UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region

New Orleans, Louisiana

FINAL

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

ENDANGERED SPECIES/STRUCTURE REMOVAL

No. ES/SR 92-020

Structure-Removal Activities

Eugene Island Area, Block 366

Lease OCS G 8700

Summer, 1992

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SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

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No. ES/SR 92-020

Assessment of the Environmental Impacts of the Proposed
Removal of Platform A in Eugene Island Area,
Block 366 (Lease OCS-G 8700)
by Forest Oil Corporation

Date Submitted: February 6, 1992
Commencement Date: Summer, 1992
Prepared by Gary Rutherford

FINDING OF NO SIGNIFICANT IMPACT

I have considered the notification by Forest Oil Corporation to remove Platform A in Eugene Island Area, Block 366 (OCS-G 8700), SEA No. ES/SR 92-020. Based on the environmental analysis and mitigative measures contained in the site-specific environmental assessment there is no evidence to indicate that the proposed action will significantly (40 CFR 1508.27) affect the quality of the human environment if the permit/application is approved subject to all of the mitigative measures. Preparation of an environmental impact statement is not required.

FOR

Regional Supervisor
Leasing and Environment
Gulf of Mexico OCS Region

6/26/92
Date

TABLE OF CONTENTS

INTRODUCTION AND BACKGROUND

The purpose of this Site-Specific Environmental Assessment (SEA) is to assess the specific impacts associated with proposed structure-removal activities. The SEA is based on a Programmatic Environmental Assessment (PEA) (USDOI, MMS, 1987) which evaluates a broader spectrum of potential impacts resulting from the removal of structures; e.g., platforms/caissons across the central and western planning areas of the Gulf of Mexico Outer Continental Shelf. The PEA/SEA process is designed to simplify and reduce the size of environmental assessment documents by eliminating repetitive discussions of the same issues. This SEA conforms to MMS and other appropriate guidelines for preparing environmental assessments by utilizing data presented in the PEA to complete the assessment. It presents site-specific data regarding the proposed structure removal and evaluates the potential impacts. Mitigation measures are contained in this document to lessen potential impacts. Preparation of this SEA has allowed the determination of whether a Finding of No Significant Impact (FONSI) is appropriate or whether further assessment of the proposal is necessary.

I. DESCRIPTION OF THE PROPOSAL AND NEED FOR THE PROPOSAL

A. DESCRIPTION OF THE PROPOSED ACTION WITH MITIGATION

Forest Oil Corporation proposes to remove Platform A in Eugene Island Area, Block 366 (Lease OCS-G 8700). The structure is located in a water depth of 345 feet and lies approximately 76 miles southwest of Terrebonne Parish, Louisiana. Forest plans to remove the caissons by mechanical means and to use bulk charges if the mechanical cutters are unsuccessful. The operator also plans to use bulk charges to sever the four skirt piles of Platform A sixteen feet below the mudline. The jacket will be "reefed" in place and is currently petitioning the state of Louisiana for the proposition.

See Table 1 for specific data regarding the explosive removal operation.

Refer to Appendix A for structure specifications for the removals, additional data on removal techniques, and sequence of events.

MITIGATION

The following mitigative measure was identified by the operator in the application to remove Platform A to reduce the likelihood of death or injury to sea turtles and marine mammals.

A "marine mammal" watch will be performed 48 hours prior to and during the use of explosives.

There are existing pipelines within 150 meters (490 feet) of the proposed structure-removal activity. Precautions in accordance with NTL No. 83-3, Section IV.B., will be taken prior to conducting the removal activity.

B. NEED FOR THE PROPOSED ACTION

A discussion of the legal and regulatory mandates to remove abandoned oil and gas structures from Federal waters can be found in the PEA (USDOI, MMS, 1987). The platform has no more useful purpose to Forest Oil Corporation because the reservoir has been depleted and the Lease will terminate in 1993.

II. ALTERNATIVES TO THE PROPOSED ACTION

Alternatives to the proposed structure removal with mitigations originally submitted are:

A. NON-REMOVAL OF THE STRUCTURE

Forest Oil Corporation would not proceed with the proposed removal. This alternative would eliminate the possibility that sea turtles, marine mammals, or other marine life would be harmed by removal of the structure as proposed. However, non-removal of the structure would represent a conflict with Federal legal and regulatory requirements, which mandate the timely removal of obsolete or abandoned structures within a period of one year after termination of the lease, or upon termination of a right-of-use or easement. Therefore, non-removal does not appear to be a valid alternative.

B. REMOVAL OF THE STRUCTURE BY ALTERNATIVE NON-EXPLOSIVE METHODS

The MMS has discussed various structure-removal techniques in the Final Environmental Impact Statement (FEIS) for Proposed Oil and Gas Lease Sales 131,135 and 137 (USDOI, MMS, 1990) and the PEA (USDOI, MMS, 1987). It was concluded that the most effective methods of structure removal are the use of explosives, either bulk or shaped charges, and underwater arc cutting. Other methods appear promising but require additional development to solve the operational and logistical problems associated with these techniques. Primarily for this reason, they do not appear to be feasible alternatives for the removal of the subject structure.

Refer to the FEIS (USDOI, MMS, 1990) and PEA (USDOI, MMS, 1987) for detailed information concerning alternative methods of structure removal.

C. REMOVAL OF THE STRUCTURE AS PROPOSED WITH ADDED MITIGATION

Refer to the Summary Evaluation (Appendix B), the terms and conditions of the Incidental Take Statement (Appendix C), and any mitigation identified by this SEA necessary to reduce the likelihood of death or injury to sea turtles and marine mammals.

Our analyses indicate there are existing pipelines within 150 meters (490 feet) of the proposed structure-removal activity. Precautions in accordance with NTL No. 83-3, Section IV.B., will be taken prior to conducting the removal activity.

A "marine mammal" watch will be performed 48 hours prior to and during the use of explosives.

III. ENVIRONMENTAL EFFECTS, SOCIOECONOMIC CONCERNS, AND OTHER CONSIDERATIONS

A. PHYSICAL ENVIRONMENT

1. Environmental Geology and Geologic Hazards

A discussion of environmental geology and geologic hazards can be found in the PEA (USDOI, MMS, 1987). The proposed structure-removal activity is not in an area of sediment instability (mud flows, slumps, or slides). Therefore, geologic conditions are not expected to have an impact on the proposed structure-removal activity.

2. Meteorological Conditions

No impacts are expected as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

3. Physical and Chemical Oceanography

a. Physical Oceanography

No impacts are expected as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

b. Chemical Oceanography

Impacts are expected to be very low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

4. Water Quality

Impacts are expected to be low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

5. Air Quality

Impacts are expected to be very low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

B. BIOLOGICAL ENVIRONMENT

1. Coastal Habitats

No impacts are expected as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

2. Protected, Endangered, and/or Threatened Species

a. Birds

The PEA (USDOI, MMS, 1987) delineates sensitive areas along the Texas coastline where whooping cranes and brown pelicans could be adversely impacted by structure-removal support activities. The operator has indicated that Intracoastal City, Louisiana would be used as the shore base. Very little impacts on threatened or endangered birds are expected.

b. Marine Mammals

A discussion of marine mammals occurring across the Gulf of Mexico (GOM) and an assessment of the potential impacts of structure-removal activities on marine mammals can be found in the PEA (USDOI, MMS, 1987). Fritts, et al. (1983) conducted aerial surveys across a 9,514 square-mile area of GOM waters. Results of these surveys indicate that the bottlenose dolphin is probably the most likely marine mammal to be encountered at the proposed structure removal(s). A marine mammal watch will be conducted with the NMFS 48 hours prior to severing with explosives. If marine mammals are detected at the structure-removal site, detonation of the primary charges would be delayed until the animals are removed from the area. In spite of these precautions, a low probability exists that marine mammals could enter the blast area undetected and could be injured or killed by the underwater, subsurface detonations. Such an occurrence is considered highly unlikely and with the indicated protective mitigation measures, the proposed structure-removal activity is expected to have only a low impact on marine mammals.

c. Sea Turtles

A discussion of sea turtles occurring across the central and western GOM and an assessment of the potential impacts of structure-removal activities on sea turtles can be found in the PEA (USDOI, MMS, 1987). Studies by Fritts, et al. (1983) and Fuller and Tappan (1986) as well as stranding data from the Sea Turtle Stranding and Salvage Network (Teas, 1989) indicate that sea turtles occur in the vicinity of the proposed activities and therefore could be impacted by the structure-removal operations. Definitive information on the probability of encountering sea turtles at the removal site during explosive operations is scarce. NMFS and/or MMS observers will be utilized to look for sea turtles prior to detonation of the primary charges. If sea turtles are detected at the structure-removal site, detonation of the primary charges will be delayed until the animals are removed from the area. As in the case of marine mammals, the possibility exists that sea turtles could enter the blast area undetected and could be injured or killed by the underwater, subsurface detonations. This occurrence is considered unlikely, and with the indicated protective mitigation measures, the proposed structure-removal activity is expected to have only a low impact on sea turtles. An incidental take (by injury or mortality) of one documented Kemp's ridley, green, hawksbill or leatherback turtle or two loggerhead turtles is set for this removal. With all the precautions to be taken as mitigative measures it is unlikely that any sea turtles will be affected by this proposed operation.

3. Birds

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

4. Sensitive Marine Habitats

A discussion of sensitive marine habitats occurring in the central and western GOM and an assessment of the potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1987). The proposed activities are not near any sensitive marine habitats. Therefore, the subject structure-removal activity will not impact any sensitive marine habitats or their resident biota.

5. Offshore Habitats and Biota

Impacts are expected to be low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

C. SOCIOECONOMIC CONCERNS

1. Employment

Impacts are expected to be very low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

2. Economics

Impacts are expected to be very low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

3. Onshore Support Facilities, Land Use, and Coastal Communities and Services

The operator has indicated that Intracoastal City, Louisiana, would be the shore base for the proposed structure-removal activity. No impacts are expected as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

D. OTHER CONSIDERATIONS

1. Commercial and Recreational Fisheries

a. Commercial Fisheries

For analysis information, see the PEA referenced in the Introduction. Since the PEA was originally written, new concerns have emerged concerning the impacts of explosive structure removals on reef fish populations. On May 9, 1991 the Gulf of Mexico Fishery Management Council expressed concern over the declining stocks of reef fish, especially red snapper. They referred to anecdotal accounts of finfish kills associated with explosive removals of offshore structures in order to link these activities with their concerns about declining populations of reef fish. They further suggested that MMS should hold all explosive structure removals in abeyance until more information becomes available on the effects of these activities on fish stocks. See the PEA (Section on Offshore Habitats and Biota) for a discussion of fish kills in association with explosive structure removals.

MMS has declined to hold all explosive structure removals in abeyance citing the regulatory mandates for structure removals and problems with current non-explosive structure removal methods. MMS has stated a commitment to carry out studies to assess the impacts of oil and gas structure removals on Gulf fisheries resources and the results of these studies will be used to determine future policies with respect to these activities.

MMS continues to consider the overall impacts of structure removals on commercial fishing to be low. The MMS policy of encouraging an active rigs-to-reefs program will help to offset cumulative structure-removal impacts to fisheries resources.

b. Recreational Fisheries

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction. See the preceding section for a discussion of fish kills in association with explosive structure removals.

2. Archaeological Resources

Impacts are expected to be low as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

3. Military Use/Warning Areas and Explosive Dumping Areas

A description of military use/warning areas and explosive dumping areas, their locations, and potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1987). The proposed structure-removal activity will not take place in any of these areas.

4. Navigation and Shipping

The proposed structure-removal activity is not located near a vessel safety fairway. Structures located nearshore may serve as "landmarks" to vessels or helicopters operating in the area on a regular basis. The overall impacts of the proposed work on navigation and shipping are expected to be very low. More information on the impacts of structure removals on navigation and shipping can be found in the PEA (USDOI, MMS, 1987).

5. Pipelines and Cables

The PEA (USDOI, MMS, 1987) contains a description of the impacts of structure-removal activities on pipelines and cables. There are existing pipelines within 150 meters (490 feet) of the proposed structure-removal activity. Precautions in accordance with NTL No. 83-3, Section IV.B., will be taken prior to conducting the removal activities; therefore, the proposed work will not pose a hazard to pipelines and cables in the area.

6. Other Mineral Resources

No impacts are expected as a result of the proposed activity. For analysis information, see the PEA referenced in the Introduction.

7. Human Health and Safety

The PEA (USDOI, MMS, 1987) describes the hazardous conditions for workers during structure-removal activities. The operator has proposed the use of explosives and mechanical cutting in conjunction with the structure removal activity. Existing legal and regulatory safety requirements will keep the impacts of the proposed work on human health and safety at a very low level.

E. UNAVOIDABLE ADVERSE IMPACTS

A discussion of unavoidable adverse impacts can be found in the PEA (USDOI, MMS, 1987). Two areas of ongoing concern have been the potential impact to protected, threatened, and/or endangered species and potential loss of habitat to the marine environment. Both topics are discussed in the PEA and previously in this document. A more recent issue of concern has surfaced regarding the impacts of explosive structure removals on reef fish stocks. This issue has been previously discussed in this document. Although the impacts to commercial and recreational fisheries is considered to be low, further studies information about this issue should be available in the future. Other unavoidable adverse impacts are considered to be minor.

IV. PUBLIC OPINION

A discussion of public concerns regarding structure removals can be found in the PEA (USDOI, MMS, 1987).

In May 1991, the Gulf of Mexico Fishery Management Council requested that the MMS place a moratorium over the explosive removal of offshore structures with three or more supports. Nonremoval of these structures would conflict with current Federal legal and regulatory requirements which mandate the timely removal of abandoned or obsolete structures within a period of one year after termination of the lease, or upon termination of a right-of-use or easement.

The MMS believes that current data on the effects of explosive removals on fish mortality is insufficient to draw any conclusions, and a moratorium on all but single pile caissons at this time is unjustified. In order to quantify explosive effects, the MMS initiated an interagency study with the NMFS to determine fish mortalities from platform removal operations. In addition to the above study, MMS supports an active rigs-to-reef program and encourages industry to search for method that will minimize effects on fish from platform removal operations.

V. CONSULTATION AND COORDINATION

In accordance with the provisions of Section 7 of the Endangered Species Act, the proposed structure-removal operation

has been coordinated with the NMFS. Their comments are included in Appendix C. The NMFS concluded that removal of the structure will not likely jeopardize the continued existence of any threatened or endangered species under their purview. Additionally, they concluded that the proposed removal may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill, and leatherback turtles. Therefore, they established a low level of incidental take and discussed various measures necessary to monitor and minimize this impact (see Appendix C). The NMFS noted that no incidental taking of marine mammals was authorized under Section 101(a)(5) of the Marine Mammal Protection Act of 1972 in connection with the proposed structure-removal activities. Therefore, taking of marine mammals by the operator would be prohibited unless they successfully apply for and obtain a permit or waiver to do so from NMFS.

VI. BIBLIOGRAPHY AND SPECIAL REFERENCE(S)

Forest Oil Corporation 1989. OCS platform/structure removal application. Houston, TX.

Fritts, T.H., A.B. Irvine, R.D. Jennings, L.A. Collum, W. Hoffman, and M.A. McGehee. 1983. Turtles, birds, and mammals in the northern Gulf of Mexico and nearby Atlantic waters. U.S. Fish and Wildlife Service, Division of Biological Services, Washington, D.C.

Fuller, D.A. and A.M. Tappan. 1986. The occurrence of sea turtles in Louisiana coastal waters. Coastal Fisheries Institute. Center for Wetland Resources. Louisiana State University. Baton Rouge, LA.

Teas, Wendy G. 1989. 1989 semi-annual report of the sea turtle stranding and salvage network. Atlantic and Gulf Coasts of the United States. January - June 1989. National Marine Fisheries Service. Southeast Fisheries Center, Miami Laboratory, 75 Virginia Beach Drive, Miami, FL.

U.S. Department of the Interior. Minerals Management Service. 1989. Final Environmental Impact Statement. Gulf of Mexico Sales 131, 135 and 137: Central, Western and Eastern Planning Areas. OCS EIS/EA MMS 90-0042. Washington, D.C. Available from NTIS. Springfield, VA: PB-90273582/AS.

U.S. Department of the Interior. Minerals Management Service. 1987. Programmatic Environmental Assessment. Structure-removal activities Central and Western Gulf of Mexico Planning Areas. OCS/EA 87-0002. Gulf of Mexico OCS Region, New Orleans, LA.

Table 1

Explosives Proposed by the Operator for the Structure-Removal in Eugene Island Area, Block 366 (OCS-G 8700)

Type of Explosives:

Composition B, bulk charges

Number and Size of Charges:

1-50lb charge each for the A-1 and A-2 wells
1-40lb charge each for the A-3 and A-4 wells
Four charges, 100 lb. each for the skirt piles

Deployment of Charges:

Inside, a minimum of 16 feet below the mud line

Sequencing of Detonations:

One 50lb charge each will be used to remove the caissons of the A-1 and A-2 wells. One 40lb charge each will be used to remove the caissons of the A-3 and A-4 wells.

Skirt piles:

All piles will be detonated simultaneously with a 0.9 second delay between each charge

VII. PREPARERS

Author:

Gary Rutherford - Geologist

Typist

Sandra Pavlas - Clerk Typist

VIII. APPENDICES

A. FOREST OIL CORPORATION CORRESPONDENCE

B. MMS SUMMARY EVALUATION

C. NMFS CORRESPONDENCE

APPENDIX A

FOREST OIL CORPORATION CORRESPONDENCE

Explosive > 50 lb NON-GENERIC

RECEIVED

FEB 6 1992

Minerals Management Service
Leasing & Environment

UNITED STATES GOVERNMENT
MEMORANDUM

Rush

Feb 5, 1992

To: Environmental Operations Section (LE-5)

From: Office of Structural and Technical Support, Field Operations, Gulf of Mexico OCS Region (OSTS)

Subject: Platform Removal

OPERATOR: Forest Oil Corporation

Control No: ES/SR 92-20 (SEC No. 0093)

Platform	Area/Block	Lease
A	EI 366	OCS-G 8700

Shore Base: Intercoastal City, LA

Enclosed is one copy of the subject application. We will transmit the Endangered Species Action Section Consultation Documentation subsequent to receipt of your Summary Evaluation. There are/[redacted] existing pipeline(s) within 500 feet of the proposed removal location.

Arvind Shah

Arvind Shah
Extension 2894

Enclosure

cc:

AShah: :LEXITYPE:Disk 5

-5

SENT BY:FOREST OIL ; 3- 6-92 ; 4:19PM ; HMD- 504 736 2610;# 1

92-20

FOREST OIL CORPORATION

RECEIVED
MAR 09 1992
Office of Structural and Technical Support

TELECOPIER COVER LETTER

DATE: 3/6/92

TOTAL NUMBER OF PAGES (Including Cover Letter): 8

TO: Mr. Arvid Shah
Mineral Mgt. Serv.

TELECOPIER PHONE NO.: 504-736-2610

FROM: Cecil Colwell
Operations Division

COMMENTS:

If you experience any difficulty receiving this transmission, please call Sandy

(303) 293-0460

If you wish to transmit a document to this office, our telecopier number is:

(303) 293-0467

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FOREST OIL CORPORATION

1700 Lincoln Plaza • 707 Eighteenth Street
Denver, Colorado 80202 (303) 293-0460

March 6, 1992

Regional Supervisor, Field Operations (OSTS)
Minerals Management Service
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

Attn: Mr. Arvid Shah

Re: EI 366
Platform Removal

Dear Mr. Shah:

Forest Oil Corporation requests permission to use explosives to sever the cassions at 16' below the mud line. Attached please find the charge size and type along with the cassion OD & thickness at the sever point. Forest will attempt to remove these cassions by mechanical means first & wishes to ammend our initial application to use explosives as a back up means should mechanical cutters prove unsuccessful.

Please make a note of our new address and phone number. Should any additional information be necessary contact me at 303-293-0460, your assistance is appreciated.

Regards,

Cecil N. Colwell
Division Drilling Superintendent

CNC/slt
Closures

1. Well No. OCS-G 8700 A-1

AT 16' Below Mud Line

30" X 1" WT

20" X 0.438" WT

13 3/8" X 0.430" WT

9 5/8" X 0.395" WT

CMT Between 30 X 20

CMT Between 20 X 13 3/8

NO CMT Between 13 3/8 X 9 5/8

Explosive: 50 LB Bulk charge of Comp "B"

2. Well No OCS-G 8700 A-2

AT 16' Below Mud Line

30" X 1" WT

20" X 0.438" WT

13 3/8 X 0.430" WT

9 5/8 X 0.395" WT

CMT Between 30X20

CMT Between 20 X 13 3/8

No CMT Between 13 3/8 X 9 5/8

Explosive: 50 LB Bulk charge of Comp "B"

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3. Well No: OCS-G 8700 A-3

AT 16' [illegible] MUD LINE

26" X 3/4" WT
16" X 0.438" WT
10 3/4" X 0.365" WT

CMT BETWEEN 26 X16
CMT BETWEEN 16 X10 3/4

EXPLOSIVE: 40 LB BULK CHARGE OF COMP "B"

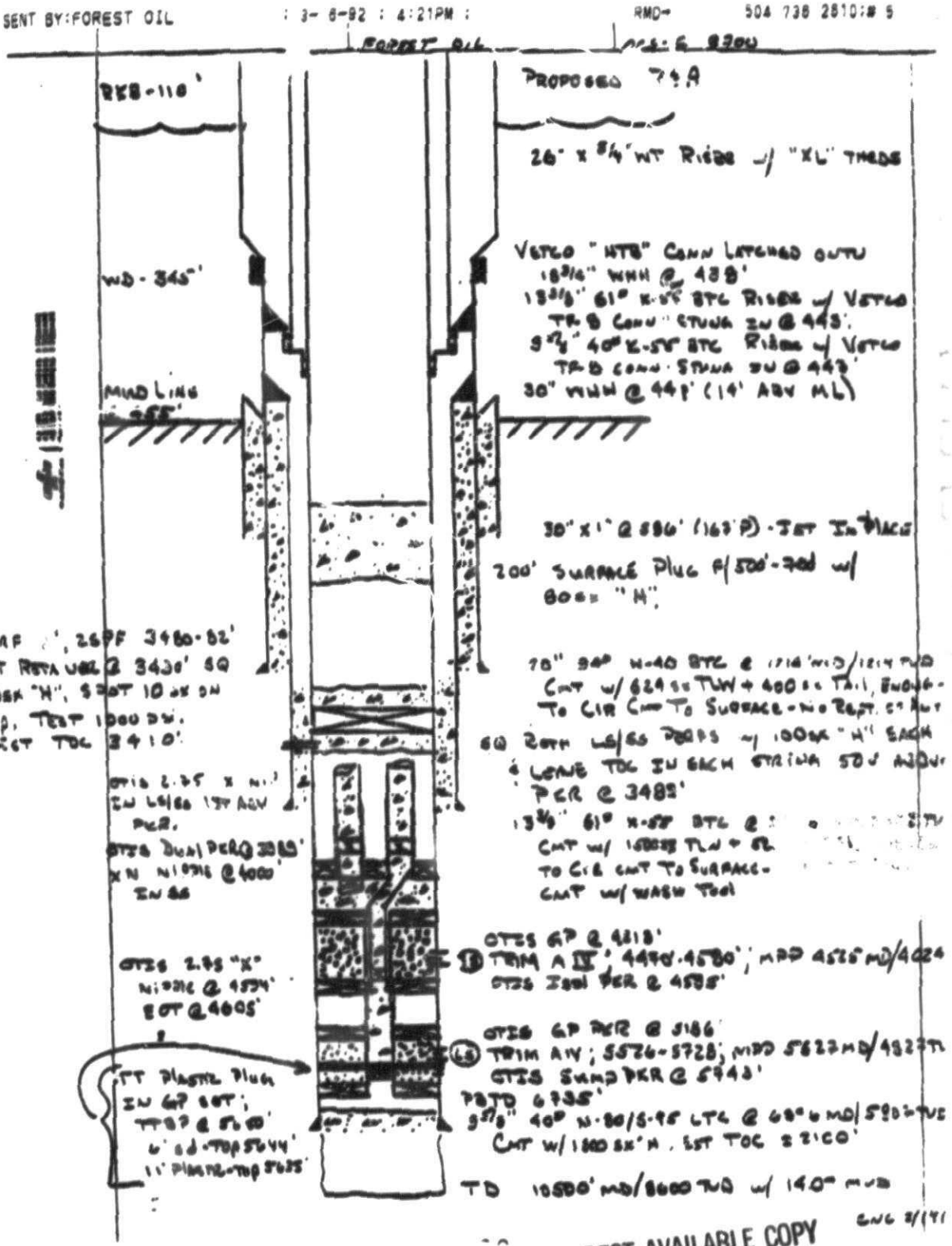
4. Well No. OCS-G 8697 A-4

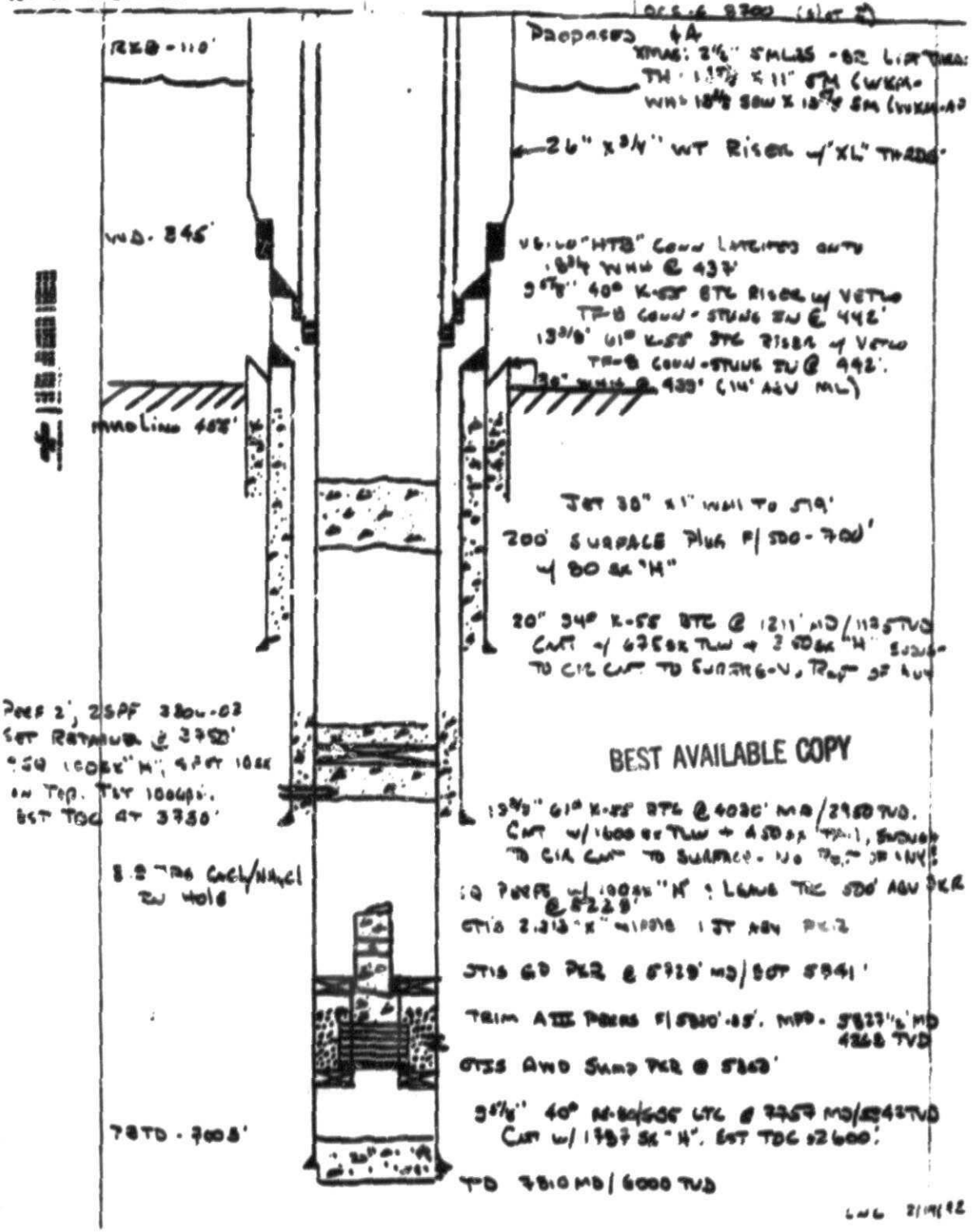
AT 16' BELOW MUD LINE

24" X 5/8" WT
16" X 0.438" WT
10 3/4" X 0.365" WT
7 5/8" X 0.328" WT

CMT BETWEEN 24 X16
CMT BETWEEN 16 X 10 3/4
CMT BETWEEN 10 3/4 X 7 5/8

EXPLOSIVE: 40 LB BULK CHARGE OF COMP "B"

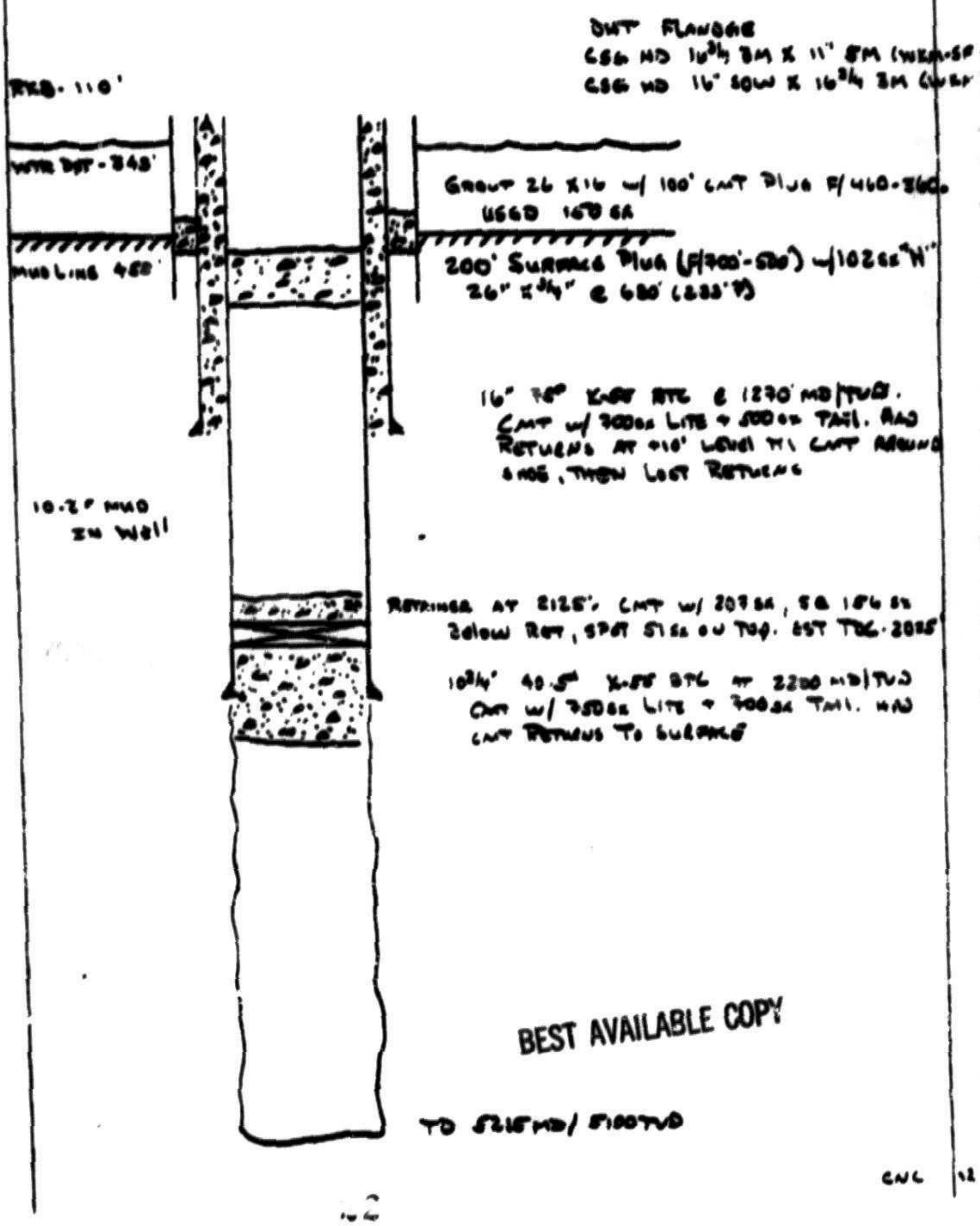



RKB - 118'
MLW - 845'
mudline 488'
Perf 2', 2SPF 3800-03
Set Retainer @ 3750'
150 (100sx "H", 4 BPM 1000
on Tbg. Test 1000psi.
Est TOC at 3750'
8.8 ppg CaCl/NaCl
in Hole
TBTD - 7005'
Proposed
20" x 3/4" WT Riser w/ "XL" Threads
26" HTB Conn Latched onto
18 3/4 WHH @ 433'
9 5/8" 40# K-55 BTC Riser w/ Vetco
TP-B Conn - Stung In @ 442'
13 3/8" 61# K-55 BTC Riser w/ Vetco
TP-B Conn - Stung In @ 448'.
30" @ 459' (14' Adv ML)
Jet 36" x 1" WHH to 519'
200' Surface Plug f/ 500 - 700'
w/ 80 sx "H"
20" 94# K-55 BTC @ 1211' MD/1185 TVD
Cmt w/ 675 sx TLW + 250 sx "H" Surface
to Cir Cmt to Surface - No Top of Lite
BEST AVAILABLE COPY
13 5/8" 61# K-55 BTC @ 4030' MD/2950 TVD.
Cmt w/ 1600 sx TLW + 450 sx "H", Surface
to Cir Cmt to Surface - No Top of Lite
Sq Perfs w/ 100sx "H" ; Leave TOC 500' Abv Per
@ 5229'
GTIS 2.313 "X" Nipple 1 Jt Abv Pkr
GTIS 6D Pkr @ 5919' MD/ BOT 5941'
Trim AIII Perfs f/ 5830'-85'. MPD - 5827 1/2' MD
4268 TVD
GTIS Anvil Stinger @ 5969'
3 5/8" 40# N-80/SOS LTC @ 7359 MD/5243 TVD
Cmt w/ 1587 sx "H", Est TOC @ 6600'.
TD 7310 MD/ 6000 TVD

LWC 2/19/92

FOREST OIL | S.S. 8300 (slot 8)

PRESENT Well Bore



CNC

FOREST OIL OCS-G 8693 [illegible]

Proposed P&A of Well

X-MAS 3 1/2" 5M Single · 3R Lift Thds
TBG HD 11" X 7 1/16 5M (WKM-[illegible])
CSG HD 16 3/4 3M X 11" 5M (WKM-[illegible])
CSG HD 16" SOW X 16 3/4 3M (WKM)

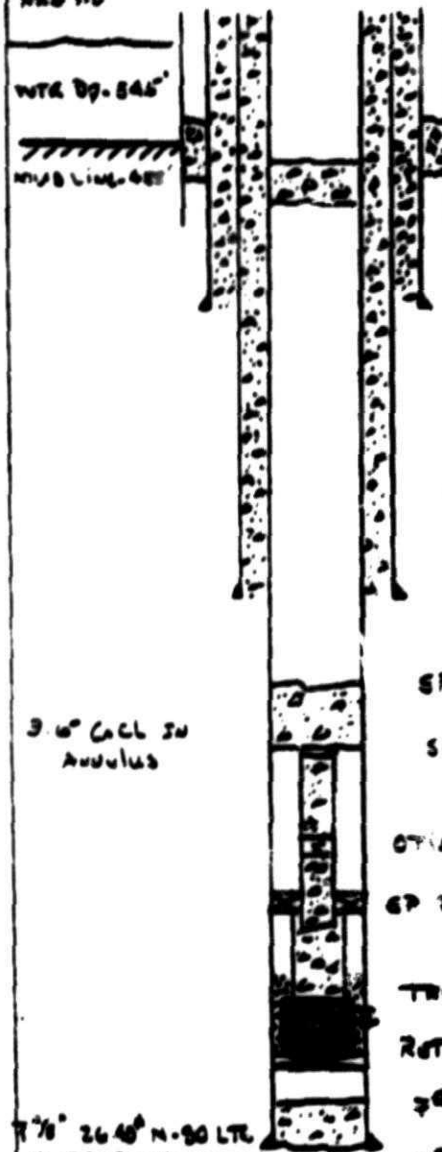
RKB 110'

WTR DP. 545'

GROUTED 24 X 16 w/ 100' CMT Plug F/ 465'-365'. USED 150 sx

MUD LINE 665'

200' SURFACE Plug (F/700'-500') w/ 50 sx "H"
24" x 7/8" WT @ 712' (240'P)



16" 75# K-55 BTC @ 1000 MD/TVD. CMT w/ 530 sx Lite + 300 sx Tail. Had occasional Partial Returns at 610'.

10 3/4" 40.5# K-55 BTC @ 2955 MD/2658 TVD. CMT w/ 1005 sx Lite + 645 sx Tail. Had CMT Returns To Surface

SPOT 200' Plug w/ 50 sx H' F/ 6045'-5845'

3.6" CALC IN Annulus

SQ Perfs w/ 100 sx "H", Leave TOC 500' ABV PKR @ 6045'.

OTIS 2.313 "X" NIPPLE 1 JT ABV PKR

GP PKR @ 6546' / EOT @ 6500

TRIM A IV Perfs 6624-34, MPP 6629 MD 4903 TVD

RET @ 6648'

7 5/8" CMT w/ 775 sx Lite / 550 sx Tail, Had Good CMT Returns @ Surface.

7 5/8" 26.40# N-80 LTC @ 7339 MD/ 5124 TVD

9 7/8" Hole TO 7403' MD/ 5129 TVD [illegible]

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CWC

FOREST OIL CORPORATION

January 29, 1992

RECEIVED
FEB 05 1992
Office of Structural and Technical Support

Regional Supervisor, Field Operations (OSTS)
Minerals Management Service
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

Dear Sir;

Attached please find the proposed OCS platform/structure removal forms, as supplied by your office, for the removal of Forest Oil Corporation's Eugene Island 366 "A" platform. Your approval to remove this structure according to this procedure is requested. Forest proposes to "reef" the jacket in place at Eugene Island 366 and is currently petitioning the State of Louisiana with such a proposition. The platform will be removed during the summer of 1992 and a "marine mammal watch" will be performed prior to and during the use of explosives to sever the platform piles 15' below the mud line.

Enclosed with the platform removal forms are general descriptions with detailed drawings of the proposed platforms for removal. A procedure for "Site Clearance" is also presented along with grid patterns for the sonar scan and trawl patterns. The specific trawling and sonar scan contractors will be submitted for your approval prior to abandonment.

Should any additional information be required please contact, Cecil Colwell at 318/988-9400 at Forest's Lafayette office. Your assistance is appreciated.

Regards,

Cecil N. Colwell
Division Drilling Superintendent

CNC/ssb

Attachments

EXPPERM.MMS

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

I. **Responsible Party**

A. **Lease operator name** FOREST OIL CORPORATION

B. **Address** P. O. Box 31910, Lafayette, Louisiana 70593

Street Address: 500 Dover Blvd., Lafayette, Louisiana 70503

C. **Contact person and telephone number** Cecil N. Colwell (318) 988-9400

D. **Shore base** Intercoastal City, LA

II. **Identification of Structure to be Removed**

A. **Platform name** FOC - Eugene Island 366 "A"

B. **Location (lease, area, block, and block coordinates)**

Eugene Island 366, OCS-G-8700, x= 1,973,988.30'& y= 196,522.10'

C. **Date installed (year)** 1989

D. **Proposed date of removal (Month/Year)** July 1992

E. **Water depth** 345'

III. **Description of Structure to be Removed**

A. **Configuration (attach a photograph or a diagram)**

B. **Size** Jacket: 365' long, 45' x 60' top & 170' x 135' base
Deck: 78' x 120' - 3 Decks

C. **Number of legs/casings/pilings** 4 pile with 4 skirt piles

(see attached description & drawings)

D. Diameter and wall thickness of legs/casings/pilings
Legs: 80" x 1.25" & 81" x 1.75"
Piles: 72" x 2-1/4" & 60" x 1.00"

E. Are piles grouted? ** Inside or outside? Outside
**72" piles in skirts are grouted
60" piles in jacket legs are not

F. Brief description of soil composition and condition

IV. Purpose

Lease expiration date and reason for removing the structure
Lease expiration date 7/93

V. Removal Method

A. Brief description of the method to be used Above water components will be torch cut. Explosives will be used to sever piles

B. If explosives are to be used, provide the following:

1. Kind of explosives Composition B, C-4, Cyclotol or Octol, Bulk

2. Number and sizes of charges 4 each of 75 lbs. for main piles and 4 each of 100 lbs for skirt pile

a. Single shot or multiple shots? Multiple

b. If multiple shots, sequence and timing of detonations
4 skirt piles at one time with a one (0.9) second delay between each charge, followed one minute later with 4 main piles with a one (0.9) second delay between each charge.

3. Bulk or shaped charge? Bulk

a. Depth of detonation below mud line 16 feet

b. Inside or outside piling? Inside

C. Pre-removal monitoring techniques

1. Is the use of scare charges or acoustic devices proposed? No

If yes, provide the following:

a. Number and kind

b. Size of charges

c. Brief description of how, where, and when scare charges or acoustic devices will be used

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals? No

If yes, briefly describe the proposed detection method

D. Post-removal monitoring techniques

1. Will transducers be used to measure the pressure and impulse of the detonations? No

2. Will divers be used to survey the area after removal to determine and effects on marine life? No

VI. Biological Information

If available, provide the results of any recent biological surveys conducted in the vicinity of the structure. If available, describe any recent observations of turtles or marine mammals at the structure site. No turtles sited.

PLEASE SEND THREE COPIES OF THE APPLICATION TO:

Regional Supervisor, Field Operations (OSTS)
Minerals Management Service
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

ATTACHMENTS:

E.I. 366 Platform drawings
National Marine Fisheries Service Report
Platform Structure Removal Procedure
Pipeline P & A Procedure
Site Clearance Proce

Eugene Island 366 "A"

Platform Abandonment

1. All wells and caissons will be plugged and abandoned as per MMS regulations and will have been retrieved from 15' below the mud line.

2. The 12" gas pipe line from Eugene Island 366 "A" to Eugene Island 342 "subsea tie-in" to the 30" TEN-TET-TXG will have been pigged and plugged.

3. Set up derrick barge at Eugene Island 366 location.

4. Remove sump caissons and temporary supports to the caissons as required.

5. Cut the deck legs at the stabbing points.

6. Rig to lift the deck section from the jacket and set on the material barge.

7. Jet out piles to the proper severing depth.

8. Lower charges to proper severing depth using pneumo to confirm depth.

9. Detonate charges.

10. Rig to the jacket and topple in place.

11. Pick up anchors.

Note: A marine mammal watch will be conducted with the National Marine Fisheries Service 48 hours prior to severing with explosives.

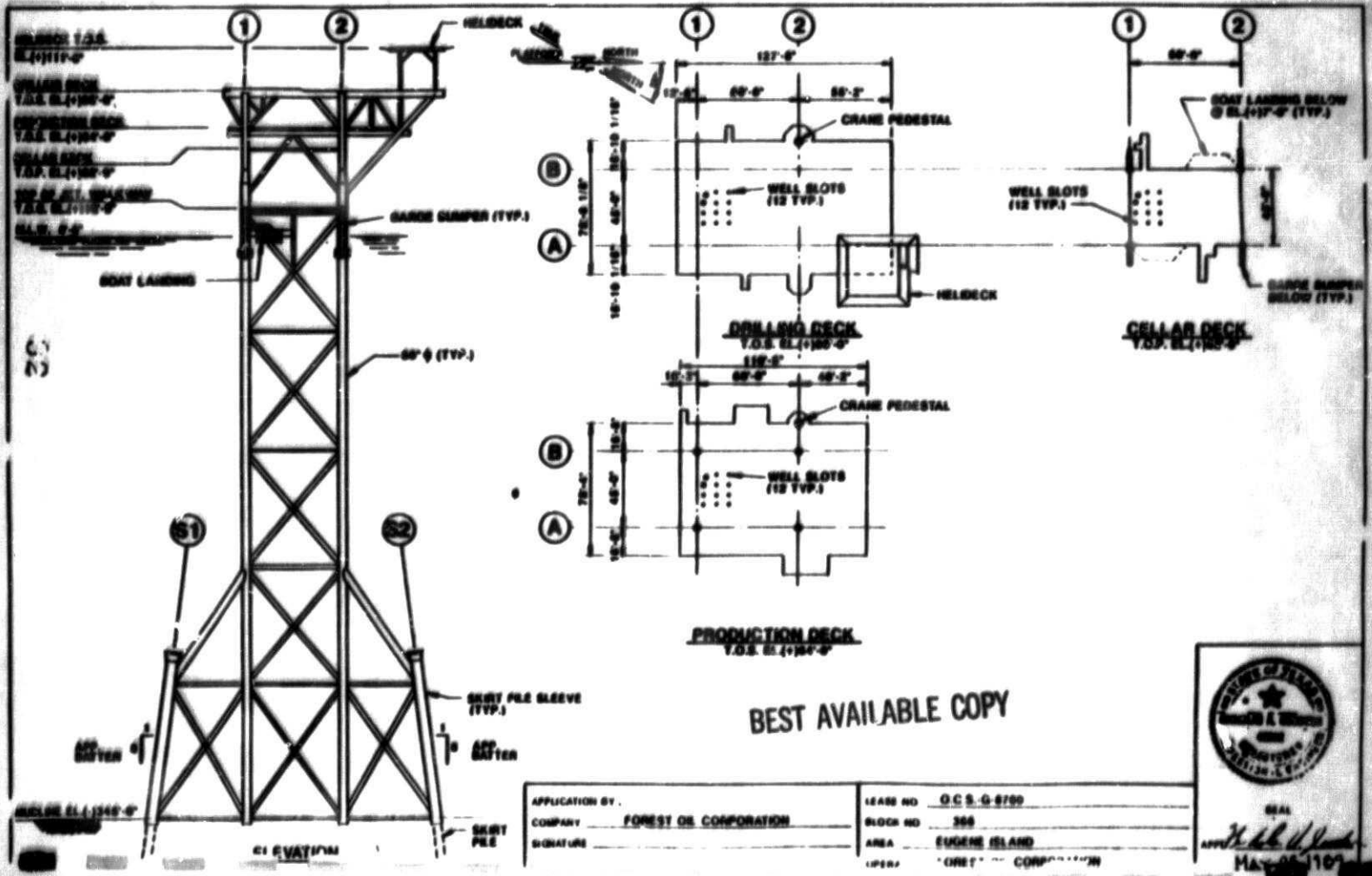
EUGENE ISLAND 366 "A"

The platform is a 4 pile with 4 skirt piles, 12 slot facility with 4 wells. The platform is set in 345' of water and was designed to process 100 MMCFD. The platform design engineering was by CBS Engineering of Houston, Texas. The jacket was fabricated by McDermott in Amelia, Louisiana, in 1989 and installed in December, 1989.

The total height of the jacket is 365', with a 45' by 60' top, and a 170' by 135' base. The legs vary from 80 - 81" diameter with 72" diameter grouted piles in the skirts, to 60" diameter ungrouted jacket legs. The estimated total weight of the jacket is 2,200 tons.

The deck was also fabricated by McDermott. The production deck is 78.3' by 110.5' and has a deck load capacity of 300 PSF. The drilling deck is 78.6' by 127.6' and has a load capacity of 1000 PSF out board of the skid beams and 500 PSF between the skid beams. The cellar deck is 45' by 60' with a deck load capacity of 250 PSF. All three decks have a combined weight of approximately 1100 tons with equipment with equipment.

The platform also has four (4) curved conductors located in the row closest to the center of the platform. The conductors are 26" by 3/4" wall with a radius of curvature of 3 1/2 degrees per 100' starting at the 415' level.


HELIDECK
GARGE BUMPER (TYP.)
BOAT LANDING
60" ϕ (TYP.)
SKIRT PILE SLEEVE (TYP.)
SKIRT PILE
ELEVATION
CRANE PEDESTAL
WELL SLOTS (12 TYP.)
DRILLING DECK
PRODUCTION DECK
CELLAR DECK
BOAT LANDING BELOW
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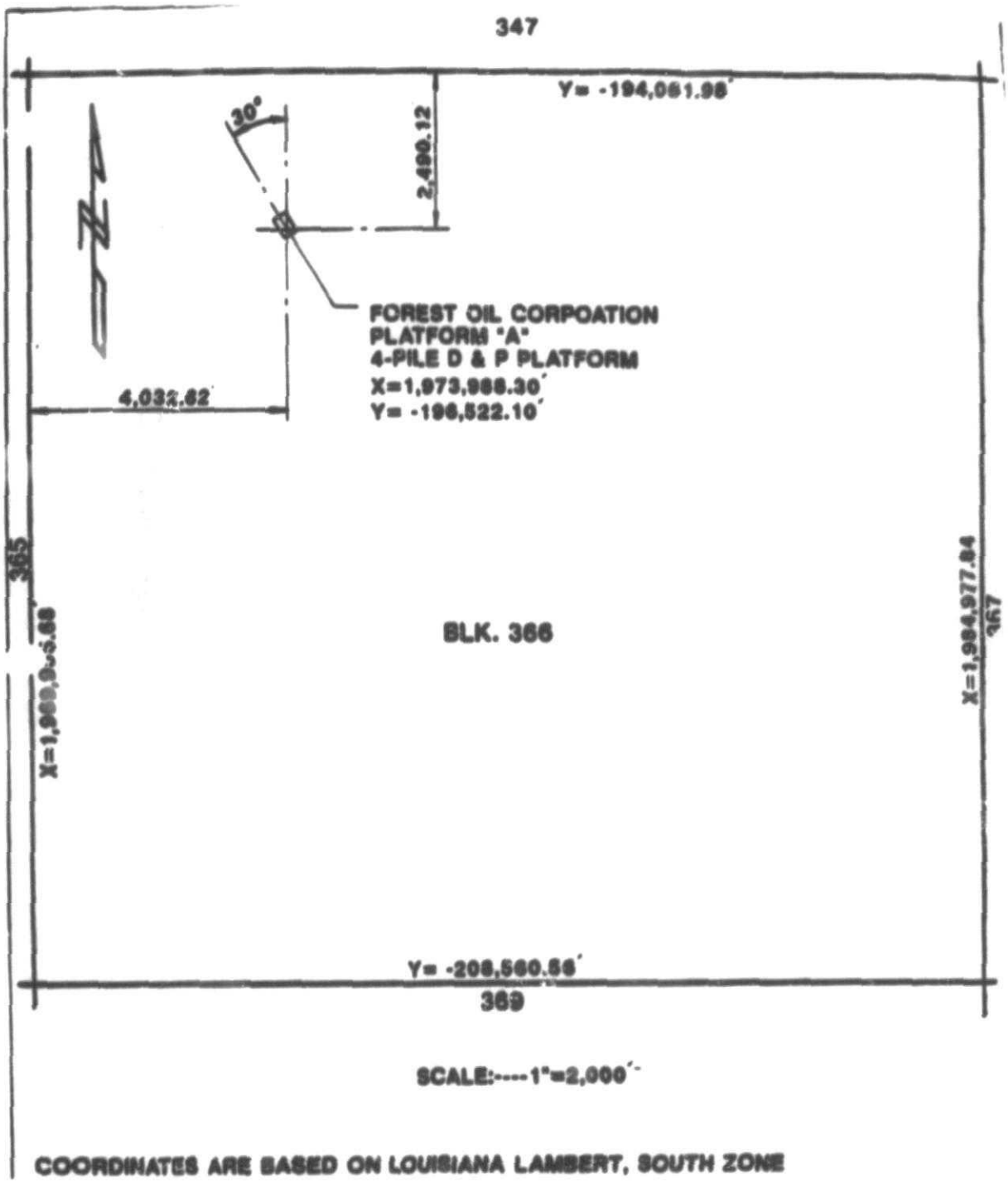
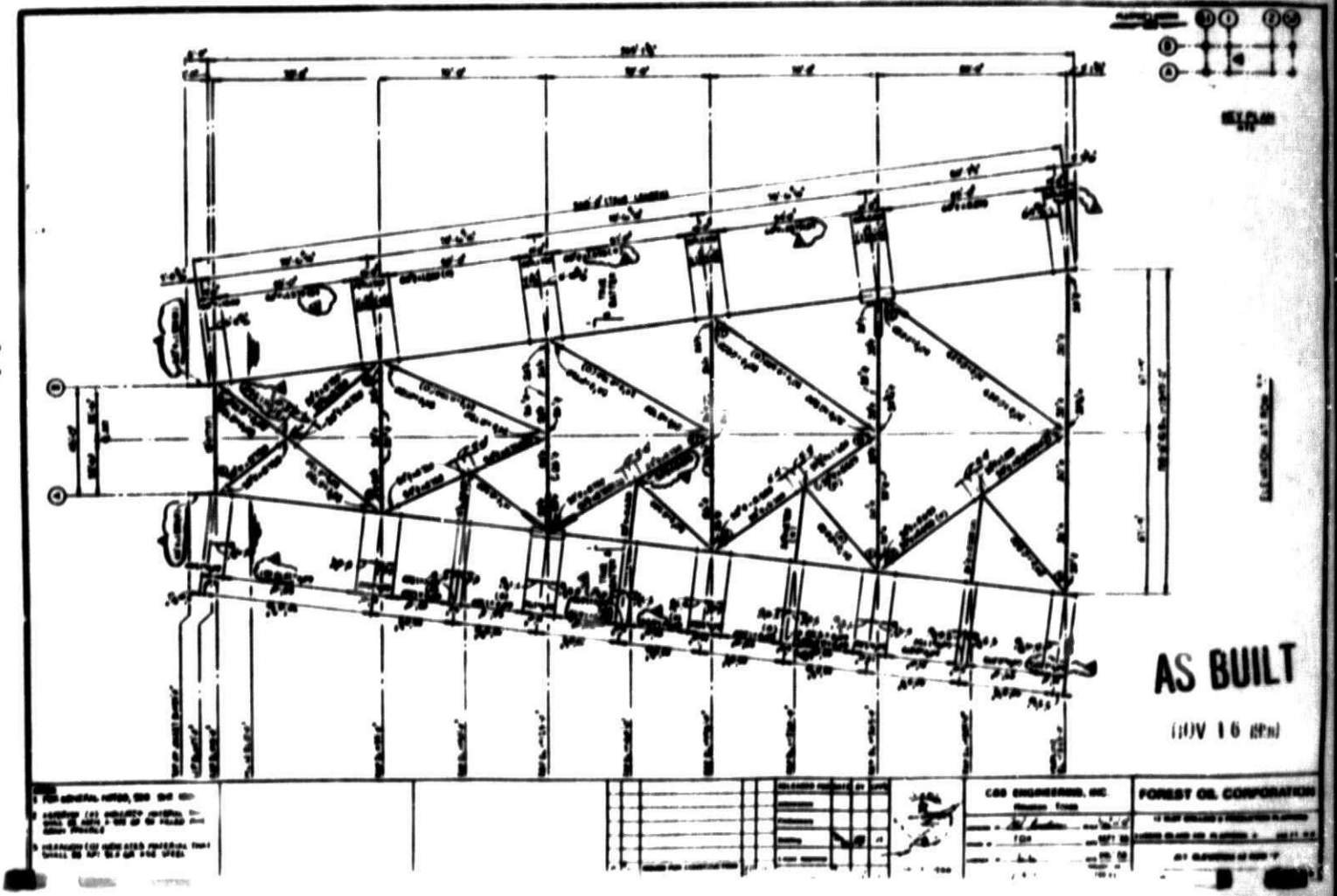
APPLICATION BY
COMPANY FOREST OIL CORPORATION
SIGNATURE
LEASE NO OCS-G-8700
BLOCK NO 360
AREA EUGENE ISLAND
SEAL

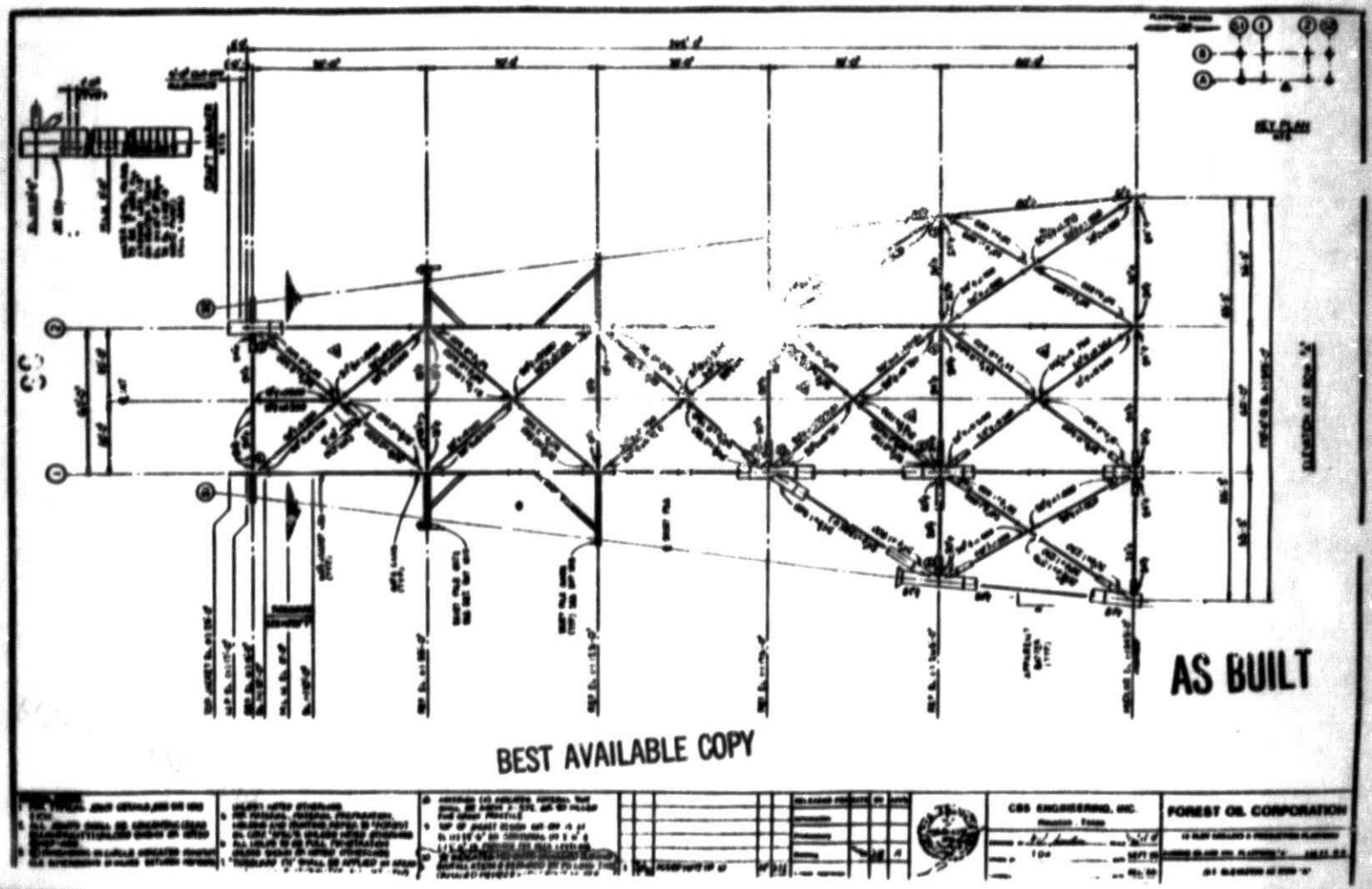


SCALE:----1"=2,000'

COORDINATES ARE BASED ON LOUISIANA LAMBERT, SOUTH ZONE

APPLICATION BY: FOREST OIL CORPOATION	OCS-G-8700
LOCATION: EUGENE ISLAND AREA SOUTH ADDITION	DATE: JUNE '89 SHEET 1 OF 1

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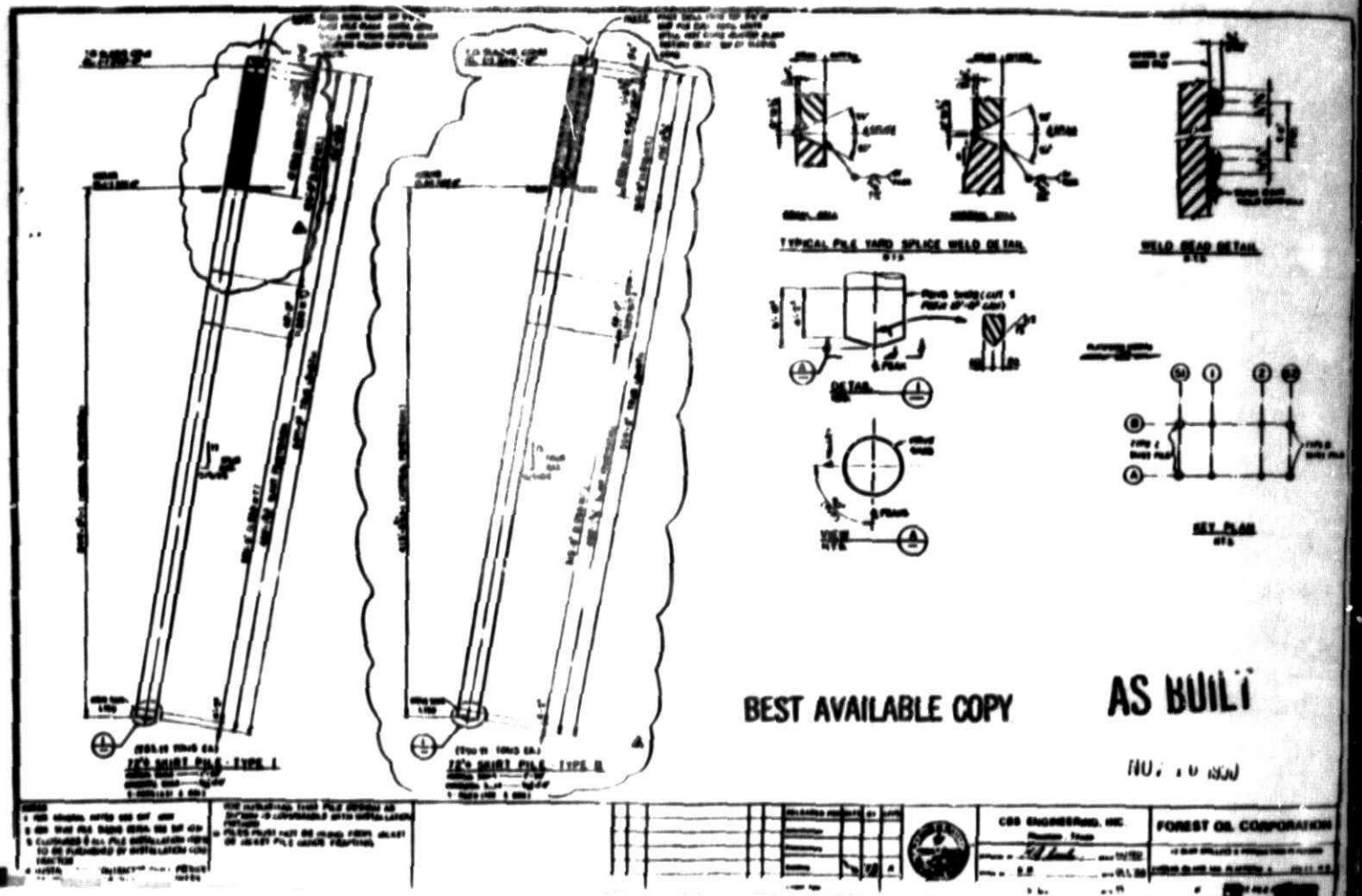
CBS ENGINEERING, INC.
FOREST OIL CORPORATION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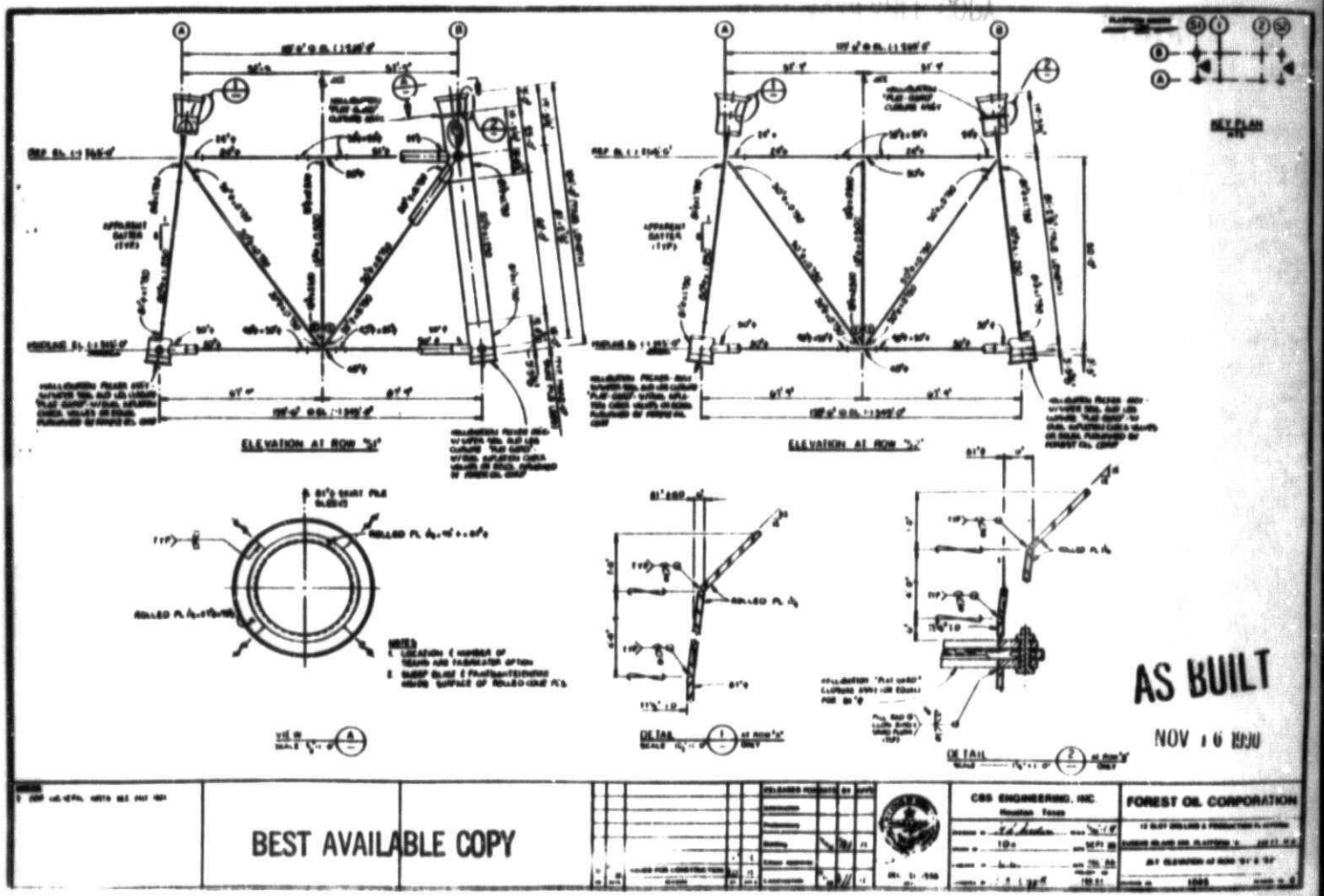
FOREST OIL CORPORATION



92-020

FOREST OIL CORPORATION

[illegible] • [illegible]

[illegible]

RECEIVED
JUN 09 1992
Office of Structural and Technical Support

June 5, 1992

Arvid Shah
Minerals Management Service
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

Re: Platform Removal
E.I. 366 "A"

Dear Sir;

The following is a brief description of the piling sizes at the mud line and 15 feet below the mud line. There is a problem with one of the skirt pile grouting systems not allowing free access to 15 feet below the mud line. Forest is presently discussing this problem with the explosive companies and has included a discussion of some possible solutions.

The four main legs (60" X 1", ref. dwg. 1014, legs A1, A2, B1, and B2) do not have pilings.

Skirt sleeves (ref. dwg. 1014, sleeves A-S1, and B-S2, and B-S1) have a 72" diameter piles with 1.875" wall thickness material at the mud line and at 15 feet below the mud line.

Skirt sleeve B-S2 (platform NE) has a 72" diameter X 1.875 pile plus a 60" X 1.0" insert pile (ref. dwg. 1037), due to poor penetration of piling during installation. These sizes are the same at the mud line and at 15 feet below the mud line. The insert pile is grouted to the skirt pile with the grout distribution ring at approximately 15 feet below the mud line.

The grout distribution ring may cause some problems in the placement of the explosives in pile B-S2 to sever 15 feet below the mud line. I am presently discussing this problem with the explosive companies; however since this platform in located in a "Reef area" and will be toppled in place, would the MMS consider one of the two options;

a. The use of explosives in the B-S2 pile as deep as possible, which may not be at the required 15 feet below the mud line, or

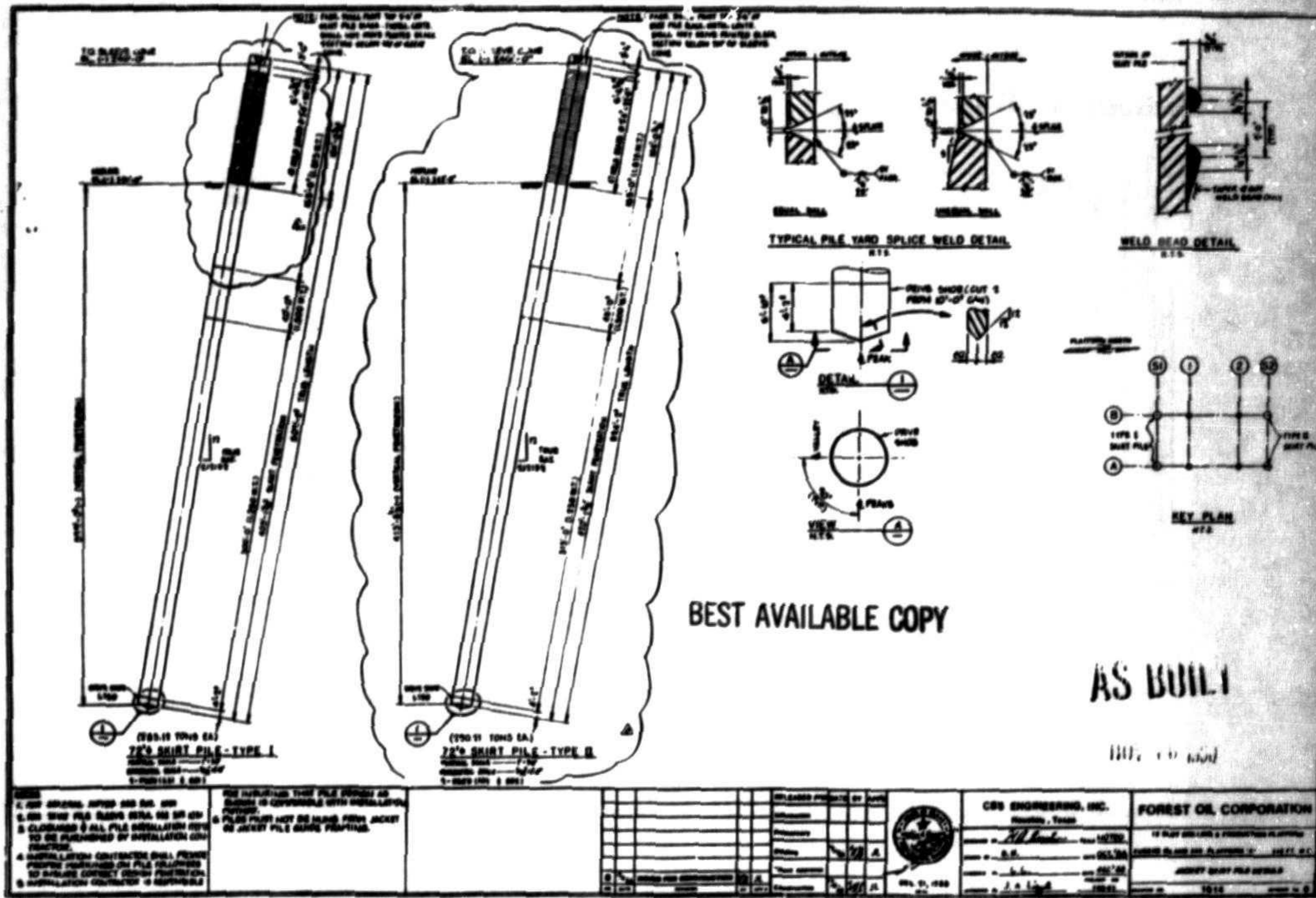
6/10/92
Told operator that the platform must be removed 15' Brl
[illegible] Shah

b. the severing of the platform legs just above the 265 foot level (just above the Skirt Sleeves) and leaving the bottom half of the structure in place in the reef area. The structure would still have over 200 feet of water cover and should pose as no problem to shipping. This option would of course be contingent upon Coast Guard approval. NC

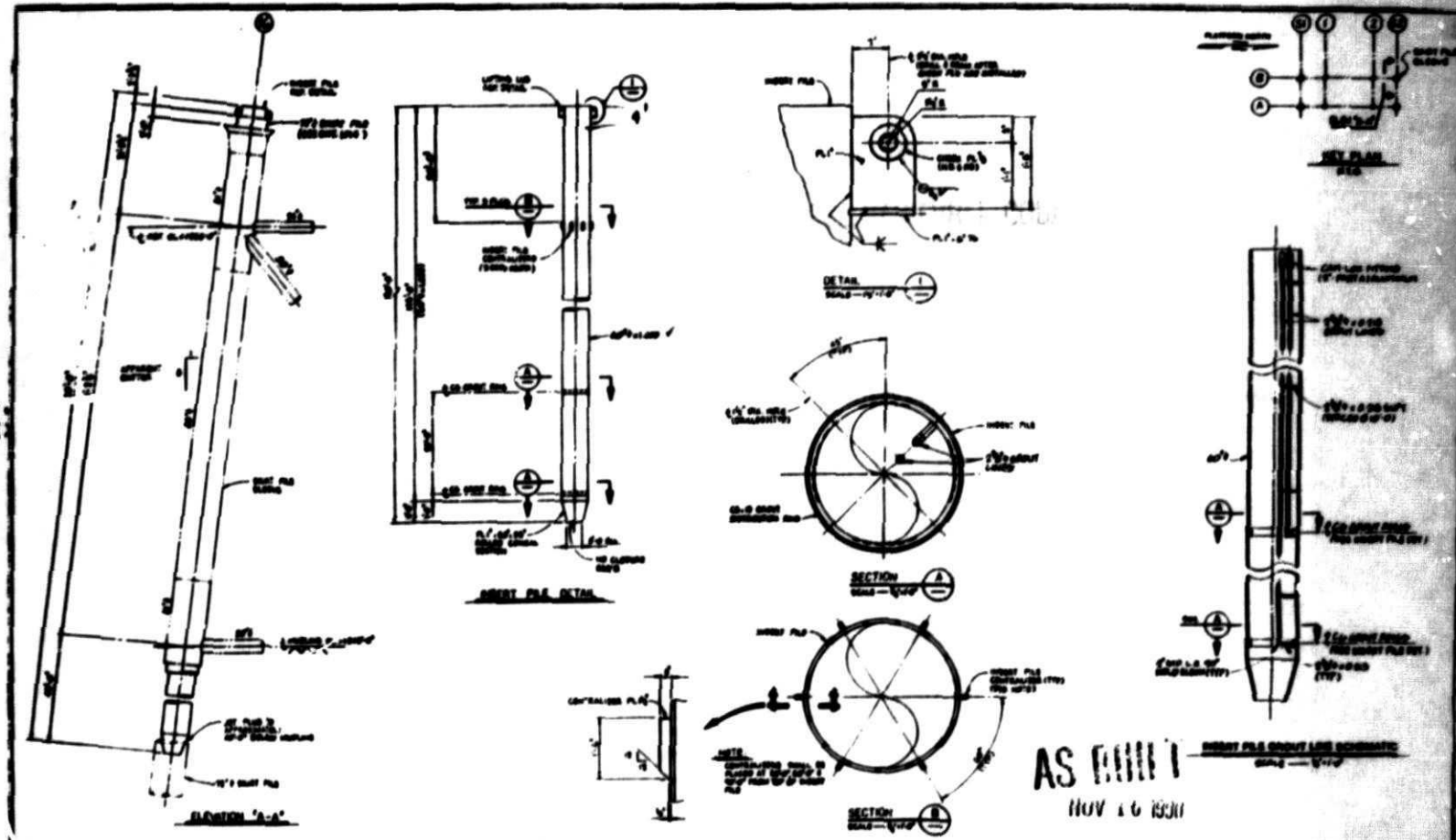
Should any additional information be necessary, please contact Cecil Colwell at 303/293-0460. Forest appreciates your assistance in this matter and will keep you abreast of any possible solutions in severing the B-S2 pile at the appropriate depth.

Regards,

Cecil N. Colwell
Drilling Superintendent



TYPICAL PILE YARD SPLICE WELD DETAIL
WELD BEAD DETAIL
DETAIL
VIEW
KEY PLAN
72"φ SKIRT PILE - TYPE I
72"φ SKIRT PILE - TYPE II
BEST AVAILABLE COPY
AS BUILT
CBS ENGINEERING, INC.
FOREST OIL CORPORATION



BEST AVAILABLE COPY

CBS ENGINEERING, INC
Houston, Texas

FORREST OIL CORPORATION

APPENDIX B

MMS SUMMARY EVALUATION

In Reply Refer To: MS 5210

FEB 13 1992

Memorandum

To: Associate Director for Offshore Minerals Management (MS 4330) (Attention: Chief, Environmental Operations and Analysis Branch)

From: Regional Director, Gulf of Mexico OCS Region

Subject: Endangered Species Act Section 7 Consultation Relative to the Proposed Removal by Forest Oil Corporation, Platform A, Eugene Island Area, Block 366, Lease OCS-G 8700

The following attachments provide the documentation necessary to effect an Endangered Species Act Section 7 Consultation with National Marine Fisheries Service (NMFS):

1. Forest Oil Corporation's Structure Removal Application dated January 29, 1992.

2. Gulf of Mexico OCS Region Summary Evaluation.

Forest Oil Corporation would like to accomplish the removal of this platform in July 1992. Please inform NMFS of the necessity for an expedient disposition.

We believe that by taking appropriate mitigating measures, Forest Oil Corporation can accomplish the removal operation with a minimal risk to any endangered marine species.

(SGD.) GARY L. LORE

J. Rogers Pearcy

Attachments

bcc: National Marine Fisheries Service, Protected Species Management Branch Attention: Dr. Terry Henwood, 9450 Koger Boulevard, St. Petersburg, Florida 33702 (w/attachments)
1501-01a-2 (92-20) (MS 5210)
Lease OCS-G 8700 (MS 5032)
MS 5000 Reading File
MS 5001
MS 5440

A:hah:pgm:C:FORE8700

42

SUMMARY EVALUATION

Possible Effects on Endangered Species and Protected Marine Mammals from the Proposed Structure Removal of Platform A Eugene Island Area, South Addition, Block 366 (OCS-G 8700) ES/SR 92-020

Determination

Forest Oil Corporation (Forest) proposes to remove Platform A in Eugene Island Area, South Addition, Block 366. The Minerals Management Service (MMS) has determined that since the proposed operation will utilize explosives, sea turtles and marine mammals may be affected.

Background Information

Forest plans to use explosives to sever the four skirt piles and the four main piles of Platform A, at least 15 feet below the mud line. See Table 1 for specific data regarding the proposed explosive removal operation. Forest proposes to topple the structure in-place making an artificial reef. The lease expires in 1993.

The proposed activity does not meet the requirements for consideration under the generic structure-removal criteria as stated in the July 25, 1988, Biological Opinion from the National Marine Fisheries Service.

The following conditions and activities are noteworthy in this application:

1. The four skirt piles and the four main piles would be severed 15 ft. below the mud line.

2. The operator proposes to leave the jacket in place as an artificial reef and is currently petitioning the State of Louisiana with the proposition. The site is a recognized rigs-to-reef location.

3. A "marine mammal watch" will be performed 48 hours prior to and during the use of explosives. This will be done with representatives (observers) from the National Marine Fisheries Service in attendance.

4. High-velocity explosives are proposed.

5. Operations are proposed during July 1992.

Little information is available on the likelihood of encountering sea turtles or marine mammals during the proposed activities. However, both sea turtles and dolphins have been observed in the vicinity of other structure removals. Recent data indicate that sea turtles are distributed throughout offshore Gulf of Mexico waters. For this reason, it is possible that marine mammals and sea turtles may be present in the vicinity during the time of the proposed structure removal.

Mitigation

The following mitigative measures were identified by the operator in the application to remove Platform A to reduce the likelihood of death or injury to sea turtles and marine mammals.

The operator proposes a 48 hour observation period for the National Marine Fisheries Service to look for sea turtles and other animals prior to and during explosive operations.

There are pipelines located within 150 meters (490 feet) of the proposed activities. Precautions in accordance with NTL 83-3, Section IV.B, will be taken prior to performing the proposed operations.

Summary

Sea turtles and marine mammals may be present in the vicinity of the structure during the proposed removal activities. If they are close enough, they may be hurt or killed by the detonation of explosives. Mitigative measures to be taken will reduce the probability of harming sea turtles or marine mammals. However, the proposed structure removal may affect sea turtles and protected marine mammals.

VB

Regional Supervisor
Leasing and Environment
Gulf of Mexico OCS Region

Date

Table 1

Explosives Proposed by Forest Oil Corporation
for the Structure Removal of
Platform A in Eugene Island Area, South Addition,
Block 356 (OCS-G 8700)

Type of Explosives

Composition B, C-4, Cyclotol or Octol, bulk charges.

Number and Size of Charges

Four, 75 lb. charges for each of the main piles.

Four, 100 lb. charges for each of the skirt piles.

Emplacement of Charges

Inside, 16 feet below the mud line for each of the piles.

Sequencing of Detonations

The four skirt pile charges will be detonated in one sequence with a 0.9 second delay between each charge, followed one minute later with detonation of the four main pile charges with a 0.9 second delay between each charge.

APPENDIX C

NMFS CORRESPONDENCE

92-20

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1335 East-West Highway
Silver Spring, MD 20910
THE DIRECTOR

APR 21 1992

~~ORD~~
~~ORD-1~~
FO
LE

Mr. J. Rog[illegible]
Regional Director
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Dear Mr. Pearcy:

This responds to your March 16, 1992, request for an Endangered Species Act (ESA) section 7 consultation for proposed removal by Forest Oil Corporation of Platform "A" in the Eugene Island Area, South Addition, Block 366. This expedited consultation has been designated number 67. The Summary Evaluation enclosed with your letter indicates that the proposed operation will utilize explosives, and that protected sea turtles and marine mammals may be affected.

The operator plans to remove the four pile structure with Composition B bulk charges; one 50 lb. charge for the A-1 and A-2 wells, one 40 lb. charge for the A-3 and A-4 wells, four 75 lb. charges for each of the four main piles, and four 100 lb. charges for each of the four skirt piles. Multiple charges will be set in sequence with a minimum of 0.9 seconds between detonations in an attempt to minimize the cumulative blast effects.

The National Marine Fisheries Service (NMFS) issued a "standard" Biological Opinion on July 25, 1988, addressing removal of structures in the Gulf of Mexico. Accounts of endangered and threatened species which occur in the project area, contained in the "standard" opinion also apply to this consultation and are hereby incorporated by reference.

Based upon the best available information concerning the frequency of occurrence of sea turtles in proximity to oil platforms and related structures, we believe that it is unlikely that a significant number of turtles will occur in the project area during detonation of the charge. Although the shock and impulse forces released into the marine environment as a result of the proposed action may result in the loss of individual sea turtles, it is our opinion that removal of this structure is not likely to jeopardize the continued existence of threatened and endangered species that are the responsibility of NMFS. However, we have determined that the proposed activity may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill and leatherback sea turtles. Therefore, pursuant to section 7(b)(4) of the ESA, we have established a low

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES

APR 28 1992

level of incidental take, terms, and conditions necessary to minimize and monitor this impact. These terms and conditions are contained in the enclosed incidental take statement. Compliance with the specified terms and conditions is the responsibility of the Forest Oil Corporation or the Minerals Management Service.

Consultation must be reini[illegible]: (1) the amount or extent of taking specified in the i[illegible]e statement is exceeded; (2) new information reveal[illegible] the project that may affect listed species in [illegible] an extent not considered thus far, in our opinion[illegible]; [illegible]cified activities are modified in a manner that c[illegible]erse effect to listed species not previously consider[illegible] 4) a new species is listed or critical habitat is designate[illegible] may be affected by the project.

I look forward to your continued cooperation in future consultations.

Sincerely,

Michael J. Fillman

for William W. Fox, Jr.

Enclosure

Incidental Take Statement

Section 7(b)(4) of the Endangered Species Act (ESA) requires that when a proposed agency action is found to be consistent with section 7(a)(2) of the ESA, and the proposed action may incidentally take individuals of listed species, the National Marine Fisheries Service (NMFS) will issue a statement that specifies the impact (amount or extent) of such incidental taking. Incidental taking by the Federal agency or applicant that complies with the specified terms and conditions of this statement is authorized and exempt from the taking prohibition of the ESA.

Based on stranding records, incidental captures aboard commercial shrimp vessels and historical data, five species of sea turtles are known to occur in the northern Gulf of Mexico waters. Current available information on the relationship between sea turtle mortality and the use of high-velocity explosives to remove oil platforms indicates that injury and/or death of sea turtles may result from the proposed action. Therefore, pursuant to section 7(b)(4) of the ESA, an incidental take (by injury or mortality) of one documented Kemp's ridley, green, hawksbill or leatherback sea turtle or two loggerhead sea turtles is set for this removal. If the incidental take meets or exceeds this level, the Minerals Management Service (MMS) must reinitiate consultation. NMFS Southeast Region will cooperate with MMS in the review of the incident to determine the need for developing further mitigation measures.

The reasonable and prudent measures that NMFS believes are necessary to minimize the impact of incidental takings have been discussed with MMS and are incorporated in the platform removal design. The following terms and conditions are established for this removal to implement these measures and to document the incidental take should such take occur:

1. Qualified observer(s), as approved by NMFS, must be used to monitor the area around the site before, during, and after detonation of the charges. Surface observations must be conducted for as long a time as possible before removal of the structure (48 hours is recommended).

2. On the day of the blast, a 30-minute aerial survey must be conducted within 1 hour before and 1 hour after detonation. This survey should encompass all waters within 1 mile of the structure. A qualified observer must be used to check for the presence of turtles and, if possible, to identify species. If weather conditions (fog, excessive winds, etc.) make it impossible to conduct the aerial survey, blasting

activities may be allowed to proceed if approved by the designated NMFS and MMS representatives on site.

3. If sea turtles are observed in the vicinity of the platform (within 1,000 yards of the site) prior to detonating the charge, blasting will be delayed until attempts are successful in removing them at least 1,000 yards from the blast site. The aerial survey must be repeated prior to resuming detonation of charges.

4. Detonation of explosives will occur no sooner than 1 hour following sunrise and no later than 1 hour before sunset. However, if it is determined by MMS and/or NMFS on-site representatives that special circumstances justify a modification of these time restrictions and that modification is not likely to adversely impact listed species, the blast may be allowed to proceed outside of this time frame.

5. During all diving operations (working dives as required in the course of the removal), divers will be instructed to watch for turtles and marine mammals. Any sightings must be reported to MMS and/or NMFS on-site representatives. Upon completion of blasting, divers must report and attempt to recover any sighted, injured, or dead sea turtles or marine mammals.

6. The use of scare charges should be avoided to minimize the "chumming effect." Use of scare charges may be allowed only if approved by MMS and/or NMFS on-site representatives.

7. A report summarizing the results of the removal and mitigation measures must be submitted to the MMS Gulf of Mexico Region within 15-working days of the removal. This report should include an evaluation of the effectiveness of charge(s) used, and a determination as to whether this removal could have been accomplished using less explosives. A copy of the report must be forwarded to NMFS Southeast Region.

This incidental take statement applies only to endangered and threatened sea turtles. In order to allow an incidental take of a marine mammal species, the taking must be authorized under section 101(a)(5) of the Marine Mammal Protection Act of 1972. Although interest has been expressed in obtaining an exception authorizing a limited take of dolphins incidental to abandonment activities, no marine mammal take is authorized until appropriate small take regulations are in place and "Letters of Authorization" are issued.