UNITED STATES GOVERNMENT
MEMORANDUM

09/17/98

To: Public Information, (MS 5034)

From: Exploration/Development Plans Section, (MS 5231)

Reference is made to the following plan received September 3, 1998:

Type Plan - Initial Development Operations Coordination Document
Lease - OCS-G 15546
Block - 113
Area - Green Canyon
Activities Proposed - subsea manifold and complete two wells
Control Number - N-6291
Operator - Shell Deepwater

In accordance with 30 CFR 250.204, this plan is hereby deemed submitted and is now being considered for approval.

Reviewing Engineer

NOTED - SCHEXNAILDRE

Shell Deepwater Development Inc.

One Shell Square
PO Box 60833
New Orleans LA 70160-0833
(504) 728-6161

September 1, 1998

Regional Supervisor
Office of Field Operations
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Dear Sir:

SUBJECT: INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

In compliance with 30 CFR 250.203/204, and the Minerals Management Service (MMS) Letters to Lessees dated October 12, 1988, and September 5, 1989, giving POE/DOCD guidelines, Shell Deepwater Development Inc. (SDDI) submits for your review and approval the attached initial Development Operations Coordination Document (DOCD) for Green Canyon Block 113, OCS-G 15546, Offshore Louisiana.

This Initial Development Operations Coordination Document (DOCD) includes the completion of two wells, installation of a subsea manifold located in Block 113, and the installation of two 8" flowlines to Green Canyon Block 65.

SHALLOW HAZARDS

Two copies of the Shallow Hazards Report for this area were submitted May 14, 1997 for your information and review. Please contact me in our New Orleans office at (504) 728-6039, to set up the date for the Shallow Hazards and Chemo meeting, at your convenience, for this plan.

This Plan is submitted in accordance with 30 CFR 250.200, effective May 31, 1988, and consists of a series of attachments describing details of our intended operations. The attachments we desire to be exempted from disclosure under the Freedom of Information Act are marked "Confidential".

Should you require additional information, please don't hesitate to contact me at the above mentioned telephone number.

Yours very truly,

Sedera Lane by sab

Sedera L Lane
Sr. Associate
Regulatory Affairs

Attachments

PUBLIC INFORMATION

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

INDEX of ATTACHMENT

ATTACHMENT	DESCRIPTION
1	INDEX
2	Location of the Lease and Onshore Facilities
3	Subsea Development- System Schematic
4	Surface Locations and Bathymetry
4B	Surface Location of Manifold
4C	Surface Location Table
5*	Bottom Hole Locations
5A*	Bottom Hole Locations Table
6*	Structure Map
7*	Geologic Cross Sections
8*	Description of Activities
9	Lease Information (Lease History, Lease Stipulation, and Bonding Requirements)
10	General Information (New and Unusal Technology, Safety and Pollution Equipment , Platform, Onshore Facilities)
11	Discharges and Hydrogen Sulfide
11A	Drilling Mud Components and Additives
11B	Mud Cuttings and Discharge Volumes
12	Chemosynthetic Organisms Comments and Anchor Assesment
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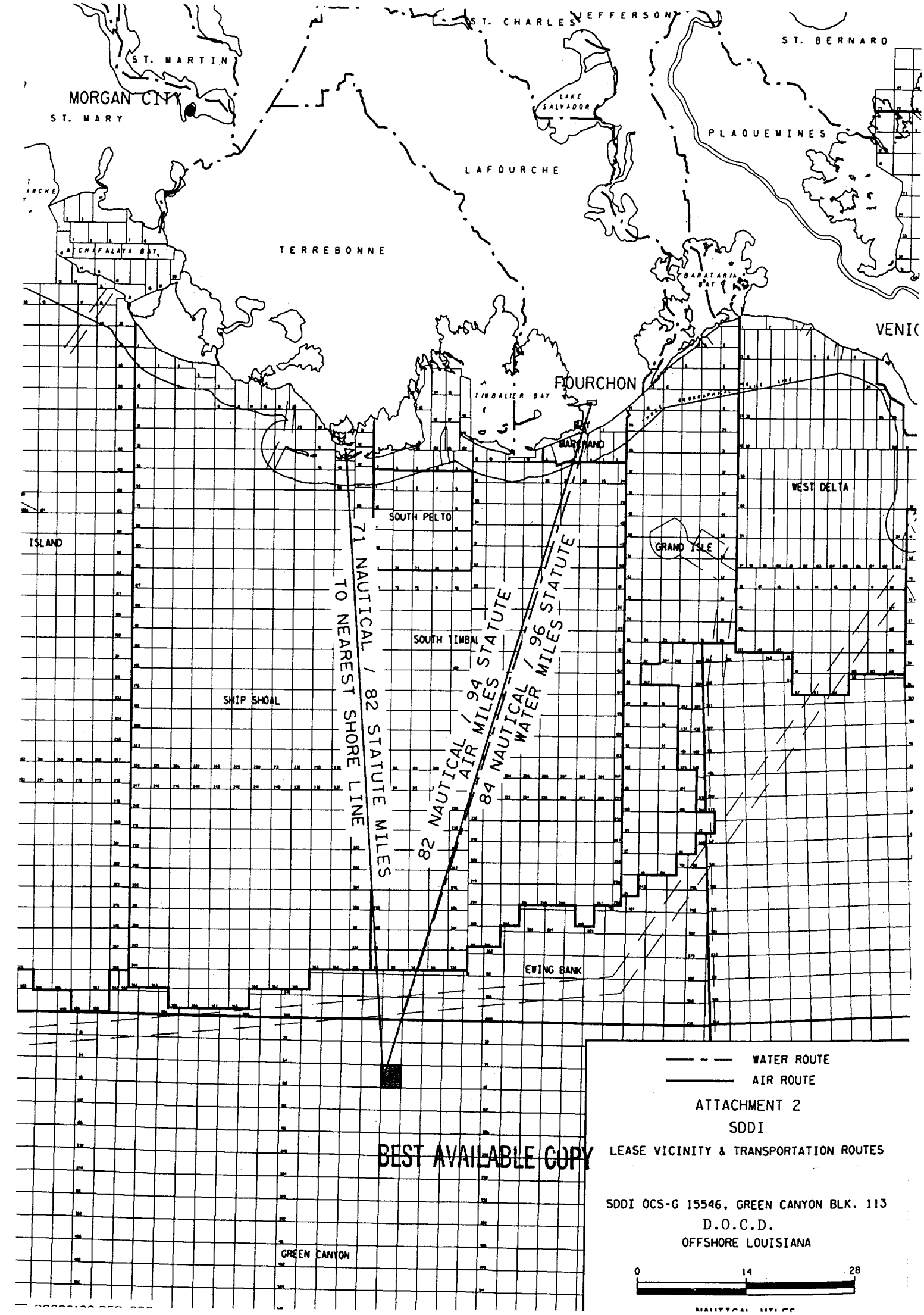
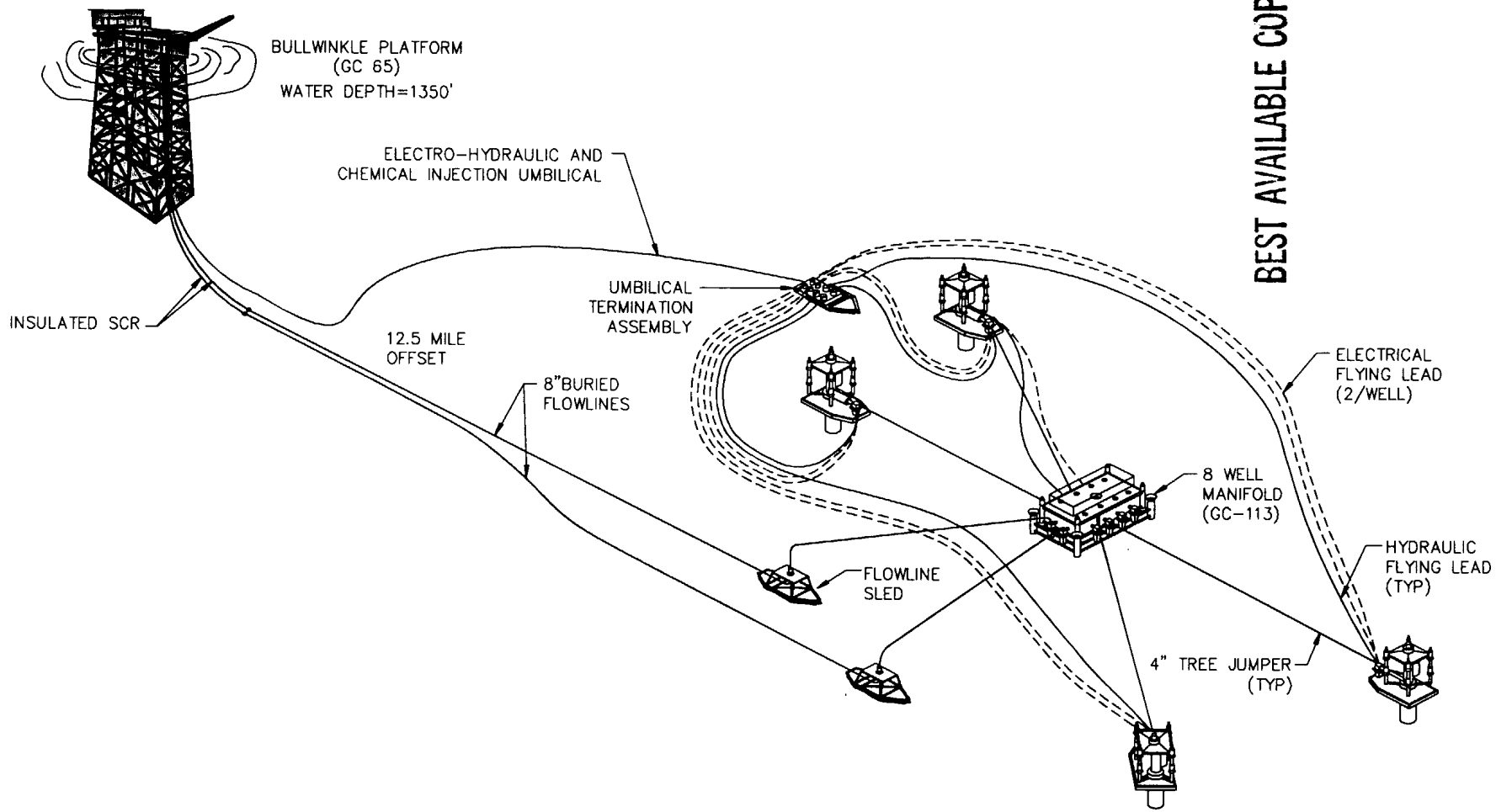
14	Certificate of Consistency
15	Louisiana Public Notice
16	Oil Spill Contingency Plan
17	Projected Air Emissions
18	Environmental Report

* Confidential (Original plus eight copies with four copies marked "Public Information")

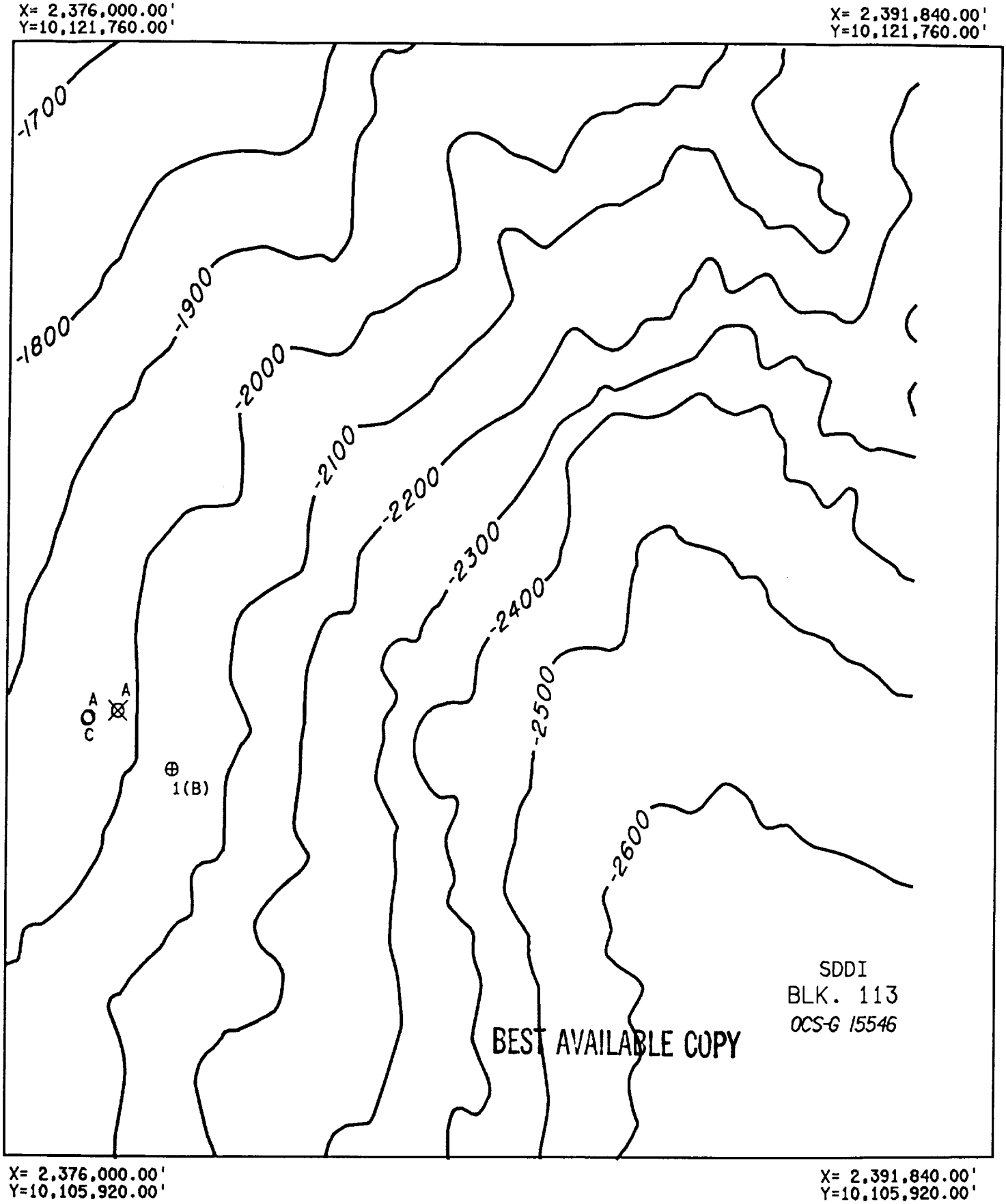
ATTACHMENT 1





WATER DEPTH AT SUBSEA FACILITIES = 2050'

Shell Deepwater Development Services	ANGUS FIELD LAYOUT	INTEC ENGINEERING
ANGUS PHASE 1 – GC–113 FIELD DEVELOPMENT		CAD FILE: S210–09A.DWG JUL 1, 1998 3:49 PM NRB
		DRAWN BY: HWS · DATE: 2–10–98 · JOB NO.: S–2100.0 · Figure 3



⊠ PREVIOUSLY APPROVED SURFACE LOCATION

⊕ ACTUAL SURFACE LOCATION

○ PROPOSED SURFACE LOCATIONS

A 1300' FWL & 6215' FSL OF BLK. 113
X=2,377,300.00', Y=10,112,135.00'

C 1321' FWL & 6239' FSL OF BLK. 113
X=2,377,321.00', Y=10,112,159.00'

N

ATTACHMENT 4A

SDDI

PROPOSED SURFACE LOCATIONS AND BATHYMETRY

D.O.C.D.

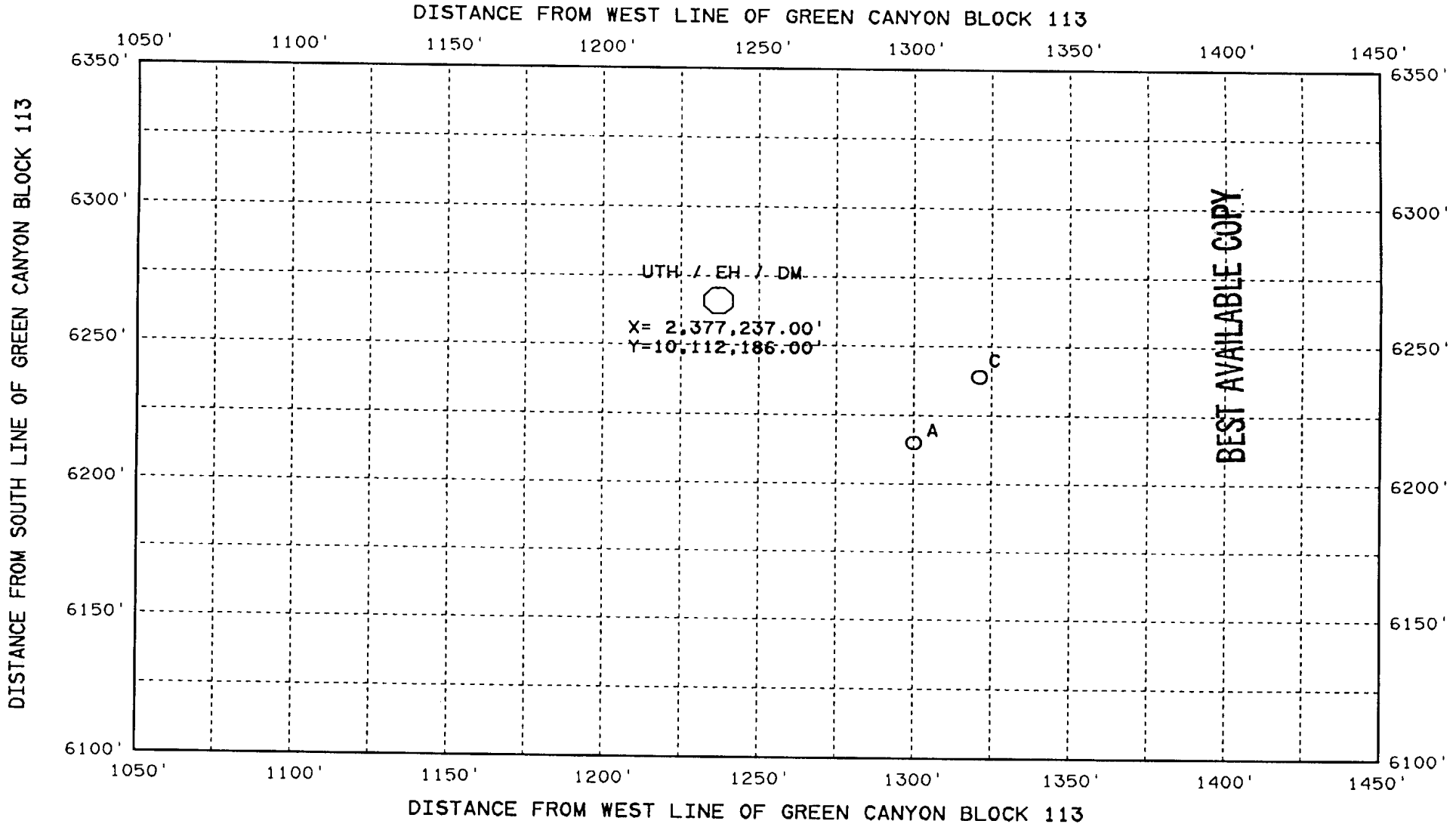
SDDI OSC-G 15546, GREEN CANYON BLK. 113

OFFSHORE LOUISIANA

GREEN CANYON AREA

0 2000'

P0R98564 PER-1218



O PROPOSED SURFACE LOCATIONS

A 1300' FWL & 6215' FSL OF BLK. 113
X=2,377,300.00', Y=10,112,135.00'

C 1321' FWL & 6239' FSL OF BLK. 113
X=2,377,321.00', Y=10,112,159.00'

N

ATTACHMENT 4B

SDDI

PROPOSED SURFACE LOCATIONS - DETAILED

D. O. C. D.

SDDI OSC-G 15546, GREEN CANYON BLK. 113

OFFSHORE LOUISIANA

GREEN CANYON AREA

0 50'

P0698426.PER-950

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

LOCATIONS	PROPOSED SURFACE LOCATIONS	WATER DEPTH
A	X=2,377,300 Y=10,112,135 6215' FSL 1300' FWL GC 113	1,968
C	X=2,377,321 Y=10,112,159 6239' FSL 1321' FWL GC 113	1,968
Production Manifold	X=2,377,237 Y=10,112,186	2,050

ATTACHMENT 4C

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

LEASE INFORMATION

HISTORY OF LEASE

Lease OCS-G 15546 (Green Canyon Block 113) was acquired on May 10, 1995 at Gulf of Mexico Lease Sale No. 152.

Shell Offshore Inc. filed an initial Plan of Exploration (POE) for Green Canyon Block 113 on February 14, 1997 (Approved June 27, 1997) proposing the drilling of wells A and B. Shell Offshore Inc. filed a Supplemental Plan of Exploration on April 27, 1998 (approved June 15, 1998) which proposed the addition of locations C, H, and I.

GC 113, No. 1 well was drilled and abandoned May 1, 1998. SDDI drilled the GC 113 No. 002 ST1 and finaled it temporarily abandoned July 3, 1998. SDDI is drilled the GC 113 No. 003 well and finaled it temporarily abandoned August 22, 1998.

LEASE STIPULATIONS

Oil and gas exploration activities on the Outer Continental Shelf (OCS) are subject to stipulations developed prior to the lease sale and would be attached to the lease instrument, as necessary, in the form of mitigating measures. The MMS is responsible for ensuring full compliance with stipulations.

Green Canyon Block 113 has not been identified as having a high probability for prehistoric archaeological resources or historic period shipwrecks. It is not part of any Biologically Sensitive Areas or shipping Fairways but is located within Military Warning Area W-92.

BONDING REQUIREMENTS

SDDI 's area wide bond coverage is $3,000,000 and complies with the letter to lessees and Operators dated November 5, 1993 (30 CFR Part 256);

ATTACHMENT 9

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

GENERAL INFORMATION

NEW OR UNUSUAL TECHNOLOGY

Development will be based on field proven technology. One specific area that will involve advancement of this technology is that the 8" flowlines connecting the manifold to the facilities at Bullwinkle will be buried. The installation will require design and construction of the burial system. The burial system will fluidize the soil immediately beneath the flowline and the flowline will 'self bury' to provide a minimum depth of burial of three (3) feet to top of pipe. The system will be designed to accommodate varying soil conditions beyond those already determined for Angus from a flowline rouge geotechnical survey. The buried flowline system was selected over a 'conventional' pipe-in-pipe flowline system because of arrival temperature limitations at Bullwinkle.

DESCRIPTION OF SAFETY AND POLLUTION PREVENTION EQUIPMENT

Safety features on the platforms will include well control and blowout prevention equipment as described in 30 CFR Part 250. The appropriate life rafts, life jackets, ring buoys, etc., as prescribed by the U.S. Coast Guard, will be maintained on the facility at all times. In addition, the rig and platform will be equipped with typical pollution control equipment including, but not limited to, deck drains, sumps, drip pans and sewage treatment facilities.

The goal of this development program is the gathering of information on the productivity of the leased area, in a safe manner, with minimal disruption of the environment. Qualified SDDI representatives will conduct production operations. Regular training of operations personnel is a necessary complement to the pollution prevention features in the design of equipment and operations.

DESCRIPTION OF PLATFORM

SDDI will develop the field with subsea wells tied into a subsea manifold located in Green Canyon Block 113 in a water depth of approximately 2,050'. Production from the subsea wells will be commingled in the subsea manifold and subsequently transported via two 8" flowlines to the existing processing facilities at the Bullwinkle Platform located in Green Canyon Block 65 approximately 12.5 miles away

LOCATION OF THE LEASE AND ONSHORE FACILITIES

Green Canyon Block 113 is located approximately 82 miles from the nearest Louisiana coastline and 96 miles from the shorebase located in Fouchon, Louisiana

The onshore support base for water transportation for this activity will be Shell's existing Fouchon Terminal. This facility is located on Bayou LaFourche, south of Leesville, Louisiana, approximately 3 miles from the Gulf of Mexico. No expansion of this terminal will be required for the planned activity.

Support vessels and travel frequency during production activities are as follows:

Vessel	Production Activities
Helicopter	6-8 trips per week
Supply Vessels	3-4 trips per week

ATTACHMENT 10

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

DISCHARGES

Discharges will contain no free oil and will be in compliance with and monitored as required by the permit. Any drilling fluid contaminated with oil will be transported to shore for proper disposal at an authorized disposal site.

Solid domestic wastes will be transported to shore for proper disposal at an authorized disposal site, and USCG approved marine sanitation devices on the drilling rig will treat sewage on location.

EPA Region VI will be advised prior to and upon completion of discharges for the proposed drilling and production operations addressed in the subject Plan.

Produced water will be discharged from the platform. The discharge will be monitored to ensure the absence of a sheen, and all testing will be performed as required by EPA Permit No. GMG290000.

HYDROGEN SULFIDE

In accordance with Title 30 CFR 250.417, SDDI requests that Green Canyon Block 113 zone of interest be classified by the MMS as a zone where the absence of hydrogen sulfide has been confirmed.

MMS Approval letter for the Initial and Supplemental Plans of Exploration for Green Canyon Block 113 (June 27, 1997 and June 15, 1998) classified the area of drilling as a zone where the absence of H_2S has been confirmed.

ATTACHMENT 11

INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI OCS-G 15546 GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

MUD AND CUTTINGS DISCHARGE VOLUMES
DRILLING MUD COMPONENTS AND ADDITIVES

I. ITEMS USED ON A ROUTINE BASIS

BAROID	M-I	MILPARK	DESCRIPTION
BARITE/BAROID	M-I BAR	BARITE/MILBAR	BARITE (BARIUM SULFATE)
AQUAGEL	M-I GEL	MILGEL	BENTONITE
CARBONOX	TANNATHIN	LIGCO	LIGNITE
Q-BROXIN	SPERSENE 7 VC-10	UNI CAL	BLENDED LIGNOSULFONATE
CAUSTIC SODA	CAUSTIC SODA	CAUSTIC SODA	SODIUM HYDROXIDE
ALUMINUM STEARATE	ALUMINUM STEARATE	ALUMINUM STEARTE	ALUMINUM STEARATE
LIME	LIME	LIME	CALCIUM HYDROXIDE
CC-16	CAUSTILIG	LIGCON	BLENDED LIGNITE/CAUSTIC
SODA ASH	SODA ASH	SODA ASH	SODIUM CARBONATE
BICARB	BICARB	BICARB	BICARBONATE OF SODA
BARANEX	RESINEX II	CHEMTROL-X/FILTREX	SELECTED POLYMER BLEND
CON DET.	DD	M.D.	DETERGENT
BARA-DEFOAM 1	DEFOAM-X	W.O. DEFOAM LD-8	DEFOAMER (USUALLY ALCOHOL BASED)
AKTAFLOS	DMS	-	NONIONIC MUD SURFACTANT
CMC OR CELLEX	CMC	CMC	SODIUM CARBOXY METHYL CELLULOSE
SALT	SALT	SALT	SODIUM CHLORIDE
IMPERMEX	MY-LO-JEL	MILSTARCH	PREGELATINIZED STARCH
CYPAN, WL-100, POLYPAC	SP-101	CYPAN OR WL-100	SODIUM POLYACRYLATE
DEXTRID	POLY SAL	PERM-LOSE	ORGANIC POLYMER
DRISPAC OR PAC	POLY-PAC	DRISPAC	POLYANIONIC CELLULOSE
GYP	GYP	GYP	GYPSUM (TREATED) - NATURAL
HME/SUPERDRILL	HME/SUPERDRIL	HME/SUPERDRIL	MUD CONCENTRATE FOR SPOTTING FLUID
BLACK MAGIC SUPERMIX (SFT)	PIPE-LAX ENV	BLACK MAGIC SUPERMIX (SFT)	ORGANIC LUBRICANT
ENVIRO-TORQ	LUBE-167	LUBRISAL	MICA-FLAKES
MICA TEX	MICA (C OR F)	MIL-MICA	GROUND WALNUT OR OTHER NUT SHELLS
WALL-NUT	NUT PLUG (C, M, OR F)	MIL PLUG	SODIUM CHROMATE
SODIUM CHROMATE	SODIUM CHROMATE	SODIUM CHROMATE	SYNTHETIC IRON OXICE, H_2S SCAVENGER)

BAROID	M-I	MILPARK	DESCRIPTION
IRONITE	IRONITE	IRONITE	H_2S SCAVENGER (ZINC CARBONATE)
NO-SULF	SULF-X	MIL GARD	POLYACRYLAMIDE POLYMER
E-Z MUD	POLY-PLUS RD	SEPARAN	SODIUM ACID PYROPHOSPHATE
SAPP	SAPP	SAPP	POTASSIUM HYDROOXIDE
KOH	KOH	KOH	POTASSIUM CHLORIDE (POTASSIUM)
KCL	KCL	KCL	SELECTIVE FLOCULANT
MF-1, BORUFLOC	MF-1	MF-1	CLAY EXTENDER
BEN-EX	GELEX	BEN-EX	WATER SOLUBLE SULFONATED ASPHALT
SOLTEX	SOLTEX	SOLTEX	POLYACRYLAMIDE (PHPA)
EZ MUD	POLYPLUS	NEWDRILL-HP	POTATO STARCH FLUID LOSS AGENT
-	MY-LO-GEL	MILSTARCH	POLYMERIC DISPERSANT
THERMATHIN	TACKLE	NEWTHIN	SULFONATED VINYLIC POLYMER
-	TACKLE-S	MILTEMP	MIXED METAL HYDROXIDE VISCOSIFIER
BHC	MMH	MMH	STARCH-DERIVED FLUID LOSS AGENT
THERMACHEK	-	-	
SODIUM SILICATE	SODIUM SILICATE	SODIUM SILICATE	SODIUM SILICATE

II. NONROUTINE ADDITIVES

TRADE NAME	SUPPLIER	DESCRIPTION
HF-100N	HYDRA FLUIDS	POLYALCOHOL/WATER BLEND - LUBRICANT
A-25	CESCO CHEMICAL	SURFACTANT/WATER BLEND FOR STUCK PIPE
BIOSPOT	MILPARK	SURFACTANT/WATER BLEND FOR STUCK PIPE
XC POLYMER	KELCO	XANTHAM GUM 9POLYSACCHARIDE)
ACETIC ACID	MILPARK	GLACIAL ACETIC ACID SOLUTION
IDCIDE-P	IDF	BIOCIDE
KD-40	PETROLITE	CORROSION INHIBITOR
EMI-1267	M-I	SURFACTANT/WATER BLEND FOR STUCK PIPE
HP-007	AQUALON	SUGAR BEET PULP
SILDRIL	MI	SODIUM SILICATE
SILDRIL	MI	POTASSIUM SILOCATE

III. ADDITIVES FOR "NOVAPLUS" SYNTHETIC MID SYSTEM

PRODUCT	DESCRIPTION	SUPPLIER
IO 16/18	SYNTHETIC OLIGOMER	M-I
NOVAMUL	PROPRIETARY	M-I
NOVAWET	PROPRIETARY	M-I
NOVAMOD	PROPRIETARY	M-I
VG-69	ORGANOBENTONITE CLAY	M-I
LIME	CA (OH) 2	M-I
CAC12	95% CAC 12 POWDER	M-I
VERSA-HRP	HYDROXLAMINE-ESTER	M-I
VERSA-SWA	ACTIVE PHOSPHATED AMPHOTERIC IN WATER	M-I

IV. ADDITIVES FOR "PETROFREE LE" MUD SYSTEM

PRODUCT	DESCRIPTION	SUPPLIER
OMC 42	DISPERSANT	BAROID
RM63	VISCOSIFIER	BAROID
GELTONE	VISCOSIFIER	BAROID
DURATONE	STABILIZER, FILTRATE CONTROL	BAROID
LE BASE	SYNTHETIC OLIGOMER + ESTER	BAROID
INVERMUL NTE	EMULSIFIER	BAROID

V. METHOD OF DISPOSAL

All water base mud and mud additives will be disposed of overboard into the Gulf of Mexico provided the material to be discharged meets the toxicity limit specified in the USEPA NPDES General Permit No. GMG 290187. Any fluid containing free oil will be transported to a 29 B site for disposal. Diesel will not be used in muds to be discharged, except for spotting to free stuck pipe in accord with Part I.A.1(c) of the permit. All drill cuttings, sand, and other well solids from drilling with water-based muds will be discharg overboard. Cuttings from drilling with oil-based mud and diesel pills and buffers will be hauled to a 29 B site for disposal.

Revised: 04/29/96 SBB for Mensa pre-drills
05/09/97 JDD for Angus
09/29/97 LFE for Ursa

MUD AND CUTTINGS DISCHARGE VOLUMES

INITIAL DEVELOPMENT OPERATIOS COORDINATION DOCUMENT
SDDI OCS-G 15546 GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

All mud and cuttings will be discharged in compliance with the NPDES General Permit GMG 290187 for Discharge of Effluents. No fluids containing free oil will be discharged. Daily discharge rates will vary over the life of the well. Assume that the discharge rate is uniform over the life of the well.

Cuttings volume is calculated hole volume times 4.

Mud volume discharged is calculated hole volume times 11. Values taken from Walk, Haydel and Associates Inc. study (1988).

RKB to MSL	72'
Water Depth	1,990'
RKB to ML	2,062'

MEAS. DEPTH (FT.)	DEPTH BML (FT.)	CASING SIZE (IN.)	HOLE SIZE (FT.)	INTERVAL LENGTH (FT.)	HOLE VOLUME (BBL)	CUTTINGS VOLUME (BBL.)	MUD VOLUME (BBL.)
2,242	180	36.000	36.000	180	227	907	2,493
3,150	1,088	20.000	26.000	908	596	2,385	6,560
4,850	2,788	13.375	17.500	1,700	506	2,023	5,564
9,920	7,858	11.750	14.750	5,070	1,072	4,287	11,788
15,564	13,502	7.625	10.625	5,644	619	2,476	6,809
TOTALS				13,502	3,019	12,078	33,214

Attachment 11-B

DOCD
ANCHOR CLEARANCE AND CHEMOSYNTHETIC ORGANISMS COMMENTS
SHELL, OCS-G 15546, GREEN CANYON 113
OFFSHORE, LOUISIANA

Scientific investigations have discovered the presence of benthic communities thriving near active fluid expulsion zones on the seafloor in some areas of the Gulf of Mexico. For this reason, Shell examined all shallow hazard data covering Green Canyon 113, Proposed Locations A and C and the associated anchor pattern.

Green Canyon Block 113 Subsea Wellsites

The following Green Canyon 113 surface locations were previously submitted to the MMS on POE's filed by Shell on May 14, 1997, and April 27, 1998.

Green Canyon 113, Location A, also called GC113-2ST or A-2ST:

x = 2,377,300	1300' FWL
y = 10,112,135	6215' FSL

GC113-2 was drilled to a total depth of 15,681 in June, 1998.

Green Canyon 113, Location C, also called GC113-3 or A-3:

x = 2,377,321	1321' FWL
y = 10,112,159	6239' FSL

Shell's GC113-3 was drilled to a total depth of 15,571 in August, 1998.

There is no evidence of shallow faulting, slumping or hydrocarbon seepage zones in the vicinity of the Green Canyon 113, Locations A (GC113-2ST) and C (GC113-3).

Proposed Manifold Site – Green Canyon 113

x = 2,377,237	1237' FWL
y = 10,112,186	6266' FSL

There is no evidence of shallow faulting, slumping, or hydrocarbon seepage zones in the vicinity of this proposed manifold site.

Green Canyon 113 Anchor Pattern

The anchor pattern for Green Canyon Block 113, Locations A and C was previously applied for in POE's submitted by Shell for GC113, Revised Location A, on June 27, 1997, and April 27, 1998. The following is a description of this same, exact pattern.

The anchor pattern for Green Canyon Block 113, Locations A and C was investigated using ESR (Enhanced Surface Rendering) technology. An amplitude map was applied to the waterbottom ESR for indications of hard-bottoms. Hard-bottoms were identified in the area. Possible near-surface gas was identified 20 feet below the seafloor.

The cable for Anchor A-1 will be in an area of seafloor erosion.

Anchor A-1 will be positioned over 300 feet west of a buried fault. This fault is buried over 250 feet below the mud line. Anchor A-1 will not cross or interfere with this buried fault. There is no evidence of fluid expulsion zones or hard-bottoms associated with this buried fault.

Anchor A-2 will be positioned over 200 feet west of a fault with seafloor expression. Anchor A-2 will not cross this fault. The cable for Anchor a-2 will cross another fault with seafloor expression. There is no evidence of fluid expulsion zones or hard-bottoms associated with this fault.

A near-surface gas feature is interpreted over 700 feet southeast of Anchor A-2. Anchor A-2 will not interfere with this near-surface gas feature.

Anchor A-3 will be positioned over 500 feet west of a fault with seafloor expression. There is no evidence of fluid expulsion zones or hard-bottoms associated with this fault. A near-surface gas feature is interpreted over 1000 feet east of Anchor A-3. Anchor A-3 will not interfere with this near-surface gas feature.

The cable for Anchor A-3 will be well into the water column when passing in the vicinity of the previously drilled well, Shell GC113 No. 1 wellsite. Anchor A-3 and cable will not interfere with this previously drilled wellsite.

Anchor A-4 will be positioned in an area of seafloor erosion.

Anchor A-4 will be positioned over 500 feet east of a fault buried over 250 feet below the mud line. Anchor A-4 will be positioned over 700 feet west of a fault with seafloor expression. There are no fluid expulsion zones or hard-bottoms associated with this fault. Anchor A-4 and cable will not cross these faults.

Anchor A-7 and cable will be positioned over 1800 feet northeast of the previously drilled wells, Marathon GC112 No. 1 and No. 2 wellsites. Anchor A-7 and cable will not interfere with this previously drilled wellsites.

None of the other anchors or cables for the Green Canyon 113 anchor pattern will be positioned in the vicinity of any shallow faulting, slumping, hard-bottoms, hydrocarbon seepage zones or possible near surface gas features.

Currently, there are no pipelines in the vicinity of this anchor pattern.

Based on a high-resolution geophysical survey, consisting of frequency enhanced 3-D seismic, deep-towed side-scan sonar and sub-bottom profiler, Enhanced Surface Renderings, and ESR's with amplitudes applied, the planned activity in Green Canyon Block 113 will not disturb any chemosynthetic organisms.

M.C. Dean
Geologist

A.C. Nunez
Shallow Hazards Interpreter

COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
Type of Plan

Green Canyon Block 113
Area and Block

SDDI ET AL OCS-G 15546
Lease Numbers

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

Such findings are summarized on the final page of the attached Environmental Report (ER).

A request is being made to the official state journal, "The Advocate", published in Baton Rouge, for publication by July 6, 1998 of our notice of exploration plans. Additionally, arrangements have been made with The Daily Comet in Lafourche Parish for publication by September 4, 1998 of our notice of exploration plans.

SHELL DEEPWATER DEVELOPMENT INC. (SDDI)
Operator

Sedera Lane Lyak

Sedera L. Lane
Certifying Official

9-1-98

Date

ATTACHMENT 14

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

PUBLIC NOTICE

Public Notice of Federal Consistency review of a Proposed Exploration Plan by the Coastal Management Section/Louisiana Department of Natural Resources for the Plan's consistency with the Louisiana Coastal Resources Program.

Applicant: Shell Offshore Inc.
Regulatory Affairs
Room 2096
P. O. Box 61933
New Orleans, LA 70161

Location: OCS-G 15546, GREEN CANYON BLOCK 113

Lease Offering Date: May 10, 1995

Description: Development activities include the installation of a subsea manifold, 2 8" flowlines, the completion of two wells, and the transport of crews and equipment by helicopter and/or supply vessel from an onshore base located at Fuchon, Louisiana. No ecologically sensitive species or habitats are expected to be 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: 8:00 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, Louisiana 70804-4487. Comments must be received within 15 days of the date of this notice or 15 days after the Coastal Management Division 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.

ATTACHMENT 15

OIL SPILL CONTINGENCY PLAN
INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113
OFFSHORE LOUISIANA

Since the proposed completion operations are occurring in the same general area, we ask that this Oil Spill Contingency Plan be sufficient for all the locations. The response time shown in this document is for the existing Bullwinkle platform, which has a slightly longer response time than to the subsea completions (30 minutes) and connecting flowlines. Therefore, in accordance with the requirements specified in 30 CFR 250 Subpart C of the Operating Regulations we submit for approval the following information:

30 CFR 250.42 (a) Oil Spill Trajectory Analysis

Reference: Oil Spill Risk Analysis: Central and Western Gulf of Mexico, Outer Continental Shelf, Lease Sales 157 and 161 (OCS Report, MMS 95-0026, page 98).

This report shows the following probabilities of a major oil spill from the subject lease block (Launch Areas 43 and 44) striking major land segment within Ten days.

PROBABILITIES	LAND SEGMENT
01%	**16**
<0.5%	**any other land segment**

Section III of Shell Offshore Inc.'s Oil Spill Contingency Plan (OSCP) summarizes our strategies for protecting environmentally sensitive areas. Copies of the OSCP (Revised Sept. 13, 1996),and the "Shell Offshore Inc. Environmental Sensitivities" manual are available for review in SOI's Health Safety and Environment Library in New Orleans, La.

30 CFR 250.42(b) Equipment Identification and Response Times

The drilling plans proposed rely primarily on the Marine Spill Response Corporation's (MSRC) spill response equipment stored at the MSRC land base in Fort Jackson, La. Specific response equipment available is detailed in the MSRC Equipment Manual. MSRC can be notified through their national response number at 800-259-6772, or their regional number at (318) 475-6400.

Land Based Response Times (in Hours)

SOI Spill Management Team & Contractor Notification 0.50
Boat & Crew Procurement.....2.00
Inland Travel Time 3.00
Fort Jackson to South West Pass Sea Buoy (41 Miles @ 12 Knots)
Open Water Travel Time 8.00
S.W Pass Sea Buoy to GC65 (113 Miles @ 12 Knots){subsea completions 105 miles}
Total Estimated time to Respond 13.50

30 CFR 250.42(c) Dispersant-Use Plan

Our dispersant use plan and discussion of dispersant application methods and toxicity is outlined in Section VII of our OSCP. Also included is an outline for procedures to be followed to obtain approval for dispersant use. Green Canyon 65 is a ***Good*** candidate for ***Dispersant Application*** according to the Region 6 FOSC Pre-Approved Dispersant Use Manual (greater than 10 Meters deep and further than 3 nautical miles from shore.) Through MIRG Shell Offshore has access to Airborne Support Inc. out of Bourg, Louisiana for dispersant application.

30 CFR 250.42(d) Response Equipment Inspection and Maintenance
MSRC inspects and maintains their equipment as per their U.S. Coast Guard OSRO classification. General contractor responsibilities are outlined in Section V of our OSCP.

30 CFR 250.42(e) Spill Detection and Notification Procedures

Procedures for early detection include daily visual observations. Also, all employees are instructed to report all sightings of oil on the water to their supervisor immediately. Procedures for timely notification including names and phone numbers of persons to contact are outlined in Sections II and IV of our OSCP.

30 CFR 250.42(f) Equipment, Materials and Supplies Inventory

The drilling plans proposed rely primarily on the MSRC spill response equipment stored at the MSRC land base in Fort Jackson, La. Specific response equipment available is detailed in the MSRC Equipment Manual.

30 CFR 250.42(g) Specific Response Procedures

Procedures to follow upon discovery of an oil spill are detailed in Section III. Membership of SOI's oil spill response team is outlined in Section IV. Training and drills conducted for oil spill response team members is outlined in Section X of the OSCP. SOI will establish an operation center in accordance with the procedure in Section III of the OSCP, page 5. These facilities have adequate communications, hand-held radios and walkie-talkies to support the response team efforts. Also, we will make every attempt to reduce our projected response time by giving consideration to transporting oil spill response cleanup equipment from an MSRC or independent contractor's base by the fastest available means to a vessel-loading location as close as practical to our proposed operations.

30 CFR 250.42(h) Oil Recovery Information

SOI has a Blanket Service Agreement with Newpark Services Inc. that includes the disposal of oil-contaminated material and soil.

30 CFR 250.42(i) Monitoring and Predicting Spill Movement

SOI has access to SpillNet, a computerized oil spill trajectory and response resource database.

30 CFR 250.42(j) Alaska Provisions for Ignition of an Uncontrolled Spill Source are not applicable.

PROJECTED AIR EMISSIONS

TITLE

COMPANY	Shell Offshore Inc.
AREA	Central GOM
BLOCK	Green Canyon Block 113
LEASE	OCS-G 15546
RIG	MODU Ocean Saratoga
WELLS	" A and C"
LATITUDE	27 deg 52' 59"
LONGITUDE	90 deg 54' 05"
DISTANCE TO LAND IN STAT. MILES:	82

1998 COMPLETION DAYS	31
1999 COMPLETION DAYS	140

COMPANY CONTACT	J. Price
TELEPHONE NO.	(504) 728-6676
FAX NO.	(504) 728-4573

REMARKS:

This DOCD contains information to complete two wells, install a subsea manifold, flying leads and jumper. Two 8" flowlines will carry the production stream for processing to the existing Bullwinkle platform at GC 65, approximately 12.5 miles away. Gas will be processed through a glycol dehydration system after transportation through a right-of-way pipeline.

The MODU Ocean Saratoga will be on-site drilling;mob and demob were included in the previously-submitted (4/27/98) SPOE.

The following activity is planned: 6-8 helicopter trips per week, 3-4 workboats, and 0 crewboats per week.

ATTACHMENT 17

PROJECTED AIR EMISSIONS

SUMMARY

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
Shell Offshore Inc.	Central GOM	Green Canyon Block 113	OCS-G 15546	MODU Ocean Saratoga	" A and C"

Year	Emitted Substance				
	TSP	SOx	NOx	HC	CO
1998	5	28	209	6	46
1999	3	19	138	9	30
2000-2010	0	0	0	5	0
Allowable	2,731	2,731	2,731	2,731	65,123

PROJECTED AIR EMISSIONS

EMISSIONS (1998)

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS
Shell Offshore Inc.	Central GOM	Green Canyon Block 113	OCS-G 15546	MODU Ocean Saratoga	" A and C"	27 deg 52' 59"	90 deg 54' 05"	J. Price	(504) 728-6676	

OPERATIONS	EQUIPMENT		MAX. FUEL	ACT. FUEL	RUN TIME		POUNDS PER HOUR					TONS PER YEAR				
1998	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO
COMPLETION	PRIME MOVER>600hp diesel	1900	91.77	2202.48	24	37	1.00	6.24	46.04	1.38	10.04	0.45	2.77	20.44	0.61	4.46
	PRIME MOVER>600hp diesel	1900	91.77	2202.48	24	37	1.00	6.24	46.04	1.38	10.04	0.45	2.77	20.44	0.61	4.46
	PRIME MOVER>600hp diesel	1900	91.77	2202.48	12	37	1.00	6.24	46.04	1.38	10.04	0.22	1.38	10.22	0.31	2.23
	AUXILIARY EQUIP<600hp diesel	1297	62.6451	1503.48	1	37	2.86	2.66	40.00	3.20	8.66	0.05	0.05	0.74	0.06	0.16
	SUPPLY VESSEL>600hp diesel	3120	150.696	3616.70	4	21	1.65	10.24	75.59	2.27	16.49	0.07	0.43	3.20	0.10	0.70
	SUPPLY VESSEL @ idle	1040	50.232	1205.57	20	21	0.55	3.41	25.20	0.76	5.50	0.12	0.72	5.33	0.16	1.16
	STANDBY VESSEL>600hp diesel	3120	150.696	3616.70	1	21	1.65	10.24	75.59	2.27	16.49	0.02	0.11	0.80	0.02	0.17
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	7,740	374	8,972	24	37	4.09	25.40	187.53	5.63	40.92	1.82	11.28	83.26	2.50	18.17
	SUPPORT VESSEL diesel	3,120	151	3,617	24	37	1.65	10.24	75.59	2.27	16.49	0.73	4.55	33.56	1.01	7.32
	PIPELINE BURY BARGE diesel	4,600	222	5,332	24	14	2.43	15.10	111.45	3.34	24.32	0.41	2.54	18.72	0.56	4.09
	SUPPORT VESSEL diesel	3,120	151	3,617	24	14	1.65	10.24	75.59	2.27	16.49	0.28	1.72	12.70	0.38	2.77
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
1998 YEAR TOTAL							19.54	106.24	804.67	26.14	175.49	4.61	28.32	209.42	6.32	45.69
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											2,731	2,731	2,731	2,731	65,123
	82.0															

RE: Mike Dupre
Pipeline lay barge = Allseas Lorelay - 2/3 time @ 30% of full power (25,800 hp) = 7740 hp
Pipeline bury barge = Ceanic Legend - 1/3 time @ 50% of full power (9200 hp) = 4600 hp

PROJECTED AIR EMISSIONS

EMISSIONS (1999)

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS
Shell Offshore Inc.	Central GOM	Green Canyon Block 113	OCS-G 15546	MODU Ocean Saratoga	" A and C"	27 deg 52' 59"	90 deg 54' 05"	J. Price	(504) 728-6676	

OPERATIONS	EQUIPMENT		MAX. FUEL	ACT. FUEL	RUN TIME		POUNDS PER HOUR					TONS PER YEAR				
1999	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burner	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO
COMPLETION	PRIME MOVER>600hp diesel	1900	91.77	2202.48	24	43	1.00	6.24	46.04	1.38	10.04	0.52	3.22	23.75	0.71	5.18
	PRIME MOVER>600hp diesel	1900	91.77	2202.48	24	43	1.00	6.24	46.04	1.38	10.04	0.52	3.22	23.75	0.71	5.18
	PRIME MOVER>600hp diesel	1900	91.77	2202.48	12	43	1.00	6.24	46.04	1.38	10.04	0.26	1.61	11.88	0.36	2.59
	AUXILIARY EQUIP<600hp diesel	1297	62.6451	1503.48	1	43	2.86	2.66	40.00	3.20	8.66	0.06	0.06	0.86	0.07	0.19
	SUPPLY VESSEL>600hp diesel	3120	150.696	3616.70	4	25	1.65	10.24	75.59	2.27	16.49	0.08	0.50	3.71	0.11	0.81
	SUPPLY VESSEL @ idle	1040	50.232	1205.57	20	25	0.55	3.41	25.20	0.76	5.50	0.14	0.84	6.19	0.19	1.35
	STANDBY VESSEL>600hp diesel	3120	150.696	3616.70	1	25	1.65	10.24	75.59	2.27	16.49	0.02	0.13	0.93	0.03	0.20
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	4,600	222	5,332	24	5	2.43	15.10	111.45	3.34	24.32	0.15	0.91	6.69	0.20	1.46
	SUPPORT VESSEL diesel	3,120	151	3,617	24	5	1.65	10.24	75.59	2.27	16.49	0.10	0.61	4.54	0.14	0.99
MANIFOLD INSTALLATION	DERRICK VESSEL (diesel)	16,038	775	18,591	24	10	8.48	52.64	388.59	11.66	84.78	1.02	6.32	46.63	1.40	10.17
	SUPPORT VESSEL diesel	3,120	151	3,617	24	10	1.65	10.24	75.59	2.27	16.49	0.20	1.23	9.07	0.27	1.98
PRODUCTION	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	FIELD GAS COMP. (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	FIELD GAS COMP. (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	DECK CRANE (<600hp diesel)	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	UTILITY VESSEL>600hp diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	UTILITY VESSEL @ idle	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER nat gas	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	WET OIL TANK-	500			24	297				0.63					2.23	
	DRY OIL TANK-	500			24	297				0.63					2.23	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			160		297				0.00					0.01	
	GLYCOL STILL VENT		0		0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
1999 YEAR TOTAL							23.93	133.47	1005.72	33.43	219.36	3.05	18.63	138.01	8.65	30.11
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											2,731	2,731	2,731	2,731	65,123
	82.0															

PROJECTED AIR EMISSIONS

EMISSIONS (2000-2010)

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS
Shell Offshore Inc.	Central GOM	Green Canyon Block 113	OCS-G 15546	MODU Ocean Saratoga	" A and C"	27 deg 52' 59"	90 deg 54' 05"	J. Price	(504) 728-6676	

OPERATIONS	EQUIPMENT		MAX. FUEL	ACT. FUEL	RUN TIME		POUNDS PER HOUR					TONS PER YEAR				
2000-2010	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO
PRODUCTION	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	ELECT. GEN (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	FIELD GAS COMP. (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	FIELD GAS COMP. (nat gas)	0	0	0	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	DECK CRANE (<600hp diesel)	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	UTILITY VESSEL>600hp diesel	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	UTILITY VESSEL @ idle	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER nat gas	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	WET OIL TANK-	500			24	365				0.63					2.74	
	DRY OIL TANK-	500			24	365				0.63					2.74	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			160		365				0.00					0.02	
	GLYCOL STILL VENT		0		0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2000-2010	YEARLY TOTAL						0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	5.49	0.00
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											2,731	2,731	2,731	2,731	65,123
	82.0															

ENVIRONMENTAL REPORT

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT
SDDI ET AL OCS-G 15546, GREEN CANYON BLOCK 113

GULF OF MEXICO
OFFSHORE, LOUISIANA

PREPARED FOR

SHELL DEEPWATER DEVELOPMENT INC.

Prepared for:
Ms. Jane Price
P.O. Box 61933
New Orleans, LA 70171
Phone: (504) 728-6676

June 29, 1998

C. H. Fenstermaker & Associates, Inc.

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ATTACHMENT 18

TABLE OF CONTENTS

I. DESCRIPTION OF PROPOSED ACTION

Shell Deepwater Development Inc. (Shell) proposes to conduct development activities within Green Canyon Block 113, Lease OCS-G 15546, Offshore, Louisiana. Under the Initial Development Operations Coordination Document, Shell plans to install an 8-well subsea manifold with two 8" flowlines carrying the production stream to the existing Bullwinkle platform located in Green Canyon Block 65 approximately 12.5 miles away. The plan also consists of the completion of two new wells. The semi-submersible rig, Diamond Saratoga will be used for the proposed operations. At this time, the planned commencement date for the proposed activities is November 25, 1998.

Two 8" flowlines will carry the production stream for processing to the existing Bullwinkle Platform located in Green Canyon Block 65, for processing and sales. A total of 38 billion cubic feet of gas and 27 million barrels of condensate will be produced over 4 years beginning in April, 1999. Production rates are estimated to peak in June, 1999 at 56 million cubic feet per day and 40,000 barrels of condensate per day.

A. DESCRIPTION OF PROPOSED TRAVEL MODES, ROUTES AND FREQUENCY

Support vessels will be dispatched from a base located in Fourchon, Louisiana. Helicopters and boats will normally move to the block via the most direct route, however, vessels operating in the field may travel from other facilities nearby. Following is an estimate of trips to the proposed operation:

	DRILLING OPERATIONS
Work Boat	3-4 trips per week
Helicopter	6-8 trips per week

B. ONSHORE SUPPORT BASE

Shell will utilize a support base in Fourchon, Louisiana for activities proposed in this plan. This base is capable if providing all necessary support functions. The proposed activities will help to maintain this base at its present level of activity. No expansion of the physical facilities or the creation of new jobs is expected to result from the work planned in conjunction with this block.

C. NEW OR UNUSUAL TECHNOLOGY

No new or unusual technology that may affect coastal waters will be required for the proposed activities.

D. VICINITY OF PROPOSED OPERATIONS

The location for the proposed activities is approximately 82 statute miles from the nearest Louisiana shoreline. The water depth at this location is approximately 1,990 feet. Figure 1 represents the location of the block in relation to the Louisiana Coast, as well as the geographic relationship between other Outer Continental Shelf (OCS) lease areas and Green Canyon Block 113.

II. DESCRIPTION OF AFFECTED ENVIRONMENT

A. COMMERCIAL FISHING

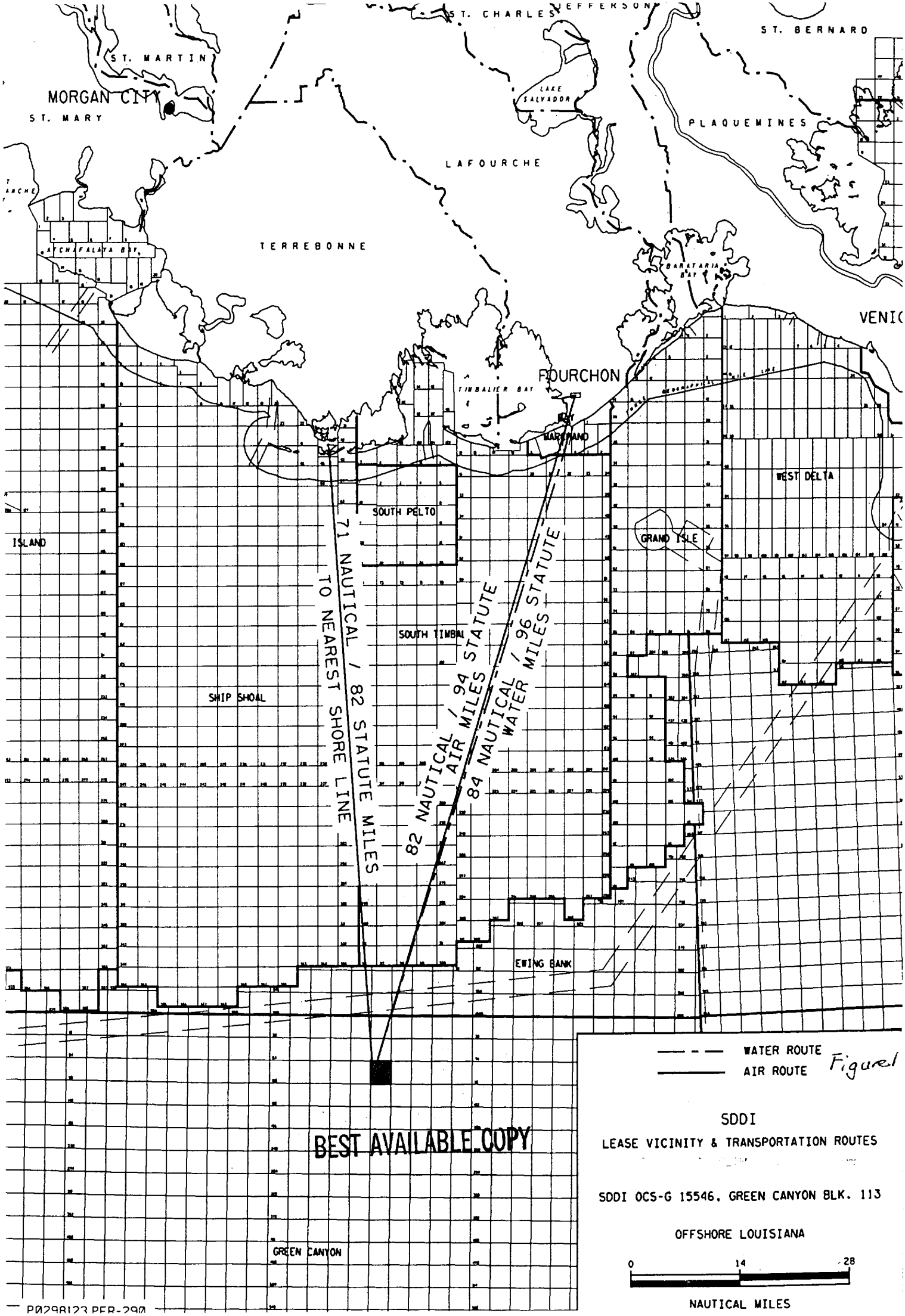
The Gulf of Mexico provides nearly 20% of the commercial fish landings in the continental United States. The Gulf of Mexico yielded the nation's second largest regional commercial fishery by both weight and value in 1994. During 1994, commercial landings of all fisheries in the Gulf totaled nearly 2.2 billion pounds valued at about $806 million.

Menhaden, with landings of over 1.7 billion pounds, valued at $76.7 million, was the most important Gulf species in quantity landed during 1994. Shrimp, with landings of 206.2 million pounds, valued at $462 million, was the most important Gulf species in value landed during 1994. The 1994 Gulf oyster fishery accounted for 72 percent of the national total with landings of 27.3 million pounds of meats, valued at about $96 million. The Gulf blue crab fishery accounted for 25 percent of the national total with landings of 49.1 million pounds, valued at $34 million.

Louisiana ranked first among Central and Western Gulf states in total commercial fishery landings for 1994, with about 1.7 billion pounds landed, valued at $339.7 million. Texas ranked second with nearly 81.1 million pounds landed, valued at $206.2 million. Alabama ranked third with 23.3 million pounds landed, valued at $48.1 million. Mississippi ranked last in total commercial fishery landings for 1994, with value at approximately $44.8 million.

B. SHIPPING

The establishment of a series of safety fairways or traffic separation schemes (TSS's), and anchorage areas provide unobstructed approach for vessels using U.S. ports. Shipping safety fairways are lanes or corridors in which no fixed structure, temporary or permanent, is permitted. TSS's increase navigation safety by separating opposing lanes of vessel traffic. Fairway anchorages are areas contiguous to and associated with a fairway, in which fixed structures may be permitted within certain spacing limitations.



Fairways play an important role in the avoidance of collisions on the Outer Continental Shelf OCS, particularly in the case of the larger oceangoing vessels, but not all vessels stay within the fairways. Many others, such as fishing boats and OCS support vessels, travel through areas with high concentrations of fixed structures. In such cases the most important mitigation factor is the requirement for adequate marking and lighting of structures.

After a structure has been in place for a while, it often becomes a landmark and an aid to navigation for vessels that operate in the area on a regular basis. Most oceangoing vessels are equipped with radar capable of aiding navigation in all weather conditions. This has contributed to safe navigation on the OCS.

Green Canyon Block 113 is clear of all shipping fairways and anchorage areas. The drilling rig and each of the marine vessels servicing these operations will be equipped with all U.S. Coast Guard required navigational safety aids to alert ships of their presence in all weather conditions.

C. PLEASURE BOATING, SPORT FISHING AND RECREATION

The northern Gulf of Mexico coastal zone is one of the major recreational regions of the United States, particularly for marine fishing and beach activities. Gulf Coast shorelines offer a diversity of natural and developed landscapes and seascapes. Major recreational resources include coastal beaches, barrier islands, estuarine bays and sounds, river deltas, and tidal marshes. Other resources include publicly owned and administered areas such as national seashores, parks, beaches, and wildlife lands, as well as designated preservation areas, such as historic and natural sites, landmarks, wilderness areas, wildlife sanctuaries, and scenic rivers.

The two major recreational areas most directly associated with offshore leasing and potentially affected by it are the offshore marine environment and the coastal shorefront of the adjoining states. The major recreational activity occurring on the OCS is offshore marine recreational fishing and diving. Petroleum platforms provide recreation for fishermen and scuba divers because they act as artificial reefs attracting and establishing aquatic communities including highly sought after food and sport fishes. Additionally, offshore rigs and platforms serve as navigation points for small commercial and recreational marine craft.

D. POTENTIAL OR KNOWN ARCHAEOLOGICAL RESOURCES

Archaeological resources are any prehistoric or historic site, building, structure, object or feature that is manmade or modified by human activity. The Archaeological Resources Regulation at 30 CFR 250.806 grants specific authority to each Minerals Management Service (MMS) Regional Director to require archaeological resource surveys and reports. Surveys are required as per Notice to Lesses (NTL) 91-02 prior to any drilling or development activities on leases within the archaeological high-probability areas.

With the exception of the Ship Shoal Lighthouse, historic archaeological resources on the OCS consist of shipwrecks. Management of this resource was accomplished by establishing a high probability zone for the occurrence of historic shipwrecks. Many of the OCS shipwrecks occur in clustered patterns related mainly to navigation hazards and port entrances.

Geomorphic features that have a high probability for associated prehistoric archaeological resources in the Central and Western Gulf include barrier islands, embayments, river channels and associated floodplains and terraces, and salt dome features. Remote sensing surveys have been very successful in identifying the geographic features that have a high probability for associated prehistoric sites.

The operational regulations addresses in MMS Letter to Lessees (LTL) dated September 5, 1995, reflect that Green Canyon Block 113 does not fall within the High Probability Area for either Historic Period Shipwrecks or Prehistoric Archaeological Resources on the OCS. An archaeological survey is not required for this lease.

E. ECOLOGICALLY SENSITIVE FEATURES

Barrier Islands and Beaches

Barrier beaches are a common landform along the Gulf Coast and stretch in an irregular chain, from Florida to Texas. These enlongated, narrow landforms are composed of sand and other loose sediments transported by waves, currents, storm surges, and wind. The term "barrier" identifies the structure as one that protects other features, such as bays, estuaries, and marshes from direct impacts of the open ocean. By separating coastal waters from the ocean, barriers contribute to the amount of estuarine habitat along the coast. As much as two-thirds of the top value Gulf Coast species of fish are considered to be directly dependent on conditions in these estuaries during some stage of their life. Another benefit of both the islands and their adjacent marshes and bays is that of providing habitats for a large number of birds and other animals, some of which are endangered or threatened. Barrier landform configurations continually adjust in response to prevailing or changing environmental conditions.

From east to west, the barrier coasts of the Western and Central Gulf include Baldwin County Headland in Alabama, the barrier islands of Mississippi Sound, the Chandeleur Islands, the Modern Mississippi River Delta and its developing barrier islands, the Bayou Lafourche Headland and accompanying barrier islands, Isles Dernieres, the Chenier Plain of Louisiana and Texas, Trinity River Delta, Brazos-Colorado River Delta and its accompanying barrier islands, barrier islands of Espiritu Santo Bay and Laguna Madre and the Rio Grande Delta.

The Central and Western Gulf Coast includes barrier islands that are part of the National Park System. These are the Padre Island National Seashore along the Texas coast and Gulf Islands National Seashore offshore Mississippi.

Coastal Wetlands

Wetland habitat types occurring along the Gulf Coast include fresh, brackish, and saline marshes; forested wetlands; and small areas of mangroves. Coastal wetlands provide habitat for a great number and wide diversity of invertebrates, fish, reptiles, birds, and mammals, and are particularly important as nursery grounds for juvenile forms of many important fish and shellfish species. The Louisiana coastal wetlands support over two-thirds of the Mississippi Flyway wintering waterfowl population and the largest fur harvest in North America.

Louisiana contains most of the Gulf coastal wetlands. The deterioration of coastal wetlands, particularly in Louisiana, is an issue of concern. Several factors contribute to wetland loss in coastal Louisiana, including sediment deprivation, subsidence and sea level rise, construction of ring levees, and the construction of pipeline and navigation canals through the wetlands. The wetlands of Mississippi seem to be more stable than those in Louisiana, perhaps reflecting the more stable substrate and more active sedimentation in wetland areas. Also, there have been only minor amounts of canal dredging in the Mississippi wetlands. Most wetlands in Alabama occur on the Mobile River delta or along northern Mississippi Sound. In Texas, coastal marshes occur along bays, on rivers and their deltas, and on the inshore side of barrier islands. Salt marshes consisting primarily of smooth cordgrass occur at lower elevations and at higher salinities. Brackish marshes occur in less saline areas inland of salt marshes. Freshwater marshes of the region occur primarily along the major rivers and tributaries.

Seagrasses

Seagrass beds grow in shallow, relatively clear and protected waters with predominantly sand bottoms. Primarily because of low salinity and high turbidity, robust seagrass beds are found only within a few scattered, protected locations in the Central and Western Gulf of Mexico. The area off Florida contains approximately 98.5% of all coastal seagrass beds in the northern Gulf of Mexico. Texas and Louisiana contain approximately 0.5%, Mississippi and Alabama have the remaining 1%. Inshore seagrasses provide important habitat for early life stages of commercial and recreational fisheries species and they provide a food source for several species of wintering waterfowl.

Live Bottoms (Pinnacle Trend)

The northeastern portion of the Central Gulf of Mexico exhibits a region of topographic relief, the "pinnacle trend", found at the outer edge of the Mississippi-Alabama shelf between the Mississippi River and DeSoto Canyon. The region contains a variety of features from low to major pinnacles, as well as ridges, scarps, and relict patch reefs. The features of the pinnacle trend offer a combination of topographic relief and hard substrate for the attachment of sessile organisms and, therefore, have a greater potential to support significant live bottom communities than surrounding areas on the Mississippi-Alabama Shelf. Human impact in these environments appears to be minimal. Cables and lines can affect shallower reef communities, but probably have little impact at these depths once they become tangled on or lodged against reef structures.

Live bottom surveys are required by MMS for blocks within the pinnacle trend area. This block is not located within the pinnacle trend.

Deepwater Benthic Communities

Chemosynthetic communities are defined as persistent, largely sessile assemblages of marine organisms dependent upon chemosynthetic bacteria as their primary food source. Chemosynthetic clams, mussels, and tube worms, similar to the hydrothermal vent communities of the eastern Pacific have been discovered in association with hydrocarbon seeps in the deep water areas of the Gulf of Mexico. Chemosynthetic communities have been a source of controversy over the past few years, in part because of the unusual environmental requirements and hypothesized sensitivity of the communities to oil and gas activities. The MMS requires site specific surveys of bottom disturbing actions in water depths greater than 400 m in order to judge the potential of the region for supporting chemosynthetic organisms. These areas are subsequently protected from physical disturbance from anchors, pipelines, chains, and templates.

Green Canyon Block 113 is located in water depths greater than 400 meters; therefore there is the potential for chemosynthetic organisms to be present. In accordance with Notice to Lessees (NTL) 88-11, Shell has reviewed this block for site specific activities.

Topographic Features

The shelf and shelf edge of the Central and Western Gulf are characterized by topographic features, which are inhabited by hard bottom benthic communities. The habitat created by the topographic features is important in several respects: they support hard bottom communities of high biomass, high diversity, and high numbers of plant and animal species; they support, either as shelter, food, or both, large numbers of commercially and recreationally important fishes; they are unique to the extent that they are small isolated areas of such communities in vast areas of much lower diversity; they provide a relatively pristine area suitable for scientific research; and they have an aesthetically attractive intrinsic value.

The Central Gulf of Mexico lists 16 topographic features and the western Gulf of Mexico lists 23 topographic features. None of these listed are in or near the vicinity of the proposed operations.

F. PIPELINES AND CABLES

As a prudent operator, Shell will conduct its operations in accordance with the provisions specified in MMS NTL 83-03 in order to avoid all pipelines and/or cables in the vicinity of the proposed operations. Shell is not aware of any pipelines or cables located in this block.

G. OTHER MINERAL USES

The activities proposed for Green Canyon Block 113 will have no direct or indirect impact on other mineral uses.

H. OCEAN DUMPING

Under provisions of The Marine Pollution Research and Control Act of 1987, all ships and watercraft, including all commercial and recreational fishing vessels, are prohibited from dumping plastics at sea. The law also severely restricts the legality of dumping other vessel generated garbage and solid waste items both at sea and in U.S. navigable waters.

The major sources of ocean dumping related to OCS petroleum activities are drilling fluids, or "muds", and drill cuttings. If any oil-based mud is used in the proposed operations, they will be transported to shore for proper disposal.

All discharges will be made in compliance with a general National Pollution Discharge Elimination System (NPDES) permit issued by U.S. Environmental Protection Agency under the Federal Water Pollution Act. These discharges should not impact any ecologically sensitive areas along the coast or on the OCS.

I. ENDANGERED AND THREATENED SPECIES AND CRITICAL HABITAT

Twenty-eight species of cetaceans, one sirenian, and one exotic pinniped (California sea lion) have been sighted in the northern Gulf of Mexico. Cetaceans are divided into two major suborders: Mysticeti (baleen whales) and Odontoceti (toothed whales). Seven baleen and 21 toothed whale species have been reported for the Gulf. The only member of the Order Sirenia found in the northern Gulf is the West Indian manatee. California sea lions exist in the northern Gulf of Mexico as feral individuals that were probably were released or escaped from marine parks.

Five species of baleen whales (northern right, blue, fin, sei and humpback) and one species of toothed whale (sperm whale) found within the Gulf of Mexico are currently listed as endangered species. All are uncommon to rare in the Gulf except for the sperm whale.

Several endangered or threatened species of turtles, including the green turtle, leatherback, hawksbill, Kemp's ridley, and loggerhead may occasionally visit the lease area. Green turtles prefer depths of less than 20m, where seagrasses and algae are plentiful. Leatherbacks, the largest and most oceanic of the marine turtles, seasonally enter coastal and estuarine habitats where jellyfish are plentiful. The hawksbill is the least commonly reported marine turtle in the Gulf. Stranded turtles are regularly reported in Texas and, recently, in Louisiana; these tend to be either hatchlings or yearlings. The Kemp's ridley sea turtle is the most imperiled of the world's marine turtles. In the Gulf, Kemp's ridleys inhabit nearshore areas, and have also been recorded off the mouth of the Mississippi River. The loggerhead sea turtle occurs worldwide in habitats ranging from estuaries to the continental shelf. In the Gulf of Mexico, recent surveys indicate that the Florida Panhandle accounts for approximately one-third of the nesting on the Florida Gulf Coast. In the Central Gulf, loggerhead nesting has been reported on Gulf Shores and Dauphin Island, Alabama, Ship Island, Mississippi, and the Chandeleur Islands, Louisiana. The

banks off of the central Louisiana coast and near the Mississippi Delta are also important marine turtle feeding areas. Hatchlings have a pelagic phase followed by movement inshore.

The offshore waters, coastal beaches, and contiguous wetlands of the northern Gulf of Mexico are populated by both resident and migratory species of coastal and marine birds. They are herein separated into five major groups: seabirds, shorebirds, wading birds, marsh birds, and waterfowl. Many species are strongly pelagic, and therefore rarely seen from shore. The remaining species, which are most susceptible to potential deleterious effects resulting from OCS related activities, are found within coastal and inshore habitats. Recent surveys indicate that Louisiana and Texas are among the most important states in the south and southeastern U.S. in terms of nesting colony sites and total number of nesting coastal and marine birds. Fidelity to these nesting sites varies from year to year along the Gulf Coast, with site abandonment along the northern Gulf Coast often attributed to habitat alteration and excessive human disturbance. Feeding habitats include the waters and coastal shores of the open Gulf, bays and estuaries, brackish and freshwater wetlands, as well as coastal farmlands and landfills.

The following coastal and marine bird species, which inhabit or frequent the north-central and western Gulf of Mexico coastal areas, are recognized by the FWS as either endangered or threatened: piping plover, whooping crane, eskimo curlew, bald eagle, brown pelican, and least tern.

The piping plover is a migratory shorebird that is endemic to North America. It nests on sandy beaches along coasts or inland lakeshores, preferring areas with scant vegetation and cover. Most wintering plovers occur in Texas and along other U.S. Gulf coast sites. The plover's wintering habitat includes coastal sandflats and mudflats in close proximity to large inlets or passes.

Wild whooping cranes presently occur in two migratory populations. The first nests in Canada and migrates to wintering grounds along the Texas coast on salt flats and islands in and around Aransas National Wildlife Refuge (ANWR). The second population was established in southeastern Idaho. Cranes feed during the winter months on a wide variety of foods gathered from the coastal environment.

The eskimo curlew is a small American curlew that nests on Arctic tundra and migrates to its wintering habitat in the pampas grasslands of southern South America. In 1929, the eskimo curlew was thought to be extinct; however, occasional records persist. Census efforts are underway to ascertain whether this species is extinct.

The bald eagle is the only species of sea eagle regularly occurring on the North American continent. The bulk of the bald eagle's diet is fish, combined with opportunistic capture of a variety of vertebrate species. The bald eagle requires a large area for hunting and is sensitive to chemical contaminants in the food chain. Most breeding pairs occur in Florida and Louisiana, and some in South Carolina, Alabama, and east Texas. In 1995, the Fish and Wildlife Service reclassified the bald eagle from endangered to threatened.

The brown pelican is one of two pelican species in North America. It feeds entirely upon fishes captured by plunge diving in coastal waters. It rarely ventures beyond 20 miles from the coast. In recent years, there has been a marked increase in populations of the brown pelican along its entire former range.

The least tern is the smallest North American tern. They are listed as endangered, except within 50 miles from the coast. Least terns usually nest in small colonies on bare or sparsely vegetated sand and shell substrates, and will use human made and managed spoil sites as well.

J. SOCIOECONOMIC

In relation to oil and gas activity in the Gulf of Mexico, the exploration and production of crude oil and gas is classified as a primary industry. Classified as secondary industries are activities associated with the processing of crude oil and gas in refineries, natural gas plants, and petrochemical plants.

The production of OCS oil and gas, particularly offshore Louisiana, has been a major source of revenue in the study area since 1954. Data from the 1990 Census show that the average annual payroll associated with oil and gas activities amounts to approximately $3.3 billion for the Gulf of Mexico. Average annual tax dollars generated per employee in the offshore oil and gas program are estimated at 8% of payroll revenues. Thus, State and local taxes generated annually by development of offshore oil and gas in the Gulf of Mexico coastal region are estimated at $267.9 million.

Job estimates as of September 1995 show that about 31,700 jobs are directly or indirectly dependent on the offshore program. Nearly all offshore-related employment in the Central Gulf is due to activity offshore Louisiana.

The offshore oil exploration industry including oil companies, drilling contractors, and oilfield suppliers provide a major input to Louisiana's economy. A number of ports in the Central and Western Gulf have developed into important centers for offshore support. The onshore support base for Shell's operations in Green Canyon Block 113 is located in Fourchon, Louisiana.

The first socioeconomic data base report will be submitted when the Minerals Management Service (MMS) and the States of Alabama, Louisiana and Mississippi identify the specific parameters to be addressed in these semi-annual reports.

III. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

A. WATER QUALITY

Routine operational discharges (drilling muds and cuttings, produced waters, deck drainage, and sanitary and domestic wastes) or accidental spills may temporarily degrade some measures of water quality adjacent to the proposed activity site. However, these impacts decrease to very low with distance from the source. Oil spills would result in only localized, short-term, minor impacts to offshore water quality. Therefore, the impact from these factors is considered to be low.

B. EFFECTS ON MARINE ORGANISMS

The proposed activities could affect plankton and benthos immediately around the proposed surface locations. Although some motile animals could avoid the area, some adverse impacts could not be avoided. These communities are widespread throughout the Gulf and tend to recover quickly, so these impacts would not be deleterious to the overall ecosystem over the long term.

C. EFFECTS ON THREATENED OR ENDANGERED SPECIES

Offshore activities have the potential to cause detrimental effects on marine mammals. These animals could be impacted by operational discharges, helicopter and vessel traffic, platform noise, seismic surveys, oil spills, oil spill response activities, and discarded trash and debris from service vessels and OCS structures. The effects of the majority of these activities are estimated to be sublethal, and expected impact levels range from low to very low. Oil spills of any size are expected to seldom contact endangered and threatened cetaceans.

An impact from offshore oil and gas activities on the Alabama, Choctawhatchee, and Perdido Key beach mice could occur as a result of oil spills, oil spill response activities, beach trash and debris, and coastal habitat degradation. Deleterious effects are not expected because of the low probability of spill occurrence and contact and the particular consideration their habitat receives during oil-spill cleanup, as directed by OPA 90.

Marine turtles could be impacted by structure installation, pipeline placement, blowouts, operational discharges, OCS related trash and debris, vessel traffic, explosive platform removals, oil spills, oil spill response activities, and habitat and water quality degradation. All to most disturbances are expected to be temporary, and marine turtles are expected to recover from a period of weeks to months.

The brown pelican, Arctic peregrine falcon, bald eagle, piping plover, and least tern may be impacted by helicopter and service vessel traffic, entanglement in and ingestion of offshore oil

and gas related plastic debris, and oil spills. Sale related oil spills of any size are expected to seldom contact threatened and endangered birds or their critical feeding, resting, or nesting habitats. It is expected that the effects from the major impact producing factors on coastal and marine birds are negligible and of nominal occurrence. As a result, there will be no discernible disturbance of Gulf coastal and marine birds.

The Gulf sturgeon could be impacted by oil spills resulting from oil and gas activities. However, oil spills of any size will rarely contact Gulf sturgeon.

D. WETLANDS AND BEACHES

Wetlands and beaches could be adversely affected by oil spills, pipeline emplacements, navigation canal dredging and construction and maintenance of inshore facilities. Although some maintenance dredging is expected to occur, this activity has not been shown to have a negative impact on barriers, and the need for dredging cannot be attributed to the small percentage of vessel traffic in these channels.

The probability of an oil spill impacting coastal beaches and wetlands is extremely low. Seagrasses may be contacted by low concentrations of oil, if any, from oil spills. No permanent impacts are expected.

E. AIR QUALITY

Emissions of pollutants into the atmosphere are expected to have concentrations that would not change the onshore air quality classifications. Offshore activities generate a small but significant amount of air pollutants due to the emissions of diesel engines; therefore the deterioration of air quality is unavoidable in an OCS operation area. In most instances, these emissions affect only the immediate activity site and are rapidly dissipated by the atmosphere, depending on climatic conditions.

The potential degrading effects on air quality from onshore and offshore operational activities are platform emissions; drilling activities during exploration, delineation and development; service vessel operations; evaporation of volatile hydrocarbons from surface oil slicks; and fugitive emissions during hydrocarbon venting and offloading.

Projected Air Emissions have been prepared for the proposed operations and are included as an attachment to the plan.

F. COMMERCIAL FISHING

The major impact producing factors on fishing activities from oil and gas activities include structure placement, oil spills, production platform removals, underwater OCS obstructions, seismic surveys, subsurface blowouts, and OCS discharges of drilling muds, produced waters and Naturally Occurring Radioactive Material (NORM).

Oil spills that contact the coastal bays, estuaries, and open Gulf areas with high concentrations of floating eggs have the greatest potential for damage to commercial fisheries. The majority of the Gulf's fishes are estuarine dependent. An oil spill could seriously affect commercial fisheries such as menhaden, shrimp and blue crab that use these areas as nursery or spawning grounds

Underwater OCS obstructions cause gear conflicts, which result in such losses of trawl and shrimp catch, business downtime and vessel damage.

Commercial fishery resources may also be affected by the discharge of drilling muds which may contain material toxic to marine fishes; however, this is only at concentrations four or five orders of magnitude higher than those found more than a few meters from the discharge point. Further dilution is extremely rapid in offshore waters.

In conclusion, although these factors impact the commercial fisheries industry, the level of impact is expected to be very low.

G. SHIP NAVIGATION

Very little interference can be expected between the drilling unit and marine vessels utilized during proposed operations and ships that use established fairways. However, at night and during rough weather, fog, and heavy seas, ships not using established fairways could collide with the structures. Approved aids to navigation will be installed on the drilling rig and all marine vessels servicing these operations in accordance with USCG regulations.

H. ARCHAEOLOGICAL RESOURCES

The greatest potential impact to an historic and/or prehistoric archaeological resource as a result of the offshore oil and gas activity would result from a contact between OCS offshore activity (drilling rig, pipeline emplacement) and a historic shipwreck and/or prehistoric site located on the OCS.

The OCS activity could contact a shipwreck because of incomplete knowledge on the location of shipwrecks in the Gulf. Although this occurrence is not probable, such an event would result in the disturbance or destruction of important historic archaeological information. Other factors

associated with the proposed activities are not expected to affect historic archaeological resources.

The archaeological surveys required prior to an operator beginning oil and gas activities in a lease block are estimated to be 90% effective at identifying possible sites. There is only a small probability that an unknown cultural resource exists in the lease area. No archaeological survey was required on this lease, as per MMS Letter to Lessees dated September 5, 1995.

Shell, as a prudent operator, agrees that, should any site, structure or object of historical or archaeological significance be discovered during drilling and production activities within the lease, such finds would immediately be reported to the Director, Gulf of Mexico OCS Region, and every reasonable effort would be made to preserve and protect the archaeological resources from damage until the Director has given directions as to its preservation.

I. RECREATION AND AESTHETIC VALUES

Major recreational beaches include Padre Island National Seashore, Gulf Islands National seashore, State parks and recreational areas, parks, urban beaches, private resort areas, and private environmental preservation and conservation areas. The most widely recognized threats to the enjoyment and use of recreational beaches are oil spills and trash and debris. The physical presence of platforms and drilling rigs can affect the aesthetics of beach appreciation, and noise from aircraft can disturb the ambiance of beach-related experiences. The proposed activities are not expected to affect recreational areas.

The drilling rig and marine vessels may represent an obstacle to some sport fishermen, but such effect is expected to be negligible and not permanent. However, due to the water depth and the distance of the block offshore, the likelihood of interference with sport fishermen is remote. The effects that normal operations or a minor oil spill would have on any fish stocks important to sport fishermen are also considered to be negligible.

IV. SUMMARY

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

A. 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.

B. All operations are covered by a Minerals Management Service approved Oil Spill Contingency Plan.

C. All applicable Federal, State, and Local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

D. The proposed activities described in detail in the Development Operations Coordination Document comply with Louisiana's Coastal Management Program and will be conducted in a manner consistent with such program.

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