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 REMOVALS

ES/SR No. 03-086

Assessment of the Environmental Impacts
of the Proposal to Remove
Platform A
in Eugene Island Area, Block 324, Lease OCS-G 05516
by Newfield Exploration Company

Date Submitted: March 20, 2003

Commencement Date: May 2003

Prepared by

William Engelhardt

Biologist

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT/FONSI/EIS DETERMINATION

Newfield Exploration Company's application to use explosive means to remove Platform A in Eugene Island Area, Block 324, Lease OCS-G 05516, has been reviewed. Our SEA, ES/SR 03-086 , on the subject action is complete and results in a Finding of No Significant Impact. Based on the conclusions of the SEA, there is no evidence to indicate that the proposed actions will significantly (40 CFR 1508.27) affect the quality of the human environment. Preparation of an environmental impact statement is not required. Mitigation is recommended to ensure environmental protection, consistent environmental policy and safety as required by the National Environmental Policy Act, as amended; or measures needed for compliance with 40 CFR 1500.2(f) regarding the requirement for Federal agencies to avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.

Jay Schlehuber

Chief, Project Management Section
Leasing and Environment, GOM OCS Region

3/26/03

Date

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 [GOM] 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 the Minerals Management Service (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 activities 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 AND NEED FOR THE PROPOSED ACTIONS

Newfield Exploration Company proposes to remove Platform A in Eugene Island Area, Block 324, Lease OCS-G 05516 . Platform A lies approximately 65 miles from the nearest Louisiana shoreline, and approximately 115 miles from the onshore base in Intracoastal City, Louisiana in a water depth of 260 feet. The operator plans to remove Platform A by mechanical means, with an alternate means of explosives at a minimum of 15 feet below the mudline.

A discussion of the legal and regulatory mandates to remove abandoned oil and gas structures from Federal Waters can be found in the PEA referenced in the Introduction. According to the operator, the wells are depleted.

Refer to Appendix A for structure specifications and additional information on the removal activities.

II. ALTERNATIVES TO THE PROPOSED ACTIONS

Alternatives to the proposed structure removals with mitigation originally submitted are:

A. NON-REMOVAL OF THE STRUCTURES

The alternative to the proposed structure removals as originally submitted is non-removal. Non-removal of the structures 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 and easement. Therefore, non-removal does not appear to be a valid alternative.

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

Minerals Management Service initially discussed various structure-removal techniques in the Final Environmental Impact Statement (FEIS) for Proposed Oil and Gas Lease Sales 118 and 122 (USDOI, MMS, 1988) and in the PEA. Updated information is also found in the FEIS for Sales 169, 172, 175, 178, and 182 (USDOI, MMS, 1997) and the FEIS for Sales 171, 174, 177, and 180 (USDOI, MMS, 1998). It was concluded that the most effective methods of structure removal are the use of explosives, either bulk or shaped charges, abrasive cutters, 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, these methods do not appear to be feasible alternatives for the removal of the subject structure.

C. REMOVAL OF THE STRUCTURES AS PROPOSED WITH ADDED MITIGATION

It has been determined that the proposed operations fall within the category of activities covered by the National Marine Fisheries Service (NMFS) also known as National Oceanic and Atmospheric Administration (NOAA Fisheries) Biological Opinion of July 25, 1988, which addresses "standard" explosive structure removals in the GOM.

Measures that Newfield Exploration Company proposes to implement to limit potential environmental effects are discussed in the structure removal application. Outer Continental Shelf Operating Regulations, Notices to Lessees and Operators, and other regulations and laws were identified throughout this assessment as existing mitigation for potential environmental effects associated with the proposed structure removal application. Additional information can be found in the Programmatic Environmental Assessment mentioned in the Introduction.

The following mitigative measures will be included in MMS's approval of the proposed structure removal to ensure environmental protection, consistent environmental policy, and safety as required by the NEPA:

Our review indicates that there are pipelines in the vicinity that may pose a hazard to your proposed operations. Therefore, please be advised that you will take precautions in accordance with Notice to Lessees and Operators No. 98-20, Section IV.B, prior to performing operations.

Under the Magnuson Fisheries Management Act, 50 CFR 600.920 prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, those involved in explosive structure removals must not take such stunned or killed fish on board their vessels. Should this happen, they could be charged by the National Marine

Fisheries Service with violation of the Act. If you have questions, contact the National Marine Fisheries Service at (727) 570-5305.

III. ENVIRONMENTAL EFFECTS, SOCIOECONOMIC CONCERNS, AND OTHER CONSIDERATIONS.

In accordance with *The National Environmental Policy Act (NEPA) of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, ∋ 4[b], Sept. 13, 1982)* and the Council on Environmental Quality (CEQ) implementing regulations (40 CFR Sec. 1502.15) *Affected Environment*, the following potential environmental effects were identified from the proposed action. Mitigative measures are included to eliminate or reduce the potential effect from the proposed activities to a level of insignificance as described in 40 CFR Sec. 1508.27

A. PHYSICAL ENVIRONMENT

A discussion of environmental geology, geologic hazards, meteorological conditions, physical and chemical oceanography, water quality and air quality can be found in the PEA referenced in the Introduction. The proposed structure-removal activities are not in an area of sediment instability (mud flows, slumps, or slides). Environmental effects to the physical environment have been considered, but potential impacts from the proposed activities were deemed insignificant (40 CFR 1508.27) and are not discussed in this SEA.

B. BIOLOGICAL ENVIRONMENT

A discussion of coastal habitats, protected, endangered and threatened species (birds, marine mammals, and sea turtles), and sensitive marine habitats are discussed in the PEA referenced in the Introduction. The PEA referenced in the Introduction delineates sensitive areas along the Texas coastline where whooping cranes and brown pelicans could be adversely impacted by structure-removal support activities. Since the operator will use a shore base in Intracoastal City, Louisiana, no impacts to these sensitive areas are expected.

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 referenced in the introduction. Fritts et al. (1983) conducted aerial surveys across a 9,514 square-mile area of GOM waters. Results of these surveys indicate that bottlenose dolphins are by far the most likely marine mammals to be encountered at the proposed structure-removal site. Minerals Management Service and /or NMFS(NOAA Fisheries) observers may be utilized to look for marine mammals prior to detonation of primary charges at the removal site. If marine mammals are detected at the structure-removal site, detonation of the primary charges will be delayed until the animals are removed from the area.

NMFS issued final regulations amending 50 CFR part 216 (67 FR 148, August 1, 2002, pp. 49869-49875 for the incidental take of bottlenose (*Tursiops truncatus*) and spotted (*Stenella frontalis* and *S. attenuata*) dolphins by U.S. citizens holding a Letter of Authorization that are engaged in structure removals in state and Federal OCS waters of the Gulf of Mexico. The incidental take is limited annually to a combined total of no more than 200 takings by harassment between the period of August 1, 2002 through February 2, 2004.

Please refer to the Federal Register of August 1, 2002 for the description of the specific activity and specific geographic region, permissible methods of taking, prohibitions, mitigation, and requirements for monitoring and reporting.

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 outlined in the "Generic" Biological Opinion, the proposed structure-removal activities are expected to have only a low impact on marine mammals.

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. 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 1995) indicate that sea turtles may 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. The NMFS (NOAA Fisheries) 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. The possibility exists that sea turtles could enter the blast areas undetected and could be injured or killed by the underwater, subsurface detonations. However, with the indicated protective mitigation measures, we expect the proposed structure-removal activities to have only a low impact on sea turtles. NMFS (NOAA Fisheries) authorized a cumulative incidental take for this category action, but with all the precautions to be taken as mitigating measures, it is unlikely these proposed operations will affect any sea turtles.

We considered other environmental effects to the biologic environment, but potential impacts from the proposed activities were deemed insignificant (40 CFR 1508.27) and are not discussed further in this SEA.

C. OTHER CONSIDERATIONS

A discussion of socioeconomic, commercial and recreational fisheries, archaeological resources, military warning areas, explosive dumping areas, navigation and shipping areas, pipelines, cables, other mineral uses, and health and human safety can be found in the PEA referenced in the Introduction.

Other environmental effects to the socioeconomic concerns have been considered, but potential impacts from the proposed activities were deemed insignificant (40 CFR 1508.27) and are not discussed further in this SEA.

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 GOM Fishery Management Council expressed concern over the declining stocks of reef fish, especially red snapper. They referred to the 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.

Minerals Management Service 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. Minerals Management Service 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.

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

D. UNAVOIDABLE ADVERSE IMPACTS

A discussion of unavoidable adverse impacts can be found in the PEA referenced in the Introduction. 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, and a low level of impact is expected. 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 referenced in the Introduction. No public comments have been received regarding the proposed structure-removal operations.

In May 1991, the GOM Fishery Management Council requested that MMS place a moratorium over the explosive removal of offshore structures with three or more supports. Non-removal 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 and easement.

Minerals Management Service believes that current data on the effects of explosive removals on fish mortality are 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, MMS initiated an interagency study with the NMFS to determine fish mortalities from removal operations. In addition to the above study, MMS supports an active rigs-to-reefs program and encourages industry to search for a method that will minimize effects on fish from structure-removal operations.

V. CONSULTATION AND COORDINATION

In accordance with the provisions of Section 7 of the Endangered Species Act, as amended, the proposed structure-removal operations are covered by the Biological Opinion issued by the NMFS on July 25, 1988, which established a category of "standard" explosive structure-removal operations. Their comments are included in Appendix B. The NMFS concluded that this category of structure-removal activities will not likely jeopardize the continued existence of any threatened or endangered species under their purview. Additionally, they concluded that this type of "standard" structure-removal activity may result in injury or mortality of loggerhead, Kemp's ridley, green, hawksbill, and leatherback turtles. Therefore, they established a cumulative level of incidental take and discussed various measures necessary to monitor and minimize this impact (see Appendix B). 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 this category of structure-removal activities. Therefore, taking of marine mammals by the operator will be prohibited unless they successfully apply for and obtain a Letter of Authorization to do so from the NMFS.

VI. BIBLIOGRAPHY AND SPECIAL REFERENCES

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. 1995. 1994 Semi-annual Report of the Sea Turtle Stranding and Salvage Network. Atlantic and Gulf Coasts of the United States. January - June 1994. National Marine Fisheries Service. Southeast Fisheries Center, Miami Laboratory, 75 Virginia Beach Drive, Miami, FL.

U.S. Department of the Interior. Minerals Management Service. 1997. Final Environmental Impact Statement. Gulf of Mexico Sales 169, 172, 175, 178 and 182: Central Planning Area. OCS EIS/EA MMS 97-0033. Washington, D.C. Available from NTIS, Springfield, VA.

U.S. Department of the Interior. Minerals Management Service. 1998. Final Environmental Impact Statement. Gulf of Mexico Sales 171, 174, 177, and 180: Western Planning Area. OCS EIS/EA MMS 98-0008. Washington, D.C. Available from NTIS, Springfield, VA.

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.

VII. PREPARER

Author: William Engelhardt-Biologist

VIII. APPENDICES

A. NEWFIELD EXPLORATION COMPANY CORRESPONDENCE

B. NMFS CORRESPONDENCE

APPENDIX A

NEWFIELD EXPLORATION COMPANY CORRESPONDENCE

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Warren B.

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MS5440

RECEIVED
MAR 1 9 2003
ENVIRONMENTAL OPERATIONS SECTION
MS 5440

UNITED STATES GOVERNMENT
MEMORANDUM

March 19, 03

To: Chief, Environment Operations Section, Leasing and Environment, Gulf of Mexico OCS Region(MS 5440)

From: Chief, Office of Structural and Technical Support, Field Operations, Gulf of Mexico OCS Region (MS 5210)

Subject: Platform Removal

Operator: Newfield

Control No: 03-085, 03-086

PLATFORM	AREA/BLOCK	LEASE
A*	SS 111	OCS-G 6739
A**	EI ~~234~~ (South) 324	-G 5516

Shore Base: Intracoastal City, LA

The attached application is forwarded to your office so that the Finding of No Significant Impact can be prepared. We believe this proposed activity meets the requirements of the generic Endangered Species Act Section 8 Consultation Document. There are/~~are no~~ existing pipeline(s) within 500 feet of the proposed removal location. Please verify if this removal is located in environmentally sensitive areas. Should you require additional information, please contact Mr. Arvind Shah at Extension 2894.

* Non-Explosive removal
** Explosive removal

Arvind Shah
~~Felix Dyhrkopp~~

Enclosure

cc:

AShah:pgm:\wp51\FORMS\-50LBS

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Resource	(03-085) SS111	(03-086) EI ~~234~~ 324
Arch.	+	–
Artif. Reef	–	–
Hangsites	–	+ (1) x: y:
Turtles	–	–
Vessel/Lakes	–	–
P/L's	+	+
Biol.	–	–
H_2S	–	–
Water Depth	41 ft.	260 ft.
Date of Record	May, 2003	May, 2003
Dist. to Shore	15 mi.	65 mi.
Dist. to Shoreline (Intracoastal City)	90 mi.	115 mi.

LE

03-086
(EI 234)

NEWFIELD

February 24, 2003

Mr. Donald C. Howard
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Attn: Mr. Arvind Shah, MS 5210

RE: APPLICATION TO REMOVE PLATFORM
EUGENE ISLAND BLOCK 324
OCS-G 5516, PLATFORM "A", COMPLEX ID NO. 23905

Gentlemen:

Enclosed for your review are three (3) copies of Newfield Exploration Company's (Newfield) application for the removal of Platform "A", Eugene Island Block 324, OCS-G 5516. Newfield plans to sever foundation piles using abrasives and/or explosives. Newfield plans to sever well drive pipe using abrasives and/or explosives. The structure is a 4-pile production platform located in 260 feet of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform using explosives. Please note that the proposed explosive program complies with the generic Section 7 guidelines.

The existing wells have been temporarily abandoned. Platform removal is scheduled for May 2003. The deck will be transported onshore for reuse or disposal. If approved, the jacket will be towed the approved reef site.

Operations shall be conducted from Newfield's existing shore base in Intracoastal City, Louisiana. A lift boat or a small derrick will be utilized during removal of the structure.

Also enclosed for your review is Newfield Exploration Company's (Newfield) site clearance verification plan. If necessary, the trawler will drag the 6 E-W and 6 N-S lines through the platform site with standard trawl nets, otherwise the trawler will drag the required 6 E-W and 6 N-S lines to ensure 100% coverage of the 1320' radius around the geometric center of the platform. The trawler will have buoys and weights on board to mark any snags encountered while trawling. Newfield will utilize a dive boat with a 4-point anchoring system to conduct sonar and bottom scrapping operations, should they be required.

Newfield Exploration Company 363 N. Sam Houston Pkwy. E. Suite 2020 Houston, Texas 77060 (281) 847-6000 Fax (281) 847-6006

Newfield plans to commence site clearance operations during May 2003. All work will be conducted in accordance with NTL 98-26. Enclosed for your review is the Site Clearance Trawling Package for the Eugene Island Block 324 Platform "A".

Should you have any questions or require additional information regarding this application, please call me at 281/847-6115.

Sincerely,

NEWFIELD EXPLORATION COMPANY

Susan B. Becnel
Regulatory Manager

Attachments

NEWFIELD EXPLORATION COMPANY
EUGENE ISLAND BLOCK 324-A
PLATFORM REMOVAL INFORMATION SUMMARY

I. RESPONSIBLE PARTY

A. Lease Operator Name	:	**Newfield Exploration Company**
B. Address	:	**363 N. Sam Houston Pkwy. East, Suite 2020 Houston, Texas 77060-3593**
C. Contact Person	:	**Susan Becnel – Regulatory Manager**
Telephone Number	:	**(281) 847-6000**
D. Shore Base	:	**Intracoastal City, LA**

II. STRUCTURE INFORMATION

A. Platform Name	:	**EI 324 - A**
Complex ID	:	**23905**
Wells	:	**A-1, A-1D, A-2, A-3, A-4, A-5, A-5D, A-6, A-7**
B. Location	:	**Eugene Island 324 - A (See attached plat)**
Lease	:	**OCS-G-05516**
Area	:	**Eugene Island**
Block Calls	:	**FWL = 4922' FSL = 8299'**
Structure Coordinates	:	**X = 1,974,878' Y = -156,766'**
Lat. / Long.	:	**28° 14' 08" N 91° 24' 41" W**
Pipelines (Operator)	:	**4" gas pipeline (Newfield) 4" oil pipeline (Newfield) 4" oil pipeline (Remington) 6" gas pipeline (Remington)**
C. Date Installed	:	**1990**
D. Proposed Date of Removal	:	**May, 2003**
E. Water Depth	:	**260 ft.**

NEWFIELD EXPLORATION COMPANY
EUGENE ISLAND BLOCK 324-A
PLATFORM REMOVAL INFORMATION SUMMARY

III. STRUCTURE DESCRIPTION

A. Wells

Well No.	A-1	A-2	A-3	A-4	A-5	A-6	A-7
Casings	7 5/8"x29.7# 10 ¾" x 45.5# 16" x 65#	7"x23# 9 5/8"x40# 13 3/8"x68# 20"x94#	7 5/8"x29.7# 10 ¾" x 45.5# 16" x 65#	7 5/8"x29.7# 10 ¾" x 45.5# 16" x 65#	7 5/8"x29.7# 10 ¾" x 45.5# 16" x 65#	7 5/8"x29.7# 10 ¾" x 45.5# 16" x 65#	10 ¾" x 45# 16" x 65#
Drive Pipe	30" x 1"	30" x 1"	30" x 1"	30" x 1"	30" x 1"	24" x 1"	24" x 1"

B. Platform

i. Configuration : **4 pile production platform. 2 level deck. (See attached drawings)**

ii. Size

Helideck	:	**38 x 38'**
Drilling Deck	:	**60' x 108'**
Production Deck	:	**90' x 108'**
Cellar Deck	:	**19' x 23'**
Top of Jacket	:	**50' x 50'**
Bottom of Jacket	:	**84' x 119'**

iii. Number of:

Legs : **4**

Piles : **4**

Wells : **7**

iv. Diameter and Wall Thickness at (-) 15' below the mudline

Piles : **48" O.D. x 2.0" W.T. (Row 1)**
48" O.D. x 1.5" W.T. (Row 2)

v. Are Piles Grouted? : **No**

vi. Bottom Condition : **Soft soil**

IV. PURPOSE

A. Lease Expiration Date : 3/11/03

B. Reason for Removing Structure : **Existing wells have been plugged and abandoned due to reservoir depletion.**

NEWFIELD EXPLORATION COMPANY
EUGENE ISLAND BLOCK 324-A
PLATFORM REMOVAL INFORMATION SUMMARY

V. REMOVAL METHOD

A. Description of the method used : **Remove deck and transport to shore for reuse or disposal. Remove well bore casings severed during well plugging operations. Sever and remove well drive pipe using abrasives and/or explosives. Sever foundation piles using abrasives and/or explosives. Tow jacket to reef site.**

B. Maximum radius of barge anchors : **5000 ft.**

VI. EXPLOSIVES INFORMATION

A. Type : Composition B and/or Cyclotols

B. Number and size of charges:

i. Well Drive Pipe : 7 primary 50# charges

7 contingency 50# charges

ii. Piles : 4 primary 50# charges

4 contingency 50# charges

C. Single or multiple shots : Multiple

i. Sequence No. 1 (Well Drive Pipe) : 7 shots, 1 second intervals

ii. Sequence No. 2 (Piles) : 4 shots, 1 second intervals

D. Charge Type and Location :

i. Well Drive Pipe : Bulk, SWEDE, or shaped charge inside drive pipe at 15'-20' below the mud line.

ii. Piles : Bulk, SWEDE, or shaped charge inside piles at 15'-20' below the mud line.

E. Reasons for use of Explosives:

Limited availability and design limitations of non-explosive cutting equipment. In case non-explosive equipment fails to perform cut.

NEWFIELD EXPLORATION COMPANY
EUGENE ISLAND BLOCK 324-A
PLATFORM REMOVAL INFORMATION SUMMARY

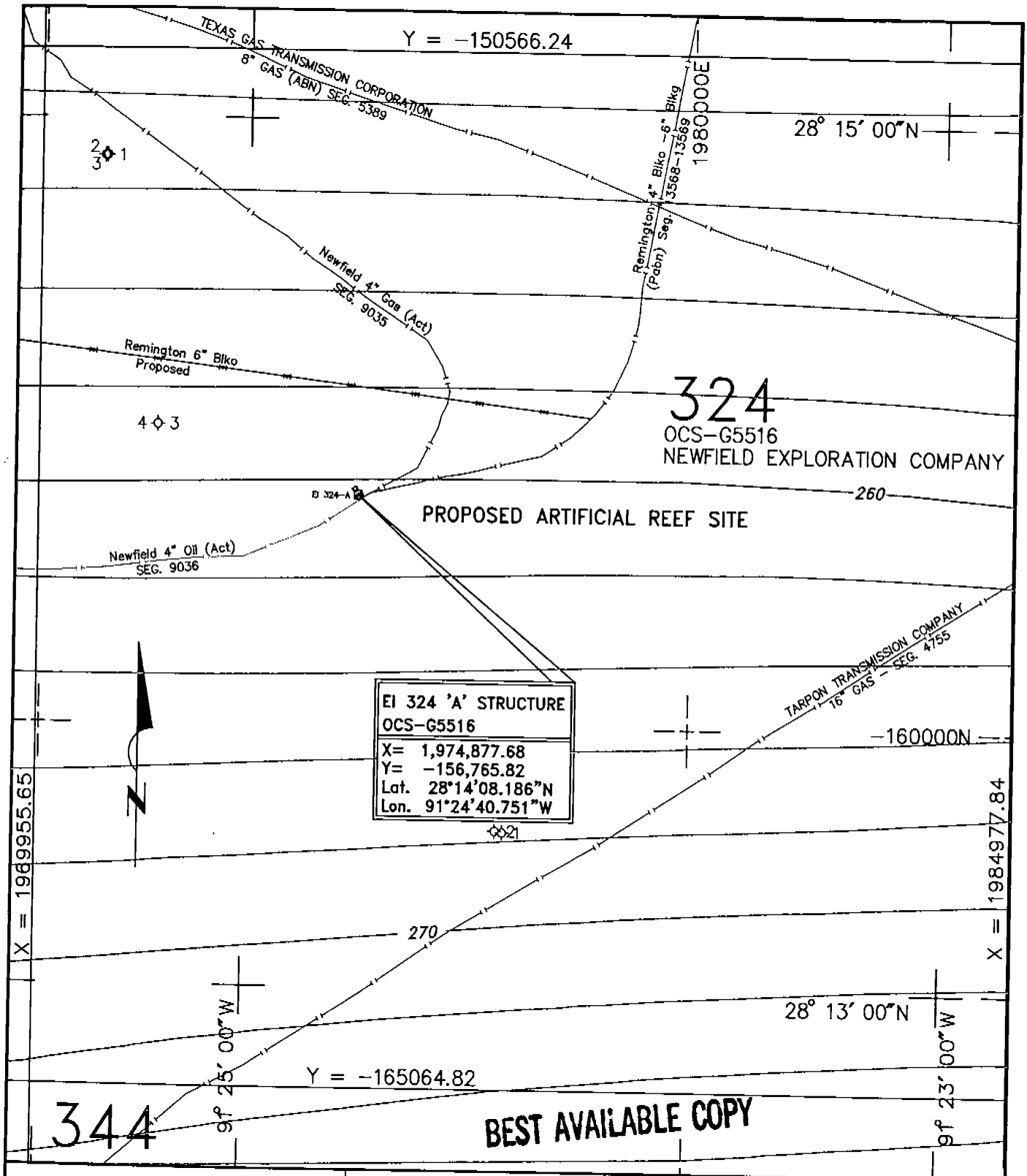
VII. BIOLOGICAL INFORMATION

The proposed explosive removal operations comply with the 1988 NMFS Biological Opinion criteria for the "generic consultation".

A. Recent observations of sea turtles or marine mammals at the structure: None reported
B. Recent biological surveys conducted in the vicinity of the structure: None available
C. Pre and post detonation survey procedures for turtles and marine mammals:

   i. NMFS monitors will be on site a minimum of 48 hours prior to explosive detonations.
   ii. NMFS monitors will perform an arial survey around the platform location a maximum of 30 minutes prior to explosive detonations.
   iii. Divers will conduct a visual survey of the immediate area around the platform immediately before and after explosive detonations.
   iv. NMFS monitors will perform an arial post detonation survey of the area around the platform.

D. Detonation pressure/impulse tranducers: The use of devices to measure detonations is not anticipated.



1000 0 1000 2000

SCALE 1" = 2000'

DATUM:	NAD 27
SPHEROID:	CLARKE 1866
PROJECTION:	LAMBERT
ZONE:	LOUISIANA SOUTH

Thales GeoSolutions, Inc.
3624 Westchase Drive
Houston, Texas 77042
Tel: 713-784-4462 Fax: 713-784-8162
THALES

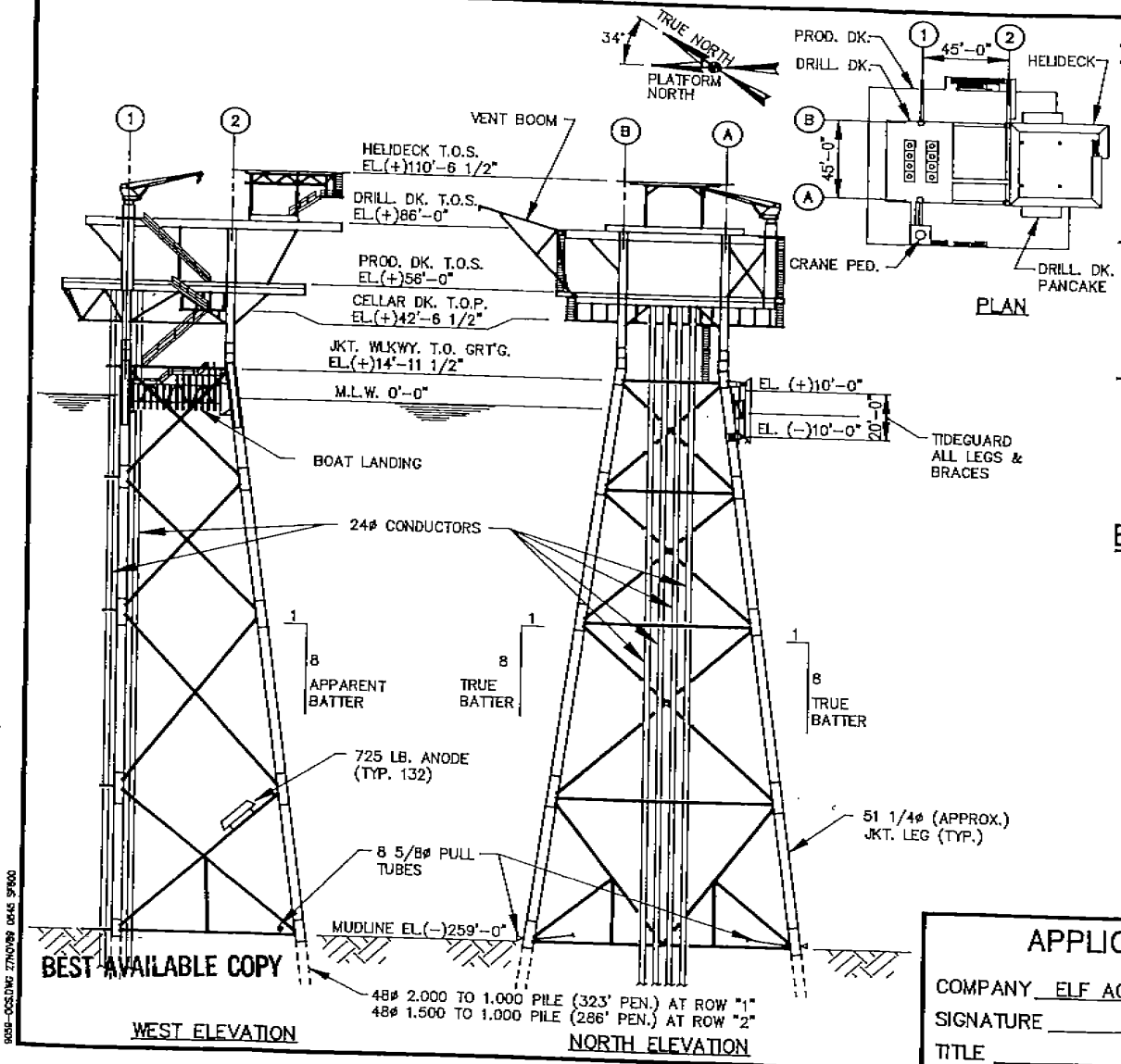
NEWFIELD EXPLORATION
PREPARED FOR LOWE OFFSHORE, Inc.

PROPOSED REEF SITE EI 324 'A'

EUGENE ISLAND AREA
SOUTH ADDITION

SHEET 1 OF 1

DATE	DRAWN BY:	CHECKED BY:	DRAWING No.
02/17/03	K.WILLIAMS		EI324-5106-BLOCK
REV. DATE	REV. No.:	SCALE:	JOB No. 100160
	00	AS-SHOWN	DP No. 5106



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OVERTURNING MOMENTS

LONG. 192,485 FT.-TONS
TRANS. 202,345 FT.-TONS
DIAG. 191,680 FT.-TONS

ENVIRONMENTAL FORCES

TOTAL WIND, WAVE AND CURRENT FORCE

LONG. 891 TONS
TRANS. 911 TONS
DIAG. 879 TONS

TOTAL GRAVITY LOADS

OPERATING 2780 TONS
STORM 2780 TONS

MAXIMUM PILE MOMENT

STORM LOAD

MOMENT 3440 FT.-TONS
DIST. BELOW M.L. 48'-6"

PILE LOADS - STORM

	MAX. COMPRESSION	MAX. TENSION	HORIZONTAL SHEAR
LONG.	2287 TONS	921 TONS	158 TONS
TRANS.	1966 TONS	554 TONS	124 TONS
DIAG.	2480 TONS	1195 TONS	140 TONS

ENVIRONMENTAL DESIGN FACTORS

WAVE HEIGHT 71.0 FT.
SURFACE CURRENT 0.0 FT./SEC.
MUDLINE CURRENT 0.0 FT./SEC.
STORM & ASTRO. TIDE 3.0 FT.
WIND VELOCITY 98 MPH
RETURN INTERVAL 100 YRS.
WAVE THEORY STOKES
WAVE PERIOD 15.0 SEC.
CATHODIC PROTECTION SACRIFICIAL ANODES
MARINE GROWTH 1.0 IN.
SCOUR NONE FT.
DESIGN METHOD ELASTIC

M.E.I. JOB NO. 9059

STATE OF LOUISIANA
MARK H. DOING
REG. No. 20160
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

APPROVED 11/29/89

DATE 11/29/89

APPLICATION BY:

COMPANY ELF AQUITAINE OPERATING INC.
SIGNATURE _____
TITLE _____ DATE _____

ELF AQUITAINE OPERATING INC.

4 PILE, 8 WELL, PRODUCTION PLATFORM

LEASE NO. OCS-G-5516
AREA EUGENE ISLAND BLOCK 324
OPERATOR ELF AQUITAINE OPERATING INC.

APPENDIX B

NMFS CORRESPONDENCE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Washington, D.C. 20235

JUL 2 5 1988

Mr. William D. Bettenberg
Director
Minerals Management Service
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Bettenberg:

Enclosed is the Biological opinion prepared by the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) concerning potential impacts on endangered and threatened species associated with removal of certain oil and gas platforms and related structures in the Gulf of Mexico (GOM) using explosives.

This "standard" consultation covers only those removal operations that meet specified criteria pertaining to the size of explosive charge used, detonation depth, and number of blasts per structural grouping. Consultation must be initiated on a case-by-case basis for all dismantling operations requiring the use of explosives that do not meet the established criteria.

NMFS concludes that structure removals in the GOM that fall within the established criteria are not likely to jeopardize the continued existence of listed species under the jurisdiction of NMFS. However, it in our opinion that, the proposed activities may result in the injury or mortality of endangered and threatened sea turtles. Therefore, pursuant to Section 7 (b) (4) of the ESA, we have established a low level of incidental take, which is cumulative for all removals covered by this consultation, and terms and conditions necessary to minimize and monitor any impacts, should they occur. The terms and conditions are contained in the enclosed incidental take statement. Also enclosed is a list of pending consultations that meet, with noted exceptions, the criteria established in the "standard" consultation. This biological opinion and the mitigating measures and terms and conditions contained in the related incidental take statement apply to those proposed removal operations. Therefore, formal consultation is concluded for these proposed actions.

Consultation must be reinitiated if: (1) the amount or extent of taking specified in the incidental take statement is exceeded; (2) new information reveals impacts of the proposed activities that may affect listed species in a manner or to an extent not considered thus far in our opinions; (3) the identified activities are modified in a manner that causes an adverse effect to listed species not previously considered or (4) a new species is listed or critical habitat is designated that may be affected by the project.

I look forward to your continued cooperation in future consultations.

Sincerely,

James W. Brennan
Assistant Administrator
for Fisheries

Enclosures

Biological Opinion

Agency: Minerals Management Service, U.S. Department of the Interior

Activity: Consultation for Removal of Certain Outer Continental Shelf Oil and Gas Structures in the Gulf of Mexico

Consultation Conducted By: National Marine Fisheries Service (NMFS)

Date Issued: July 25, 1988

Background Information:

In a letter dated November 19, 1986, the Minerals Management Service (MMS) made an initial request for formal consultation pursuant to Section 7 of the Endangered Species Act (ESA) for the removal of an offshore oil and gas platform located in the Federal waters of the Gulf of Mexico (GOM) . MMS and NMFS determined that removal of oil and gas platforms and related structures in the GOM may affect endangered and threatened marine species. This "may affect" determination was based on a possible relationship between endangered and threatened sea turtle mortalities and the dismantling of platforms using explosives. On November 25, 1986, NMFS issued the first of a series of biological opinions addressing, in detail, the potential impacts to listed marine species that may occur as a result of OCS abandonment activities.

MMS and NMFS established procedures for expediting Section 7 consultations on platform abandonment activities in the GOM referred to as "expedited consultations." Following those procedures, approximately 44 consultations have been completed for removal operations in the GOM region. All of the consultations have concluded that the proposed abandonment activities were not likely to jeopardize the continued existence of any listed species, but that the proposed activities may result in the incidental taking of endangered and threatened sea turtles.

The dismantling of platforms and related structures using explosives has evolved to a point where a "standard" protocol can be established for removal operations meeting certain criteria. Based upon removal techniques developed and reviewed in conjunction with the previously conducted "expedited consultations," MMS has requested, by letter of May 24, 1988, a "generic consultation" that would be applicable to all future removal operations that fall within a distinct category, defined by specific parameters. A category has been designed to include those structure types and removal techniques most commonly encountered during the expedited consultations and dismantling operations already completed. Since approximately 1000 structures that may be scheduled for future removal fall within the parameters of the established category, NMFS agrees that a "generic" consultation in appropriate at this time. The objective of the consultation is to reduce the administrative burden on both MMS and NMFS for conducting repetitive consultations on activities that may result in similar impacts to listed species and that require identical mitigating measures to maintain adequate protection for such species. This biological opinion responds to MMS' May 24, 1988, consultation request. The opinion is based on the best scientific and commercial data presently available and incorporates information from: 1) previous MMS Summary Evaluations, 2) previous NMFS biological opinions on platform removal, 3) the scientific literature, and 4) other pertinent and available information. Consultation must be reinitiated if new information becomes available concerning impacts to listed species that would alter the conclusions reached in this opinion or require modification of the measures identified in the attached incidental take statement. Consultation will continue on a case-by-case basis for those structure removals that do not meet the criteria established for "standard" removals.

Description of Proposed Action:

The proposed action involves the removal by explosive means, of offshore oil and gas structures located in Federal waters in the Gulf of Mexico. Removal of the structures will be accomplished by severing the support pilings, caissons, wall conductors, etc., using varying amounts of explosives to permit salvage of the structures. This involves the placement of explosives inside or outside of supporting structures and detonating charges primarily using electronically controlled signals.

This "generic" consultation considers only those removal operations that meet certain criteria pertaining to the size of the explosive charge used, detonation depths, and number of blasts per structural grouping. The specific criteria established to cover such removals are as follows:

1) Use of high velocity explosives (detonation rate greater than 7,600 meters/second).

2) A maximum of eight individual blast per group of detonations with charges staggered at an interval of 0.9 seconds (900 milliseconds).

3) Charges must be set at a minimum depth of 15 feet below the sediment surface. Severing of structures above the sediment surface "open water" must be accomplished by mechanical (nonexplosive) methods.

4) The maximum amount of explosives per detonation is not to exceed 50 pounds.

Species Occurring in the Project Area:

Listed species under the jurisdiction of NMFS that may occur in the project area:

COMMON NAME	SCIENTIFIC NAME	STATUS	LISTED
right whale	Eubalaena glacialis	E	6/2/70
finback whale	Balaenoptera physalus	E	6/2/70
humpback whale	Megaptera novaeanglias	E	6/2/70
sei whale	Balaenoptera boralis	E	6/2/70
sperm whale	Physeter catodon	E	6/2/70
green turtle	Chelonia rydas	Th E*	7/28/78
Kemp's ridley turtle	Lepidochelys kempi	E	12/2/70
leatherback turtle	Dermochelys coriacea	E	6/2/70
loggerhead turtle	Caretta caretta	Th	7/28/78
hawksbill turtle	Eretmochelys imbricata	E	6/2/70

*All of the U.S. green turtle populations are listed as threatened except the Florida breeding population, which is listed as endangered.

No critical habitat has been designated in the project area for the above species.

Assessment of Impacts:

Based upon their known distribution and abundance in the GOM, endangered whales are believed unlikely to occur in the vicinity of the proposed structure removal activities, and, therefore, unlikely to be adversely affected by the proposed action.

Previous NMFS biological opinions (November 25, 1986 and February 26, 1987) have addressed, in detail, removal of structures in the GOM. Accounts of endangered and threatened species which occur in the project area, and the "Assessment of Impacts" contained in these prior opinions also apply to this consultation and are incorporated by reference.

In summary, the opinions referenced above acknowledge the existence of a possible relationship between the use of underwater explosives in removing platforms and related structures and the occurrence of stranded sea turtles, marine mammals (Tursiops truncatus) and fish. Limited experiments conducted by NMFS, Galveston Laboratory confirm that sea turtles (and other marine vertebrates) found in proximity to petroleum platforms can be injured or killed by removal operations employing underwater explosives (Klima, 1986).

Technology most commonly used in the dismantling of platforms includes: bulk explosives, shaped explosive charges, mechanical and abrasive cutters and underwater arc cutters. The use of bulk explosives has become the industry's standard procedure for severing pilings, well conductors and related supporting structures (approx. 90% use). When using bulk charges, the inside of the structure can be jetted out to at least 15 feet below the sediment floor to allow placement of explosives inside of the structure, resulting in a decrease in the impulse and pressure forces released into the water column upon detonation. The use of high velocity shaped charges is reported to have some advantages over bulk explosives and has been used in combination with smaller bulk charges. The cutting action obtained by a shaped charge is accomplished by focusing the explosive energy with a conical metallic liner. A major advantage associated with use of high velocity shaped charges is that a smaller amount of explosive charge is required to sever the structure, which also results in reductions in the impulse and pressure forces released into the water column. Use of mechanical cutters and underwater arc cutters is successful in some circumstances and do not produce the impulse and pressure forces associated with detonation of explosives, however, these methods are, in most instances, more time consuming, costly and more hazardous to divers. As a result, these methods are not used on a routine basis (MMS Report on Platform Removal Techniques).

Based upon data obtained during previously conducted "expedited" consultations on platform removals, the following is a comparison of the types of explosives most likely to be used in the proposed removal operations:

Explosive	Detonating Velocity	Brisance*
RDX	approx. 8,199 m/sec.	1.35
C-4	approx. 8,001 m/sec.	1.15
Comp. -B	approx. 7,803 m/sec.	1.32

* Brisance is the measure of shattering power as compared to TNT which has brisance of 1.00. (MMS Report on Platform Removal Techniques, 1986.)

The proposed removal operations will be accomplished using high velocity explosives. Use of this type of explosive charge should minimize the duration of the impulse and pressure forces produced by detonation of the charges, while providing the amount of force required to sever the structures. According to MMS, restricting the grouping of detonations to eight individual blasts per group and staggering blasts by 0.9 seconds (900 milliseconds) will minimize the area affected by the blasts and suppress phasing of shock waves, thereby decreasing the cumulative effects of the blasts. In addition, since all detonations will occur at least 15 feet below the sediment surface and no more than 50 pounds of explosives per blast will be permitted, the amount of residual energy released into the marine environment should be reduced significantly. As a result, NMFS believes that minimal shock and impulse forces will be released in the vicinity of removal operations at any given time.

To date, of approximately 44 previously conducted consultations covering abandonment activities, about 33 structure removals have been completed. Each removal operation was monitored by NMFS observers and was conducted using appropriate mitigating measures. At the present time, eight turtles have been sighted in areas near structures being dismantled, at least two of which were green turtles. Of the eight documented sightings, one turtle was reported to be floating on it's back near a platform after detonation of Charges, apparently stunned or injured. No other incidents of sea turtle injury or mortality have been reported. Therefore, NMFS believes that the proposed actions are not likely to result in significant adverse impacts to endangered and threatened sea turtle populations.

Conclusions:

Based on the above, it is our opinion that removal of platforms and related structures in the GOM is not likely to jeopardize the continued existence of threatened and endangered species under the jurisdiction of NMFS. However, NMFS concludes that the proposed activities may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill, and leatherback turtles. Therefore, pursuant to Section 7 (b) (4) of the ESA, we have established a low level of incidental take and terms and conditions necessary to minimize and monitor this impact. Compliance with these terms and conditions is the responsibility of MMS and the permit applicant.

Reinitiation Of Consultation:

Consultation must be reinitiated if: 1) the amount or extent of taking specified in the incidental take statement is met or exceeded; 2) new information reveals impacts of the project that may affect listed species in a manner or to an extent not considered in this opinion; 3) the identified activities are modified in a manner that causes an adverse effect on listed species not previously considered; or 4) a new species is listed or critical habitat in designated that may be affected by the proposed activities.

INCIDENTAL TAKE STATEMENT

Section 7(b) (4) of the Endangered Species Act requires that when a proposed agency action is found to be consistent with section 7 (a) (2) of the Act and the proposed actions may incidentally take individuals of listed species, 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 prohibitions 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 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 actions. Therefore, pursuant to Section 7 (b) (4) of the ESA, an incidental take (by injury or mortality) level of one documented Kemp's ridley, green, hawksbill or leatherback turtle or ten loggerhead turtles is set for all removal operations conducted under the terms and conditions of this incidental take statement. The level of taking specified here is cumulative for all removals covered by this consultation. If the incidental take meets or exceeds this specified level, MMS must reinitiate consultation. The Southeast Region, NMFS, 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 will be incorporated in the removal design for "standard" structure removals. The following terms and conditions are established for these removals to implement the identified mitigation 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 prior to, during and after detonation of charges. Observer coverage will begin 48 hours prior to detonation of charges. If sea turtles are observed in the vicinity of the platform and thought to be resident at the site, pre- and post- detonation diver surveys must be conducted.

2) On days that blasting operations occur, a 30-minute aerial survey must be conducted within one hour before and one hour after each blasting episode. The NMFS-approved observer and/or NMFS on-site personnel (NMFS employee only) 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 aerial surveys, blasting activities may be allowed to proceed if approved by the NMFS and/or MMS personnel on-site.

3) If sea turtles are observed in the vicinity of the platform (within 1000 yards of the site) prior to detonating charges, blasting will be delayed until attempts are successful in removing them at least 1000 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 prior to sunset. However, if it is determined by NMFS and/or MMS on-site personnel that special circumstances justify a modification of these time restrictions and that such modification is not likely to adversely impact listed species, blasting may be allowed to proceed outside of this time frame.

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

6) Charges must be staggered 0.9 seconds (900 milliseconds) for each group of structures, to minimize the cumulative effects of the blasts. If a removal operation involves multiple groupings of structures, the interval between detonation of charges for each group should be minimized to avoid the "chumming" effect. Whenever such intervals exceed 90-minutes, the aerial survey must be repeated.

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

8) 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. 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 related "Letters of Authorization" are issued.

REFERENCES

Caillouet, C. W., A. M. Landry, M. J. Duronslet, S. A. Manzella, C. T. Fontaine, D. B. Revera, K. L. Indelicato, T. D. Williams, and D. Forcucci, 1986. Preliminary Evaluation of Biological Impacts of Underwater Explosions Associated with Removal of an Oil Field Structure From the Gulf of Mexico Near Crystal Beach, Texas. National Marine Fisheries Service, Southeast Fisheries Center, Galveston Laboratory, 32 pp.

Duronslet, M. J., C. W. Caillouet, S. Manzella, K. W. Indelicato, C. T. Fontaine, D. B. Revera, T. Williams and D. Boss, 1986. The Effects of an Underwater Explosion on the Turtles Lepidochelys kempi and Caretta caretta with Observation of Effects on Other Marine Organisms. Unpublished Trip Report - Removal of Tenneco Oil Platform on June 21, 1986. NMFS, SEFC, Galveston Laboratory, 19 pp.

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Klima, E. F. , 1986. Summary Report on Biological Impacts of Offshore Petroleum Platform Severance Using Explosives. Unpublished Report to NMFS, SEFC, Galveston Laboratory, 19 pr.

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National Marine Fisheries Service, 1986. Biological Opinion Concerning Impacts of Proposed Removal of Cities Services Oil and Gas Corporation's Offshore Platform B-1, Located in Galveston Block 144, Gulf of Mexico. 14 pp.

National Marine Fisheries Service, 1987. Biological Opinion Concerning Proposed Removal of Pennzoil Company's Platform A, Located in Vermilion Block 228, Gulf of Mexico. 24 pp.

Renaud, M. and G. Gitschlag, 1987. Study of Biological Impacts of the Explosive Removal of an Offshore Platform (Pennzoil Platform-Vermilion 228A). Unpublished Trip Report to NMFS, SEFC, Galveston Laboratory, 9pp.

#	Operator	Lease Area	Block	Structure
40	Mobil Exploration and Producing Company U.S. Inc.	Eugene Island	354	A
	"	Vermilion	182	A
41	Kerr-McGee Corporation	Ship Shoal	296	A
42	Conoco Inc.	Ship Shoal	206	A
	"	Vermilion	242	A
43	Mobil Exploration and Producing Company U.S. Inc.	West Cameron	132	1
	"	West Cameron	101	C
44	Tenneco Oil Exploration and Production	East Cameron	255	F
45*	Mobil Exploration and Producing Company U.S. Inc.	Eugene Island	199	C
	"	Vermilion	76	B
	" (heliport)	"	"	"
	Except capped and plugged wells "A" & "B" in Vermilion -76-B			
46	Mobil Exploration and Producing Company U.S. Inc.	Vermilion	76	1
47	Samaden Oil Corporation	Galveston	241	A
48	Conoco In.	Grand Isle	63	A
	"	"	54	3
	"	"	47	6
49	Mobil Exploration and Producing Company U.S. Inc.	Main Pass	91	2
50	Mobil Exploration and Producing Company U.S. Inc.	South Pelto	12	D
51	Exxon Company	West Delta	30	5
	"	"	"	V
	"	"	31	1
	"	"	"	W
52	Conoco Inc.	West Delta	45	R-1

53	Mobil Exploration and Producing Company U.S. Inc.	West Cameron	71	A
	"	South Marsh	235	9
54	Tenneco Oil Exploration and Production	Ship Shoal	199	E
56*	Conoco Inc.	West Cameron	135	A
	"	East Cameron	47	D
	"	S. Marsh, W. Ad.	261	A
	Except West Cameron-261-A			
57*	Exxon Company U.S.A.	High Is., E. Ad.	A-342	B
	Except High Island East Addition-A342-A			
58	BHP Petroleum	High Island	A-507	A
59	Mobil Exploration and Producing Company U.S. Inc.	East Cameron	14	5
60	FMP Operating Company	West Cameron	464	A
61	Amoco Production Company	S. Marsh Island	33	A

* Consultations whose numbers include an asterisk (*) did not totally fall under the parameters of this "standard" consultation, therefore, only those removals meeting the parameters are approved and further consultation will be necessary for the exceptions.