G-6280

Sohio Petroleum Company
9401 Southwest Freeway
Suite 1200
Houston, Texas 77074

Submitted to
Ms. Cynthia Arnold
Regulatory Specialist

December 16, 1988

Prepared by
John E. Chance & Associates, Inc.
Regulatory & Environmental Division
Project No. 88-8191

ATTACHMENT D

Projected Emissions Schedule for Project

I. General Information

Location of Facility - East Breaks Area Block 165
Name of Rig/Platform - Snapper Production A Platform

Owner/Operator - Sohio Petroleum Company
9401 Southwest Freeway
Suite 1200
Houston, Texas 77074

Contact Person - Ms. Cynthia Arnold
Regulatory Specialist

Project Start Date - January 30, 1989
Project End Date - December 30, 2002

105 Miles Offshore
99,500 Feet Drilled

II. Total Emissions for Drilling

Total Time for Drilling 11 wells: 22 months

Projected Emissions
(Pounds/Day of Drilling)

Emitted Substance	CO	SO_2	NO_X	VOC	TSP
Drilling Operations	175.58	46.86	841.58	48.84	32.34

A. Transportation Emissions, Drilling

Projected Emissions
(Pounds/Day of Drilling)

Emitted Substance	CO	SO_2	NO_X	VOC	TSP
Crewboat	61.39	*	429.04	23.10	*
Supply Boat	1.98	1.98	11.22	1.32	*
Stand-by Boat	9.24	9.24	49.50	5.94	*
Helicopter	16.50	0.66	1.98	1.32	0.66

B. Miscellaneous, Drilling

Projected Emissions
(Pounds/Day)

Emitted Substance	CO	SO_2	NO_X	VOC	TSP
Tow Tugboat(s)	1730.00	*	7993.33	640.00	*
Cementing Skid	63.63	20.00	296.36	23.63	21.82

Crewboat horsepower of 2,500
Galveston, Texas
Waiting Time 4 hour(s) per trip
10 trip(s) per week

Supply Boat with 200 kilowatt generator
Galveston, Texas
Waiting Time 10 hour(s) per trip
4 trip(s) per week

Stand-by Boat
Generator rating 200 kilowatts
Running 24 hour(s) per day

Helicopters
Galveston, Texas
10 trip(s) per week

Towing Tugboat horsepower of 3600
Working for 6 day(s)

Cementing Skid horsepower of 400
Working for 1 day(s) per well

III. Production Transporation Emissions

Total Time for Production: 13 years

Projected Emissions
(Pounds/Day)

Emitted Substance	CO	SO_2	NO_X	VOC	TSP
Supply Boat	1.98	1.98	11.22	1.32	*
Stand-by Boat	9.24	9.24	49.50	5.94	*
Helicopter	16.50	0.66	1.98	1.32	0.66

Supply Boat with 200 kilowatt generator
Galveston, Texas
Waiting Time 10 hour(s) per trip
4 trip(s) per week

Stand-by Boat
Generator rating 200 kilowatts
Running 24 hour(s) per day

Helicopters
Galveston, Texas
10 trip(s) per week

IV. Project Summary, Total Emissions

Emitted Substance	CO	SO_2	NO_X	VOC	TSP
Allowable (tons/yr)	75673	3497	3497	3497	3497
	Projected Emissions (Tons/Year)				
Year 1	34.51	8.49	164.94	9.80	5.83
Year 2	35.65	8.26	163.50	10.80	5.63
Year 3	48.79	8.65	181.30	18.53	5.99
Year 4	37.54	6.88	140.00	14.40	4.58
Year 5	27.56	5.36	102.80	10.72	3.18
Year 6	20.87	4.35	77.73	8.25	2.20
Year 7	14.97	3.45	55.75	6.07	1.37
Year 8	11.17	2.87	41.60	4.67	0.83
Year 9	9.22	2.58	34.30	3.95	0.56
Year 10	9.98	2.70	37.02	4.23	0.63
Year 11	9.79	2.68	36.29	4.16	0.59
Year 12	9.00	2.56	33.36	3.87	0.49
Year 13	8.47	2.48	31.38	3.67	0.41

Total Emissions are comprised of all Construction, Drilling, and Production Emissions.

This may include the following which are not specified in each section:

- Welding machines and cranes utilized during construction operations.
- Crane(s), Generator(s), Heater Treater, or Compressor utilized during production.

V. Findings of Air Quality Review

As per DOI-MMS regulations, this facility is exempt from further air quality review as it has been determined that its operation will not have a significant adverse environmental impact on air quality. Calculated emissions are for a worst case condition. Actual emissions from this project will probably be lower.

VI. Methodology

Boats - horsepower-hour method
Helicopters - landing/takeoff (LTO) cycle method
All Others - horsepower-hour method

VII. References

ATMOSPHERIC EMISSIONS FROM OFFSHORE OIL DEVELOPMENT AND PRODUCTION, EPA-450/3-77-026 (June, 1977).

COMPILATION OF AIR POLLUTANT EMISSIONS FACTORS, EPA Report AP-42 (September, 1985), 4th Edition.

* The EPA does not provide SO_2 and TSP emission factors for boat engines or TSP for diesel powered electrical generators.