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UNITED STATES GOVERNMENT
MEMORANDUM

June 23, 1997

To: Chief, Office of Structural and Technical Support, Field Operations, GOM OCS Region (MS 5210)

From: Chief, Environmental Operations Section, Leasing and Environment, GOM OCS Region (MS 5440)

Subject: Site-Specific Environmental Assessment (SEA) Prepared for Apache Corporation's proposal(s) to remove Platforms A, No. 2 and No. 3 in West Cameron Area, Block 379 (Lease OCS-G 5016), ES/SR SEA No. 97-065, 97-066, 97-067, respectively and Platform B and Caisson No. 1 in Vermilion Area, Blocks 325 (Lease OCS-G 6289) and 41 (Lease OCS-G 9489), ES/SR SEA No. 97-093, and 97-094, respectively

Apache Corporation's proposal to remove Platforms A, No. 2 and No. 3 in West Cameron Area, Block 379, Platform B and Caisson No. 1 in Vermilion Area, Blocks 325 and 41, respectively, has been reviewed. Our SEA for the subject action(s) is complete and results in a Finding of No Significant Impact. This Finding is conditioned on the imposition of the following mitigative measure(s) to ensure environmental protection, consistent environmental policy, and safety as required by the National Environmental Policy Act, as amended. This Finding is valid only insofar as the conditions are imposed.

1. The operator will comply with the terms of the Incidental Take Statement in the NMFS generic Biological Opinion of July 25, 1988.

2. Our analysis indicates that there are existing pipelines located within 150 meters (490 feet) of the proposed activities. These pipelines may pose a hazard to the proposed operations. Precautions in accordance with NTL 83-3, Section IV.B, must be taken prior to performing the proposed operations.

3. The Magnuson-Stevens Fisheries Conservation and Management Act, 50 CFR 622.31(a) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, companies/contractors involved in explosive structure removals should not take such stunned or killed fish on board their vessels. Should this happen the company/contractor could be charged by the National Marine Fisheries Service with violation of the Act. If you have any questions, contact Mr. Robert Sadler with the National Marine Fisheries Service. His telephone number is (813) 570-5305.

NOTED - SCHEXNAILDRE

4. The lessee will ensure that all aircraft used in support of their OCS operations maintain a minimum altitude of 2,000 feet over all national wildlife refuges and national park lands.

Through the Fishermen's Contingency Fund office, the MMS has been notified of the following hang sites:

West Cameron Area, Block 379 and Vermilion Area, Block 41

None Reported

Vermilion Area, Block 325

X = 1610507	X = 1612236
Y = -148782	Y = -148477

(Orig. Sgd.) Jerry Brashier

Jerry Brashier

cc: 102-01a ENV 5-4b (MS 5440)
Lease OCS-G 5016, 6289, and 9489 POD File (MS 5032)
Public Information (MS 5034)

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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 97-065, 066, 067, 093, and 094

Structure-Removal Activities in
West Cameron Area, Block 379 and Vermilion Area, Block 325, and 41
Lease OCS-G 5016, 6289, and 9489 respectively

June 1997

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(S)

No. 97-065, 066, 067, 093, and 094

Assessment of the Environmental Impacts
of the Proposal to remove Platforms A, No. 2 and No. 3 in West Cameron Area, Block 379,
Platform B and Caisson No. 1 in Vermilion Area, Blocks 325 and 41 respectively
(Leases OCS-G 5016, 6289, and 9489)
by Apache Corporation

Date Submitted: March 6, and 17, 1997

Commencement Date: June 1997

Prepared by Richard T. Bennett

FINDING OF NO SIGNIFICANT IMPACT

I have considered the notification(s) by Apache Corporation to remove Platforms A, No. 2 and No. 3 in West Cameron Area, Block 379 (Lease OCS-G 5016), Platform B in Vermilion Area, Block 325 (Lease OCS-G 6289) and Caisson No. 1 in Vermilion Area, Blocks 41 (Leases OCS-G 9489), SEA No. ES/SR 97-065, 066, 067, 093, and 094, respectively . Based on the environmental analyses contained in the site-specific environmental assessment, there is no evidence to indicate that the proposed action(s) will significantly (40 CFR 1508.27) affect the quality of the human environment if the permit(s)/application(s) is/are approved subject to the mitigative measure(s). Preparation of an environmental impact statement is not required.

Richard T. Bennett
Analyst

6/23/97
Date

Chief, Environmental Operations
Leasing and Environment
Gulf of Mexico OCS Region

6/23/97
Date

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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(s) is necessary.

I. DESCRIPTION OF THE PROPOSED ACTION(S) AND NEED FOR THE PROPOSAL(S)

A. DESCRIPTION OF THE PROPOSAL(S) WITH MITIGATION

Apache Corporation proposes to remove Platforms A, No. 2 and No. 3 in West Cameron Area, Block 379 (Lease OCS-G 5016), Platform B and Caisson No. 1 in Vermilion Area, Blocks 325 (Lease OCS-G 6289) and 41 (Lease OCS-G 9489), respectively . The structures are located at a water depths from 45 feet (Caisson No. 1, Vermilion Area, Block 41) to 213 feet (Platform B, Vermillion Area 325) feet and lie approximately 40 to 120 miles southeast of Sabine Pass, Texas. The operator plans to sever legs/piles, caisson and conductors by explosives (bulk charges) at 20' below the mudline .

Refer to Appendix A and Table 1 for structure specifications, additional data on removal techniques, types and quantities of explosives to be used, and sequence of events.

MITIGATION

Refer to the operator's proposal(s) (Appendix A) for mitigative measure(s) proposed to reduce the likelihood of death or injury to sea turtles and marine mammals.

B. NEED FOR THE PROPOSED ACTION(S)

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 reserves have been depleted.

II. ALTERNATIVES TO THE PROPOSED ACTION(S)

Alternatives to the proposed structure removal(s) with mitigation originally submitted are:

A. NON-REMOVAL OF THE STRUCTURE(S)

The operator 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(s) as proposed. However, non-removal of the structure(s) 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 STRUCTURE(S) BY ALTERNATIVE NON-EXPLOSIVE METHODS

The MMS 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 referenced in the Introduction. Updated information is also found in the FEIS for Sales 157 and 161 (USDOI, MMS, 1995). 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(s).

Refer to the FEIS (USDOI, MMS, 1988 and 1995) and PEA referenced in the Introduction for detailed information concerning alternative methods of structure removal.

C. REMOVAL OF THE STRUCTURE(S) 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) Biological Opinion of July 25, 1988, which addresses "standard" explosive structure removals in the GOM.

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

In the course of this evaluation, the following protective measure(s) were identified to further mitigate the environmental impacts associated with the proposal(s). Appropriate regulations and procedures are believed sufficient to prevent significant adverse impacts.

Our analyses indicate that there is/are pipeline(s) located within 150 m (490 ft) of the proposed activities. The pipeline(s) may pose a hazard to the proposed operations. Precautions in accordance with NTL 83-3, Section IV.B, will be taken prior to performing the proposed operations.

The Magnuson-Stevens Fisheries Conservation and Management Act, 50 CFR 622.31(a) prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, companies/contractors involved in explosive structure removals should not take such stunned or killed fish on board their vessels. Should this happen the company/contractor could be charged by the National Marine Fisheries Service with violation of the Act. If you have any questions, contact the National Marine Fisheries Service at (813) 570-5305.

The lessee will ensure that all aircraft used in support of their OCS operations maintain a minimum altitude of 2,000 feet over all national wildlife refuges and national park lands.

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 referenced in the Introduction. The proposed structure-removal activities are 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 activities.

2. Meteorological Conditions

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

2. Protected, Endangered, and/or Threatened Species

a. Birds

The operator has indicated that helicopter flights and boat traffic would utilize a shorebase in Sabine Pass, Texas. 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. The proposed work is not expected to impact threatened or endangered birds or their habitats.

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 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 the bottlenose dolphin is by far the most likely marine mammal to be encountered at the proposed structure-removal site(s). The MMS and/or NMFS observers may be utilized to look for marine mammals prior to detonation of the primary charge(s) at the removal site(s). If marine mammals are detected at the structure-removal site(s), detonation of the primary charge(s) would be delayed until the animals are removed from the area.

The NMFS issued final regulations amending 50 CFR part 228 (60 FR 197, October 12, 1995, pp. 53139-53147) for the incidental take of bottlenose (Tursiops truncatus) and spotted dolphins (Stenella frontalis and S. attenuata) by U.S. citizens holding a Letter of Authorization (LOA) 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 13 November 1995 through 13 November 2000.

Please refer to the Federal Register of October 12, 1995 for the description of the specific activity and specific geographical 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(s) undetected and could be injured or killed by the underwater, subsurface detonation(s). Such an occurrence is considered highly unlikely and with the indicated protective mitigation measures, the proposed structure-removal activities are 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 referenced in the Introduction. 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(s) during explosive operations is scarce. The NMFS and/or MMS observers will be utilized to look for sea turtles prior to detonation of the primary charge(s). If sea turtles are detected at the structure-removal site(s), detonation of the primary charge(s) 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(s) undetected and could be injured or killed by the underwater, subsurface detonation(s). However, with the indicated protective mitigation measure(s), the proposed structure-removal activities are expected to have only a low impact on sea turtles. A cumulative incidental take has been authorized by the NMFS for this category action, but with all the precautions to be taken as mitigating measures, it is unlikely that any sea turtles will be affected by these proposed operations.

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 referenced in the Introduction. The proposed activities are not near any sensitive marine habitats. Therefore, the subject structure-removal activities 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 activities. 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 activities. 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 activities. 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 Sabine Pass, Texas would be the shore base for the proposed structure-removal activities. No impacts are expected as a result of the proposed activities. 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 GOM Fishery Management Council expressed concern over the declining stocks of reef fish, especially red snapper. They referred to the antidotal 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 the 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.

The 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. The 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.

The 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 activities. For analysis information, see the PEA referenced in the Introduction.

3. Military Use/Warning Areas and Explosive Dumping Areas

The proposed structure-removal activities will not take place in a military use/warning area or in an explosive dumping area. In addition, the shore base location chosen by the operator and/or his contractor(s) will not require support vessels or aircraft to traverse any of these areas. A description of these areas, their locations and potential impacts of structure-removal activities on these areas can be found in the PEA referenced in the Introduction. The proposed activities will not impact or be impacted by any military use/warning areas or explosives dumping areas.

4. Navigation and Shipping

The proposed structure-removal activities is located adjacent to a vessel safety fairway or anchorage. Structures located nearshore may serve as "landmarks" to vessels or helicopter 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 referenced in the Introduction.

5. Pipelines and Cables

The PEA referenced in the Introduction contains a description of the impacts of structure-removal activities on pipelines and cables. There is/are existing pipeline(s) within 150 m (490 ft) of the proposed structure-removal activities. Since the operator must adhere to existing laws and regulations for abandonment of structures (including procedures required by Notice to Lessees and Operators No. 83-3), the proposed work will not pose a hazard to pipeline(s) and cable(s) in the area(s).

6. Other Mineral Resources

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

7. Human Health and Safety

The PEA referenced in the Introduction describes the hazardous conditions for workers during removal activities. The operator has proposed the use of explosives in conjunction with the structure-removal activities. 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 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. 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 are considered to be low, further studies information about this issue will 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 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 the 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.

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 removal operations. In addition to the above study, the 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 would be prohibited unless they successfully apply for and obtain a Letter of Authorization to do so from the NMFS.

VI. BIBLIOGRAPHY AND SPECIAL REFERENCE(S)

Federal Register. 1995. Incidental take of marine mammals; bottlenose dolphins and spotted dolphins. 60 FR 197, October 12, 1995. pp. 53139-53147.

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. 1995. Final Environmental Impact Statement. Gulf of Mexico Sales 157 and 161: Central and Western Planning Areas. OCS EIS/EA MMS 95-0058. Washington, D.C. Available from NTIS, Springfield, VA. Volume I, and Volume II.

U.S. Department of the Interior. Minerals Management Service. 1988. Final Environmental Impact Statement. Proposed OCS Oil and Gas Lease Sales 118 and 122 (Central and Western Gulf of Mexico). OCS EIS/MMS 88-0044. Washington, D.C. Available from NTIS, Springfield, VA: PB89-114185/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 APACHE CORPORATION FOR THE STRUCTURE REMOVAL(S) IN WEST CAMERON AREA, BLOCK 379, OCS-G 5016, VERMILION AREA, BLOCK 325, OCS-G 6289 AND VERMILION AREA, BLOCK 41 OCS-G 9489

Type of Explosives:

Composition B

Number and Size of Charges:

Three 50# bulk charges, one for each of two piles and one for conductor (Platform A)
One 50# charge for caisson, and one 35# charge for conductor (Platform 2)
One 50# charge for caisson and one 35# charge for conductor (Platform 3)
Six 50# charges, one for each of four piles and two conductors (Platform B)
Two 50# charges, one for each caisson and conductor (Caisson #1)

Employment of Charges:

20' below the mudline and if severing is incomplete a backup charge will be detonated 16' below the mudline

Sequence of Detonation:

Multiple Shots with a 1 second delay between detonations

VII. PREPARERS

AUTHOR:

RICHARD T. BENNETT, BIOLOGIST

SECRETARY:

ELAINE CLARK

VIII. APPENDICES

A. APACHE CORPORATION CORRESPONDENCE

B. NMFS CORRESPONDENCE

C. FISHERMAN'S CONTINGENCY FUND OFFICE HANG SITE MAPS

APPENDIX A

APACHE CORPORATION CORRESPONDENCE

<50 lb.

Richland

UNITED STATES GOVERNMENT
MEMORANDUM

March 6, 1997

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: Apache

Control No: 97-065, 066, 067

BEST AVAILABLE COPY

PLATFORM	AREA/BLOCK	LEASE
A	WC 379	OCS-G 5016
No. 2	WC 379	"
No. 3	WC 379	"

Shore Base: Sabine Pass, Tx

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.

Mit. 6.1 (PL's
72 feet of H_2O
68 feet of H_2O
68 feet of H_2O

Arvind Shah
Felix Dyhrkopp

Enclosure (3) 50# bulk charge
cc: (1) 50# bulk charge and (1) 35# bulk charge
(1) 50# bulk charge and (1) 35# bulk charge

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

00015

REVISED 5/21/96

LE

97-065

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400 CORPORATION

(713) 296-6000

March 4, 1997

Mr. Donald C. Howard
Regional Supervisor, Field Operations
United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard, MS 5210
New Orleans, LA 70123-2394

Re: Application to Remove OCS Platform
West Cameron 379 "A"
OCS-G 5016 ID No. 23665

Gentlemen:

Apache Corporation herein applies to the Regional Supervisor in triplicate for the removal of Platform "A", West Cameron Area Block 379 Lease OCS-G 5016 using explosives. The structure is a 2-pile 1 caisson lean to well protector production platform located in 72' of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform. Please note the proposed explosive program complies with the generic Section 7 guidelines. Decommissioning is scheduled for April 1997 to be followed by removal in June 1997. Disposal of the deck and caisson will be onshore.

Please contact Carl Langham or Jim Snyder at (713) 462-9990 if you have a question or require additional information regarding this application.

Very truly yours,
Apache Corporation

Fred Schaider
Sr. Staff engineer

FS/JES
Enclosures

H:\APACHE\0168 - 0179\Permits\Platform\23665ltr.doc

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL
West Cameron 379 "A" Platform
OCS-G 5016 ID No. 23665

I. Responsible Party

A.	Lease Operator Name	Apache Corporation
B.	Address	2000 Post Oak Blvd. Houston, TX 77056-4400
C.	Contact Person	Doug Keathley, Carl Langham or Jim Snyder
	Telephone Number	(713) 462-9990

II. Identification of Structure to be Removed

A.	Platform Name	West Cameron 379 "A"
	Platform Identification No.	23665
B.	Location	
	Lease	OCS-G 5016
	Area/Block	West Cameron 379
	Coordinates	
	X	1,315,573.78'
	Y	77,896.44'
	Latitude	28° 51' 47.908"
	Longitude	93° 28' 16.742"
D.	Date Installed (Year)	1988
E.	Proposed Date of Removal (Month/Year)	June 1997
F.	Water Depth	72'
G.	Location of Shorebase	Sabine Pass, Texas

III. Description of Structure to be Removed

A.	Configuration		Refer to attached Configuration Drawings
B.	Size	Deck	35' x 40'
		Top of Jacket	26' x 26' x 30'
		Bottom of Jacket	46' x 6" x 46' 6" x 5'

00017

C. Number of Legs/Casings/Piles — 3 legs, 2 piles, 1 wellbore

D. Diameter and Wall Thickness of Legs/Casings/Piles

Piles	36" OD x 1.25" WT at mudline
Conductors Well No. 1	36" 30" 16" 10 ¾" 7 ⅝"
Wellbore	Refer to attached Wellbore Schematics

E. Piles Grouted (inside/outside) — No

F. Soil Composition and Condition — Refer to attached Soil Boring Log

IV. Reason for Platform Removal — Reserves depleted

V. Removal Method

A. Description of Method — Platform to be removed by derrick barge after severing conductor and caisson with explosive charges. It is planned to dispose of the deck and lean to onshore.

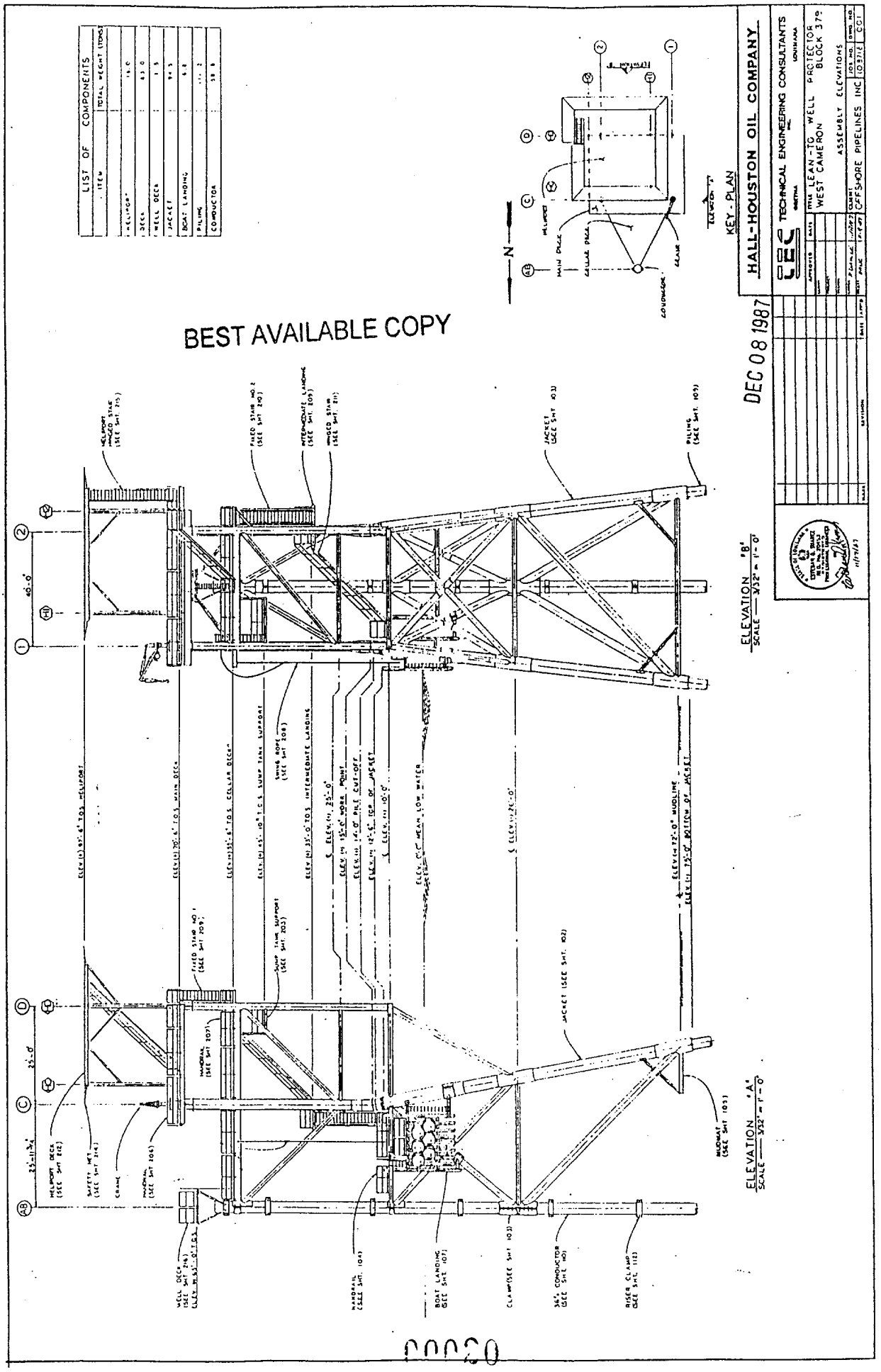
B. Description of Explosives

Kind of Explosives	Composition B
Number and Sizes of Charges	
Number of Conductors Well No. 1	1 50# bulk charge
Number of Piles	2 50# bulk-configured charges
Procedure	Piles and conductor to be shot in a group with a 0.9 second delay between detonations. All charges to be detonated 20' below mudline; if severing is incomplete on the first attempt, with MMS approval, new charges to be detonated 16' below mudline

00018

C.	Pre-Detonation Techniques	
	Survey	48-hour pre-detonation survey for marine mammals and sea turtles to be conducted by NMFS observers; immediately prior to detonation of charges, a 30-minute aerial survey to be performed
	Scare Charges or Acoustic Devices	No
	Diver Pre-Survey	No
D.	Post-Detonation Monitoring Techniques	
	Survey	Immediately after detonation of charges, 30-minute aerial survey to be performed; NMFS observers to collect samples of any marine life killed by explosives
	Transducers	No
	Diver Post-Survey	No
VI.	Biological Information	
A.	Biological Surveys Conducted	No
B.	Sightings of Sea Turtles in Area	No

00019



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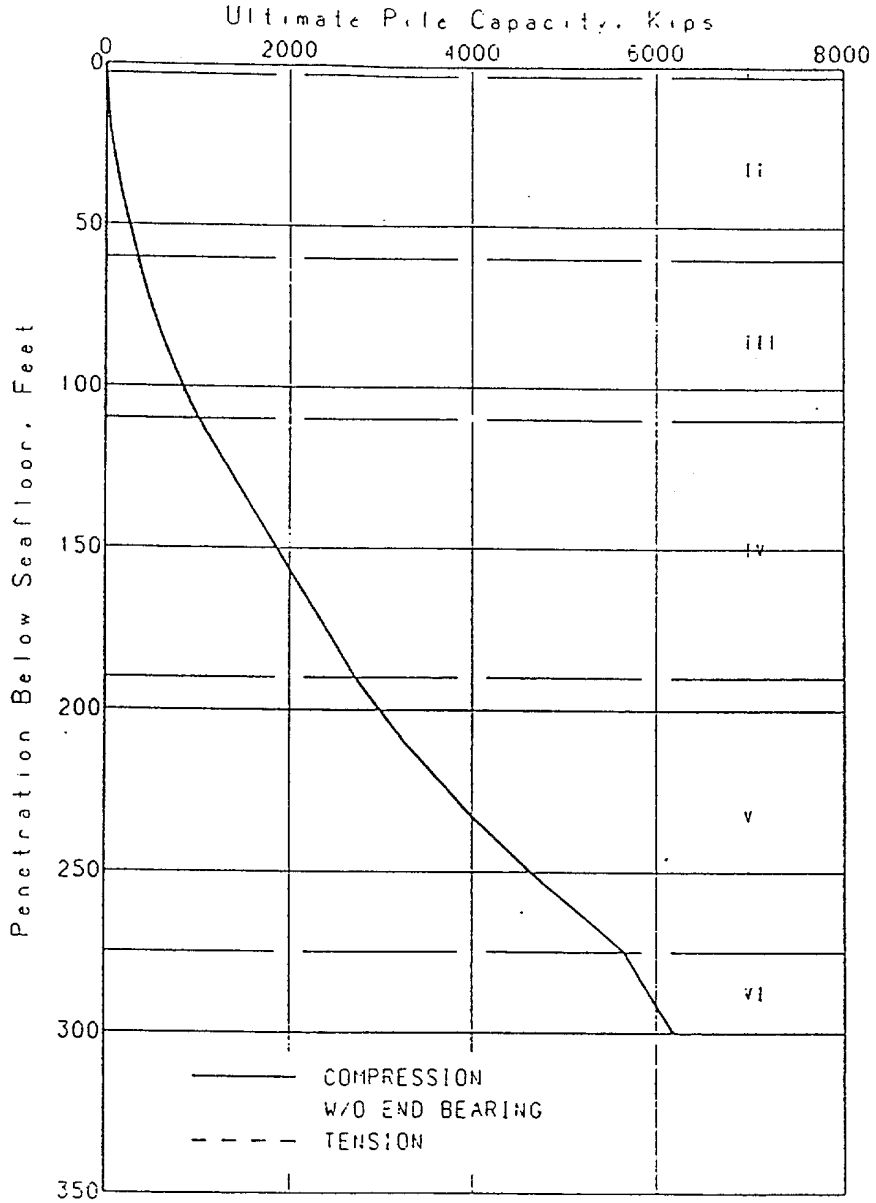


ULTIMATE PILE CAPACITY
48-in.-Diameter Driven Pipe Conductors
API RP 2A (1987) Para. 3.5.4b.1
Block 379, West Cameron Area
(Based on Generalized Soil Conditions)

McCLELLAND ENGINEERS

PLATE 1

00021

FINAL P&A SCHEMATIC

WEST CAMERON 379

OCS-G 5016 #1

OFFSHORE LA

Csg Left: 36" x 30" x 16" x 10-3/4" x 7-5/8"

Water Depth = 68'

API #17-701-40127-01S1

Cement plug: 170'-395' (50' BML)
in 7-5/8" & 10-3/4"

7-5/8" cut @ 395', unable to pull w/ 50K

7-5/8" cut @ 415', unable to pull w/ 50K

Tbg cut at 450'

Top of Cmt in 7-5/8" est @ 2700'

Completion Fluid: 9.5 CaCl

Tubing: 2-7/8" 6.5# N-80 ABC-Mod 8rd

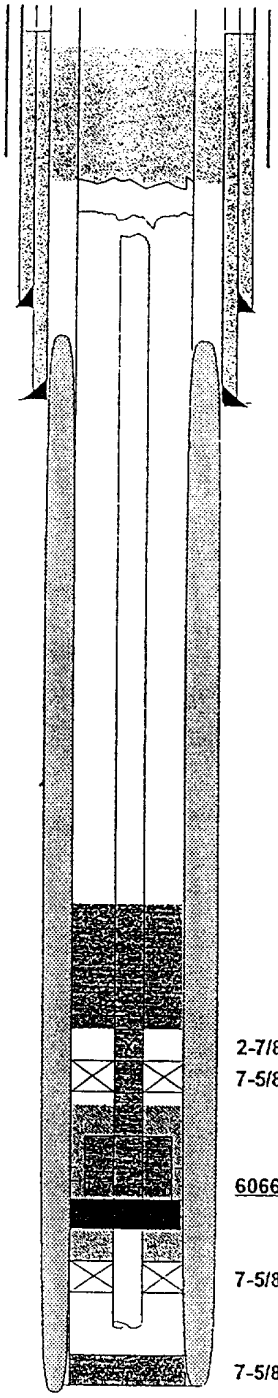
Cement Plug: 5795' - 5935'
Plug tested to 1000 psi

Tbg perfed at 5935'

5400' Sand sq w/ 50 sx cmt

Perfs 6085'-6106' plugged w/ resin 2/92

KEM 2/19/96



Top of cmt in 7-5/8" at 50' BML

30" DP at 350'

36" Caisson at 368'

7-5/8" csg cut & pulled from 415'

16" 65# H-40 Csg @ 900'
Cemented to surface

10 3/4", 51# Csg Set @ 5451'
Cemented to surface per prog

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2-7/8" X-Nipple @ 5938'

7-5/8" Sump Pkr @ 5940'

5400' Sand Perfs:
6066' - 6085'

7-5/8" Sump Pkr @ 6119'

7-5/8" 29# Csg @ 6317' MD / 5650' TVD

00022

WELLBORE SCHEMATIC

LE 97-066

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400 CORPORATION

[713] 296-6000

March 4, 1997

Mr. Donald C. Howard
Regional Supervisor, Field Operations
United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard, MS 5210
New Orleans, LA 70123-2394

Re: Application to Remove OCS Platform
West Cameron 379 No. 2
OCS-G 5016 ID No. 23667

Gentlemen:

Apache Corporation herein applies to the Regional Supervisor in triplicate for the removal of Caisson No. 2, West Cameron Area Block 379 Lease OCS-G 5016 using explosives. The structure is a single well protector caisson located in 68' of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform. Please note the proposed explosive program complies with the generic Section 7 guidelines. Decommissioning is scheduled for April 1997 to be followed by removal in June 1997. Disposal of the deck and caisson will be onshore.

Please contact Carl Langham or Jim Snyder at (713) 462-9990 if you have a question or require additional information regarding this application.

Very truly yours,
Apache Corporation

Fred Schaider
Sr. Staff engineer

FS/JES
Enclosures

\\TST\SYS\DATA\PROJECTS\APACHE\0168 - 0179\Permits\Platform\23667ltr.doc

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL
West Cameron 379 No. 2 Caisson
OCS-G 5016 ID No. 23667

I. Responsible Party

A.	Lease Operator Name	Apache Corporation
B.	Address	2000 Post Oak Blvd. Houston, TX 77056-4400
C.	Contact Person	Doug Keathley, Carl Langham or Jim Snyder
	Telephone Number	(713) 462-9990

II. Identification of Structure to be Removed

A.	Platform Name	West Cameron 379 No. 2
	Platform Identification No.	23667
B.	Location	
	Lease	OCS-G 5016
	Area/Block	West Cameron 379
	Coordinates	
	X	1,309,321.00'
	Y	76,393.00'
	Latitude	28° 51' 31.867"
	Longitude	93° 29' 26.723"
D.	Date Installed (Year)	1988
E.	Proposed Date of Removal (Month/Year)	June 1997
F.	Water Depth	68'
G.	Location of Shorebase	Sabine Pass, Texas

III. Description of Structure to be Removed

A.	Configuration		Refer to attached Configuration Drawings
B.	Size	Deck	8' x 8'
		Top of Caisson	48"
		Bottom of Caisson	48"

00024

C. Number of Legs/Casings/Piles — 1 caisson, 1 wellbore

D. Diameter and Wall Thickness of Legs/Casings/Piles

Caisson	48" OD x 1.65" WT at mudline
Conductors Well No. 2	48" 16" 10 ¾"
Wellbore	Refer to attached Wellbore Schematics

E. Piles Grouted (inside/outside) — No

F. Soil Composition and Condition — Refer to attached Soil Boring Log

IV. Reason for Platform Removal — Reserves depleted

V. Removal Method

A. Description of Method — Platform to be removed by derrick barge after severing conductor and caisson with explosive charges. It is planned to dispose of the deck and caisson onshore.

B. Description of Explosives

Kind of Explosives — Composition B

Number and Sizes of Charges

Number of Conductors Well No. 2 ST 1	1 35# bulk charge (2)
Caisson	1 50# bulk-configured charges

Procedure — The conductor will be shot and removed the caisson will be shot and removed.

All charges to be detonated 20' below mudline; if severing is incomplete on the first attempt, with MMS approval, new charges to be detonated 16' below mudline

00025

C.	Pre-Detonation Techniques	
	Survey	48-hour pre-detonation survey for marine mammals and sea turtles to be conducted by NMFS observers; immediately prior to detonation of charges, a 30-minute aerial survey to be performed
	Scare Charges or Acoustic Devices	No
	Diver Pre-Survey	No
D.	Post-Detonation Monitoring Techniques	
	Survey	Immediately after detonation of charges, 30-minute aerial survey to be performed; NMFS observers to collect samples of any marine life killed by explosives
	Transducers	No
	Diver Post-Survey	No
VI.	Biological Information	
A.	Biological Surveys Conducted	No
B.	Sightings of Sea Turtles in Area	No

00026

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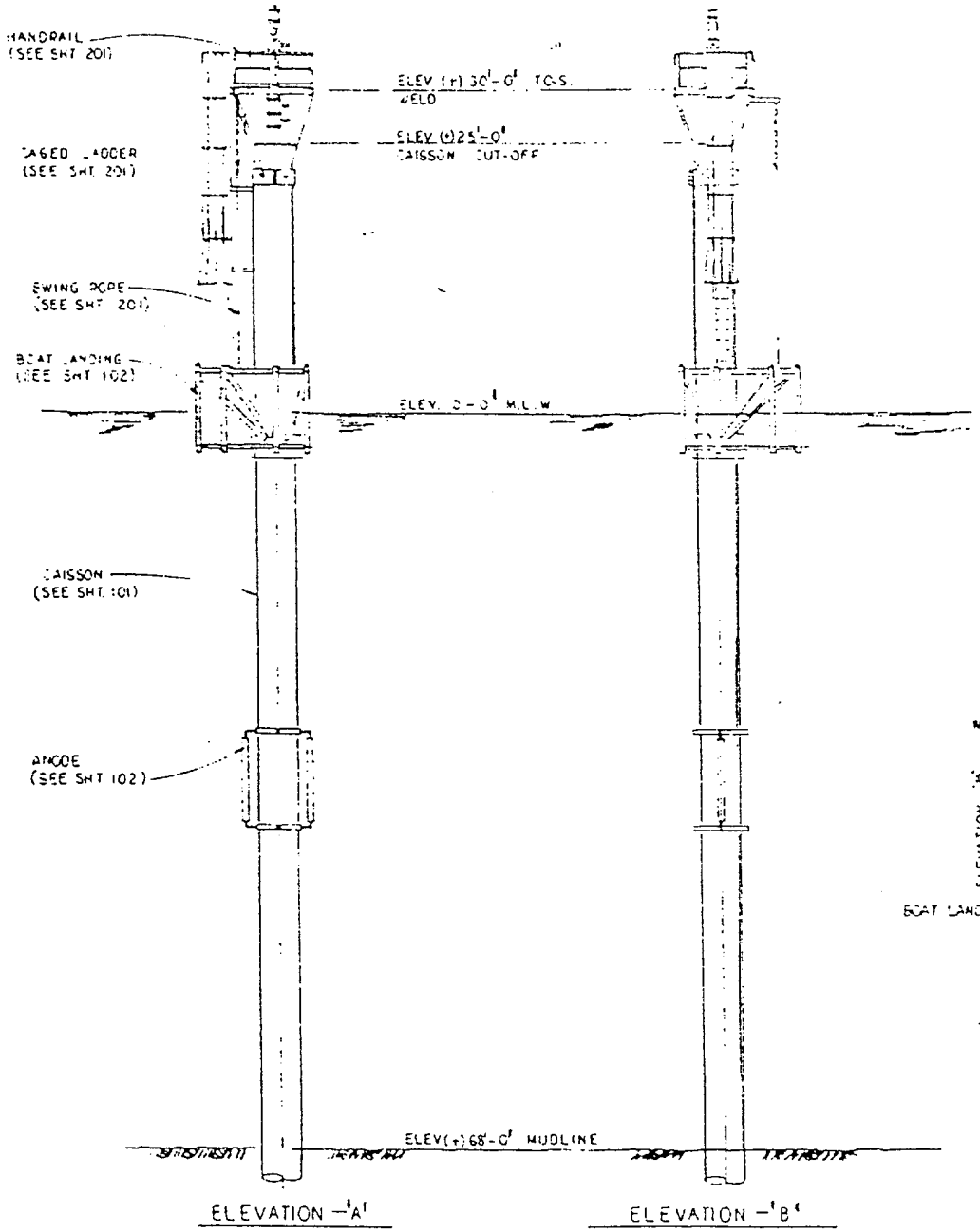
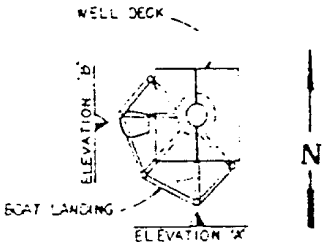


ASSEMBLY ELEVATION
SCALE — 1/8" = 1'-0"

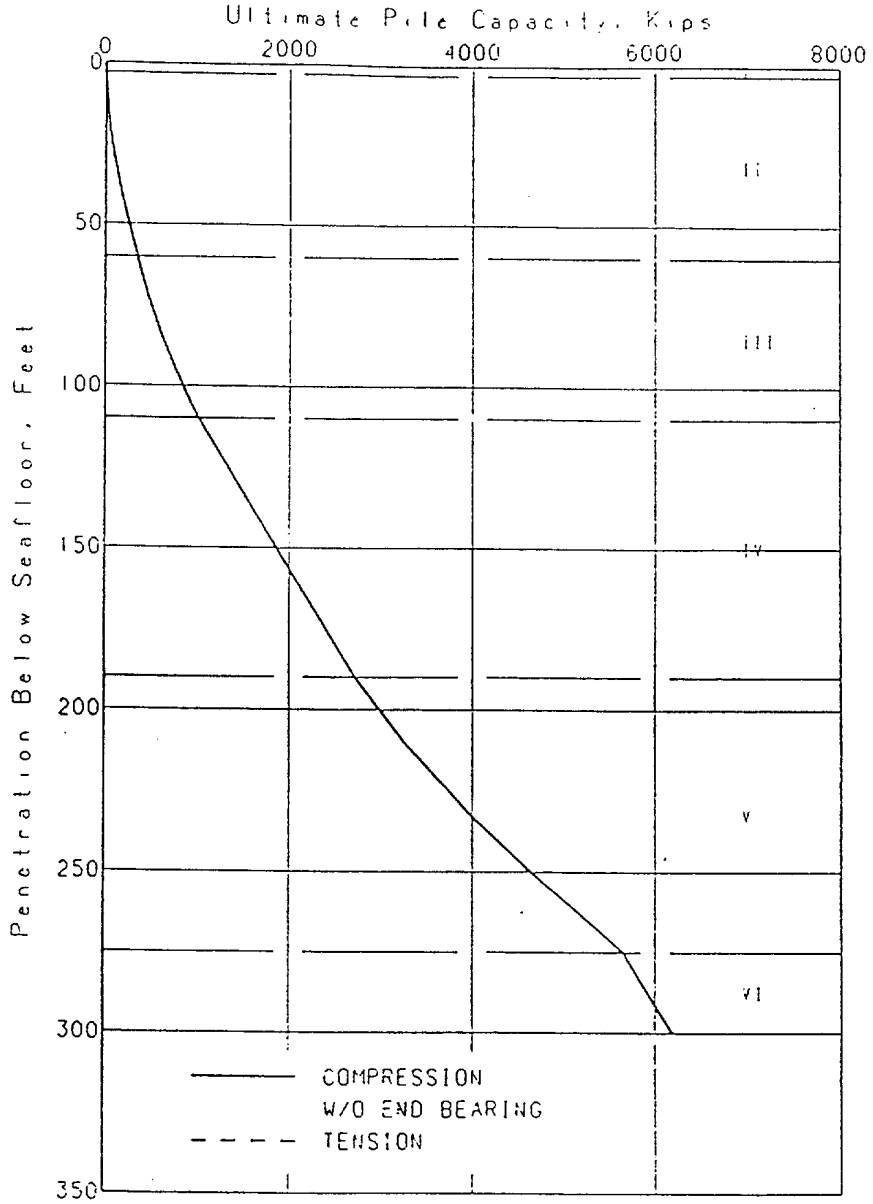


KEY PLAN
SCALE — NONE

West Cameron 379 No. 2

00027

CONFIGURATION DRAWING



ULTIMATE PILE CAPACITY
48-in.-Diameter Driven Pipe Conductors
API RP 2A (1987) Para. 2.3.4b.1
Block 379, West Cameron Area
(Based on Generalized Soil Conditions)

McCLELLAND ENGINEERS

PLATE 1

P&A SCHEMATIC

WEST CAMERON 379

OCS-G 5016 #2 ST1

OFFSHORE LA

48", 16" & 10-3/4" csg left

RKB = 75' Water Depth = 68'
API #17-701-40198-01S1
10-3/4" Cmt plug: 230' - 395' (100' BML)

10-3/4" CIBP set at 395'

2-7/8" Tbg cut at 450'

Completion Fluid: 9.5 CaCl

Tubing: 2-7/8" 6.5# N-80 ABC-Mod 8rd

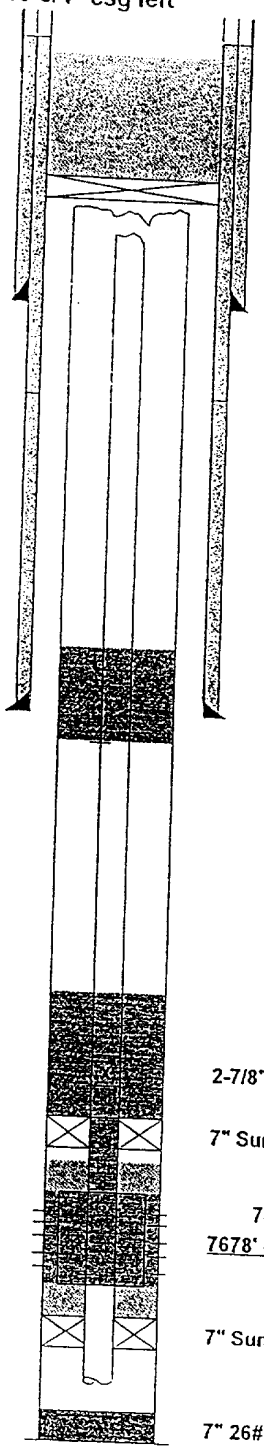
Cement Plug: 3900' - 4150'
Tested plug to 1000 psi

Tbg perfed at 4150'

Cement Plug: 7386' - 7536'

Tbg perfed at 7536'

7400' Sand sq w/ 45 sx cmt



48" Caisson at 236'

7" Csg cut & pulled at 415'

16" 65# H-40 Csg @ 700'
Cemented to surface per prog

BEST AVAILABLE COPY

10 3/4", 51# Csg Set @ 4025'
Cemented to surface per prog

2-7/8" X-Nipple @ 7509'

7" Sump Pkr @ 7540'

7400' Sand Perfs:
7678' - 7714' & 7730' - 7737'

7" Sump Pkr @ 7750'

7" 26# Csg @ 7900' MD / 7659' TVD

KEM 2/19/96

00029

WELLBORE SCHEMATIC

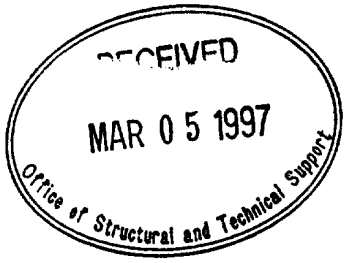
LE 97-061

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400

CORPORATION

(713) 296-6000

March 4, 1997



Mr. Donald C. Howard
Regional Supervisor, Field Operations
United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard, MS 5210
New Orleans, LA 70123-2394

Re: Application to Remove OCS Platform
West Cameron 379 No. 3
OCS-G 5016 ID No. 23682

Gentlemen:

Apache Corporation herein applies to the Regional Supervisor in triplicate for the removal of Caisson No. 3, West Cameron Area Block 379 Lease OCS-G 5016 using explosives. The structure is a single well protector caisson located in 68' of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform. Please note the proposed explosive program complies with the generic Section 7 guidelines. Decommissioning is scheduled for April 1997 to be followed by removal in June 1997. Disposal of the deck and caisson will be onshore.

Please contact Carl Langham or Jim Snyder at (713) 462-9990 if you have a question or require additional information regarding this application.

Very truly yours,
Apache Corporation

Fred Schaider
Sr. Staff engineer

FS/JES
Enclosures

\\TST\SYS\DATA\PROJECTS\APACHE\0168 - 0179\Permits\Platform\23682ltr.doc

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL
West Cameron 379 No. 3 Caisson
OCS-G 5016 ID No. 23682

I.	Responsible Party		
	A.	Lease Operator Name	Apache Corporation
	B.	Address	2000 Post Oak Blvd. Houston, TX 77056-4400
	C.	Contact Person	Doug Keathley, Carl Langham or Jim Snyder
		Telephone Number	(713) 462-9990
II.	Identification of Structure to be Removed		
	A.	Platform Name	West Cameron 379 No. 3
		Platform Identification No.	23682
	B.	Location	
		Lease	OCS-G 5016
		Area/Block	West Cameron 379
		Coordinates	
		X	1,312,841.47'
		Y	73,213.18'
		Latitude	28° 51' 01.049"
		Longitude	93° 28' 46.475"
	D.	Date Installed (Year)	1988
	E.	Proposed Date of Removal (Month/Year)	June 1997
	F.	Water Depth	68'
	G.	Location of Shorebase	Sabine Pass, Texas
III.	Description of Structure to be Removed		
	A.	Configuration	Refer to attached Configuration Drawings
	B.	Size Deck	8' x 8'
		Top of Caisson	48"
		Bottom of Caisson	48"

C.	Number of Legs/Casings/Piles	1 caisson, 1 wellbore
D.	Diameter and Wall Thickness of Legs/Casings/Piles	
	Caisson	48" OD x 1.65" WT at mudline
	Conductors Well No. 3	48" 16" 10 ¾"
	Wellbore	Refer to attached Wellbore Schematics
E.	Piles Grouted (inside/outside)	No
F.	Soil Composition and Condition	Refer to attached Soil Boring Log
IV.	Reason for Platform Removal	Reserves depleted
V.	Removal Method	
A.	Description of Method	Platform to be removed by derrick barge after severing conductor and caisson with explosive charges. It is planned to dispose of the deck and caisson onshore.
B.	Description of Explosives	
	Kind of Explosives	Composition B
	Number and Sizes of Charges	
	Number of Conductors Well No. 3 ST 1	1 35# bulk charge
	Caisson	1 50# bulk-configured charges
	Procedure	The conductor will be shot and removed the caisson will be shot and removed. All charges to be detonated 20' below mudline; if severing is incomplete on the first attempt, with MMS approval, new charges to be detonated 16' below mudline

00032

C.	Pre-Detonation Techniques	
	Survey	48-hour pre-detonation survey for marine mammals and sea turtles to be conducted by NMFS observers; immediately prior to detonation of charges, a 30-minute aerial survey to be performed
	Scare Charges or Acoustic Devices	No
	Diver Pre-Survey	No
D.	Post-Detonation Monitoring Techniques	
	Survey	Immediately after detonation of charges, 30-minute aerial survey to be performed; NMFS observers to collect samples of any marine life killed by explosives
	Transducers	No
	Diver Post-Survey	No
VI.	Biological Information	
A.	Biological Surveys Conducted	No
B.	Sightings of Sea Turtles in Area	No

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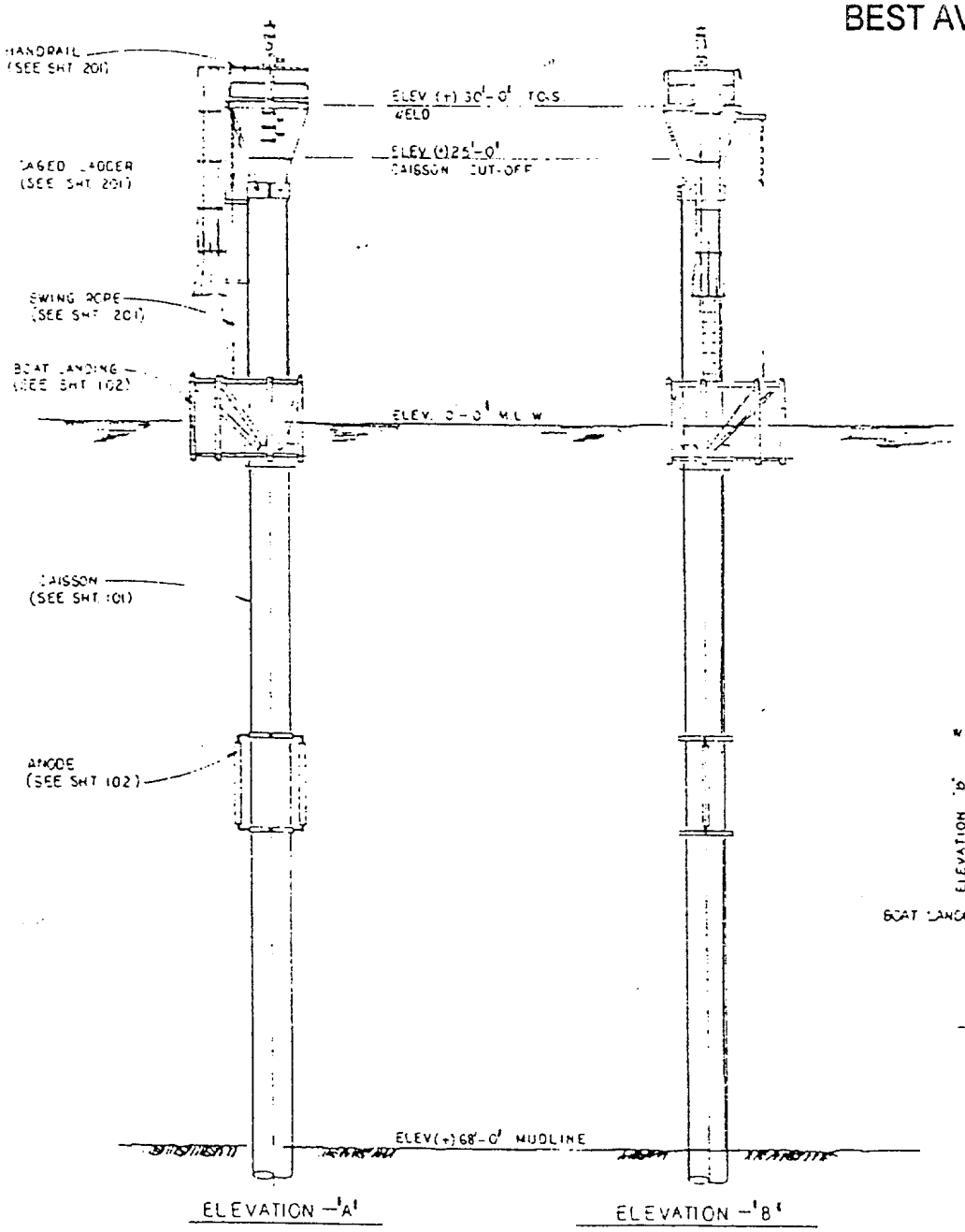
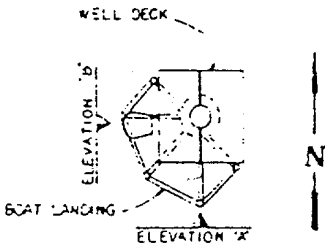


ASSEMBLY ELEVATION
SCALE — 1/8" = 1'-0"

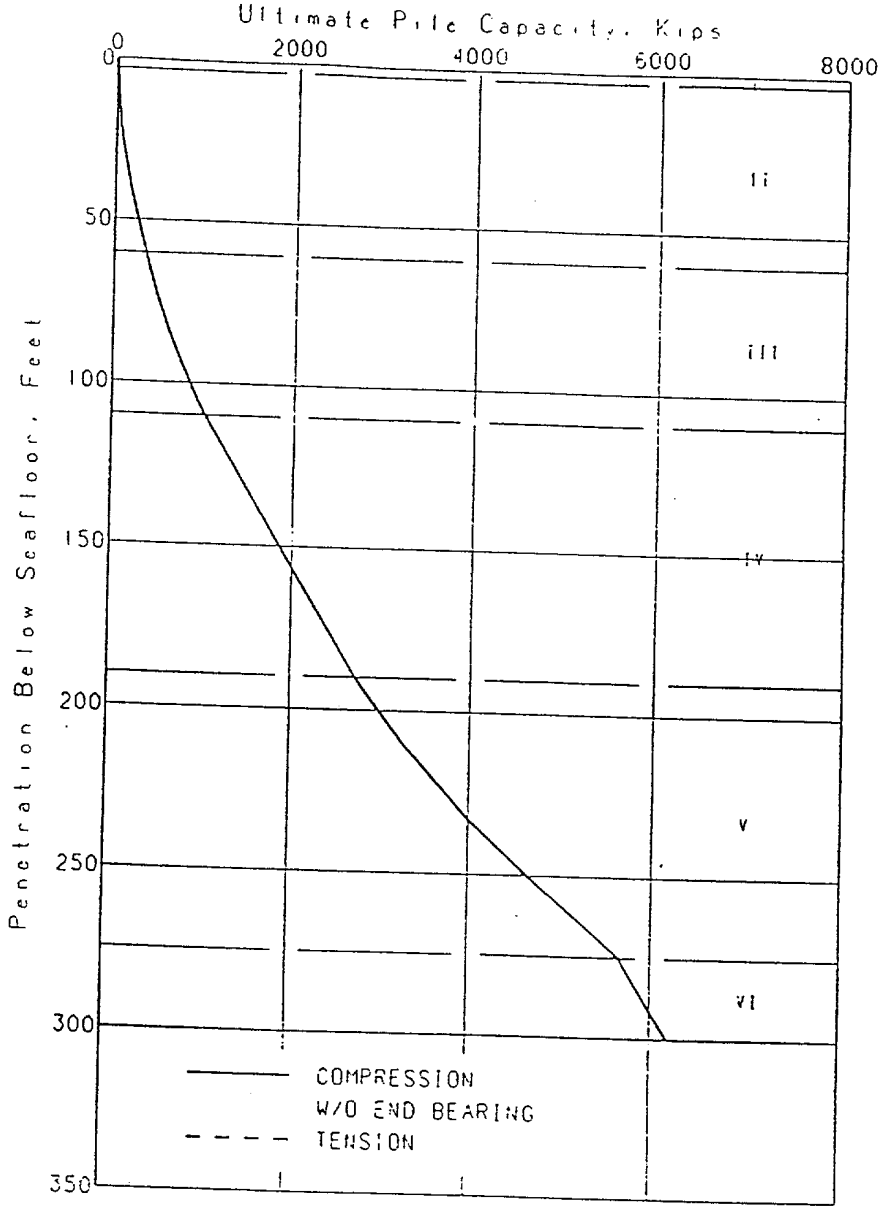


KEY PLAN
SCALE — NONE

West Cameron 379 No. 3

00034

CONFIGURATION DRAWING



ULTIMATE PILE CAPACITY
48-in.-Diameter Driven Pipe Conductors
API RP 2A (1987) Para. 2.3.4b.1
Block 379, West Cameron Area
(Based on Generalized Soil Conditions)

McCLELLAND ENGINEERS

PLATE 1

P&A SCHEMATIC

WEST CAMERON 379

OCS-G 5016 #3 ST1
OFFSHORE LA

48", 16" & 10-3/4" csg left

RKB = 76' Water Depth = 72'
API #17-701-40199-01S1

Cmt plug: 240' - 405' (100' BML)

10-3/4" CIBP set at 405'
Tbg cut at 450'

Completion Fluid: 9.5 CaCl

Tubing: 2-7/8" 6.5# N-80 ABC-Mod 8rd

Cement Plug: 1900'-2150'
Plug tested to 1000 psi

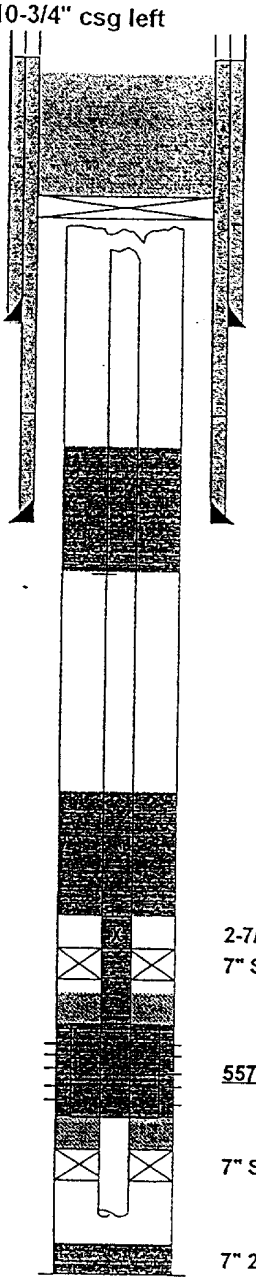
Tbg perfed at 2150'

Cement Plug: 5265' - 5415'
Plug tested to 1000 psi

Tbg perfed at 5415'

5400' Sand sq w/ 50 sx cmt

KEM 2/19/96



Sq. 16" x 10-3/4" w/ 187 sx cmt

48" Caisson at 268'

7" Csg cut & pulled from 415'

16" 65# H-40 Csg @ 700'
Cemented to surface per prog

10 3/4", 51# Csg Set @ 2026'
Cemented to surface per prog

2-7/8" X-Nipple @ 5387'
7" Sump Pkr @ 5420'

5400' Sand Perfs:
5572' - 5602' & 5610' - 5618'

7" Sump Pkr @ 5631'

7" 26# Csg @ 5735' MD
TD @ 5800'

WELLBORE SCHEMATIC

<50 lb.

Richard

UNITED STATES GOVERNMENT
MEMORANDUM

March 6, 1997

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: Apache

Control No: 97-065, 066, 067

No Wavgs. 6/18/97

PLATFORM	AREA/BLOCK	LEASE
A	WC 379	OCS-G 5016
No. 2	WC 379	"
No. 3	WC 379	"

Shore Base: Sabine Pass, Tx

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.

Arvind Shah

~~Felix~~ Dyhrkopp

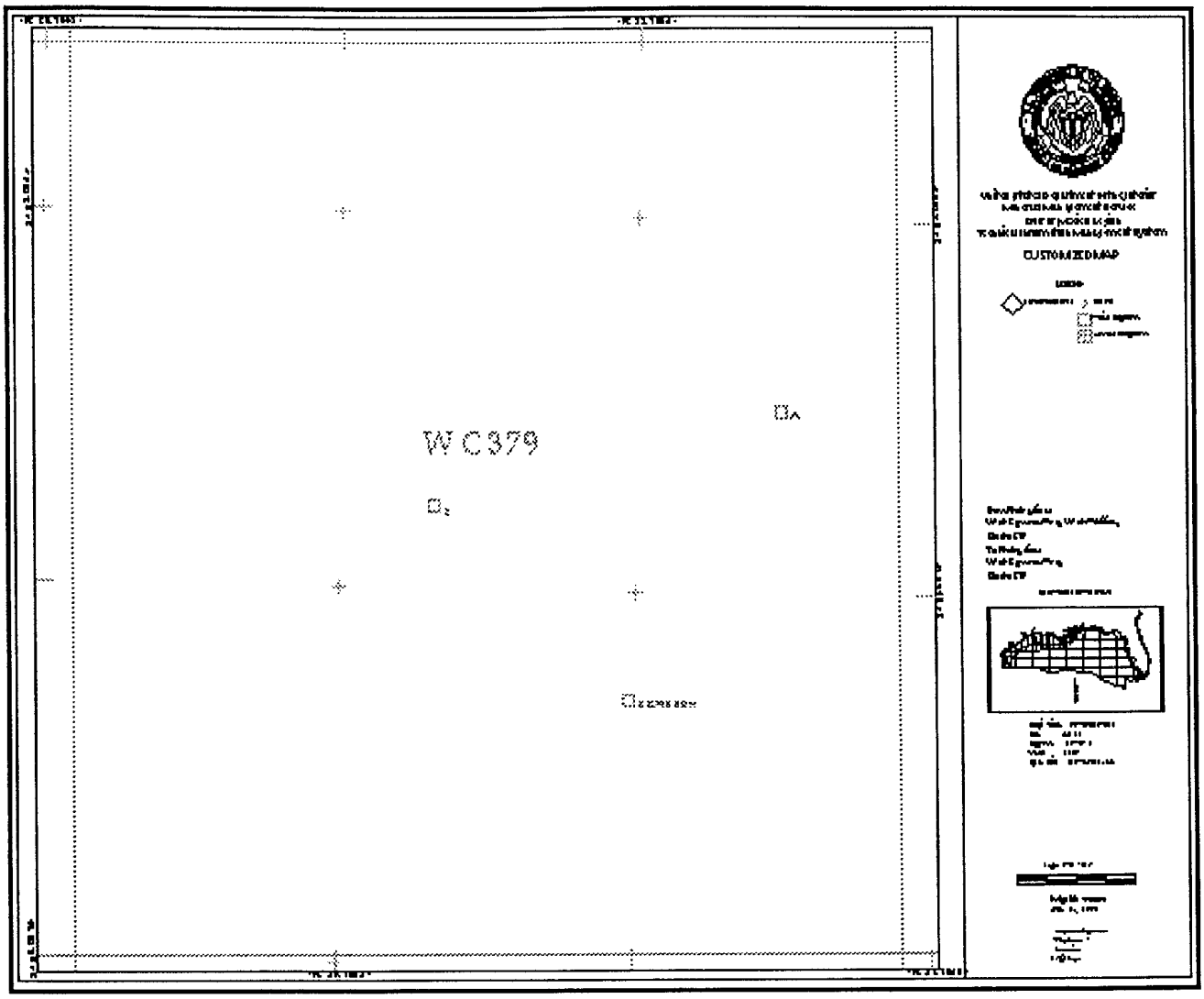
Enclosure

cc:

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

REVISED 5/21/96

Pan/Zoom x,y: 0.48013,8.35774
dx,dy: 0.48013,8.35774 dist: 8.37152



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<50 lb.

Bennett

UNITED STATES GOVERNMENT
MEMORANDUM

Apr 17, 97

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: Apache

Control No: 97-093, 97-094

PLATFORM	AREA/BLOCK	LEASE
B	VR 325	OCS-G2089
Caiss. No1	VR 41	OCS-G9489

Shore Base: Sabine Pass, Tx

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.

Mit. 6.1 (PL's) 213 feet of H_2O
45 feet of H_2O

Arvind Shah
Felix Dyhrkopp

Enclosure (4) 50# + (2) 50# bulk charges for piles cap
(2) 50# bulk charges for casing and cap

cc:

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

REVISED 5/21/96

00039

LE

97-093

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400 CORPORATION

(713) 296-6000

April 9, 1997

Mr. Donald C. Howard
Regional Supervisor, Field Operations
United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard, MS 5210
New Orleans, LA 70123-2394

Re: Application to Remove OCS Platform
Vermilion 325 "B"
OCS-G 2089 ID. No. 24037

Gentlemen:

Apache Corporation herein applies to the Regional Supervisor in triplicate for the removal of Platform "B", Vermilion Area Block 325 Lease OCS-G 2089 using explosives. The structure is a 4-pile drilling platform located in 213' of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform. Please note the proposed explosive program complies with the generic Section 7 guidelines. Decommissioning is scheduled for May 1997 to be followed by removal on or about July 15, 1997. Disposal of the deck and jacket will be onshore.

Please contact Carl Langham or Jim Snyder at (713) 462-9990 if you have a question or require additional information regarding this application.

Very truly yours,
APACHE CORPORATION

Fred Schaider
Sr. Staff Engineer

FS/JES
Enclosures

00040

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL
Vermilion 325 "B" Drilling Platform
OCS-G 2089 ID No. 24037

I.	Responsible Party	
	A. Lease Operator Name	Apache Corporation
	B. Address	200 Post Oak Blvd. Houston, TX 77056-4400
	C. Contact Person	Carl Langham or Jim Snyder
	Telephone Number	(713) 462-9990
II.	Identification of Structure to be Removed	
	A. Platform Name	Vermilion 325 "B"
	Platform Identification No.	24037
	B. Location	
	Lease	OCS-G 2089
	Area/Block	Vermilion 325
	Coordinates	
	X	1,608,902.02
	Y	(-)148,726.71
	Latitude	28° 15' 07" N
	Longitude	92° 32' 51" W
	D. Date Installed (Year)	1992
	E. Proposed Date of Removal (Month/Year)	July 1997
	F. Water Depth	213'
	G. Location of Shorebase	Sabine Pass, Texas
III.	Description of Structure to be Removed	
	A. Configuration	Refer to attached Configuration Drawings
	B. Size Deck	65' x 65'
	Top of Jacket	50' x 35'
	Bottom of Jacket	80' 5" x 83' 9"
	C. Number of Legs/Casings/Piles	4 legs, 4 piles, 2 wellbore

00041

D. Diameter and Wall Thickness of Legs/Casings/Piles

Piles	42″ OD x 1.50″ WT at mudline
Conductors	
Well # B-1	26″ 16″ 10¾″
Well # B-2	26″ 10¾″ 7⅝″
Wellbore	Refer to attached Wellbore Schematics

E. Piles Grouted (inside/outside) — No

F. Soil Composition and Condition — Refer to attached Soil Boring Log

IV. Reason for Platform Removal — Reserves depleted

V. Removal Method

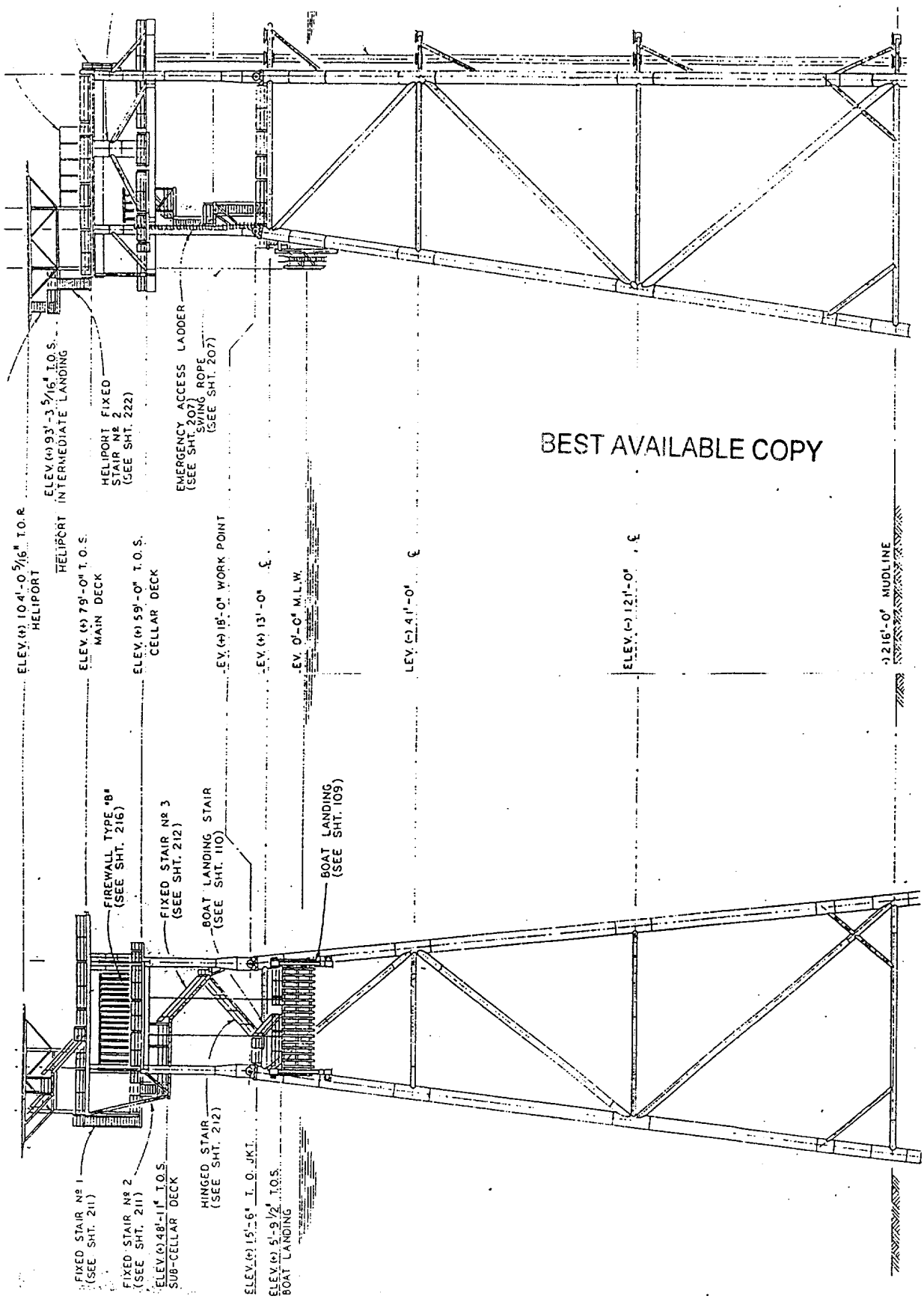
A. Description of Method — Platform to be removed by derrick barge after severing conductors and piles with explosive charges. It is planned to dispose of the deck and jacket onshore.

B. Description of Explosives

Kind of Explosives	Composition B
Number and Sizes of Charges	
Number of Conductors	2
Well # B-1	50# bulk charge
Well # B-2	50# bulk charge
Number of Piles	4
	50# bulk-configured charges (1 per pile)
Procedure	Conductors to be shot in a group with a 0.9 second delay between detonations, during decommissioning or with piles
	Piles to be shot in a group with a 0.9 second delay between detonations
	All charges to be detonated 20' below mudline; if severing is incomplete on the

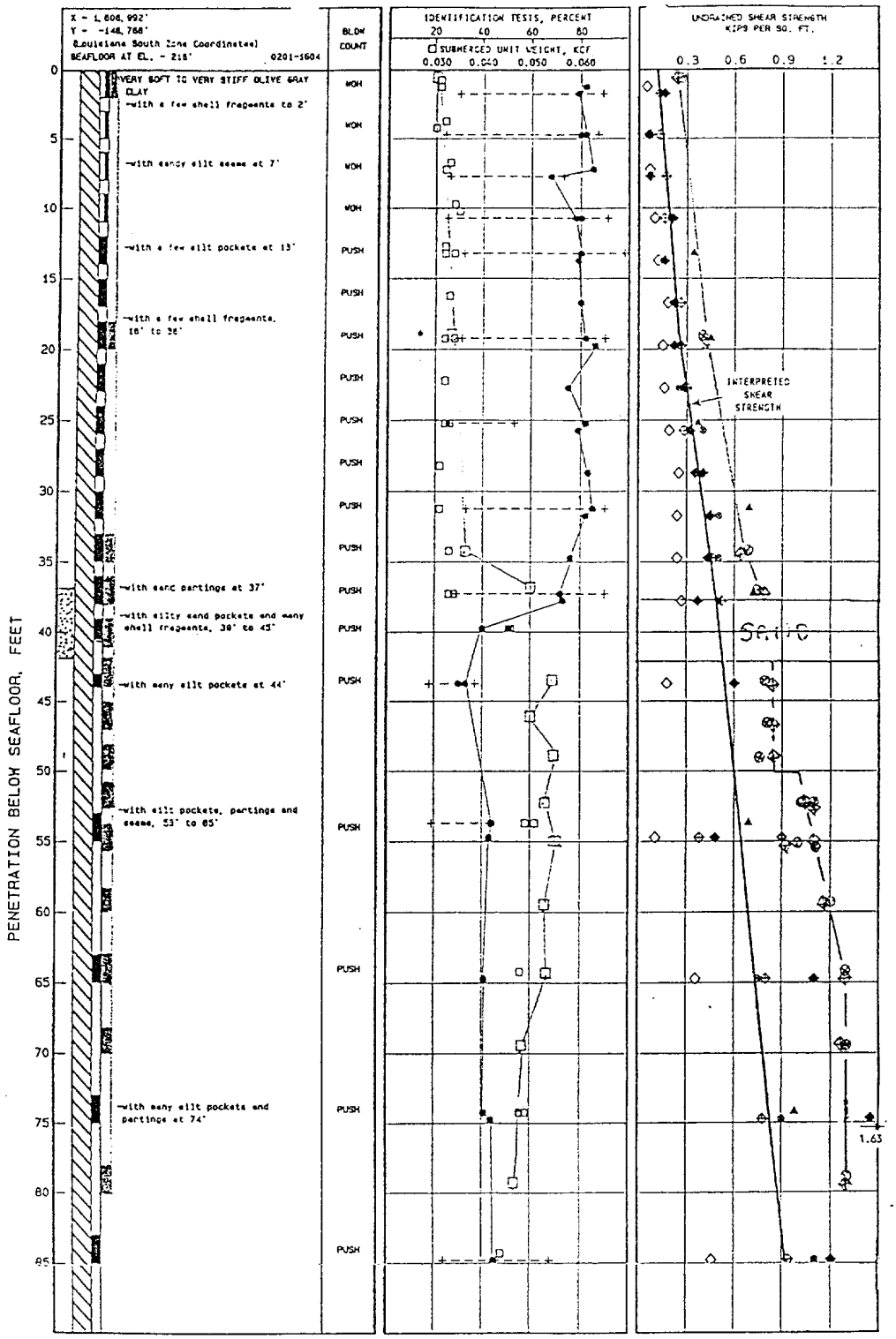
		first attempt, with MMS approval, new charges to be detonated 16' below mudline
C.	Pre-Detonation Techniques	
	Survey	48-hour pre-detonation survey for marine mammals and sea turtles to be conducted by NMFS observers; immediately prior to detonation of charges, a 30-minute aerial survey to be performed
	Scare Charges or Acoustic Devices	No
	Diver Pre-Survey	No
D.	Post-Detonation Monitoring Techniques	
	Survey	Immediately after detonation of charges, 30-minute aerial survey to be performed; NMFS observers to collect samples of any marine life killed by explosives
	Transducers	No
	Diver Post-Survey	No

VI.	Biological Information	
A.	Biological Surveys Conducted	No
B.	Sightings of Sea Turtles in Area	No



00044

CONFIGURATION DRAWING



SHEAR STRENGTH LEGEND
- POCKET PENETROMETER
- TORVANE
- MINIATURE VANE (⊕ RESIDUAL VALUE)
- UNCONFINED COMPRESSION
- UNCONSOLIDATED-UNDRAINED TRIAXIAL

Open Symbols Designate Remolded Tests

LOG OF BORING and TEST RESULTS

Boring 1
Block 325, Vermilion Area

Fugro McClelland

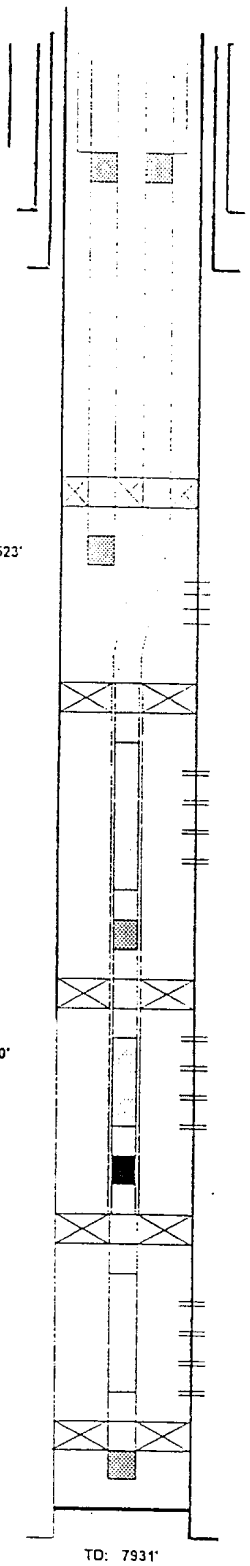
PLATE 2

PROPOSED CONDITION

VERMILION BLOCK 325
OCS-G 2089 #B-1
OFFSHORE, LA

KB = 92'
WATER DEPTH = 216'
ANNULUS FLUID = 9.6 CaCl2
DIRECTIONAL HOLE
MAXIMUM DEVIATION 46- @ 6150'
API #17-706-40661-01-D3

OTIS "FM" SCSSSV @ 489' W/ 1/4" S.S.
CONTROL LINE ON SHORT STRING



26" DRIVE PIPE SET @ 466'

16", 65#, H-40 @ 812'

10 3/4", 40.5#, J-55, STC CSG SET @ 2980'

OTIS "FM" SCSSV @ 458' ON L.S. W/ 1/4" S.S.
CONTROL LINE ON LONG STRING

"RDH" DUAL PKR @ 6511' MD

"X" NIPPLE @ 6523'

ALTERNATE ZONE S.S.: PL 6-7 SAND
PERFS: 6814'-6820' MD @ 4 SPF
5970'-5974' TVD

"VTL" GRAVEL PACK PACKER @ 7092'

90' BLAST JOINTS (7234'-7324')

PRIMARY ZONE S.S.: PL 6-10 SAND (PRODUCING)
PERFS: 7275'-7286' & 7307'-7323' MD @ 12 JSPF
6307'-6315' & 6331'-6343' TVD

TUBING STRING SHORT AND LONG SIDE:
2 3/8", 4.7#, N-80, CS HYDRIL THREAD

"X" NIPPLE @ 7324'

"VTL" GRAVEL PACK PACKER @ 7334'

TUBING PERFORATIONS: 7400'-7410'

ALTERNATE ZONE L.S.: PL 6-11 SAND (PRODUCING)
PERFS: 7496'-7515' & 7528'-7544' MD @ 12 JSPF
6471'-6486' & 6495'-6507' TVD

PXX" PLUG IN X-NIPPLE @ 7545'

"X" NIPPLE @ 7545' (PXX PLUG SET)

"VTL" GRAVEL PACK PACKER @ 7559'

PRIMARY ZONE L.S.: PL 6-12 SAND (TA)
PERFS: 7752'-7758' MD @ 24 JSPF
6663'-6668' TVD

"WD" SUMP PACKER @ 7771'

7 5/8", 33.7#, N-80 CSG SET @ 7908' MD/6880' TVD

TD: 7931'
TVD: 6799'

02/22/95

00016

WELLBORE SCHEMATIC

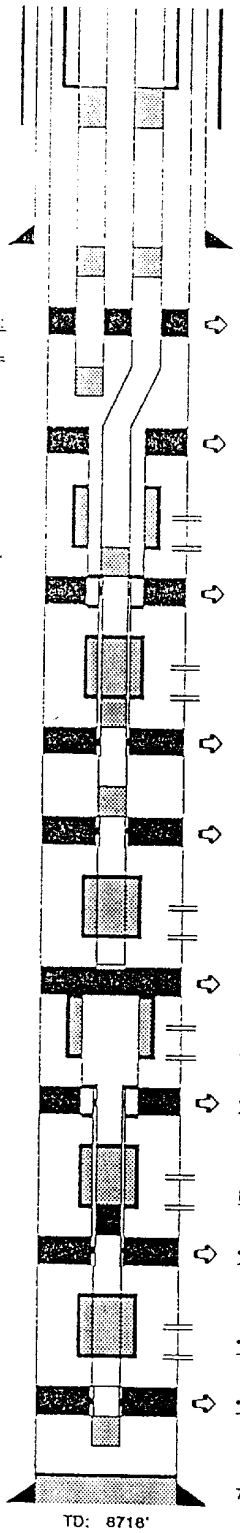
PROPOSED CONDITION

VERMILION BLOCK 325
OCS-G 2089 #B-2 ST #1
VERMILION 320 FIELD
OFFSHORE, LA

KB = 106', WATER DEPTH = 218'

ANNULUS FLUID = 9.6 CaCl2

MAXIMUM DEVIATION 47° @ 8037'



26" DRIVE PIPE SET @ 547'

OTIS "FM" SCSSSV @ 501' W/ 1/4" S.S. CONTROL LINE ON SHORT STRING

OTIS "FM" SCSSSV @ 528' ON L.S. W/ 1/4" S.S. CONTROL LINE ON LONG STRING

"X" NIPPLE ON S.S. & L.S. 1 JT. ABOVE PKR

10 3/4", 40.5#, J-55, STC CSG SET @ 2804'

TUBING STRING SHORT AND LONG SIDE:
2 3/8", 4.7#, N-80 CS HYDRIL

DUAL PACKER @ 5500'

"X" NIPPLE ON S.S BELOW DUAL PKR

GRAVEL PACK PACKER @ +/- 5700'

SHORT STRING PRIMARY
PL6-1 SAND" PERFS: 5878' - 5968' MD, 12 SPF
TVD: 5813' - 5890'

"X" NIPPLE @ 5975'

GRAVEL PACK PACKER @ +/- 5980'

LONG STRING ALTERNATE
PL6-2 SAND" PERFS: 6290' - 6362' MD, 12 SPF
TVD: 6152' - 6206'

"X" NIPPLE @ 6365'

ISOLATION PACKER @ +/- 6370'

"X" NIPPLE @ 7130'

GRAVEL PACK PACKER @ +/- 7135'

LONG STRING PRIMARY
PL6-7 SAND" PERFS: 7254' - 7300' MD, 12 SPF
TVD: 6888' - 6924'

CIBP @ +/- 7310'

PL6-8 SAND" PERFS: 7402' - 7408' MD, 24 SPF
TVD: 7009' - 7013'

"VTL" GRAVEL PACK PACKER @ 7421'

PL6-9 SAND" PERFS: 7574' - 7579' MD; 24 SPF
TVD: 7143' - 7146'

"X" NIPPLE @ 7592' W/ PXX PLUG

"VTL" GRAVEL PACK PACKER @ 7593'

"PL6-12 SAND" PERFS: 8198' - 8218' MD, 12 SPF
TVD: 7594' - 7608'

"WD" SUMP PACKER @ 8231'

"X" NIPPLE @ 8235'

7 5/8", 26.4#, N-80 CSG SET @ 8457' MD

TD: 8718'
TVD: 7957'

DAC 1/30/95

00047

WELLBORE SCHEMATIC

LE

97-094

2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400

CORPORATION

(713) 296-6000

April 4, 1997

Mr. Donald C. Howard
Regional Supervisor, Field Operations
United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard, MS 5210
New Orleans, LA 70123-2394

Re: Application to Remove OCS Platform
Vermilion 41 No. 1
OCS-G 9489 ID. No. 24054

Gentlemen:

Apache Corporation herein applies to the Regional Supervisor in triplicate for the removal of Platform No. 1, Vermilion Area Block 41 Lease OCS-G 2089 using explosives. The structure is a single well protector caisson located in 45′ of water.

Enclosed is information required by Section 7 of the Endangered Species Act for proposed removal of an OCS platform. Please note the proposed explosive program complies with the generic Section 7 guidelines. Decommissioning is scheduled for May 1997 to be followed by removal on or about July 15, 1997. Disposal of the caisson will be onshore.

Please contact Carl Langham or Jim Snyder at (713) 462-9990 if you have a question or require additional information regarding this application.

Very truly yours,
APACHE CORPORATION

Fred Schaider
Sr. Staff Engineer

FS/JES
Enclosures

00048

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL
Vermilion 41 No. 1 Caisson
OCS-G 9489 ID No. 24054

I.	Responsible Party	
	A. Lease Operator Name	Apache Corporation
	B. Address	200 Post Oak Blvd. Houston, TX 77056-4400
	C. Contact Person	Carl Langham or Jim Snyder
	Telephone Number	(713) 462-9990
II.	Identification of Structure to be Removed	
	A. Platform Name	Vermilion 41 No. 1
	Platform Identification No.	24054
	B. Location	
	Lease	OCS-G 9489
	Area/Block	Vermilion 41
	Coordinates	
	X	1,599,008.02
	Y	(-)259,200.62
	Latitude	29° 22' 24" N
	Longitude	92° 35' 32" W
	D. Date Installed (Year)	1993
	E. Proposed Date of Removal (Month/Year)	July 1997
	F. Water Depth	45'
	G. Location of Shorebase	Sabine Pass, Texas
III.	Description of Structure to be Removed	
	A. Configuration	Refer to attached Configuration Drawings
	B. Size Deck	10' x 10'
	Top of Caisson	48"
	Bottom of Caisson	48"
	C. Number of Legs/Casings/Piles	1 caisson, 1 wellbore

00049

D. Diameter and Wall Thickness of Legs/Casings/Piles

Caisson	48″ OD x 1.75″ WT at mudline
Conductors Well # 1	26″ 16″ 10¾″ 7⅝″
Wellbore	Refer to attached Wellbore Schematics

E. Piles Grouted (inside/outside) — No

F. Soil Composition and Condition — Refer to attached Soil Boring Log of a wear by location

IV. Reason for Platform Removal — Reserves depleted

V. Removal Method

A. Description of Method — Platform to be removed by derrick barge after severing conductors and piles with explosive charges. It is planned to dispose of the deck and caisson onshore.

B. Description of Explosives

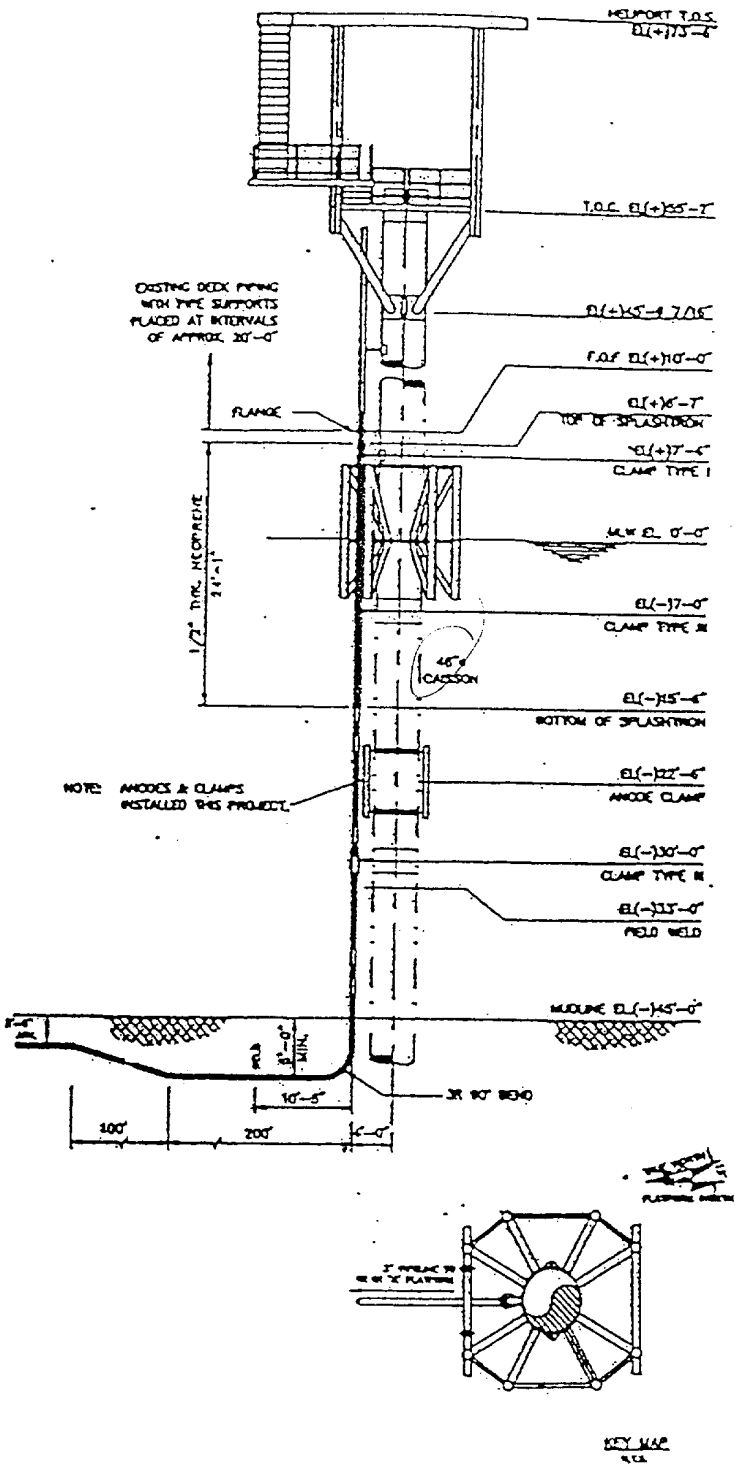
Kind of Explosives	Composition B
Number and Sizes of Charges	
Number of Conductors Well # 1	1 50# bulk charge
Number of Caissons	1 50# bulk-configured charges (1 per pile)
Procedure	The conductor will be shot and removed and then the caisson will be shot and removed. All charges to be detonated 20' below mudline; if severing is incomplete on the first attempt, with MMS approval, new charges to be detonated 16' below mudline

00050

C.	Pre-Detonation Techniques	
	Survey	48-hour pre-detonation survey for marine mammals and sea turtles to be conducted by NMFS observers; immediately prior to detonation of charges, a 30-minute aerial survey to be performed
	Scare Charges or Acoustic Devices	No
	Diver Pre-Survey	No
D.	Post-Detonation Monitoring Techniques	
	Survey	Immediately after detonation of charges, 30-minute aerial survey to be performed; NMFS observers to collect samples of any marine life killed by explosives
	Transducers	No
	Diver Post-Survey	No
VI.	Biological Information	
A.	Biological Surveys Conducted	No
B.	Sightings of Sea Turtles in Area	No

00051

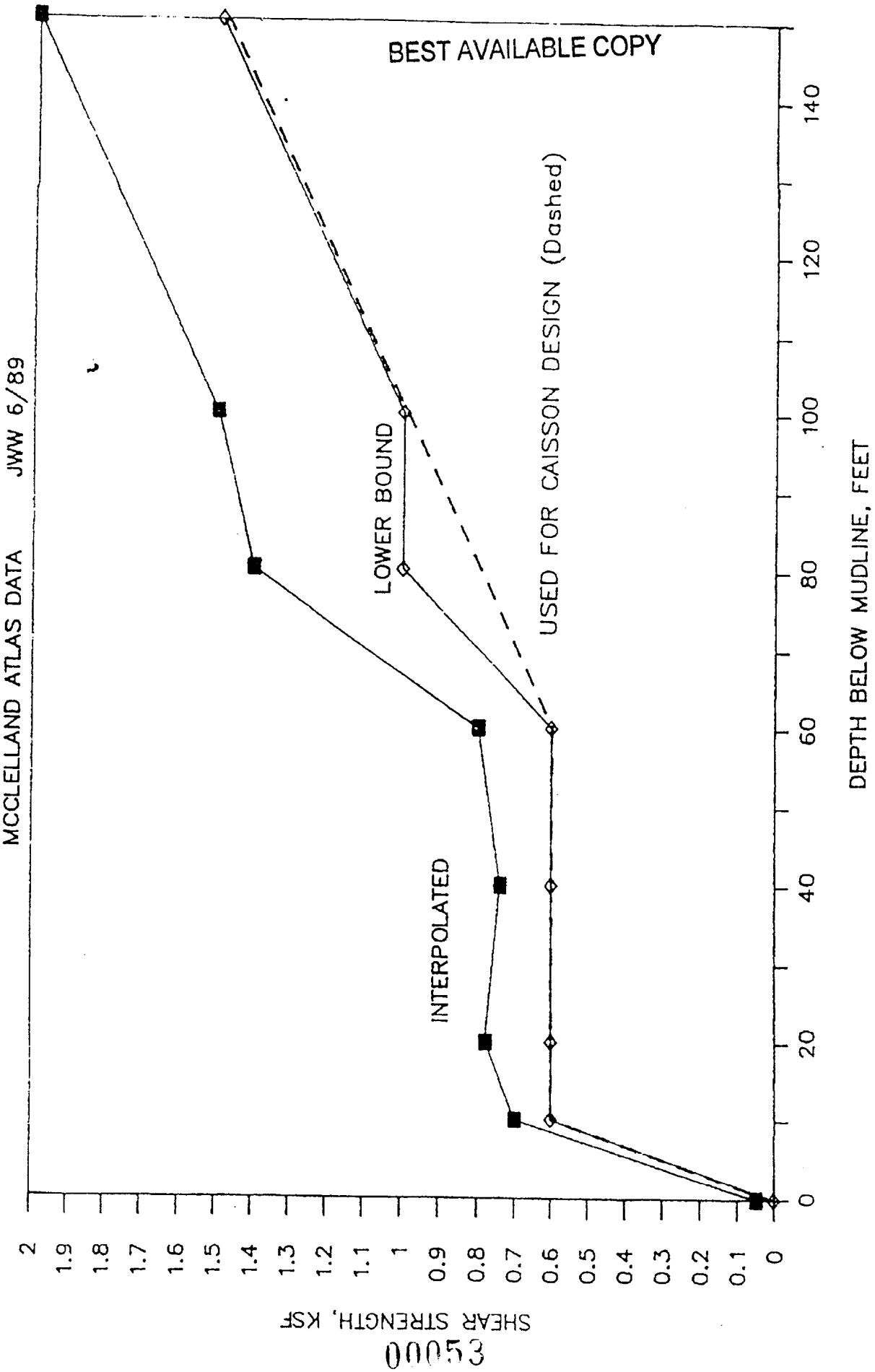
ELEVATION VR 41 WELL No. 1



CONFIGURATION DRAWING

VERMILION BLK 61 SHEAR STRENGTH DATA

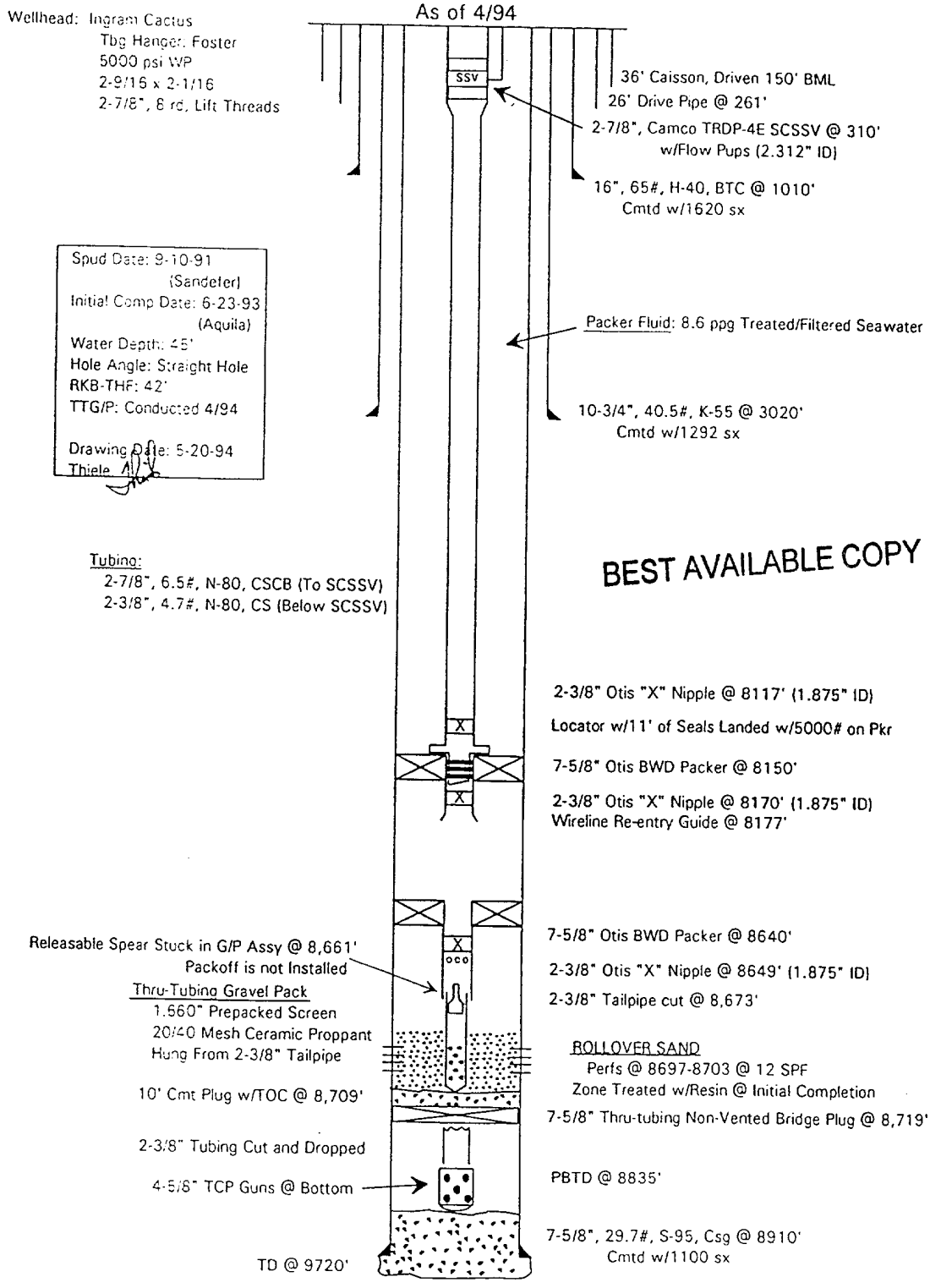
MCCLELLAND ATLAS DATA JWW 6/89



00053

AQUILA ENERGY RESOURCES
VERMILION BLK 41
OCS-G-9489 #1

CURRENT COMPLETION
As of 4/94



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00054

WELLBORE SCHEMATIC

APPENDIX B

NMFS CORRESPONDENCE

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

JUL 25 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 is 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 these proposed removal operations. Therefore, formal consultation is concluded for these proposed actions.

Consultation must be reinititated 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

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: _____

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 is 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, well 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 blasts 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 (non-explosive) 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 novaeangliae	E	6/2/70
sei whale	Balaenoptera borealis	E	6/2/70
sperm whale	Physeter catodon	E	6/2/70
green turtle	Chelonia mydas	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 is 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.

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#	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
	"	"	101	C
44	Tenneco Oil Exploration and Production	East Cameron	255	F
45*	Mobil Exploration and Producing Company U.S. Inc.	Eugene Island	119	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 Inc.	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 South Marsh	71 235	A 9
54	Tenneco Oil Exploration and Production	Ship Shoal	199	E
56*	Conoco Inc. Except West Cameron-261-A	West Cameron East Cameron S. Marsh, N. Ad	135 47 261	A D A
57*	Exxon Company U.S.A. Except High Island East Addition-A342-A	High Is., E. Ad	A-342	B
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

00069

* 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.

APPENDIX C

FISHERMAN'S CONTINGENCY FUND OFFICE
HANG SITE MAPS

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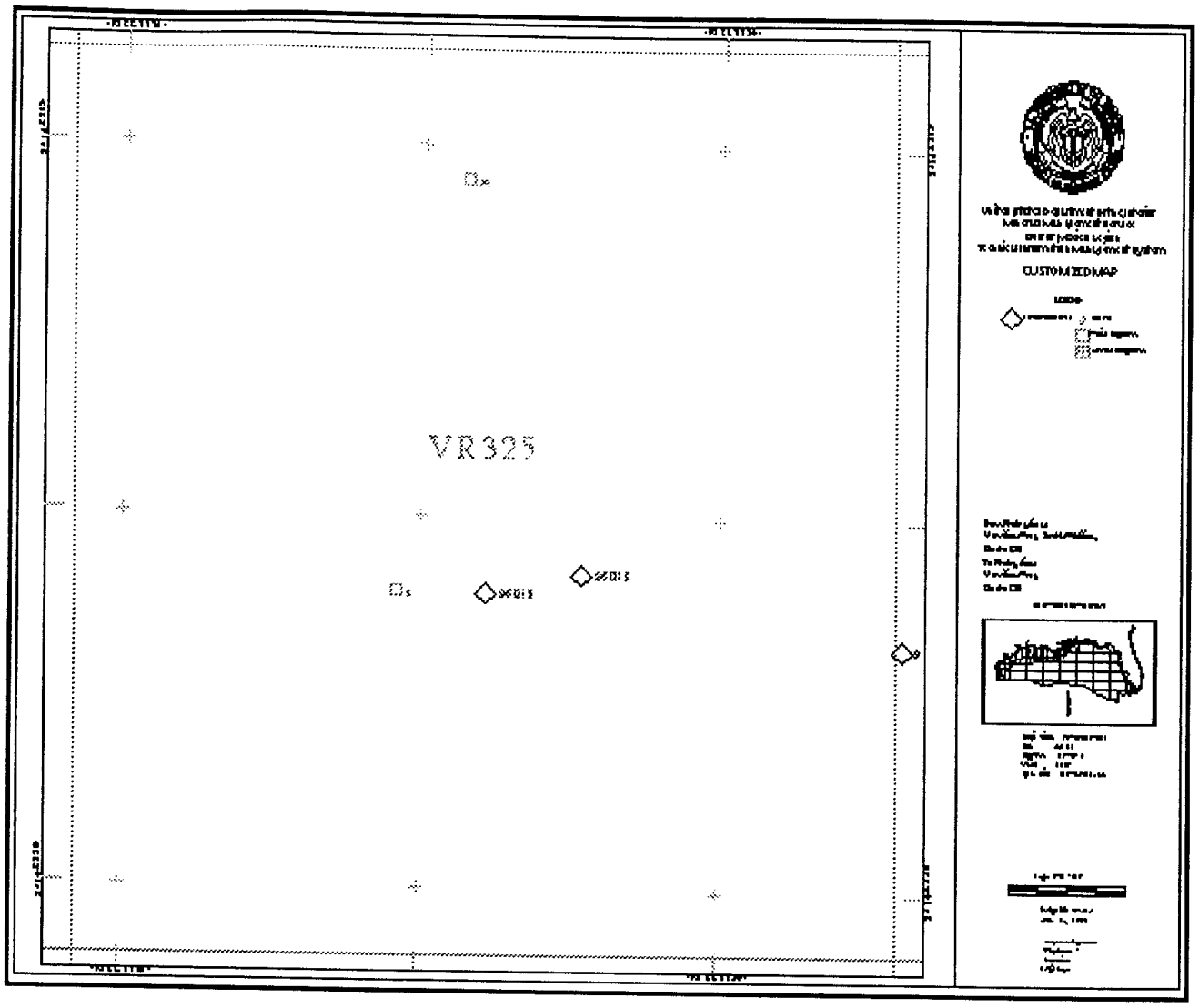

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BEST AVAILABLE COPY

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Y = -148476.6827

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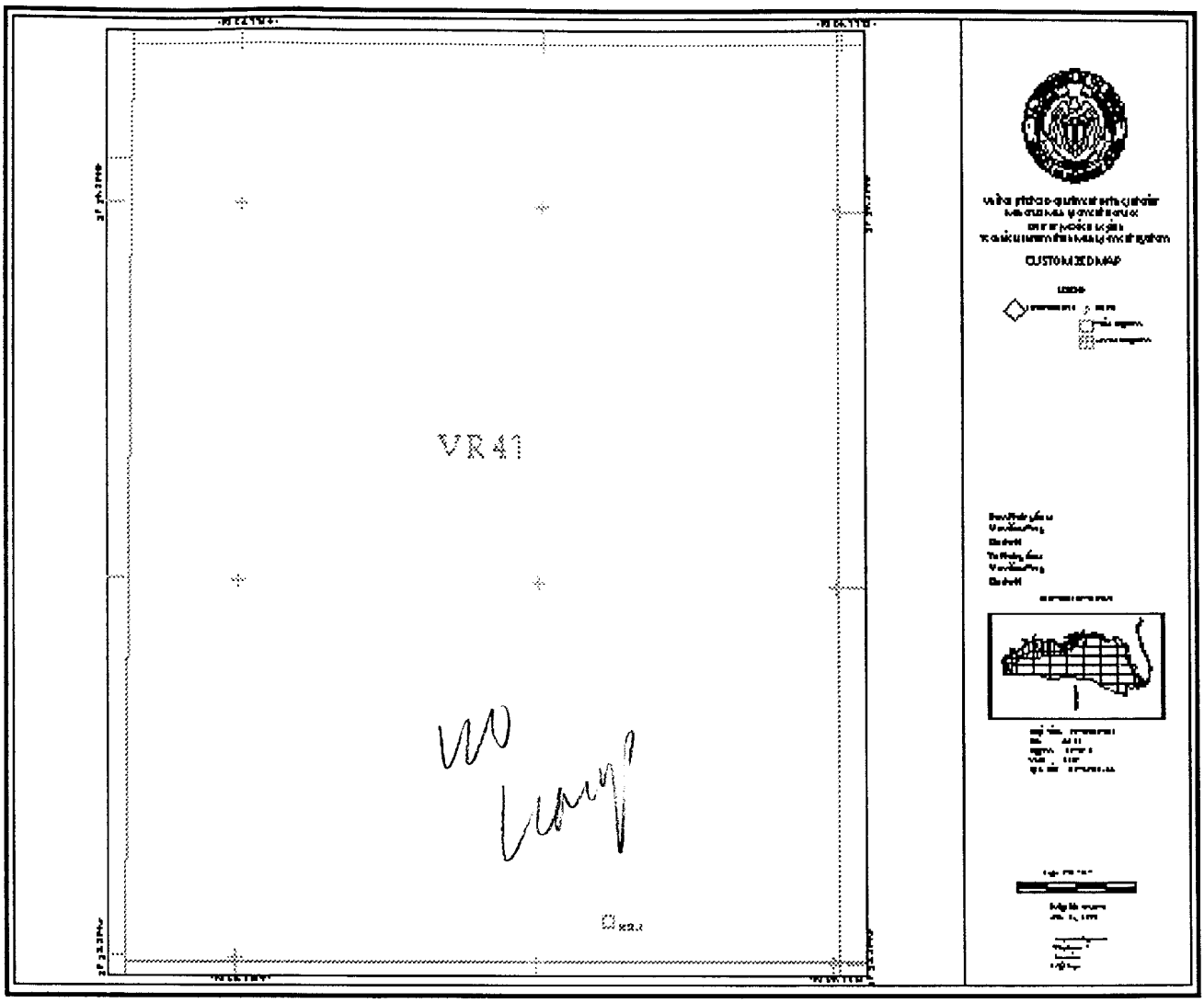
dx,dy: 9.33577,7.96653 dist: 12.27283



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