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In Reply Refer To: MS 5231

November 28, 1994

Murphy Exploration & Production
Company
Attention: Mr. Alberto S. Moradel
Post Office Box 61780
New Orleans, Louisiana 70161-1780

Gentlemen:

Reference is made to the following plan received November 14, 1994:

Type Plan - Supplemental Development Operations Coordination Document
Lease - OCS-G 1526
Block - 223
Area - Ship Shoal
Activities Proposed - Well and Caisson No. 8

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

Your control number is S-3462 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(Orig. Sgd.) Kent E. Stauffer

Donald C. Howard
Regional Supervisor
Field Operations

bcc: Lease OCS-G 1526 POD File (MS 5032)
MS 5034 w/public info. copy of the plan
and accomp. info.

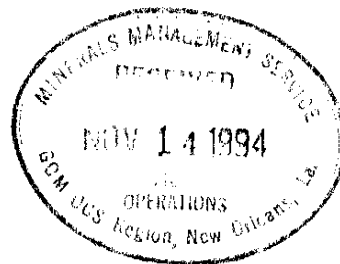
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NOTED - SCHEXNAILDRE


MURPHY
EXPLORATION &
PRODUCTION
COMPANY

131 SOUTH ROBERTSON STREET
P.O. BOX 61780
NEW ORLEANS, LA 70161-1780
(504) 561-2811

November 11, 1994



U.S. Department of the Interior
Minerals Management Service
Office of Field Operations
MS 5231
1201 Elmwood Park Blvd.
New Orleans, LA 70123-2394

Attn: Mr. Donald C. Howard
Regional Supervisor - Field Operations

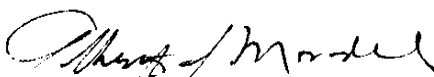
Re: SUPPLEMENTAL DEVELOPMENT OPERATIONS
COORDINATION DOCUMENT
SHIP SHOAL 223
OCS-G 1526, WELL NO. 8

Gentlemen:

Enclosed herewith are nine (9) sets of the above referenced Supplement Unit D.O.C.D. for Year 1994. We respectfully request that a speedy review be made to determine whether the document is complete. Should additional information be required, please advise us immediately.

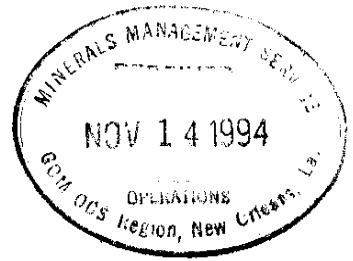
Every effort you extend in order to affect an early approval of this Plan will be greatly appreciated.

Yours very truly,



ALBERTO S. MORADEL
Supervisor
Production Reporting

ASM/cwi
Encl.



PUBLIC INFORMATION

MURPHY EXPLORATION & PRODUCTION COMPANY

SUPPLEMENTAL DEVELOPMENT

OPERATIONS COORDINATION DOCUMENT

OCS-G 1526, WELL NO. 8

SHIP SHOAL BLOCK 223

SUBMITTED BY:

Alberto S. Moradel
Supervisor
Production Reporting

DATE:

11/11/94

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MURPHY EXPLORATION & PRODUCTION COMPANY
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
OCS-G 1526, WELL NO. 8
SHIP SHOAL BLOCK 223

I. SUPPLEMENTAL PLAN FOR YEAR 1994

MURPHY proposes to drill an additional location for the year as follows:

OCS-G 1526, #8, Ship Shoal Block 223

Surface Location: 1,800' FNL & 700' FWL of Ship Shoal Block 223.
BHL: [REDACTED]
Proposed TD: [REDACTED]
Objective: [REDACTED]
Water Depth: 125'.
Commencement Date: December 20, 1994.
Complete Date: January 20, 1995.

II. ESTIMATED PRODUCTION RATES AND DEPLETION SCHEDULE

A. Rates - Type well, type completion, and initial flow rates.

<u>Lease/Well</u>	<u>Type Completion</u>	<u>Oil Rate BOPD</u>	<u>Gas Rate MCF/D</u>
OCS-G 1526 #8	[REDACTED]	[REDACTED]	[REDACTED]

B. Depletion Schedule:

OCS-G 1526 #8:

[REDACTED]

III. WELL CONNECTIONS AND TIE-IN DATA

OCS-G 1526 #8:

Lay a 4" flowline to the OCS-G 1526 #7, a distance of approximately 1,172'. The "B" Platform routes all production to the Ship Shoal Block 224 "PP" Platform, and gas production is routed via a 10" Transco pipeline to the Ship Shoal Block 224 "A" Platform. The combined production of Well No. 7 and No. 8 will be routed to the OCS-G 1526 "B" Platform.

Commence laying flowline: [REDACTED]

Complete: [REDACTED]

Commence production: [REDACTED]

IV. DRILLING RIG AND PRODUCTION FACILITIES

- A. Drill Barge - Plans are to utilize the drill barge "DUKE HINDS" or similar drill barge (see attachments for rig detail). No additional personnel will be added offshore or onshore as a result of drilling activities.
- B. Production facility serving the Ship Shoal Block 223 is the "B" Platform in Block 223. Separation of liquids from gas takes place at this platform.

Oil/Condensate is metered at the "B" Platform and routed via a 6" flowline to the Ship Shoal Block 222 "PP" Platform. From the "PP" Platform, the oil/condensate is routed via a pipeline to Shell's onshore terminal at Gibson, LA. Separated gas is routed to the Ship Shoal Block 224 "A" Platform, where it is metered for delivery to Transcontinental Gas Pipeline Corporation. Gas from the entire field is transported to the North Terrebonne Gas Processing Plant. No additional personnel offshore or onshore are anticipated to handle production.

V. OIL SPILL CONTINGENCY PLAN

Refer to Murphy's Plan filed with MMS, updated November-1992, and approved July 27, 1993.

Murphy Exploration & Production Company fulfills its oil spill contingency plan by being a member of Clean Gulf Associates, P.O. Box 51239, New Orleans, LA 70151, an agency which handles clean up operations in the event of an oil spill. Fast Response Service can be obtained by calling Halliburton Services in Lafayette, LA, Tel. (318) 837-7400. Mr. Cairo Loviere is in charge of administering the equipment for Clean Gulf Associates.

A. Description of Clean Up Equipment available in various locations:

1. Fast Response System Model I consists of:
 - a. Primary & auxiliary skid with 180 bbl. tank on each skid
 - b. One "Don Wilson" skimmer
 - c. One basket and one lot of Bennet oil boom section
 - d. Fire extinguisher skid
2. Fast Response Model II consists of:
 - a. Section of floating oil boom
 - b. Skimmer
 - c. Outrigger
 - d. Pump
 - e. Two skid-mounted storage tanks of 180 bbls. each
3. Fast Response Model III - High volume open sea skimmer system (HOSS Barge).
4. Shallow water skimmer system.
5. Auxiliary shallow water skimmer and booms.
6. Helicopter spray system (HUSS Units).
7. Waterfowl rehabilitation units.
8. Bird scarers.
9. Miscellaneous material.
10. Radio systems.

B. Estimated deployment time - see "Oil Spill Trajectory Simulation" Section.

VI. OIL SPILL TRAJECTORY SIMULATION

Taken from Final Environmental Impact Statement Gulf of Mexico Sales 142 and 143, Central and Western Planning Area. The below listed are percent chance that an oil spill starting in any areas within Ship Shoal Block 223 will contact certain land segments within 3, 10 or 30 days. Potential launch sites are identified in Figure IV-1 of Final EIS are within the Central Planning area of C1.

A. Percent chance of spill reaching land. Taken from IV-20:

1. Hypothetical spill location C38:

<u>Percent Chance</u>	<u>Land Segment I.D.</u>	<u>Counties</u>
0%*	14	New Iberia, LA
0%*	15	St. Mary, LA
3%	16	Terrebonne, LA
0%*	17	Lafourche, LA

* Less than 0.5% probability.

B. Probabilities (expressed as percent chance) that one or more spills and number of probable spills occurring and contacting Central Gulf archeological sites within 10 days of a spill. Taken from Table IV-21:

<u>Land Segment ID</u>	<u>B Scenario</u>	<u>H Scenario</u>	<u>Average B Scenario</u>	<u>Average H Scenario</u>
14	0%	0%	0.0%	0.0%
15	0%*	0%*	0.0%	0.0%
16	1%	2%	0.0%	0.0%
17	0%*	0%*	0.0%	0.0%

* Less than 0.5% probability.

C. Probabilities (expressed as percent chance) that one or more spills and number of probable spills occurring and contacting Central Gulf archeological sites within 10 days of a spill over the expected production life of the lease. Taken from Table IV-21:

<u>Archeological Sites</u>	<u>Percent B Scenario</u>	<u>Chance H Scenario</u>	<u>Average Percent B Scenario</u>	<u>Chance H Scenario</u>
Timbalier Bay	1	2	0.0	0.0
Barataria Bay	0	0*	0.0	0.0
Caminada Headlands				
Terre C. Barrier	0	7	0.0	0.0
W. Plaquemines C. Barrier	0*	1	0.0	0.0
East Deltic Plain Marshes	1	2	0.0	0.0
W. Winter Menhaden Spawning Grounds	0*	1	0.0	0.0
Grand Isle/Grand Terre Coastal Barrier	0*	0*	0.0	0.0
Vermilion/Atchafalaya Bays	0*	0*	0.0	0.0
Grand Isle Rec. Beaches	0*	0*	0.0	0.0

* Less than 0.5% probability

- D. Identification of Biologically Sensitive Areas: These are set forth in Clean Gulf Associates Operations Manual, Volume II, Section V.

Louisiana Map #6, V-103.0a.

- E. The Protection Response Modes for Biologically Sensitive Areas: These are set forth in Clean Gulf Associates Operation Manual, Volume II, Section V.

Louisiana Map #6, V-109-0a to V-112.2.

VII. EQUIPMENT LOCATION AND RESPONSE TIME

A. Location:

1. Grand Isle, LA

All equipment listed in Section VI-A, 1 through 10 of this Plan.

2. Venice, LA

- a. Fast Response Model I (Item 1)
- b. Fast Response Model III (Item 3)
- c. Items 4, 5, 8, and 9

3. Intracoastal City, LA

- a. Fast Response Model I (Item 1)
- b. Items 4, 5, 8, and 9

4. Cameron, LA

- a. Fast Response Model II (Item 2)
- b. Fire extinguishers, storage boxes

5. Houma, LA

- a. Fast Response Model II (Item 2) trailer loaded
- b. Item 4
- c. Boat spray system
- d. Dispersants
- e. Sorbents
- f. Drums, collectant

- B. **Response Time** - It takes approximately one hour to load Fast Response Model I onto vessel and approximately one and one half hours to load Model II, and approximately 3 hours to load Model III.

Vessels are to be provided by Murphy. Workboats under contract to work in Ship Shoal Block 114 will be used. In the event of a spill, the fast response unit that is in a preloaded state in Houma, LA will be transported by truck to our marine dock at Cocodrie. This would take approximately one and one-half hrs to accomplish. (Locate tractor truck and transport equipment - approximately 25 miles.) Vessel travel time from Ship Shoal Block 114 to Cocodrie is 2.5 hours (30 miles @ 12 mph). Truck move and routing of marine vessel would be done simultaneously. It will take approximately three hours to round up crew from various area and transport to Cocodrie.

Initial Response - Fast Response Model II from Houma via Cocodrie Dock:

Travel from Ship Shoal 114 to Cocodrie	2.5 hrs.
Waiting on crew	0.5 hrs.
Loading time	1.0 hr.
Travel to Ship Shoal Block 223 Area	<u>5.6 hrs.</u>
Total Response Time	9.6 hrs.

VIII. TRANSPORTATION ROUTES (WATER AND AIR)

The most direct routes from Ship Shoal Block 223 to shore base for supplies and personnel will be used.

IX. FUEL CONSUMPTION - DRILLING OPERATIONS

A. Drilling Operations:

Drilling rigs use an average of 50 bbls. (42 gal./bbl.) of diesel fuel per day during drilling operations. One supply boat and one crew boat will service the drilling rig. The supply boat consumes approximately 95 gph and the crew boat 90 gph when in transit. The fuel consumption for these vessels and the rig are as shown:

	<u>RIGS</u>	<u>BOATS</u>
Drilling Rig (30 Rig Days) (50 bpd)	1,500	-
Crew Boat (300 Hrs.) (90 gph ÷ 42 gal./bbl.)	-	643
Supply Boat (160 Hrs.) (95 gph ÷ 42 gal./bbl.)	-	<u>362</u>
TOTAL FUEL CONSUMPTION	<u>1,500</u>	<u>1,005</u>

B. Production Operations:

1. One production boat routinely services Ship Shoal 222 Field (Blocks 223/224). The boat consumes approximately 9 bbls. diesel per day.

Operating Days/Per Year	365
(1 Boat X 9 Bbls.)	x <u>9</u>
CONSUMPTION FOR YEAR	3,285 BBLS.

2. Gas consumption to entire unit = 550 MCF/D.

Operating Days/Per Day	365
	x <u>550</u>
GAS CONSUMPTION PER YEAR	200,750 MCF

X. SAFETY STANDARDS AND PROGRAMS - DRILLING OPERATIONS

A. Production Facilities:

All production facilities are constructed and installed to meet MMS and Coast Guard Standards for safety and protection of the environment.

A Safety and Training Department is maintained to continually monitor and train personnel in the conduct of safe operations. Our training program emphasizes the adherence to existing MMS and environment regulations.

Safety engineers monitor the operation for compliance with all safety standards. Safety meetings are held with the operating personnel to review these safety standards. Operational personnel attend schools for firefighting, first aid and operation of special equipment, such as, cranes and safety devices used in the production of oil and gas.

B. Drilling Operations:

Murphy believes the safety of its Contractor's and our own employees is directly related to each person's skill and knowledge of the work being performed. Our supervisory employees, who have a minimum of two years on-the-job training under the supervision of an experienced foreman or engineer, are required to attend Well Control schools for all facets of the operations they may supervise. Meetings are held with these supervisors, the service companies, and the Murphy engineering staff to discuss operations and safety on non-routine operations to insure the safety of all personnel on the job. Our Contractors are encouraged to have an "in-house" safety program, such as the "STOP" Program, to promote safe working habits and conditions on the rig.

XI. BASE OF OPERATIONS

- A. Marine service to drill this well will be provided from Dulac and Cocodrie, LA.
- B. Air service (helicopter) will be provided from Houma, LA.

XII. POLLUTION CONTROL AND PREVENTION - DRILLING OPERATIONS

For pollution control and prevention the drilling rigs are equipped with drip pans and/or drains under the rotary and other machinery to contain oil spills. Curbing of the deck is a standard feature which allows containment of any spills on deck with drains to a sump where the oil is separated from rain or cleaning water. The oil from these sumps is recovered and placed into transport containers.

Containers are provided on the rig for all waste oil recovered from drip pans, sumps, and used engine oil. These containers are transported to a shore base where the oil is either recycled or disposed in accordance with current regulations.

Trash compactors are placed on all rigs operated by Murphy. All paper items, plastics, wood, etc. is placed into these compactors, compacted into heavy walled bags and the bags then transported to our shore base where the material is disposed by an authorized disposal firm into a land fill. These compactors are also utilized to crush all drums and other metal containers that have been emptied and cleaned.

A basket is provided for metal such as the crushed drums, cans, scrap metal, discarded wireline, and miscellaneous metallic material than can no longer be used for the purpose for which it was intended. These baskets of metal are then transported to our shore base where it is sold to a recycler.

The use of styrofoam products, i.e., drinking cups, packing "peanuts" is prohibited on all rigs because of their light weight making them very susceptible being blown overboard and their non degradable nature.

XIII. TYPE DRILL MUD USED AND CHEMICAL COMPONENTS

Calcium Chloride	Calcium Chloride (CaCl ₂)
Caustic Potash	Potassium Hydroxide (KOH)
Caustic Soda	Sodium Hydroxide (NaOH)
Congor 303 A	Morpholine Process Residue
D-D	Surfactant Blend (Soap)
Defoam-X	Defoam-X (Defoamer)
Desco	Sulfomethylated Tannin/Dichromate
Drispac	Polyanionic Cellulose
Fer-Ox	Hematite, Iron Oxide
Gel Supreme	Bentonite (Natural Clay)
HEC	Hydroxyethyl Cellulose
K-17	Potassium Salt of Humic Acid Lignin
K-52	Potassium Acetate
Kleen Up	Surfactant Blend (Soap)

Kwik Seal	Nut Hulls, Wood Fiber, Cellophane Blend
Lime	Calcium Hydroxide ($\text{Ca}(\text{OH})_2$)
Lo-Wate	Calcium Carbonate (CaCO_3)
Lube 167	Lube 167 (Lubricant)
M-I BAR	Barite (Barium Sulfate) (BaSO_4)
M-I CMC	Sodium Carboxymethyl Cellulose
M-I Gel	Bentonite
M-I Mica	Mica
M-I-X II	Pulverized Cellulose Compound
My-Lo-Jel	Pre-gelatinized Starch
Nut Plug	Ground Nut Shells
Pipe-Lax ENV	Pipe-Lax ENV
Poly Plus RD	Acrylic Copolymer
PolyPac	Cellulose
Potassium Chloride	Potassium Chloride (KCl)
Resinex	Lignite Resin Blend
Salt	Sodium Chloride (NaCl)
Salt Gel	Attapulgate Clay
SAPP	Sodium Acid Pyrophosphate
Shale Chek	Anionic Polymer/Lignite Blend
Soda Ash	Sodium Carbonate (Na_2CO_3)
Sodium Bicarbonate	Sodium Bicarbonate (NaHCO_3)
Soltex	Sodium Asphalt Sulfonate
Spersene	Chrome Lignosulfonate
Spersene CF	Chrome-Free Lignosulfonate
Sulf-X	Zinc Oxide (ZnO)
Tannathin	Lignite (Leonaidite)
Thermex	Phenol-formaldehyde Polymer Solution
Thermpac $\frac{1}{2}$	Sodium Carboxymethyl Starch
XCD Polymer	Polysaccharide
XP-20	Chrome Lignite

XIV. NEW OR UNUSUAL TECHNOLOGY

No new or unusual technology will be employed while drilling this well.

XV. DISCHARGE OF POLLUTANTS

This well will be drilled using a water based nondispersed unweighted mud system.

Drill cuttings with a small amount of drilling fluid adhering to the shale and sand particles will be discharged at the well site during drilling operations. The maximum discharge rate of drill cuttings will be while drilling from the cemented conductor casing to the surface casing setting depth and should not exceed 500 bbls/day in any one day. This discharge rate of cuttings is based on drilling this section of the hole at a rate of 1,800 feet per 24 hour period and allowing for two (2) inches of hole enlargement due to erosion. The discharge rate of cuttings for the remainder of the well should average less than 120 bbls./day based on an average drilling rate of 550 to 600 feet per day from surface casing to total depth and a two (2") hole enlargement due to erosion. The total discharge of cuttings for this well is estimated to be 2,400 bbls. allowing for a 2" hole enlargement from the mud line to total depth.

Total discharge of drilling fluids for this well is estimated to be 3,500 bbls. Data from wells drilled in this area indicate that an average of 140 bbls/day of drilling fluid is discharged from the time a rig moves on location until drilling ceases. Upon setting casing and before moving the drilling rig, an additional 1,500 bbls of mud can be expected to be discharged, thus on our well we anticipate discharging approximately 5,000 total bbls.

No oil will be added to the drilling mud or discharged at any time. In the event it becomes necessary to add oil to the drilling mud or "spot" an oil base lubricate around a stuck drill string, all mud and cuttings will be transported to shore for proper disposal. All mud discharged will be tested for toxicity as required by EPA's NPDES discharge permit.

Sanitary waste is treated by a waste treatment facility and discharged overboard in compliance with EPA's NPDES discharge permit. Treated waste discharged normally averages 25 gallons per day per man on the rig. A rig will discharge 750 to 1,000 gallons per day depending on the number of personnel on the rig.

All metal, steel, cables, etc. are stored on the rig until sufficient quantity accumulates. This material is then transported to our shore base for recycling. Paper, bags, plastics, etc. are compacted in a container by an onboard compactor then transported to shore for disposal.

All vessels used in our operations are equipped with Marine Sanitation Devices or holding tanks in compliance with DOT regulations.

XVI. HYDROGEN SULFIDE CONTINGENCY PLAN

This well will be drilled in an area which is known to be free of hydrogen sulfide. In the unlikely event hydrogen sulfide would be encountered, all operations would cease until the rig could be equipped and the personnel trained for operations in a hydrogen sulfide environment. See letter regarding anticipated absence of H₂S dated June 6, 1994.

XVII. GASEOUS EMISSION DATA

A. Emissions:

See Attachment "H."

B. Exemptions: Distance from shore = 44 statute miles.

1. Hydrocarbons, NO_x, SO₂, Particulates:

$$33.3 \times 44 = 1,465.20 \text{ tons/year}$$

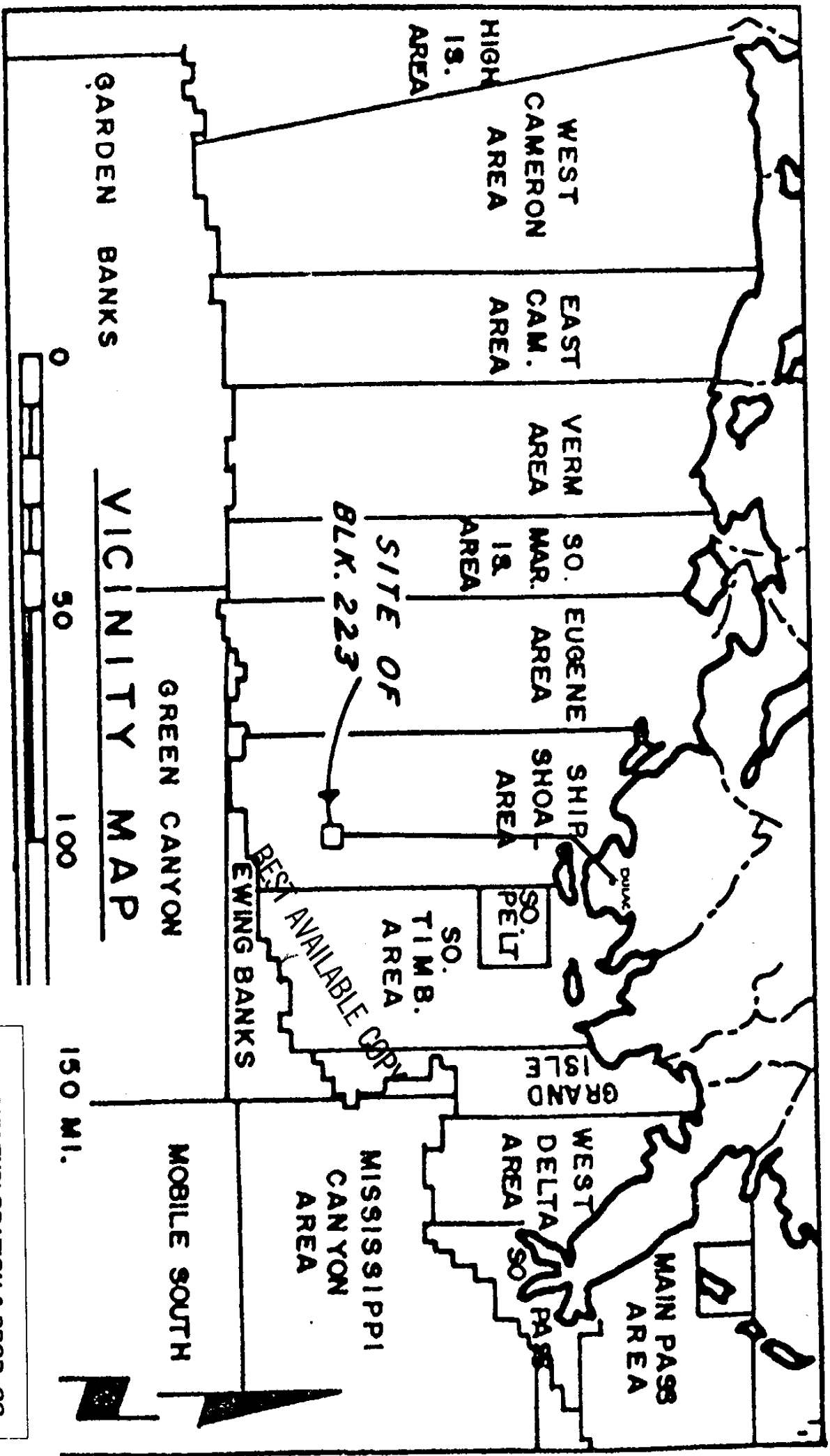
2. CO 3400 x (44)^{2/3} or 42,375.42 tons/year.

XVIII. BOND COVERAGE FOR OCS OIL AND GAS LEASES AND POST LEASE OPERATIONS

In accordance with MMS Letter to Lessees and Operators dated November 5, 1993 (provided pursuant to Minerals Management Service's amendment of 30 CFR Part 256 surety bond requirements applicable to OCS Lessees and Operators, as published in the Federal Register on August 27, 1993 - 58 FR 45255), Murphy Exploration & Production Company's activities proposed in the subject Supplemental D.O.C.D. are covered by a third tier area-wide bond prescribed by the Final Rule.

XIX. ATTACHMENTS

- A. General Vicinity Map - depicting transportation routes.
- B. Vicinity Plat - depicting well locations.
- C. Schematic of single well caisson jacket.
- D. Pipeline map.
- E. Geological Program with Structure Map, Bathymetry Map, letter requesting H₂S determination, and Shallow Hazards letter with seismic plot.
- F. Schematic of drill barge and schematic of diverter.
- G. Schematic of drill barge showing emission stack heights.
- H. Air Emission calculations.



MURPHY EXPLORATION & PROD. CO.

SHIP SHOAL BLOCK 223
OCS-G 1526
TRANSPORTATION ROUTE

BLOCK 200

Y=-53,908.00

No. 8

MURPHY EXPLORATION & PRODUCTION CO.

BLOCK 223
OCS-G-1526

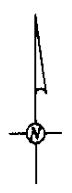
BLOCK 222

X=2,000,000.00

X=2,015,600.00

BEST AVAILABLE COPY

Y=-67,869.54



BLOCK 224

BLOCK 225

MURPHY EXPLORATION & PRODUCTION CO.			
PROPOSED MINERAL DEVELOPMENT OCS-G-1526 BLOCK 223 VICINITY MAP SHIP SHOAL AREA GULF OF MEXICO			
DRAWN	DATE	SCALE	DWG.NO.
FJR	8-17-94	1"=3,000'	0798

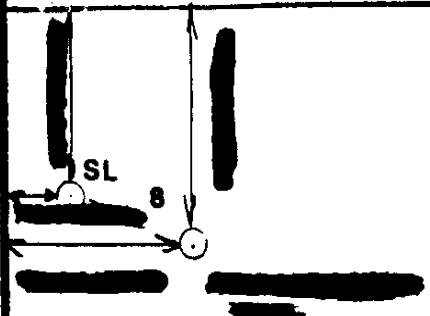
129

5/1995

MURPHY OIL
OCS-G-1526
\$1,380,000
HBP

223

12



130

BEST AVAILABLE COPY

130

6/1972

140

MURPHY OIL
OCS-G-1023
\$450,000
HBP

MURPHY EXPLORATION & PRODUCTION CO.

SHIP SHOAL AREA
BLOCK 223
OCS-G-1526 WELL#8
BATHYMETRY MAP

Scale: 1"=2000'

