

**Minute Item
75**

12/03/99
WP 4065
M. VALENTINE, K. WALKER
A. WILLARD

**CALIFORNIA STATE LANDS COMMISSION
(APPLICANT)**

Regular Calendar Item 75 was amended and approved.

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MINUTE ITEM
This Calendar Item No. 75
was approved as Minute Item
No. 75 by the State Lands
Commission by a vote of 3
to 0 at its 12-3-99
meeting.

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12/03/99
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WP 4065

**STAFF REPORT ON STATUS OF THE SCOPE OF WORK
FOR ANALYSIS OF THE SHELL MOUNDS
AT THE SITE OF THE FORMER 4H PLATFORMS, SANTA BARBARA COUNTY,
AND STAFF RECOMMENDATION ON INTERIM MEASURES FOR ASSISTANCE TO
FISHERS PENDING COMPLETION OF THE SCOPE OF WORK**

LESSEE:

Chevron USA, Inc.
ATTN: G.R. Steinbach
646 County Square
Ventura, CA 93003

AREA, TYPE LAND AND LOCATION

Site of previously removed oil drilling and production platforms Hazel, Hilda, Hope and Heidi (the 4-H's) on State oil and gas leases PRC 1824 and 3150 on State tide and submerged lands in the Santa Barbara Channel, Santa Barbara County.

BACKGROUND

The four platforms were built between 1958 and 1965 and were shut in 1992. The Commission in August of 1994 authorized the removal of the platforms pursuant to a mitigated negative declaration which concluded that mitigation measures had been identified for all potentially significant environmental impacts associated with the project. No significant adverse environmental impacts on commercial fishing or fish stocks were identified as a result of the platform removal project. However, the Commission found that one of the benefits of the removal project was that the area formerly occupied by the platforms would be available to commercial and recreational fishing, including trawling. To insure that this benefit was in fact realized the Commission imposed a condition on its approval of the decommissioning plan for the platforms which required that test trawls be conducted over the platform sites after removal.

As was noted in the mitigated negative declaration for the platform removal project, beneath each platform was a mound of drilling muds and cuttings overlain with shells from periodic cleaning of the platform legs and supports. These mounds are up to 250 feet in diameter and up to 38 feet in height. The shells in the top layer of the mounds

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have bonded to each other so that the surface of the mounds tends to be consolidated and rough. When the platforms were removed the mounds remained in place. The test trawls conducted pursuant to the Commission's requirements were unsuccessful; the trawl nets hung up on the mounds. Since then the Commission staff has been working with Chevron and staff of the California Coastal Commission to formulate options to achieve the benefit to commercial trawlers which was anticipated to be one of the results of the removal of the 4H platforms.

SCOPE OF WORK FOR ANALYSIS OF THE SHELL MOUNDS

The Commission staff, Chevron and staff of the California Coastal Commission have for several months been working cooperatively to formulate a scope of work for analysis of the feasibility of removal of the mounds including the environmental effects of removal and of leaving them in place. The current draft of the proposed scope of work is attached as Exhibit A. Today's agenda includes a staff recommendation that the Commission authorize staff to prepare a request for proposals and to enter into a contract for the preparation of the analysis set forth in the proposed scope of work. All analyses called for in the scope of work will be funded by Chevron. The study defined by the scope of work will provide information which staff believes will be helpful to the Commission when deciding whether to require removal of the mounds or to develop replacement measures for the existing condition requiring that the area pass a trawl test. The scope of work is to result in a report to the Commission and the Coastal Commission. In summary the study will examine: 1) the physical composition of the mounds, including the presence and extent of hydrocarbons and heavy metals; 2) methods of removal of the mounds; 3) the impacts of available methods of removal of the mounds on water quality, air quality, biology (including fisheries and marine mammals) and commercial and recreational fishers; 4) the impacts of leaving the mounds in place in these same general categories.

The Coastal Commission is scheduled to consider the proposed scope of work at its December meeting. The report based on the scope of work will not itself be an environmental document within the meaning of the California Environmental Quality Act. Future approval of a course of action regarding the shell mounds may, however, require the preparation of such an environmental report. At its September 3 meeting the Commission authorized a core sampling program for the shell mounds. These core samples will be collected as part of the study set forth in the scope of work developed by staff, Chevron and the Coastal Commission.

INTERIM MEASURES FOR ASSISTANCE TO FISHERS PENDING COMPLETION OF THE SCOPE OF WORK

The Commission at its September 3 meeting directed the staff to report to the Commission and to make a recommendation on interim measures for the assistance of fishers pending completion of an analysis of the shell mounds. During that discussion three discrete issues were addressed. First, concerns were voiced regarding the

"reliability" of the buoys placed by Chevron at the mound sites. Second, the issue of compensation to fishers whose equipment is damaged by the mounds was discussed. Third, the Commission requested information on whether it would be appropriate to require Chevron to provide global positioning systems (GPS) to trawlers who operate in the vicinity of the mounds.

Buoys: Pursuant to direction from Commission staff, Chevron in January 1998 installed buoys marking each shell mound (one buoy for each mound). The buoys installed, however, were spar-type buoys designed for short-term use. These buoys did not perform reliably as they tended to lay down in rough weather and often moved, broke loose or sank. During the first six months of 1998, 19 of the buoys were replaced. As a result of the unsatisfactory performance of the first set of buoys, the buoys were upgraded and replaced in June of 1998. The improvements included upgrading the buoy spar from plastic (PVC) to galvanized steel, adding a closed cell for increased buoyancy, and installing wire rope for the top twenty feet of the anchor line. These buoys have performed significantly better than their predecessors. During the second half of 1998, no buoys were replaced. During the first six months of 1999, eight buoys were replaced. Earlier this year Chevron contracted with a third party to periodically inspect the buoys resulting in more rapid replacement of the buoys when damaged or destroyed. Despite these improvements, it appears that more can be done to assure the stability, visibility and reliability of the buoys pending completion of the scope of work for study of the shell mounds. Staff recommends, therefore, that the Commission direct staff to consult with the Coast Guard to develop buoy standards and to direct Chevron to place and maintain buoys at the shell mounds of a design and construction adequate to withstand the challenges to reliability posed by the shell mound site. Staff also recommends that Chevron be directed, upon selection by staff of a suitable buoy type, to maintain at least one spare buoy for immediate deployment upon notification that one of the buoys has disappeared or has been damaged. Finally, staff recommends that the Commission direct Chevron to enter into a contract or contracts for inspection of the buoys on a regular and frequent basis (at least twice monthly) so that damaged buoys can be promptly repaired or replaced.

Damages: A claims procedure has for several years been employed by the oil industry to compensate fishers for lost and damaged equipment. This procedure applies to damage to equipment and vessels resulting from oil production or transportation facilities in the Santa Barbara Channel and are not applicable solely to damage caused by the shell mounds. Chevron has informed staff that since the removal of the 4H platforms, four claims have been processed in accordance with the established procedures for damage resulting from the shell mounds. Of these four claims, three were approved and one was denied. The total value of the three approved claims was slightly in excess of \$7,000. There were three claims made in 1997, one in 1998 and none so far in 1999. Staff believes that this damage claims process has in most situations worked well to compensate fishers for equipment damage due to oil facilities. At the September Commission meeting, however, it was suggested that at

least one claim for damage had been summarily denied. Chevron asserts that all claims are thoroughly investigated and that no claim is denied without cause. Be that as it may, it appears that certain improvements in the processing of damage claims in connection with the shell mounds would be beneficial. Therefore, staff recommends that the Commission direct Chevron to make certain changes in its processing of such claims. First, staff recommends that the Commission direct Chevron to expeditiously act on all claims for damages within one month of receiving the claim and that any full or partial denial of a claim be explained in writing to the claimant. Second, staff recommends that the Commission instruct Chevron to inform staff immediately upon receipt of a claim for damages allegedly resulting from the shell mounds. In this way staff can be informed and maintain a record of the number, frequency and severity of claims resulting from the shell mounds. Third, staff recommends that with regard to damages allegedly caused by the shell mounds, Chevron be required to engage a qualified and experienced third party to visually inspect the damaged equipment and report to Chevron before any such claim is denied. Fourth, to facilitate the settlement of contested claims, Chevron should be required to create mediation procedures for review and approval by the Executive Officer of the Commission for all damage claims which are denied by Chevron but which are still asserted by the trawl fisherman.

GPS: At the Commission's September meeting, it was recommended by a member of the public that the Commission should require Chevron to provide GPS equipment to fishers as an interim measure pending completion of the analysis of the shell mounds. The type or scope of this recommended equipment was not stated. Chevron had previously proposed that the local trawlers be equipped with the full complement of GPS equipment in lieu of the Commission's requirement that the 4H platform site pass a trawl test. This suite of equipment would include differential GPS with sounders or "pingers" to enable trawlers to locate both their boat and their nets in relation to possible subsea obstructions. The "pingers" are considered beneficial because of the great distance which can separate the trawl boats and the nets. Figures on the cost of such a program were previously compiled by Chevron. Chevron estimates that approximately 30-40 trawl vessels would require the GPS equipment to enable them to fish in close proximity to the mounds. Even the top-of-the-line equipment would not make it possible to fish over the mounds. Estimated cost of acquisition and installation of the equipment would be approximately \$35,000 per vessel. To purchase and install the GPS equipment on a minimum of thirty vessels would put total cost of this measure at \$1,050,000.

The speaker at the September meeting suggested that all fishermen in the area should be equipped with the GPS equipment; however, staff is aware of no hazard posed by the mounds to fishers other than trawlers and the existing permit condition relates solely to trawling. Therefore, cost of the interim GPS has been based on the number of trawl vessels, not the total number of fishing boats in the area.

Most, if not all, of the trawlers operating in the vicinity of the shell mounds possess either a Loran system or some version of a GPS system. Few, if any, of the trawlers now have the full differential GPS equipment with "pingers" as discussed above. Existing equipment on the trawl vessels seems to be adequate for the most part to allow fishers to avoid subsea obstacles. At the 4H site this means, however, that the trawlers must stay even further away from the shell mounds than they did when the platforms were still in place. That is, without the large visual reference provided by the platforms the trawlers, using Loran systems, cannot skirt closely by the mounds but must provide a wider margin of safety than they did before removal of the platforms. Thus, differential GPS equipment, even minus the "pingers" for precisely locating the nets, would benefit the trawlers in that they could more closely know the location of their boats in relation to the mounds. For example, it is estimated that the Loran system is accurate within approximately 900 feet, the basic commercial type GPS equipment is accurate to within 300-500 feet while the differential GPS equipment is considered to be accurate within thirty feet. As noted above, this would still leave the trawler to estimate the location of his nets. However, in conditions of poor visibility such as fog or storms it would provide valuable information, especially if the buoys above the shell mounds are not clearly visible. Therefore, the trawlers would for the interim period be in at least as good a situation as they were before the platforms were removed. Estimated cost of the differential GPS alone is slightly less than \$1,000 per vessel or approximately \$30,000-40,000 for those trawl vessels regularly operating in the area in question.

From the foregoing, staff has concluded the following. There would be important benefits to the trawlers from having the differential GPS system installed in their vessels as it would permit them to drag their nets in closer proximity to the shell mounds than can now be done. However, the GPS equipment would not permit the trawlers to fish over the mounds so the area would still not pass the trawl test as required by the Commission's previous decision. The equipment would place the trawlers in more or less the same position with regard to the shell mounds as was the case prior to decommissioning of the platforms. Therefore, differential GPS would provide a significant incremental benefit, especially to those trawlers now using the Loran system.

OTHER PERTINENT INFORMATION

Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Title 14, California Code of Regulations, section 15061), the staff has determined that this activity is exempt from the requirements of CEQA because the activity is not a "project" as defined by the CEQA and the State CEQA Guidelines.

EXHIBIT:

- A. Final Draft Scope of Work for Chevron
4H Platform Shell Mound Studies

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF THE CEQA PURSUANT TO TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15061 BECAUSE THE ACTIVITY IS NOT A PROJECT AS DEFINED BY PUBLIC RESOURCES CODE SECTION 21065 AND TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15378.
2. DIRECT STAFF TO CONSULT WITH THE COAST GUARD AND TO MANDATE A RELIABLE BUOY DESIGN TO BE DEPLOYED BY CHEVRON AT THE SHELL MOUNDS.
3. DIRECT CHEVRON TO MAINTAIN AT LEAST ONE SPARE BUOY OF THE TYPE REFERRED TO IN 2 ABOVE FOR REPLACEMENT OF BUOYS WHICH HAVE DISAPPEARED OR BEEN DAMAGED.
4. DIRECT CHEVRON TO ENTER INTO CONTRACTS FOR INSPECTION OF THE BUOYS AT LEAST TWICE MONTHLY, SAID CONTRACT TO BE REVIEWED FOR SUFFICIENCY BY STAFF OF THE COMMISSION IN ORDER TO ASSURE CONFORMITY TO THE COMMISSION'S INTENT.
5. DIRECT CHEVRON TO ACT ON ALL CLAIMS FOR DAMAGES CLAIMED TO BE CAUSED BY THE SHELL MOUNDS WITHIN ONE MONTH OF RECEIPT OR SUCH ADDITIONAL TIME AS THE CLAIMANT AND CHEVRON SHALL JOINTLY AGREE TO.
6. DIRECT CHEVRON TO NOTIFY STAFF IN WRITING UPON RECEIPT OF DAMAGE CLAIMS RESULTING FROM THE SHELL MOUNDS.
7. DIRECT CHEVRON TO ENGAGE A QUALIFIED AND EXPERIENCED THIRD PARTY TO VISUALLY INSPECT THE DAMAGED EQUIPMENT BEFORE ANY CLAIM IS DENIED.
8. DIRECT CHEVRON TO IMPLEMENT MEDIATION PROCEDURES SUBJECT TO REVIEW AND APPROVAL BY THE COMMISSION'S EXECUTIVE OFFICER FOR ALL CLAIMS DENIED BY CHEVRON.

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9. DIRECT CHEVRON TO PURCHASE AND INSTALL IN THE TRAWL VESSELS OF TRAWLERS WHO HAVE BEEN FISHING IN THE SANTA BARBARA OFFSHORE WATERS FOR A PERIOD OF AT LEAST ONE YEAR A DIFFERENTIAL GPS SYSTEM.

10. DIRECT STAFF TO MONITOR THE PROGRESS AND COMPLETION OF THE PROGRAM FOR INSTALLATION OF DIFFERENTIAL GPS TO QUALIFIED TRAWLERS FOR CONFORMITY WITH THE COMMISSION'S INTENT.

FINAL DRAFT SCOPE OF WORK
For
Chevron 4H Platform Shell Mound Studies

Physical Characterization of Mounds

The consultant shall summarize existing information on the size and shape of each of the four mounds of drilling muds and cuttings and their layer of shells (hereinafter called "shell mounds"). Information regarding the areal extent of the mounds is contained in the debris and trawl survey reports submitted by Chevron at the conclusion of the four State Waters Platforms Decommissioning Project. The consultant shall design and supervise a sampling program that will provide data for the analysis of the internal structure of each mound. The sampling program will also provide material for analysis of any possible contaminants within the mounds as well as further document the existing biological resources present at the site. Sampling of the mounds shall be designed to provide physical and chemical characterization of mounds and should include testing for hydrocarbon and heavy metal content (using ACOE Dredge Sample Characterization Criteria). Chevron has prepared a report that summarizes the drilling mud use documented in the drilling records for the platforms. This report also contains an extensive literature summary related to drilling mud characteristics and should be used to the extent feasible to quantify the chemical composition of the original mud and cuttings discharge.

Sedimentation rates and scour rates shall be determined for the mound areas. The consultant shall take into account the caissons remaining at the site of Platform Hazel, and their potential impact on any removal strategy.

The consultant shall also conduct a literature search to assess the potential habitat value of the shell mounds, focusing on any research that addresses the question of whether underwater materials, such as the mounds serve to attract or to produce fish.

Environmental Impacts of Removal

The consultant shall identify feasible methods to remove the shell mounds, including, but not limited to, dredging, nets and explosives. The study shall include a review of shell mound removal methods employed in the Gulf of Mexico and the North Sea, taking into account differences in scale (size of platforms, volume of material) and water depth. For each feasible method, or combination of methods identified, the consultant shall provide information on the following four types of impacts, specifically addressing short-term, long-term and cumulative effects:

Water Quality

The consultant shall examine the effects of removal to marine water quality from temporary increase in turbidity and the release of materials contained within the shell mounds. The consultant shall assess the toxicity in the marine environment of the drilling muds and

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cuttings or other contaminants within the shell mounds. The assessment shall be based on laboratory analysis of core samples taken from the shell mounds and a review of all available drilling records to determine the type(s) and quantities of muds used. Testing for hydrocarbons and heavy metals shall be done using ACOE Dredge Sample Characterization Criteria as well as relevant water quality criteria contained in the RWQCB Ocean Plan, and Section 401/NPDES Permit requirements.

Air Quality

The consultant shall identify emission sources associated with shell mound removal and provide an estimate of emissions that would result from the removal project. The emission estimates shall be compared with applicable federal and state ambient air quality standards, based on Santa Barbara County APCD criteria and thresholds.

Biological and Related Hard Bottom Impacts

The consultant shall assess the impact of removal operations to fisheries and marine mammal resources and natural hard-bottom habitat in the vicinity of the shell mounds. Potential impacts considered shall include direct physical impacts from work vessel anchors, actual removal equipment or methodology, such as dredges, explosives or other equipment and impacts to hard-bottom communities due to turbidity and siltation.

Commercial and Recreational Fishing Impacts

The consultant shall identify current commercial and recreational fishing activities in the project area and assess the impacts of shell mound removal on the commercial and recreational fishing industry. This assessment shall include, but not necessarily be limited to:

An evaluation of whether the shell mounds benefit any types of commercial and/or recreational fisheries (e.g., commercial lobster fishing, or commercial sport fishing charters).

- An evaluation of the potential adverse impacts to marine biological resources that will result from the resumption of trawl fishing in the shell mound areas.

The consultant shall also consider if means exist to make the mounds trawlable using current or modified fishing gear.

Environmental Impacts of Leaving Shell Mounds in place

Water Quality

The consultant shall assess the potential of the shell mounds to maintain their integrity over time, and the potential impacts to water quality should leaching of materials from within the mounds into marine waters occur.

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Air Quality

The consultant shall identify any emission sources associated with leaving the mounds in place. The emission estimates shall be compared with applicable federal and state ambient air quality standards, based on Santa Barbara County APCD criteria and thresholds.

Biological and Related Hard Bottom Impacts

The consultant shall discuss the potential beneficial impacts associated with maintaining the existing hard-bottom habitat as presented by the shell mounds and adjacent natural hard-bottom area.

Commercial and Recreational Fishing

The consultant shall assess the impacts to the commercial fishing industry that will result if the shell mounds are left in place. This assessment shall be based on:

- A specific quantitative analysis of: 1) the potential economic value of the shell mound areas to commercial halibut trawlers in the context of the total area fished by affected trawlers; and 2) identification and evaluation of feasible mitigation measures to reduce or eliminate impacts to commercial trawl fishing, including an analysis of the existing navigation aids or the Global Positioning System (GPS) equipment proposed by Chevron for the affected trawl fishermen.
- An evaluation of whether the shell mounds benefit any types of commercial and/or recreational fisheries (*e.g.*, commercial lobster fishing, or commercial sport fishing charters) and an evaluation of related impacts to the affected fisheries.
- An analysis of potential risk to trawlers if the mounds are left in place, and the ability of potential mitigation to reduce that risk. Potential adverse impacts to the marine biological resources that will result from the continuation of trawl fishing in the shell mound areas.
- Nature and extent of potential use conflicts in the shell mounds area (*e.g.*, between trawlers and sport fishermen).

Previous Studies Available to Consultants

Bascom, W., A.J. Means, and M.D. Moore, 1976. *A Biological Survey of Oil Platforms in the Santa Barbara Channel*. Proceedings of the Offshore Technology Conference, Paper 2523

Carlisle, J.G., C.H. Turner, and E.E.Ebert, 1964. *Artificial Habitat in the Marine Environment*. California Department of Fish and Game Fish Bulletin 124.

de Wit, L.A., 1999. *4H Platforms Shell Mound Study Santa Barbara Channel, California*. Prepared for Chevron U.S.A., Inc. Ventura, CA.

Love, M.S., J. Caselle, and L. Snook, in press. *Fish Assemblages on Mussel Mounds Surrounding Seven Oil Platforms in the Santa Barbara Channel and Santa Maria Basin*.

Naughton, Aiden J., 1997. *Chevron Carpinteria Platforms Abandonment Mitigation and Monitoring Program, Report of Project Completion*. California State Lands Commission, Mineral Resources Management Division.

O'Reilly, Kirk, 1998. *Decommissioned Platform Shell Mounds: Impacts of Drilling Fluids*. Prepared for Chevron U.S.A., Inc. Ventura, CA.

Simpson, R.A., 1977. *The Biology of Two Offshore Platforms*. U.C. Institute of Marine Resources Ref. Document 76-13.