

CALIFORNIA COASTAL COMMISSION 631 Howard Street, San Francisco 94105 ---- (415) 543-8555

CONSISTENCY CERTIFICATION AND STAFF RECOMMENDATION

NOTED DUNAWAY

CHEVRON



APPLICANT FOR FEDERAL PERMITS

FEDERAL PERMITS FOR WHICH COMMISSION CONCURRENCE WITH APPLICANT'S CONSISTENCY CERTIFICATION IS REQUIRED:

ACTIVITY LOCATION:

ACTIVITY DESCRIPTION:

PUBLIC HEARING AND VOTE:

Consistency Certification Nos.

- (1) CC-2-82
- (2) CC-3-82

3 and 6 Month Periods End:

- (1) 4/25/82 7/25/82
- (2) 5/2/82 8/2/82
- (1) Chevron USA, Inc.
- (2) Chevron USA, Inc.

U.S. Geological Survey Exploratory Well Drilling Permit; OCS Exploration Plan

On the Outer Continental Shelf on OCS parcels:

(1) 0450, approximately 7 miles west northwest of Point Arguello in the Santa Maria Basin

(2) 0443, approximately 9 miles west of Point Arguello in the Santa Maria Basin

(1) Drilling one well on OCS P-0450 to explore for oil and gas from the Zapata Concord, a floating semisubmersible drillship (Exhibits 1 and 2).

(2) Drilling one well on OCS P-0443 to explore for oil and gas from the SEDCO 700, a floating semisubmersible drillship (Exhibits 1 and 3).

Public hearing and possible action at the Commission's March 16-19 meeting in Los Angeles.

STAFF NOTE: CONSISTENCY

Under regulations which implement the Federal Coastal Zone Management Act, the United States Geological Survey cannot grant a permit for any activity described in an Outer Continental Shelf (OCS) Plan of Exploration until the Coastal Commission concurs with a certification by the oil company applicant that the activity is consistent with the California Coastal Management Program (CCMP) or determines that the activity has no effect on the coastal zone.

3/5/82

40 0450:1-5

49) 0443:1-5

<u>Applicant's Consistency Certification and Findings</u>. The applicant has submitted a consistency certification for one well each on OCS P-0450 and 0443, stating that the proposed activities described in detail in the Plans of Exploration will be conducted in a manner consistent with California's Coastal Management Program.

I. Concurrence

The Commission hereby concurs with the consistency certifications made by Chevron for OCS P-0450 and 0443, Plans of Exploration, as consistent with the policies and objectives of the California Coastal Management Program.

II. Findings and Declarations

The Commission finds and declares as follows:

A. **Project** Description

CC-2-82. Chevron proposes to drill one exploratory well on OCS P-0450 in the Santa Maria Basin, about 7 miles west northwest of Point Arguello (Exhibits 1 and 2). This would be one of the first wells drilled in the Santa Maria Basin and would be on the tract for which Chevron paid \$333,000,000 - the highest bid in Lease Sale #53. No wells have been drilled on this tract. The well would be drilled in a water depth of 387 feet and to a well depth of 10,000 feet. Total drilling time will be 85-110 days. Chevron will use information gained in drilling this well in submitting its bids at the June 1982 RS-2 Reoffering Sale which includes tracts in the Santa Maria Basin.

CC-3-82. Chevron proposes to drill one exploratory well on OCS P-0443 in the Santa Maria Basin, about 9 miles west of Point Arguello (Exhibits 1 and 3). This also would be one of the first wells drilled in the Santa Maria Basin. No wells have previously been drilled on this tract. The well will be drilled to a depth of 7000 feet in water 920 feet deep. Total drilling time will be 90-100 days. Chevron is particularly interested in results from drilling this well because it is surrounded on three sides by tracts that will be included in the RS-2 Reoffering Sale in June 1982.

B. <u>Protection of Marine Resources</u>. Oil and gas exploration can have an adverse impact on the marine environment if the drilling and associated support activities occur close to habitats of sensitive flora and fauna. Protection of marine resources is required of activities in or affecting the coastal zone. Section 30230 of the Coastal Act provides the following:

"Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific and educational purposes."

OCS P-0450 and 0443 are both close to Point Arguello, a haul-out and breeding area for California sea lions and harbor seals (Exhibit 4). Also, several species of seabirds feed and rest in this area and the rocky intertidal areas close to shore. Point Conception, within 12 miles of tract 0450, is a rich intertidal area with extensive kelp beds. The Sea Otter Range, located in the northern part of the Santa Maria Basin, is 25 miles from tract 0450 although sitings of sea otters have been made as far south as Purisima Point and even Point Arguello. However, the range and main habitat of the sea otter is still mainly in the area shown in Exhibit 4.

The Point Conception/Point Arguello area is a migration route for grey whales, which generally travel within 5 miles of shore. The migration season runs from December to March, including both the northward and southward migrations.

Both of the proposed well locations are on leases on which the Bureau of Land Management invoked the biological stipulation to alert the lessee and the Minerals Management Service that hard bottom areas are present within the leases' boundaries. Because Chevron selected drilling sites at least 1500 feet away from these hard bottom sites, no survey was required by MMS.

Because the proposed wells will be drilled at least 12 miles from the Sea Otter Range, a buffer established by the Commission in Lease Sale 53 beyond which OCS activities may be found consistent with Section 30230 of the Act, and will be drilled at least 6 miles from the pinniped breeding areas at Point Arguello, the Commission finds that exploratory drilling itself will not significantly affect these marine mammals. Further, because the drilling will occur after March 1, and before December 1, the migrating whales should not be affected by the drilling. And hard bottom areas identified by the Bureau of Land Management are at least 1500 feet from the drilling sites and therefore will not be significantly affected by the drilling. However, because of the chance, even though small, that an oil spill could result from these exploratory activities and harm these animals, the Commission cannot find the proposed project consistent with Section 30230, although, as explained in Section H, the project would meet the policies of Section 30260.

C. <u>Commercial Fishing</u>. The Coastal Act seeks to protect the habitats of all marine animals, including those fished commercially. Section 30231 provides:

"The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and where feasible, restored..."

Both drilling sites are within fish Block 644, which accounts for about 10 percent of the Santa Maria Basin's catch. The primary species of fish caught are Bocaccio, Petrale Sole and shrimp. Shrimp beds, a recent development in the area, extend from Point Arguello to Point Buchon.

Oil and gas drilling could impact commercial fishing activities and the productivity of these waters in a few ways: 1) discharge of muds and cuttings into the marine environment, potentially causing lethal or sublethal effects; 2) removal of fishing areas by the presence of the drilling vessels; and 3) interference with trawling activities through alteration of the ground substrates by anchors and chain draggings. The Department of Fish and Game has expressed concern particularly with the first and third potential impacts. They have recommended that drill muds and cuttings be barged to shore instead of disposed on site because "the various bioassays, and other biological effects tests of the toxicity of drilling fluids, do not adequately portray either the acute or chronic effects of this material on pelagic and benthic marine organisms. In our judgement, there are conflicting results with respect to adverse effects, and we recommend that drilling muds be disposed of at approved on-shore disposal sites." (February 19, 1982 letter to Commission staff from E.C. Fullerton) With respect to the drilling muds issue, the Commission has found that existing information on the effects of drill muds and cuttings into the marine environment do not demonstrate an effect beyond 1000 meters. Under the consistency regulations, an activity must demonstrate an effect on the coastal zone before the Commission asserts consistency review authority over the federal permitting agency. Therefore, where proposed drill sites are beyond 1000 meters of the coastal zone, the Commission has found the activities to have no measurable effect on the coastal zone. The Commission reserved its authority to assert jurisdiction in the event that new information demonstrates an effect on the coastal zone from these discharges.

With respect to removal of fishing areas from commercial fishermen, the Commission finds that Chevron's notification of commercial fishermen as to the exact time and location of the exploratory drilling activities will allow the fishermen to develop other fishing areas during the three to four months that Chevron will be drilling. The Commission finds that interference with commercial fishing activities are mitigated to the maximum extent feasible.

Third, concerning the alteration of the ground under and around the drillship because of anchors, the Commission finds that anchors are used with semisubmersibles and therefore alteration of the seafloor could occur. Chevron has stated, in writing, that it will attempt to minimize these disfigurations in the placement and removal of anchors. Therefore, trawlers will not face this problem with these proposed wells.

However, because exploratory drilling can result in spillage of crude oil that could harm commercial fishing and general biological productivity, the Commission finds that the proposed activity is not consistent with Section 30231 although it does meet the policies of Section 30260, as explained in Section H.

The Fisheries Training Program is in effect for leases in the Santa Maria Basin. This program, imposed through a lease stipulation, requires lessees to inform drilling personnel of conflicts between commercial fishing and drilling activities. (Exhibit 5)

D. <u>Protection Against the Spillage of Crude Oil</u>. Regardless of the precautions taken against well blowouts and resulting spills of crude oil in the open ocean, there is always a risk of this occurring at a drill site. Such a spill may reach the coast of California and damage marine life, scenic areas, and recreational areas. Because of this risk, the proposed drilling operations must be consistent with Section 30232 of the Coastal Act, incorporated in Chapter 3 of the Coastal Management Program, which states:

Protection against the spillage of crude oil, gas petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Onsite Equipment (First Line of Defense). Oil Spill containment and cleanup equipment stored on an exploratory drilling vessel or on a production platform is primarily designed to provide a first line of defense for a major spill or to contain and clean up small spills that may occur. This equipment must be able to surround the largest areas possible within an acceptable period of time. If the equipment is too large and difficult to handle, then its purpose is defeated. The following list includes the equipment which the Commission has established as minimum requirements for Plan of Exploration consistency determinations in the past. The applicant has committed in its plan to include this equipment onboard the drilling vessel:

- 1) 1500 feet of open ocean oil spill containment boom;
- 2) one oil skimming device capable of open ocean use;
- 3) bales of oil sorbent material capable of containing 15 barrels of oil;
- 4) a boat capable of deploying the oil spill boom on the site at all times or within fifteen minutes of the drilling vessel; and
- 5) oil storage capacity of 29 barrels, minimum, for recovered oil.

<u>Oil Spill Cooperatives (Major spills, second line of defense</u>). Removal of spilled oil in coastal or marine waters is undertaken by the party responsible for the spill, under the supervision and, if necessary, the direction of the U.S. Coast Guard. Because of this requirement, oil production companies operating in the Outer Continental Shelf belong to oil spill cooperatives which have oil spill cleanup equipment designed for open ocean use. The oil spill cooperative used for the Santa Barbara Channel and the Santa Maria Basin is Clean Seas.

Dedicated Oil Spill Response Vessels. Clean Seas currently has a 136-foot oil spill response vessel stationed in Santa Barbara harbor. The vessel, Mr. Clean, is out-fitted with equipment which is designed for response to oil spills in the open ocean (Exhibit 6). Clean Seas is continuing to investigate state-of-the-art equipment additions to the vessel, and the Commission staff is currently working on potential improvements through the Oil Spill Response Capability study. This vessel will provide the initial response from Clean Seas to oil spills in the Santa Barbara Channel from Point Conception to Point Dume, and beyond the Channel Islands.

Clean Seas has recently acquired a second oil spill response vessel which will be fully equipped with oil spill containment and recovery equipment (Exhibit 7). This vessel, Mr. Clean II, will be located in Port San Luis to provide the initial response to oil spills north of Point Conception. However, Mr. Clean II will not be onsite and operational until April 15th. Clean Seas has made special arrangement to lease a third vessel to be on station until Mr. Clean II is ready for service. During this time period Mr. Clean I will be located in Port San Luis and the new leased vessel will be located in Santa Barbara harbor. The leased vessel will have equipment capable of open ocean response (Exhibit 8).

Staff members from the Coastal Commission and the Department of Fish and Game will be present at an upcoming Clean Seas training exercise with Mr. Clean II. This training exercise will include transit to offshore drilling operations and operation of the oil spill equipment located onboard the vessel.

<u>Protection of Coastal Wetlands and Streams</u>. The County of Santa Barbara has expressed specific concerns about the protection of the Santa Maria and Santa Ynez Rivers and the San Antonio and Jalama Creeks if an oil spill threatens these areas. This concern is based on the limited amount of time that oil spill containment and cleanup equipment will function in the waters north of Point Conception, increasing the possibility of these streams becoming contaminated. The County has recommended that Clean Seas be required to locate oil spill booms at the mouths of these waterways to improve the response time to them. The Commission agrees that provisions must be available for the protection of these streams if they are threatened. However, a high percentage of the time these rivers and creeks may not be open to the ocean. Much of the time that they are open, the water is flowing toward the ocean, reducing the likelihood of contamination. Under conditions when they are threatened Clean Seas can have equipment and personnel to the area within 3 to 4 hours. Clean Seas has two fast response units designed specifically for this purpose. They include:

- 1. A 15-foot trailer equipped with small containment boom, a skimmer, a storage bag, absorbents, rakes, and shovels; and
- 2. A 2.5-ton truck equipped with a larger boom, skimmer, and associated tools. Additional equipment can be obtained from the larger Clean Seas vans if this becomes necessary.

Other strategies may be necessary to protect these waterways. In many cases the incoming current in the rivers or streams would exceed the capability of the oil containment booms to function. In these situations the stream mouth may have to be closed using heavy earthmoving equipment. This would eliminate additional contamination, and would provide a quiet water situation behind the closure to help recover any oil that has gotten into the stream.

<u>Maximum Feasible Spill Response</u>. The Commission's standard of review is based on the maximum feasible capability to reduce the impacts of a spill, if one occurs. Section 30232 of the Coastal Act requires that effective oil spill oil spill containment and cleanup be provided for spills. The Commission cannot find the Plans of Exploration consistent with this policy due to the limited capability of state-of-the-art oil spill equipment. However, Section 30260 of the Coastal Act provides that coastal dependent industrial facilities can be sited if the adverse impacts are mitigated to the maximum extent feasible. (See Section H)

The Commission finds that the oil spill containment and cleanup equipment, and measures for response, as provided in the proposed Plans of Exploration and Consistency Certifications provides the maximum feasible mitigation at this time and therefore concurs with the Consistency Certifications made by Chevron. Concurrence by the Commission is not an indication of satisfaction with the degree of protection afforded coastal resources by the oil spill containment and cleanup equipment provided. The Commission staff's upcoming oil spill response capability study may indicate the need to update and increase standards for onsite and cooperative oil spill cleanup and containment capabilities. Such findings will be used in future consistency certifications and permit reviews.

E. <u>Onshore Support Facilities</u>. Section 30250 of the Act requires that new development:

"...be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it, in other areas with adequate public services and where it will not have significant cant adverse effects, either individually or cumulatively, on coastal resources."

Offshore oil drilling programs require supporting activities - crew and supply boats to deliver personnel, supplies, and remove wastes to and from the drillship, and yards to store muds, pipe, and other supplies, harbor space for the crew and supply boats. Because no offshore oil development has yet occurred in the Santa Maria Basin , these onshore support areas do not exist close to the drilling sites. Chevron is not proposing to use any onshore sites in the Santa Maria Basin area but instead will use existing sites in the Santa Barbara Channel - the service base at Port Hueneme for the crew and supply boats and supplies, and the Santa Barbara airport for helicopter transport to the drillship. The Commission therefore finds that the proposed activities are consistent with the policies expressed in Section 30250.

F. Geologic Hazards. Section 30253 of the Coastal Act states:

New development shall:

(1) Minimize risks to life and property in areas of high geologic...hazard...

Lease 0443 is a tract on which the Bureau of Land Management imposed a stipulation due to presence of geologic hazards. The stipulation requires the lessee to demonstrate that the drilling program will be conducted safely, taking into account the hazards in the area. The Division of Mines and Geology reviewed the Plan of Exploration for both OCS P-0443 and 0450 and found that the exploratory program proposed by Chevron is adequate.

The Commission finds therefore that the proposals are consistent with Section 30253(1) of the Coastal Act.

G. <u>Air Quality</u>. Sectin 30253(3) of the Act also states that new development shall "be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development."

The Air Resources Board has reviewed the Plans of Exploration and determined that the Commission's review of two plans at its March meeting violates the Commission's January 6, 1982 resolution that limits an oil company to one well per company per month. The ARB further states that Chevron cannot meet the burden of showing that the projects are consistent with the CCMP because of lack of sufficient data on the meterology and transport of pollutants. The ARB concludes that it does not oppose concurrence with one well for <u>either</u> OCS Plan, but not for both.

The Commission finds that Chevron's initiation and participation in the Air Quality Task Force to investigate and implement measures to reduce nitrous oxides (NOx) emissions at the drillship indicate that Chevron is making a good faith effort to meet the policies of Section 30253 of the Act. Furthermore, Chevron meets the requirements of the January 6, 1982 resolution in that it submitted one Plan of Exploration for one well only in January and another Plan for one well in February. The fact that the Commission is reviewing these Plans at one meeting does not show violation of the resolution by either Chevron or the Commission. Chevron has agreed to minimize the overlap in drilling operations on both of the leases, although it needs information from both wells to make bids for RS-2 Reoffering Sale in June 1982. It estimates an overlap of 30-40 percent (personal communication, Ed Scott) in both drilling programs.

Therefore, the Commission finds that Chevron's proposals meet the requirements of Section 30253 of the Act and are consistent with the CCMP.

H. <u>Industrial Development</u>. Coastal dependent industrial development such as offshore oil drilling must first be tested under all applicable policies in Chapter 3. If the proposal does not meet those policies, then the development is analyed under the less stringent requirements of Section 30260. The proposed development does not meet Sections 30230, 30231, or 30232 of the Coastal Act. Therefore, Section 30260 comes into play.

The first requirement of Section 30260 is that the applicant must demonstrate that alternative locations for the project are either infeasible or more environmentally damaging. Chevron could directionally drill from other points on its two leases to reach the same targets, however these other locations would be more environmentally damaging because of the extended time and risk involved in directional drilling. Further, geologic hazards and hard bottoms exist on one or both of these tracts and Chevron has chosen the specific well sites to avoid both of these potential conflict areas. The Commission finds, therefore, that the project meets the first test.

The second requirement concerns the public welfare. Clearly, it is in the interest of the public welfare to search for domestic sources of oil and gas. However, this is not the only consideration in determining whether the project meets the public welfare test. Commercial fishing activities, recreational uses, and biological resources must also be considered as significant aspects of the public welfare. The proposed well would not be located within a designated biologically sensitive area or sanctuary, nor would it affect beach use unless an oil spill occurs. However, the exploratory drilling would conflict with commercial fishing activities for about three to four months. As Section C states, Chevron has agreed to notify fishermen in advance of the exact time and location of the drilling to allow fishermen time to adjust their fishing activities. Finally, Chevron is proposing to use existing onshore support facilities for its drilling activities. Therefore, for the above reasons, the Commission finds that the proposals meet this second criterion.

The third requirement is that adverse impacts be mitigated to the maximum extent feasible. Chevron's design of its drilling program to avoid hard bottom and geologic areas, use of the best available oil spill containment and cleanup equipment, and notification of commercial fishermen of precise locations and time of drilling fulfill this third test. It should be noted, however, that the Commission will continue to examine the issue of oil spill equipment and may require additional protection in the development stage.

The Commission therefore finds that these proposed wells meet the three requirements of Section 30260 and are consistent with the CCMP.

I. <u>Vessel Traffic Safety</u>. The proposed well sites are beyond 500 yards of the existing and proposed extension of the Vessel Traffic Separation Scheme, therefore, the Commission finds that the activities permitted under the U.S. Army Corps of Enginners do not affect the coastal zone and therefore do not require consistency review. (Commission resolution, August 1980).





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California Coastal Commission



. PROPOSED WELL LOCATIONS-LEASE P-0443

feet EXHIBIT NO. 3 APPLICATION NO. CC-3-82 CHEVRON USA CHEVRON USA





FISHERIES TRAINING PROGRAM

All leases issued as a result of OCS Lease Sale No. 53 include Stipulation No. 8 which requires the Lessee to submit a Fisheries Training Program with all Exploration and Development Plans for approval by the U.S.G.S. Lease OCS P-0443 has Stipulation No. 8 attached to it. The U.S.G.S. approved the Fisheries Training Program for OCS Lease Sale No. 53 leases on January 12, 1982, and this Program is hereby incorporated by reference.

The Western Oil and Gas Association sponsored the preparation of the Fisheries Training Program which will be utilized by Chevron. This Program was prepared by Oceanic Engineering Division of Interstate Electronics, Anaheim, California, and consists of a detailed audiovisual package which meets all the requirements of Stipulation No. 8. All persons involved in the vessel operations and shore-based supervisors will have participated in the Program prior to commencement of exploratory drilling operations on OCS P-0443.

MR. CLEAN OIL SPILL RESPONSE VESSEL As Of 2/1/82



VESSEL

- a. Approximately 136' x 36' (supply type)
- b. 90' x 30' clear deck space
- c. Navigational equipment
- d. Galley and sleeping accommodations for approximately 14 people
- e. Transit speed of 10-12 kts
- f. Certificated vessel

CREW

- a. Standby crew of two (02) performing maintenance eight (08) hours per/day, five (05) days per/week.
 A four (04) man crew during operations.
- b. Crew of two (02) hour standby 24 hours a day (a vessel underway within that time).
- c. Clean Seas personnel will supplement crew on spill response.

EQUIPMENT

- a. Cyclonet-100
- b. Vikoma Seapack 1600' containment boom with self-contained deployment unit
- c. Whittaker Expandi Boom Model 4300 on a reel (1500')
- d. Heavy Duty boom Goodyear (2700')
- e. Small Skimmer (1 Komara)
- f. Storage bag Dracone 6,000 gal. cap.
- g. Surface Dispersant Spray Unit
- h. Separation system 100 bb1 capacity
- i. Absorbents 3M booms, pads and sweeps (5 bxs. each)
- j. Dispersant Corexit 9527 (5-10 drums)
- k. 15' Skiff w/OB
- 1. Pedestal Crane 12T
- m. 32' Aluminum Boom Boat w/twin 175 HP/OB

The above allows for independent operations in most spill situations.

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THE EQUIPMENT CONTINUING TO BE REVIEWED IS:

SELF-PROPELLED SKIMMERS

A. JBF DIP 6001, 7001 SKIMMER

B. MARCO SO' - 120' SKIMMER

C. ZRV (CENTRIFUGAL SYSTEMS INC. OR OIL MOP)

SKIMMERS (OTHER THAN SELF-PROPELLED)

A. MARCO XI

B. ZRV

C. SHELL SOCK

D. FRAMO

E. CYCLONET

F. WALOSEP

G. VIKOMA '

H. LOCKHEED

I. MARCO V

J. OFFSHORE DEVICES

BOOMS

A. GOODYEAR 14 x 24
B. ŸIKOMA SEAPACK
C. HIGH SEAS BARRIER
D. EXPANDI 4300

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EXHIBIT NC. 7 APPLICATION NO. CC-2-82: CC-3-82 CHEVRON USA California Coastal Commission

APPENDIX 9

This Appendix provides a list and description of the oil spill response equipment committed for acquisition by Clean Seas to expand its existing capabilities for spill response in the Santa Maria Basin area. These response capabilities were designed to correspond to guidelines outlined in the December 18, 1980 USCG/USGS Memorandum of Understanding (see Section 101). Clean Seas has worked with the Coast Guard in developing these state-of-the-art capabilities.

A description of this equipment and the general performance specifications are provided below. All of the equipment listed will be stored on the supply boat for rapid response and quick deployment. It is presently anticipated that the new response vessel will be stationed at Avila Beach and will be in a state of readiness such that mobilization times will not exceed 1 hour. The additional resources of Clean Seas will be available to support response activities as required.

	EQUIPMENT	PERFORMANCE SPECIFICATIONS	
1	130 ft x 30 ft Supply	Can operate in moderate to	
	Boat Type Response	heavy seas: 12 knot cruising	
	Vessel	speed	

2 Offshore Devices, Inc. Can operate in up to 10 ft Center section skimming seas using either the ships

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barriers 65 ft long x 4 ft high - can be deployed alone or in conjunction with other booms pumps or an accompanying floating pump system. Can recover up to 900 GPM of fluid depending on pumping system used

Maximum system capacity is

750 GPM

1 Offshore Devices, Inc. floating pump system for above skimming barrier contains 3 hydraulically powered double-acting diaphragm pumps

1 Walosep model W-3 wiertype skimmer 3.5 ft high x 8.9 ft long x 7.5 wide

2000 ft Goodyear 14" x 24" inflatable boom

- 1 Vikoma Seapack Boom 1600 ft long
- 1500 ft Whittaker Model 4300 expandi boom 20" x 23"

1 32 ft Raider fast deploy-Moderate Seas ment boom boat w/twin 175 hp motors

1 100 BBL onboard oil/water Open ocean conditions separation system

Can operate in moderate seas and has a maximum capacity of approximately 300 GPM for heavier oils

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Open ocean conditions

Works in waves up to 6 ft and winds up to 20 to 25 knots

Works in waves up to 5 ft and winds up to 20 knots

barriers 65 ft long x 4 ft high - can be deployed alone or in conjunction with other booms

Offshore Devices, Inc. floating pump system for above skimming barrier contains 3 hydraulically powered double-acting diaphragm pumps

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Walosep model W-3 wiertype skimmer 3.5 ft high x 8.9 ft long x 7.5 wide

2000 ft Goodyear 14" x 24" inflatable boom

> 1 Vikoma Seapack Boom 1600 ft long

1500 ft Whittaker Model 4300 expandi boom 20" x 23"

> 1 32 ft Raider fast deploy- Moderate Seas ment boom boat w/twin 175 hp motors

1 100 BBL onboard oil/water Open ocean conditions separation system

Can operate in moderate seas and has a maximum capacity of approximately 300 GPM for heavier oils

pumps or an accompanying

floating pump system. Can recover up to 900 GPM of

fluid depending on pumping

Maximum system capacity is

system used

750 GPM

Open ocean conditions

Works in waves up to 6 ft and winds up to 20 to 25 knots

Works in waves up to 5 ft and winds up to 20 knots

A9-2

1	Vessel mounted dispersant spray unit	Moderate seas
4	Kepner 5,000 gal floating oil storage bags	Moderate seas
1	Pitman 14 ton pedestal crane to be fixed to response vessel	Used to deploy above equipment from vessel

5-10 bbls Corexit 9527 dispersant

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1 Miscellaneous sorbent

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OIL SPILL EQUIPMENT ON VESSEL LEASED TO CLEAN SEAS

The following equipment will be located onboard the vessel that Clean Seas will lease until Mr. Clean II is **rea**dy for service.

- 1. One (1) Walosep oil recevery device (skimmer)
- 2. 2000 feet of Goodyear boom.

2/82/

- 3. 2000 feet of Whittaker Expandi Boom
- 4. Two 5000 gallon oil storage bags (Kepner)
- 5. Dispersants and sorbents

