three tracts (P-0316, P-0317, and P-0318) located in an east-west line (Exhibit 2). By early 1981 an exploratory well had been drilled on each of the three leases. Partial Tract P-0318 adjoins State property.

OCS Sale #53 was held May 28, 1981. This sale set a record for high bids with an all-time high of $333.5 million for a single tract P-0450, bid by Chevron and partners. The group headed by Chevron also was successful in a block of four leases adjacent to the leases they had purchased in the OCS #48 Sale.

In November, 1981 after the OCS #53 Sale, Chevron disclosed a major discovery on tract P-0316. They designated the new field Pt. Arguello. Chevron maintained as confidential the test results from two other tracts (P-0317 and P-0318) but indicated that tests produced oil from structures separate from the Pt. Arguello strike. The discovery well, 316 #1, for the Pt. Arguello field is approximately 3 1/2 miles from State property.

Texaco, as operator for a group of four companies, drilled two wells on Tract P-0315 adjacent to the Pt. Arguello Field discovery and approximately three miles from State lands. In June 1982 they announced test rates up to 4,200 barrels of oil per day from an estimated 50 million barrel oil field they have designated "Hueso".

OCS Sale #68 was held June 11, 1982. It included several tracts near Pt. Conception. Partial Tract No. 9, adjacent to State land near the south end of the proposed lease area had been withdrawn from former sales because of potential geologic hazards. It was offered for lease for the first time in Sale #68. A high bid of over $8 million by Texaco was rejected by the U.S. Department of Interior as insufficient. The next closest tract to the project area in the #68 Sale was OCS P-0456 (about 4 1/2 miles from State lands) adjacent to the Texaco announced "Hueso" field discovery. It received a high bid of $4.5 million.

OCS Sale #RS-2 was held August 5, 1982. It included 27 Tracts that had either received no bids, or bids had been rejected in the Southern California OCS Sale #53. The resale resulted in 12 tracts receiving bids. The only tract close to the project area was Tract No. 233, located approximately two miles from State land due west of Pt. Arguello. It had a high bid of $157,000 by Shell and was rejected as insufficient.

There is a sharp contrast between the bids in the hundreds of million dollars for the OCS Sale #53 tracts and the bids of the later #68 and RS-2 Sales in the Pt. Conception/Pt. Arguello OCS area. We believe this can be attributed to the following:

1. Most tracts had been offered in former sales.

2. Almost all tracts were in water depths of 1,500 feet or greater.

3. Insufficient time was allowed between lease sales.

4. The economic projections of industry changed.

Exploratory delineation wells drilled by Chevron on their record priced, P-0450 Tract, indicated that the Pt. Arguello field is extensive and may be the same structure as the "Hueso" Field discovery by Texaco, on adjacent tract P-0315.

Information released by the companies in the "Hueso"-Pt. Arguello Field area indicated the productive horizon was the Miocene Monterey formation with a productive interval of more than 1,000 feet and combined production rates of up to 6,000 bbls. of oil per day.

Additional exploratory wells are presently being drilled in the Pt. Conception area. Chevron is drilling wells on two tracts (P-0318 and P-0451) directly offsetting State land and have announced tentative locations for wells on two other offset tracts (P-0453 and P-0452).

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RESOURCE EVALUATION

During the past three years, the Commission has expended approximately $343,000 to acquire and analyze resource data from geophysical surveys previously conducted between Pt. Conception and Pt. Arguello and has had an additional geophysical survey completed to complement the purchased "off-the-shelf" information. Resource evaluation, based on data from the surrounding areas, together with the geophysical surveys has identified six possible anticlinal structures which have the potential for accumulations of oil and gas resources (See Exhibits 2 and 3). The resource estimate, risked and expressed at a confidence level of 5% is 274 million bbls.; at 50% is 153 million bbls.; and at 95% is 63 million bbls.

It should be emphasized that there can be no direct evidence of hydrocarbon accumulation on the State lands proposed for lease until wells have been drilled. It would therefore be misleading - if not erroneous - to assign values to specific tracts. However, the geologic inferences and oil industry interest are strong indications of the likelihood of such accumulations.

Activity on adjacent OCS lands may have lowered the risk on some tracts. When the State eventually gains access to OCS data from offsetting leases, additional confirmation (or negation) of hydrocarbon values may be gained. Although the

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resumption of drilling on Lease PRC 2879 was approved by the Commission in May, 1980, Union Oil has not yet drilled its proposed exploratory wells adjacent to the contemplated lease area. This information will also help to confirm the validity of estimates.

Although not directly related to the Pt. Conception - Pt. Arguello area, it is important to recognize that the intensity of oil activity has increased significantly in other areas. This activity is an indication that industry is ready to explore State lands.

INDUSTRY PARTICIPATION

Participation by industry has generally been positive. Representatives have not hesitated to voice their opinions and preferences during discussions of strategies. With little exception, they were not willing to share geologic data, or to discuss resource estimates. They have evidenced a continued interest in not only the Conception/Arguello area, but in certain other unleased areas as well (Exhibit 1).

In a series of meetings, the Executive Officer and members of the staff met with representatives of several oil companies to discuss the possible leasing for oil and gas operations of State lands between Point Conception and Point Arguello. These meetings occurred during October 1982. The discussions concerned the timing of the offering, the number and shape of the parcels, the bid variable, and the lease terms and components of a net profits accounting procedure.

Several companies suggested that the parcel boundaries should be drawn to conform as closely as possible to the federal OCS lease boundaries so that problems with adjoining lessees may be minimized. Preliminary tract boundaries are shown on Exhibit 2 and a possible tract layout meeting the company concerns is shown on Exhibit 3.

The companies unanimously felt that all parcels should be put out for bid at the same time. They urged the earliest possible notice of solicitation. Most of the companies stated a preference for having the bids due during the third quarter of 1983, although some wanted earlier dates. This timing was indicative of a desire for reasonably prompt leasing with allowance of adequate time for the companies to analyze and evaluate the geophysical data as well as the lease proposal.

All company representatives expressed privately, as they did at the public hearing, a strong preference for a fixed royalty (one-sixth) with a bonus as the bid factor. This method is not permitted under existing law. Net profits share bidding was given last preference. Many voiced strong arguments in opposition to such a bidding system, viewing it as having relative uncertainty. Among the most frequently cited arguments against net profits were the following:

- Net profits share bidding, without up front cash outlays, may result in speculation and discourage rapid development of the lease;

- It may reduce the number of bidders and thus reduce competition for the parcels;

- It creates an unwanted partnership with the State that, unlike true joint ventures, may not involve an equal sharing of the risks;

- It could impose numerous administrative burdens on both the lessee and the State; and

- It postpones and, where the lease is not commercially productive, eliminates the financial return to the State for its land offering.

Given a choice between their perception of a net profits share lease with the net profit percentage to be paid to the State as the bid variable and a sliding-scale royalty lease having a one-sixth minimum with the bid variable being a cash bonus, the unanimous preference of the industry representatives was for the latter. However, the more certain the allowable

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charges to the net profit account, the better the companies felt they could reasonably respond to such a lease proposal. All companies met with indicated they would bid on a net profits lease package if that were the only method available.

There was a wide difference of opinion as to the size of the bonus bids that could be anticipated if the State were to offer the parcels on the basis of a cash bonus with a sliding-scale royalty having a one-sixth minimum. Two companies thought that the total bonus bids on all parcels could run from a low of $120 million to a high of $600 million. At the opposite end, one company thought that the total bonus bids on all parcels would be in the range of $20 million to $100 million.

A major purpose of the meetings with the companies was to discuss the components of a net profits accounting procedure in the event of net profits share leasing. Almost every company participating in the discussions stated a strong desire for a capital recovery rate greater than 1.00. Such a capital recovery factor would permit the lessee to recover its initial exploration and development costs plus an additional amount for risk before the State would start sharing in the net profits.

The companies want some guarantee of recovery of their investment and some compensation for risk-taking. In return for this guarantee, they should be willing to bid a higher percentage of net profits. Since a prime reason for net profits share leasing is to enable the State to share in any later increases in profits as a result of future oil prices increasing at a faster rate than future costs, the State should be concerned with long-term recovery which is a product of the net profit percentage bid.

By contrast, the oil companies are most concerned with the short-term recovery of their investment. Therefore, in exchange for giving the lessee some reasonable guarantee of such a return, the State should get a higher net profit bid and larger long-term share of the net profits.

In addition, every company expressed the belief that bottom hole or dry hole contributions should be an allowable charge against net profits.

Almost all company representatives said that abandonment costs should be an allowable charge against net profits on an accrual or unit of production basis. Most indicated that an operating overhead allowance of 10% was too low. Again, these are items, which if allowed as charges to net profits, provide additional guarantees of a reasonable return to the companies and should produce a higher net profits percentage bid.

As discussed in the "Supplemental Report to the Legislature on Proposed Oil and Gas Lease Program Pt. Conception - Pt. Arguello" (May 1982) it is possible to develop a number of lease configurations for the 40,000 acres within the Pt. Conception area; however the conventional 5,000-acre rectangular tracts extending from shore to the seaward boundary provide the greatest advantages.

Based on our present geologic knowledge, the conventional system would avoid dividing the geologic structures and provide for simpler reservoir control under one lessee (see Exhibit 2). Other advantages include a potential for reduction of the number of development programs, an easier overall program to administer, probably fewer platforms and associated facilities, less accounting problems and fewer site-specific EIR's.

As mentioned earlier, during the course of our Pt. Conception program review with the industry one item of concern was that the tract boundaries should be constructed to coincide as nearly as possible with the adjoining federal lease corners to reduce the complexities of unit or cooperative development if structures overlap the State-federal boundary. The proposed conventional lease pattern can be slightly modified to accommodate this request (see Exhibit 3).

The timing of the lease sales is an important element in developing a leasing strategy. The three major options are: (1) leasing all eight tracts at one time, (2) leasing sequentially in a checkerboard pattern, and (3) leasing sequentially only to offset drainage.

The leasing of all tracts at the same time would be consistent with the State's policy of encouraging development which provides for consolidation of facilities and operation. Sequential leasing and development would not permit planning to minimize duplication of facilities. Additionally the smaller independent companies have stated that, if less than the eight tracts are offered for sale, it would severely restrict their opportunities to obtain leases.

Pursuant to Section 6827 of the Public Resources Code, lands under the jurisdiction of the Commission may be offered for oil and gas lease on the following bid bases:

BID VARIABLE	FIXED ITEM(s)
1. Cash Bonus	Sliding scale royalty on oil, with a minimum of not less than 16 2/3% and a specified maximum. Not less than 16 2/3% on all non-oil products and a rental of not less than one dollar per acre.
2. Bid Factor	Factor greater than 1 applied to sliding scale royalty on oil, with a minimum of not less than 16 2/3% and a specified maximum. Not less than 16 2/3% on all non-oil products and a rental of

not less than one dollar per acre.

3.	Royalty Share	Minimum bid specified at not less than 16 2/3%. Not less than 16 2/3% on all non-oil products and a rental of not less than one dollar per acre.
4.	Net Profit Share	A rental of not less than one dollar per acre.

The basic theory of bidding is quite simple, and is discussed in more detail in the "Supplemental Report to the Legislature". Under normal oil and gas lease bidding, the bidder's calculation of the bid is based on the revenue remaining after deduction of estimated costs of production and required profits from the estimated potential gross revenue which has been risked and discounted for time. The remaining revenue can be translated to a cash bonus, percentage royalty, net profits or any combination of these options. The important consideration is that the basis for payment to the lessor in the form of a bid is the same regardless of the method of bidding. For example, in the case of the high net profits bid in the Long Beach Unit, since the area under consideration was not a prospect but rather an area of known production and reserves in close proximity to many refinery complexes, an equally high bonus plus a percentage of the gross could have been expected. Bid calculations in this instance included not only the known reserves but the refinery product profits in the computation. Profit from the production phase was a trade-off for assurance of supply. This is not the situation in the Pt. Conception area.

The cash bonus, sliding-scale royalty formula (Exhibit 4) on gross oil method of leasing (Number 1, above) has been used extensively by the Commission in past lease sales. The advantage of this leasing procedure is that the risk of resource evaluation is placed on industry. Large bonuses may reduce competition but would also prevent speculation and encourage prompt exploration and development. This system, with up-front bonus and royalties, will provide relatively early revenue returns.

Net profits leasing, in one form or another, has been used successfully by the Commission since 1964. The net profits bidding system has the advantage of protecting the State where oil prices increase at a rate faster than production costs as has been the case in recent years. Absence of large bonus payments could provide for greater competition in the bidding process but may also encourage speculation. Use of a reasonable land rental could strike a balance between these extremes. Except for the land rental receipts, the net profits system would have payments deferred for the period of time required to recover project costs. Under net profits, the State shares with the lessee the risks of a non-productive lease.

It is significant to note that the statutes (Public Resources Code) which provide the framework and restrictions in leasing State tidelands for the extraction of oil and gas are not the same as those governing the Long Beach Unit (Chapter 138 Statutes of 1964, 1st E.S.). Under the latter, the legislation provided substantial economic and operational controls. In contrast, the Public Resources Code provides limited operational controls and economic decisions are left exclusively to the lessee.

Such provisions were adopted for the traditional leasing procedures where the lessor retains a royalty percentage of the gross production. However, under all but the most unique situation, these statutory provisions are sufficient to protect the State's interest in a net profit lease. Because the lessee is motivated to obtain the maximum economic recovery from the leased lands and maximize its share of profits, the State's interest will be protected by the lessee's acting in its own self-interest.

SUMMARY OF PROPOSED LEASE PROVISIONS

Forms have been prepared for a lease based on a sliding-scale royalty with a cash bonus bid (SS lease) and a net profit share lease with the percentage of net profits to be paid to the State as the bid variable (NPS lease). (Exhibits 5 and 6)

The sliding-scale royalty lease form provides a sliding-scale royalty formula (Exhibit 4) for oil that varies with the average amount of production per well per day with a minimum

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royalty of 16 2/3% and a maximum royalty of 50% (SS lease Sec. 4.) For gas and other non-oil products, a 20% royalty is provided. The value of the oil and gas for royalty purposes is the current market price as determined by the State. Provision is made for the State to take in kind its royalty share of either oil or gas or both on 60 days' notice to the lessee (SS lease Sec. 4). A rental, payable throughout the life of the lease, is included (SS lease Sec. 3).

The net profits share lease form provides that the State shall receive a percentage of net profits from the lease operations which is the bid variable (NPS lease Sec. 4). Provision is made for the State, upon giving 60 days' notice to the lessee, to take in kind up to 20% of the oil or gas produced from the lease. The in-kind oil or gas shall be valued as provided in the accounting procedure for all lease production, which is the current market price as determined by the State, and that value credited to the net profits account. However, any excess value obtained by the State upon a sale or other disposition of its in-kind share shall not be credited to the net profits account (NPS lease Sec. 5, Exhibit "D" Sec. 121 (a)(2)). A lease rental is provided which shall not be chargeable to net profits. The rental will exceed the legal minimum for each year through the year in which production in paying quantities is first obtained and, thereafter, will be reduced (NPS lease Sec. 3).

The provisions of the net profits accounting procedures (NPS lease, Exhibit "D") are too numerous to give even a brief description of all of them. These accounting procedures are based on those adopted by the federal government for use in its OCS net profit share leases, with some modifications. Only the most significant distinctions between the State form and the OCS form will be mentioned. While setting up the mechanism for providing an allowance for capital recovery, the State form provides that such allowance shall not exceed actual cost (NPS lease, Exhibit "D" Sec. 120(b)). This is the most crucial distinction.

The State form does not allow a charge to the net profits account for bottom or dry hole contributions (NPS lease, Exhbit "D" Sec. 113(m)). Federal windfall profit taxes are an allowable charge only until net profit payments to the State begin and thereafter are disallowed (NPS lease, Exhibit "D" Sec. 111(i)). Lease rental is not an allowable charge (NPS lease, Exhibit "D" Sec. 113(b)).

Other provisions of the sliding-scale royalty and net profit share lease forms are identical. Many of these provisions are required by Division 6 of the Public Resources Code. The leases will have a 20-year primary term and continue so long as oil or gas is produced in paying quantities or the lessee is conducting drilling or well maintenance operations. There is a three-year drilling term and a schedule providing for expeditious drilling of the leased lands after the first well is drilled (SS lease Sec. 1 and Exhibit "B"; NPS lease Sec. 1 and Exhibit "B"). An exploration plan must be submitted by the lessee for State approval within 120 days of the date of the lease and a development plan must be submitted within one year of a commercial discovery (SS lease Sec. 2; NPS Sec. 2).

Compliance by the lessee with all applicable laws and regulations of the State and with special operating requirements for these particular leases is required (SS lease Sec. 10; NPS lease Sec. 11). The special operating requirements are contained in Exhibit "C" to both leases and are patterned after the stipulations in the Finalizing Addendum to the Program Environmental Report. There are thirteen special requirements. They include subsea completions, pipeline feasibility, potential geohazards (including shallow gas zones), mandatory biological and marine mammal (including the sea otter and gray whale) surveys, a fisheries training program, two requirements of the military regarding operations at Vandenberg Air Force Base (provision for supervision of operations and evacuation and shelter of personnel, an assumption of risk and hold harmless clause), and the use of resident labor. There are special provisions for dealing with damages to third persons and property resulting from an oil spill or other pollution (SS lease Sec. 16; NPS lease Sec. 17). These provisions are patterned after the requirements the Commission has imposed on its existing lessees when it has lifted the drilling moratorium.

There is provision for State approval of all production, processing, measurement and transportation facilities and a requirement that the lessee install whatever sampling and measuring equipment is deemed necessary by the State (SS lease Sec. 21; NPS lease Sec. 21). The State may compel the lessee to unitize with other operators, including those on the OCS, if it determines that ultimate hydrocarbon recovery will be increased, unreasonable waste of oil or gas will be prevented, land subsidence may be arrested or adjacent landowners will be protected (SS lease Sec. 23; NPS lease Sec. 23). Statutory requirements concerning the erection of offshore structures and deposition of materials in the ocean are included (SS lease Sec. 24 and 25; NPS lease Sec. 24 and 25).

Under the sliding-scale royalty lease, the lessee will be responsible for and obliged to pay all taxes levied on the leased lands and improvements on and production from the leased lands. This includes ad valorem, excise, severance and windfall profit taxes whether levied on the working interest or the royalty interest. This is as provided in current State oil and gas leases. However, any new severance or windfall profit taxes enacted by the California Legislature and applicable to the State's royalty interest will be borne, to the extent of their imposition on the royalty interest, by the State (SS lease Sec. 30). Taxes under the net profits lease are payable by the lessee and chargeable to the net profits account as provided in the accounting procedure. All taxes are chargeable except income, federal windfall profit, profit share and other taxes based on income. Chargeable taxes will include severance, excise, ad valorem and, only until net profit payments to the State commence, federal windfall profit taxes (NPS lease Sec. 29 and Exhibit "D" Sec. 111(i)).

SECTION 5

DEVELOPMENT CONSIDERATIONS

DRILLING BAN

The Davidson Current is a coastal current which has a northerly flow from the proposed area and is a subsurface current in all but the months of December-March when it becomes a surface current. Such a current might carry spilled oil materials upcoast into waters used by sea otters. One suggestion for protection of the otter is a four-month ban on drilling activities during the critical period.

This current was considered in the oil spill analysis within the FEIR and as indicated between pages 4-420 and 4-421 thereof, if a spill occurred in the proposed area, with no oil spill response and ideal sea conditions, there is a 2% probability that a spill would impact the sea otter range (most southerly extension) within 10 days. This is the worst case analysis.

As acknowledged by reviewers, sea conditions in the area are not often ideal and oil spill response will be required for any subsequent exploratory and production activities in the proposed project area.

Tables in the FEIR (4.3-1 and 4.5-1 & 2) indicate that weather conditions which make critical operations more hazardous to the environment occur most often during the December through March period. State Lands Commission rules and regulations, as well as lease conditions, require that critical operations be stopped under these conditions.

These rules and regulations also require an oil spill contingency plan, a specified minimum on-site oil spill response capability, and additional, adequate onshore based equipment within a reasonable response time to the affected area for a spill larger than 50 barrels. (See Section 6, page 58)

A drilling ban from December through March would present serious scheduling problems to lessees, which in turn would result in additional costs to the lessee. Such costs would be anticipated by potential lessees, and would be reflected in bids received, whether they be cash bonus, or net profits. The additional costs would appear as reduced income particularly visible in any net profits shared by the state.

A four month ban in each year of the three year statutory drilling term, would in effect give the lessee only 2 years of actual drilling time. Since the Commission has the authority to extend the drilling term, if a ban is imposed there might be a basis for extending the term a year. This extension would have its own economic effect from the imposition of an additional one-year delay in positive cash-flow to the State. Contracting for mobile exploratory drilling rigs is done well in advance of proposed operations with the understanding that unexpected drilling problems on a prior drilling commitment may result in delays in the rig availability for drilling on State lands. Establishing a 4-month drilling ban would severely limit the contractual flexibility. Rigs would have to be scheduled as close to the beginning of the "drilling window" as possible to allow for unexpected delays. A limited number of wells could be drilled within the "window". Rigs could not be retained under contract without paying standby costs of as much as $90,000 per day for the 4-month ban period, unless it was feasible to use the rig on lands not subject to the ban. If not feasible, availability of rigs would be diminished if not lost and the drilling program delayed, affecting the economics of the project.

Exploratory drilling involves a relatively small number of wells and with judicious scheduling combined with possible activity on the OCS and other existing State leases, economic effects of the ban could be minimized.

Practically, there seems to be no basis for drilling restrictions on a fixed platform, other than those imposed through the Commission's regulations concerning curtailment of defined critical operations during specified sea and weather conditions.

The effect of a drilling ban becomes more acute in development drilling because of the increased number of wells to be drilled. Additionally, drilling would probably be from a fixed platform, where the contract rig does not have the scheduling flexibility that a mobile rig might have, and cannot easily be removed for 4-month periods. In the case, therefore, of a ban on drilling from a platform, the imposition of over $1,000,000 (typically $10,000 per day for fixed rigs) per year of additional development costs could be anticipated.

DRILLING BUFFER ZONE

Witnesses suggested that the nearshore and intertidal zone is the most sensitive to an oil spill event. They felt that protection of this area might be enhanced by restricting drilling and production operations to the outer two (or possibly one) mile. For that reason staff has reviewed this proposal.

Limiting exploration to floating vessels anchored two miles from shore would make resource evaluation of the area almost impossible. The reason for this is a purely mechanical limitation. The distance from the location of the anchored vessel that a well bore can be directionally drilled and penetrate a potential oil bearing formation is limited by the vertical depth of that formation. The potential producing zones in these state tidelands are shallow, in some areas only 2000' below the ocean floor. A vessel two miles offshore would have to reach nearly 10,000 feet horizontally to explore nearshore areas.

Exploration or development by long reach, high angle directionally drilled well bores increases risks, costs and length of time for exploration and development and also increases the difficulty of subsurface geological interpretation and formation evaluation. This would greatly restrict and in some cases prevent the development of oil and gas resources on the state tidelands.

MUDS AND CUTTINGS

The effects of drilling muds and cuttings when discharged into the marine environment is of concenrn to several commentors. There is, at present, extensive research regarding the methods of disposal used for drilling muds and cuttings, their physical behavior in a variety of oceanographic environments, e.g. high energy, low energy areas, etc., and their physical (smothering, etc.) and chemical (toxicity, etc.) impacts on marine organisms. With few exceptions, however, no such studies have been done in southern California waters and none have been done on site in the Santa Barbara Channel area where existing oil and gas exploratory and development activities are presently concentrated. In addition, there have been few, if any, bioassays to test the toxicities of drill muds or drill mud components on southern California marine organisms.

Initial efforts by the Central Coast District Water Quality Control Board to conduct a monitoring program for such discharges are the subject of a permit appeal action to the State Water Quality Control Board. Any discharge of muds and cuttings into the marine environment must be done in accordance with the regulations promulgated by the appropriate Regional Water Quality Control Board. In response to concern regarding the fate and effects of drilling muds and cuttings and numerous requests to discharge such materials during exploratory activities on State leases in the Santa Barbara Channel area, the staff of the Central Coast Board, in conjunction with an Oceanographic Technical Advisory Committee selected by the Board, proposed monitoring programs for selected soft bottom and hard bottom sites.

The technical committee, composed of representatives from the California Department of Fish and Game, the oil industry and the University of California at Santa Barbara, was also to supervise the soft bottom study which was required as a condition of the May 13, 1982 discharge authorization for Arco, Union and Texaco. On September 10, 1982, Aminoil and Phillips applied for discharge permits, but were denied pending the results of "the soft bottom study", the contract for which had not yet been awarded.

Although the industry believed only two monitoring studies were to be done, the Board's position required studies for all wells. These diametrically opposed positions have resulted in the cessation of any work to award the contract for the soft bottom study and an appeal of the Board's September 10, 1982 decision to the State Water Resources Control Board. That appeal is still pending.

Other studies which pertain to the issue of muds and cuttings are underway or in the advanced planning stages. An example of the former is that of the Panel on Assessment of Fates and Effects of Drilling Muds and Cuttings in the Marine Environment. The panel is sponsored by the Marine Board of the National Research Council (National Academy of Sciences). The panel is composed of 13 members representing industry and academia and is expected to publish its report at the end of the Summer 1983.

The panel is conducting a "critical appraisal of reports that synthesize the abundant technical literature concerning the fates and effects of drilling fluids and cuttings on the U.S. outer continental shelf and what needs to be established to support resource decision-making. The applicability of research and studies to the marine environment will be assessed, as will the transferability of research results from site to site and in different hydrodynamic regimes. The operational implications of the fates and effects, will also be established." It is hoped that information acquired in this study will have some relevance to California waters and marine life.

Of additional interest is a partially funded study proposed for the Point Conception/Point Arguello area by the University of Southern California. The study, presented to the National Science Foundation, will investigate the identified upwelling of currents in the area which is thought to contribute to the abundant marine food supply. In brief, the study will attempt to "understand the relationship between circulation and plankton processes that lead to persistent upwelling structures." As proposed, the study will run through 1985, but some preliminary information should be developed by December 1983. The work will further assist the analyses of the dispersion of materials, such as muds and cuttings, in the area.

On a case by case basis, the Commission has required the barging and disposal of muds and cuttings at upland sites.

Stipulation No.10 would prohibit discharge of muds and cuttings into the ocean until the results of appropriate studies are available and considered by the Commission.

TRANSPORTATION ALTERNATIVES

In the last four years, five studies have addressed transportation alternatives for oil and gas produced offshore Santa Barbara County. These studies are:

1) Santa Barbara Channel: Onshore Pipeline Feasibility Study (1979) - a joint industry/ government study administered by Santa Barbara County;

2) 1985 California Oil Transportation Study, State Lands Commission (1981);

3) Feasibility Study - Southern California Coastal Pipeline (June and December 1981), Part A - an industry sponsored study administered by the Four Corners Pipeline Company (Arco);

4) Feasibility Study - Southern California Coastal Pipeline (Draft, November 1982), Part C - same as above; and

5) Final Report - Petroleum Transportation Committee (November 1982) - a revival of the joint industry/government effort evidenced in the initial study of 1979.

Each of these studies has examined anticipated production from the offshore, capabilities and capacities of the refineries within the State, capabilities and capacities of existing marine and pipeline transportation networks and transportation needs for the future. It is generally agreed that oil and gas production will increase in the area offshore Santa Barbara County to such a level that existing transportation networks, marine and pipeline, will not have sufficient capacity.

The State and Santa Barbara County have taken the position that pipeline transportation is feasible, economic and environmentally superior to marine transportation. The proposed Stipulation 2 in the contemplated tidelands lease is a reflection of and is complementary to that policy. Industry, however, has maintained that marine transportation is less expensive than pipelines and affords greater flexibility of destination.

Another major issue has been the question of refinery compatability, i.e. processing capability, with the anticipated produced oil and market demand. It is speculated that the oils produced offshore will be heavy (more viscous) and high in sulfur content. Each of these characteristics complicate the transportation and refining of the increased production. For example, some additional refinery retrofit may be required in either major refinery center (San Francisco and Los Angeles) before the most economic processing of offshore oil can occur. The Los Angeles area has been the most frequently discussed destination for additional offshore production from the Santa Barbara Channel area. Such retrofit activities will have to comply with a more stringent set of air quality regulations recently adopted by the South Coast Air Quality Management District. Industry has indicated that compliance with the new standards could render such retrofits less economical.

Additional governmental and industry efforts will focus on:

(1) the establishment of a crude oil pipeline from the San Luis Obispo County/Santa Barbara County line to the Los Angeles Basin;

(2) the consolidation of existing marine terminals into one central modern terminal; and

(3) the concentration of processing facilities in the Los Flores Canyon area of Santa Barbara County.

The onset of increased production from the federal OCS in the Santa Barbara Channel and in the Santa Maria Basin (adjacent to the proposed lease area) requires, without consideration of any future oil production from State lands, the development of a viable means of oil transportation to refining centers. Such a transportation system(s) and the associated processing facility(ies) could also accommodate production from the proposed lease area provided the design capacities consider the potential of such production.

OCEAN FLOOR OBSTRUCTIONS

The ocean-floor is not limited to naturally occurring objects. Besides known producing and/or abandoned well-heads, for example, there are multitudes of tires, tools, gloves, odd pieces of pipe, and various other remnants of every operation that has ever occurred on the ocean. Divers have reported this. Staff has observed it during several submarine investigations.

More recently the many fishermen who work from the ocean-floor, such as trawlers, have reported that such debris has caused financial losses. They have asked the Commission to help them by stipulating in oil and gas leases that debris be minimized, and that existing debris be accurately located by a navigational system available to them. Specifically they have asked for Loran C. coordinates. This is not an unreasonable request, and it is recommended that it be so stipulated in any new leases issued by the Commission. (See Stipulation No.13)

It would also be desirable to have similar stipulations in existing leases. However, there are problems in doing this. Existing leases do not contain mandatory provisions for locating ocean floor obstructions. The leases constitute a contract with the lessee which the State cannot now unilaterally change.

Although the locations of many oil and gas related ocean-floor obstructions are known, their position is identified geographically by the more conventional latitudinal and longitudinal coordinates. Such coordinates are not mathematically convertible to Loran C coordinates because of the masking effect of the nearshore, and other physical geographical features. Therefore, the only way that the location of such obstructions can be identified is to locate

the object by using conventional coordinates, taking a position over it, and reading Loran C coordinates. Unknown objects could be located by use of a sidescan sonar system.

Since a stipulation could not be unilaterally inserted in existing leases and many of the obstructions may not even be associated with oil and gas operations some other process must be developed to handle the problem. A preliminary estimated cost to survey the outermost two mile strip of State lands between the City of Santa Barbara and Pt. Conception is $250,000. Such a survey would locate any "target" one foot or higher on the ocean floor.

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SECTION 6

OIL SPILL CONTAINMENT AND CLEANUP CAPABILITIES

PT. CONCEPTION TO PT. ARGUELLO

The best way to combat an oil spill is to prevent it from occurring. In this regard, State Lands Commission regulations set forth requirements to insure the safe completion of drilling on State Lands, particularly the prevention of oil or gas blowouts and spills. In addition to a detailed well program the lessee is required to submit a Critical Operations and Curtailment Plan and an Oil Spill Contingency Plan for the proposed operation.

State-of-the-Art oil spill equipment works well in calm weather and sea states. Equipment efficiency starts to deteriorate as seas reach 2' and winds increase and becomes inefficient in seas of 6' and winds of 20 knots. In adverse weather there is, however, a great deal of natural evaporation and dispersion of the spilled oil. Additionally oil disperants may be sprayed on the spill to aid in the dispersion of oil through the water column, however toxicity to wildlife is questionable.

The Critical Operations and Curtailment Plan details various conditions or circumstances which are considered critical with respect to well control and accidental discharge of oil and gas. When certain combinations of conditions and

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circumstances occur operations should be curtailed. For example drilling into a zone capable of flowing gas or oil during adverse sea and weather conditions limits the effectiveness of any oil spill cleanup equipment should a problem arise.

Oil Spill Contingency Plans must outline the equipment available for response to an oil spill and the action to be taken. Typically, a three tiered response is envisioned:

- Initial, equipment aboard the drilling vessel or a dedicated small cleanup boat;

- Second, Clean Sea Inc. cooperative, deployment of additional equipment;

- third, calling into action the U.S. Coast Guard Pacific Strike Team and their associated equipment.

Response time to a spill event is critically important. The equipment aboard a drill vessel and auxilliary boat is available immediately. However, because the Clean Seas Inc. vessels "Mr. Clean" I & II are based at Santa Barbara and Port San Luis, response times would be 6 to 9 hours, the minimum expected for the U.S.C.G. Strike Team response. A more realistic time frame for equipment to be in the water is 24 hours.

The following is a brief discussion of oil spill abatement and cleanup capabilities in the Pt. Conception - Pt. Arguello area. The term "Abatement" includes prevention of spills as well as the containment of spilled oil.

PREVENTION:

Prior to the drilling of any well on State lands, the lessee is required to submit a detailed drilling proposal to the State Lands Commission petroleum engineering staff for review and approval. This drilling plan is reviewed particularly for compliance with the SLC's "Regulations for Oil and Gas Drilling and Production Operations on State Tide and Submerged Lands". These regulations are designed to ensure safety and minimize the potential for an oil spill by requiring adequate equipment to provide control of the well at all times. Blowout Prevention is synonomous with well control and control of a well is basically a three fold process. A weighted column of mud (drilling fluid) is the primary control. The column of mud in the hole acts to control formation pressures and to prevent formation fluids from entering the well. Secondary control is by means of the casing, which is run through and cemented to the formation, thereby isolating it from the well bore and other formations. The third means of control is the blowout prevention equipment (B.O.P.E.) which provides the ability to stop fluid in the well from actually blowing out at the wellhead. The Commission requires redundancy of protective equipment on all offshore operations. Review and approval of the engineering data submitted helps insure that loss of well control will not happen and an accident such as the 1969 blowout in the federal Outer Continental Shelf area of the Santa Barbara Channel will not occur on State land.

In addition to the engineering data submitted for approval, the lessee is required to submit a Critical Operations and Curtailment Plan and an Oil Spill Contingency Plan. These are discussed in subsequent paragraphs.

The SLC regulations require that all drilling and supervisory personnel of the lessee and his drilling contractor attend a federally certified well control school. These schools usually require several days of class work including engineering theory and problem solving. Additionally each school has either a scale mock-up or full sized Blowout Prevention Equipment Simulator for hands-on experience and testing with a variety of possible problem situations. SLC engineering and field inspectors also attend these schools, when funds are available. To remain certified one must complete the full course and pass the final exam every four years with a refresher course on a yearly basis. Additional on-the-job training is furnished with actual BOP drills for each drill crew on a weekly basis. The lessee is also required to test functionally the BOP equipment each week.

Commission staff conducts rig inspections daily for safety and compliance with the SLC regulations concerning the types of equipment available for blowout control and the actual mechanical set up of the B.O.P.E. This includes observation and subsequent recommendations for various types of equipment to be present on the drill rig floor, changes in the mechanical plumbing, rig housekeeping, supplies of material on hand, such as mud weighting material (increases drilling mud weight for well control), and safe practices by the rig crew, to name a few. Additionally, various operations are witnessed by State inspectors, such as casing, cementing and production testing for adherence to regulations and the gathering of information.

Any production operation would also be similarly reviewed and approved. These facilities would be inspected by SLC field personnel as part of their daily monitoring of lease operations.

CRITICAL OPERATIONS AND CURTAILMENT PLANS

The SLC regulations require that lessees file with the Staff, for approval, a Critical Operation and Curtailment Plan that will be followed for each exploratory well. A separate plan is to be filed for both developmental drilling and for production well work. The purpose of this plan is to provide additional precautionary measures to minimize the likelihood of an oil spill incident occurring when weather and sea conditions make oil spill containment and recovery equipment ineffective and transportation is hampered.

Certain operations performed in drilling and production well work are more critical than others with respect to well control and accidental discharge of oil and gas. This is particularly so when subsurface formations are exposed in the well that are capable of flowing oil and gas to the surface or when the well has been pressured by outside means. It is these critical operations that should be stopped, limited or not begun in order to minimize the likelihood of an oil spill occurring during adverse weather and sea conditions which could seriously impede both well control and oil cleanup efforts.

A list of critical drilling and production well work that is likely to be conducted on a lease would include, but not be limited to:

(1) Drilling in close proximity to another well.

(2) Drilling into a known lost circulation zone or into a zone capable of flowing oil and/or gas.

(3) Continuation of drilling into zones that are suspected to be capable of flowing oil and/or gas or into zones suspected to be abnormally pressured.

(4) If zones capable of flowing oil and/or gas are

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exposed or suspected to be exposed in the well then the following are considered to be critical operations:

a. Pulling out of the hole.
b. Fishing operations.
c. Drill-Stem testing.
d. Wireline logging in open hole.
e. Running casing.
f. Cutting and recovering casing.
g. Perforating casing.
h. Well completion work.
i. Remedial well work.
j. Well stimulation.

A list of circumstances or conditions under which critical operations should be stopped, limited or not begun takes into account such considerations as:

(1) Whether or not well operations are being conducted from a mobile rig or a fixed structure.

(2) Adverse meteorologic or oceanographic conditions exist or are anticipated soon.

(3) Limited availability and capability of oil containment and cleanup equipment.

(4) Significant increase in oil spill control system response time for any reason.

(5) Personnel or equipment for conducting a

particular critical operation are not available.

(6) Insufficient supply of drilling mud materials on the drill site for emergency well control purposes.

(7) Transportation equipment for personnel, supplies and oil spill containment and cleanup equipment is not readily available.

(8) Construction and maintenance work involving welding, moving heavy equipment, etc. is being performed.

(9) Other factors peculiar to the particular lease under consideration.

OIL SPILL CONTINGENCY PLANS

Poor engineering caused "the blowout" in federal waters in 1969. Adherence to the SLC regulations and good engineering practices would prevent a possible recurrence of this type of event. However, no matter how well engineered a project is, there is the potential for some kind of pollution incident. These range from very minor spills to those of major proportion. There have been no significant incidents in State waters involving exploration/production activities. Nevertheless, lessees are required to submit for approval by staff, an oil spill contingency plan for their particular lease(s). These plans outline corrective action for abatement and clean up of minor and major spills in the ocean. Spills larger than 10-15 barrels are considered major because typical initial response oil spill containment equipment cannot control more than this and therefore secondary response equipment would have to be requested. The plans provide equipment lists and locations and personnel to be contacted as well as actions to take in various incidents. These contingency plans are typically reviewed by other agencies such as the Division of Oil and Gas, California Coastal Commission, the U.S. Coast Guard, and federal Minerals Management Service.

There are various other levels of contingency planning which will come into play depending on the size of a particular spill incident. These include an oil spill cooperatives' spill contingency plan. Cooperatives are entities formed by various consortia of oil companies, dedicated to spill control and cleanup whether it be in harbor or in the open ocean. Clean Seas Inc. is the cooperative that is responsive in the Santa Barbara Channel including the proposed lease area.

In addition to the individual oil spill contingency plans of the various cities and counties along the coast, the State also has an Oil Spill Contingency Plan. This plan is presently being revised under the review of the State Interagency Oil Spill Committee (SIOSC) by a contractor selected by the Department of Fish and Game and funded with monies administered by the California Coastal Commission. This plan will detail the capabilities of each of the agencies in regard to a major oil spill. As outlined in the State Oil Spill Contingency Plan, SIOSC consists of the State Operating Authority (Deparment of Fish and Game) as Chairman, and a representative and alternate from, and appointed by the head of, each of the following agencies:

Attorney General
California Highway Patrol
California National Guard
Department of Conservation
Department of Fish and Game
Department of Health
Department of Transportation
Department of Parks and Recreation
Department of Water Resources
Department of Forestry
Office of Emergency Services
State Lands Commission
State Water Resources Control Board

SIOSC is responsible for:

(1) Establishing and maintaining liaison with federal, local and public and private organizations engaged in oil pollution and prevention and control.

(2) Coordination between State agencies and other organizations in day to day procedures and practices relative

to the prevention and mitigation of pollution from oil discharges.

(3) Recommending necessary research and development, and testing by appropriate organizations of materials, equipment and methods related to oil spill prevention and control.

Testimony at the Commission's November 29th meeting suggested that funding is needed to improve the revision of the plan. Although the revision has been funded through the California State Coastal Commission, there are insufficient funds to carry out studies identified by the Department of Fish and Game as being necessary to mitigate potential risks from increases in offshore oil development. Three areas of funding need have been identified.

First, funding to allow for oil spill response drills for the members of the State Interagency Oil Spill Committee is needed. The State Oil Spill Contingency Plan is currently being revised and the new plan will likely recommend drills and exercises periodically throughout each year. An available fund to allow for a realistic exercise to the location of a simulated spill by the appropriate State Agencies would enhance participation by all member agencies. This funding should be renewable annually in order to maintain response members of the State Interagency Oil Spill Committee in a state of readiness to react to a major spill. Preparation of the exercise would take 6 to 8 weeks and the exercise would take two days to complete plus one day for a critique.

Second, the Department would like to see a biological inventory of organisms present during an entire one year annual cycle in the proposed area of the lease. The steps involved in a study such as this would include documentation of existing literature to determine known factors, then observations and testing in the marine shoreline and offshore areas for one annual cycle to validate the literature review and identify new information about the living resources. This would be an extensive study and require funding a project leader, staff and equipment to complete the study. A probable time period would be two years for this project. This suggestion is consistent with recommendations made by the scientific panel which reviewed the Commission's Benthic Characterization Study.

Finally, funding is required to support an evaluation of chronic toxicity of oil, oil dispersants and oil dispersants mixed with oil. This study could be conducted under contract to the Department of Fish and Game Water Pollution Control Laboratory. The industry could recommend the most likely dispersants to be used in the event of oil spills. This project would take one year to complete.

OIL SPILL CONTAINMENT AND CLEANUP EQUIPMENT:

At the outset it should be stated that available technology is not capable of controlling a major oil spill under adverse conditions. Weather actually determines if a containment and cleanup action will be undertaken at all. Heavy fog and darkness virtually eliminate the use of any equipment because the oil cannot be seen on the water. Waves in excess of six feet and/or winds of 20 knots or more reduce the efficiency of all equipment to nothing. It should be noted that in weather conditions of this sort the risk of injury to deployment personnel is considerable and therefore safety warrants waiting for better conditions. However, under these sea and wind conditions, natural evaporation and dispersion of the oil will eliminate a great deal of the oil spill. Small spills are dispersed to the point that a sheen cannot be detected on the water.

Presently 17 chemicals are licensed for use in California waters in controlling or dispersing oil. Exxon's Corexit 9527 dispersant is by far the most abundant of the chemicals on hand. Dispersants can be sprayed using aircraft when weather and sea conditions would make other spill control equipment ineffective. But, there remains some question as to toxicity to wildlife. Even though these chemicals have been licensed and toxicity studies on them completed, there is no information as to the toxicity of the combination of oil and the chemicals. As noted above, the Department of Fish and Game would like research conducted on this aspect of the use of dispersants.

Weather and the sea states are not always bad and so equipment will function in many cases. Assuming that leasing has already taken place in the Pt. Conception - Pt. Arguello area, the following equipment would be available to combat a major spill from drilling operations in the Pt. Conception -Pt. Arguello area:

Initial Response: The drill vessel or a dedicated oil spill control vessel assigned to that drill vessel is required to have:

- -1500' of oil containment boom
- -an oil skimming recovery device (typically stationary)
- -licensed chemical dispersants
- -sorbent material to remove 15 bbls. of oil
- -a boat that is to be available within 15 minutes, to help deploy the boom

This equipment should be able to contain and cleanup a spill of less than 10-15 bbls. of oil in seas of less than 2 feet and calm winds. In seas of 2 feet and increasing winds, oil spill equipment efficiency starts to decrease; at 6 feet and

20 knots of wind, efficiency is zero. If the spill is larger, Clean Seas Inc. will be called for assistance. In fact, Clean Seas would probably be called with a 10-15 bbl. spill as a matter of routine backup for the drill vessel's response.

Secondary Response: Clean Seas Inc. has a large amount of equipment (See Clean Seas Inc. Oil Spill Clean Up Manual) stored in various locations for call out if the drilling vessels cannot handle a spill. Some of that equipment is enumerated below:

1. Containment Booms: numerous types of containment booms in their inventory including Vikoma, Kepner, Goodyear, Expandi and Bottom-Tension. Primary offshore reponse is with the Expandi 4300 and the Goodyear booms. The Bottom-Tension is very sturdy and is also for open ocean use, but it is outdated and probably will not be used because of the long time required to deploy it. The other booms are stored in vans at various locations including Pt. Dume, Port Hueneme, Ventura, Carpenteria, Santa Barbara, Gaviota, Avila Beach, and Morro Bay. For the most part the booms stored in the vans are for the protection of shoreline areas such as sloughs, harbor entrances, and environmentally sensitive

areas, etc.

2. Skimmers: numerous types of skimmers are available including the CSI, Mark II, Komara, Floating Weir, Acme Weir, Cyclonet, Oil Mop, ODI Skimming Barrier, and Walosep. Proven open ocean skimmers include the ODI, Cyclonet, and the Walosep (the Walosep is stationary, the ODI and Cyclonet are advancing types). The others are less than effective in anything other than calm seas, therefore they are stored in the vans, mentioned above, for shoreline protection. Advancing skimmers can be moved through a spill to pick up oil, the stationary ones basically wait for oil to be collected within a spill boom and then pick up the oil.

3. Dedicated Vessels: Clean Seas has two vessels (130' class) that are totally dedicated to pollution control and clean up. The vessels, "Mr. Clean I" and "Mr. Clean II" are assigned to Santa Barbara Harbor and Port San Luis respectively. "Mr. Clean I" has a Cyclonet 100 (advancing type) and a Komara Skimmer

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(stationary) and will have a Walosep skimmer (stationary) by February, 1983; Vikoma, Expandi, and Goodyear booms; container for approximately 2000 bbls of fluid; 10 bbls of dispersant and application equipment; and assorted sorbent materials and boats for aid in boom deployment. "Mr. Clean II" has Walosep and ODI skimmers; Vikoma, Expandi, and Goodyear booms; storage for about 2000 bbls; 5-10 bbls of Exxon #9527 Corexit dispersant and applicator; sorbent material; and small boats for aid in boom deployment.

Response time for each of these two vessels from their current locations to the middle of the proposed lease area is a minimum of six hours, assuming all goes as planned. In a recent practice drill it took "Mr. Clean I" two hours to arrive on scene for a simulated spill approximately 10 miles from its base. This included approximately one hour for crew assembly. The proposed lease area is at least 60 miles from the home ports of each of the dedicated vessels.

<u>Tertiary Response:</u> If Clean Seas could not contain the spill, there are three contractors in Southern California; Crowley Environment Services, IT Services, and Crosby and Overton that

could be called in to assist. These three possess large amounts of equipment, primarily used for harbor cleanup, each has some capability to respond to the lease area, but response times would be long. The most likely tertiary response would be the U.S. Coast Guard Pacific Strike Team. It would be called in from its Hamilton AFB home in Northern California. With its deployment comes vast quantities of equipment. The equipment could be flown in, most likely to Vandenberg AFB and then trucked to the shore for deployment. A very optimistic response time would be six hours for the arrival of equipment at Vandenberg AFB after the call out. The strike team can only be activated by the Coast Guard On-Scene-Coordinator. This officer would, in this area, be most probably, from the U.S.C.G. Marine Safety Detachment,'Santa Barbara. Therefore his transit time to the spill scene must also be considered. A reasonable guess for the Strike Team actually to have gear in the water is probably 24 hours from the initial time of the spill.

Approximate Response Times for various groups to the Lease Area are as follows:

Drilling vessel/dedicated vessel -	1 hr.
Clean Seas Inc. "Mr. Clean" I - or II	6-8 hrs.
U.S.C.G. - Santa Barbara- boat (no spill equipment)	3 hrs.
U.S.C.G. -Los Angeles Air Station-	2 hrs.

Helicopter

U.S.C.G. - Pacific Strike Team*	6-24 hrs.
SLC - Contract helicopter from Van Nuys with personnel from Long Beach	2-3 hrs.

These response times are obviously unacceptable. Therefore, we recommend that a fully dedicated vessel of the "Mr. Clean" type for oil spill response be outfitted and stationed in the Pt. Conception/Pt. Arguello area, and that a tertiary capability with a much more rapid response time be established.

SUMMARY AND RECOMMENDATIONS

Available oil spill containment and clean up equipment functions very well in calm seas and weather. When waves reach 2' (equipment will easily operate in long period swells; wind chop is the problem) the efficiency of the equipment starts to deteriorate. When waves reach 6' and winds are 20 knots or greater, oil spill containment and clean up equipment is not effective. Therefore critical operations aboard a drilling vessel should either be shut down or not initiated in these conditions.

*This call out requires a U.S.C.G. on-scene-coordinator who, most probably will arrive aboard their boat from Santa Barbara or the helicopter from Los Angeles.

In view of the slow response time for secondary and tertiary spill equipment to arrive in the Pt. Conception - Pt. Arguello area, there is a clear need for a dedicated spill control vessel to be located in the lease area. This should be arranged through Clean Seas Inc. and consist of a vessel similar to "Mr. Clean" I or II. One possible location would be near the old Coast Guard ility at Pt. Arguello. Alternate locations could be Cojo Bay or Gaviota. With a dedicated vessel based in one of these locations, secondary response time would be reduced to 2 hours or less. Costs would be approximately $1,000,000 for initial outfitting of this vessel for the first year. The costs would be borne by the 15 members of Clean Seas Inc., a rather small figure for the increased protection afforded.

Funding should be provided for the establishment of a tertiary oil spill containment capability with a response time of 4 hours. Annual funding should be provided to allow for semi-annual oil spill response drills for the members of SIOSC ($300,000/yr).

A biological inventory including marine mammals should be funded to cover a full annual cycle. Documentation of existing literature should be made along with observations and testing in the nearshore and offshore areas to validate the literature. New information about the living resources should

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be identified ($1,000,000).

Further research on the effect of disperants and oil on wildlife should also be funded since they are the only usable tool in times of rough weather ($200,000).

TABLE 1

GROUP	TIMING	TRACTS	CONDITIONS	BID FACTORS	OTHER
1. GOVERNMENT					
A. Assemblyman (Senator-Elect) Gary Hart	The timing of any SLC action should consider related OCS activities. * No leasing should occur until the completion and evaluation of the biological study.		The proposed stipulations should be strengthened.		The State should consummate, as soon as practicable, "drainage agreements" provided by the OCS Lands Act amendments of 1978.
B. U.S. Air Force					The U.S. Air Force may need to "require" the exclusion of all surface structures and activities within 3 nautical miles of Pt. Arguello (Tracts 6-8) due to activities of Vandenburg Air Force Base but are otherwise unopposed to rest of sale provided military stipulations are included as presented.
C. Santa Barbara County					The County stated that a "formal" response to the subjects of the hearing was not possible due to the length of the notice period, but reiterated their opposition to the proposed lease sale.

*Indicates subject matter not covered by testimony or comments received previously by the Commission.

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TABLE 1 (cont.)

OUP( )	TIMING	TRACTS	CONDITIONS	BID FACTORS	OTHER
'UBLIC INTEREST/ ,NVIRONMENTAL ROUPS					
.. Get Oil Out, Inc.					Don't lease the area. Oil from State lands should be development via "drainage agreements" with the Federal Government.
'. Brotherhood of the Tomol (Chumash Indians)		Tracts 1-3 should .ot be leased because of the "Western Gate". No position formulated on Tracts 4-8.			
:. Bixby Ranch					Any development on State lands should not be in view of any public road or beach.
'. Environmental Defense Center, Santa Barbara Los Padres Chapter, Sierra Club					The FEIR should be de-certified because it does not adequately recognize the resources of the area, the impacts to such resources or provide mitigation for such impacts. Litigation

Indicates subject matter not covered by testimony or comments received previously by the Commission.

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TABLE 1 (cont.)

GROUP	TIMING	TRACTS	CONDITIONS	BID FACTORS	OTHER
D. Environmental Defense Center, Santa Barbara Los Padres Chapter, Sierra Club					is contemplated unless the SLC de-certifies the FEIR. The State should be a model for the Federal government but the proposed lease process is not and is in contra-diction to policies regarding Lease Sales 53 & 68.
E. Coalition on OCS Lease Sale 53-Sierra Club, Friends of the Earth, NRDC, Oceanic Society, Friends of the Sea Otter, Whale Center		Only area between 2 1 miles from shore should be considered for lease.			The area is in-appropriate for leasing and efforts should be concluded to sign "drainage agreements". Any sale should not proceed until the cumulative effects of OCS activities are litigated and known. Also were concerned about "short notice" for the hearing.

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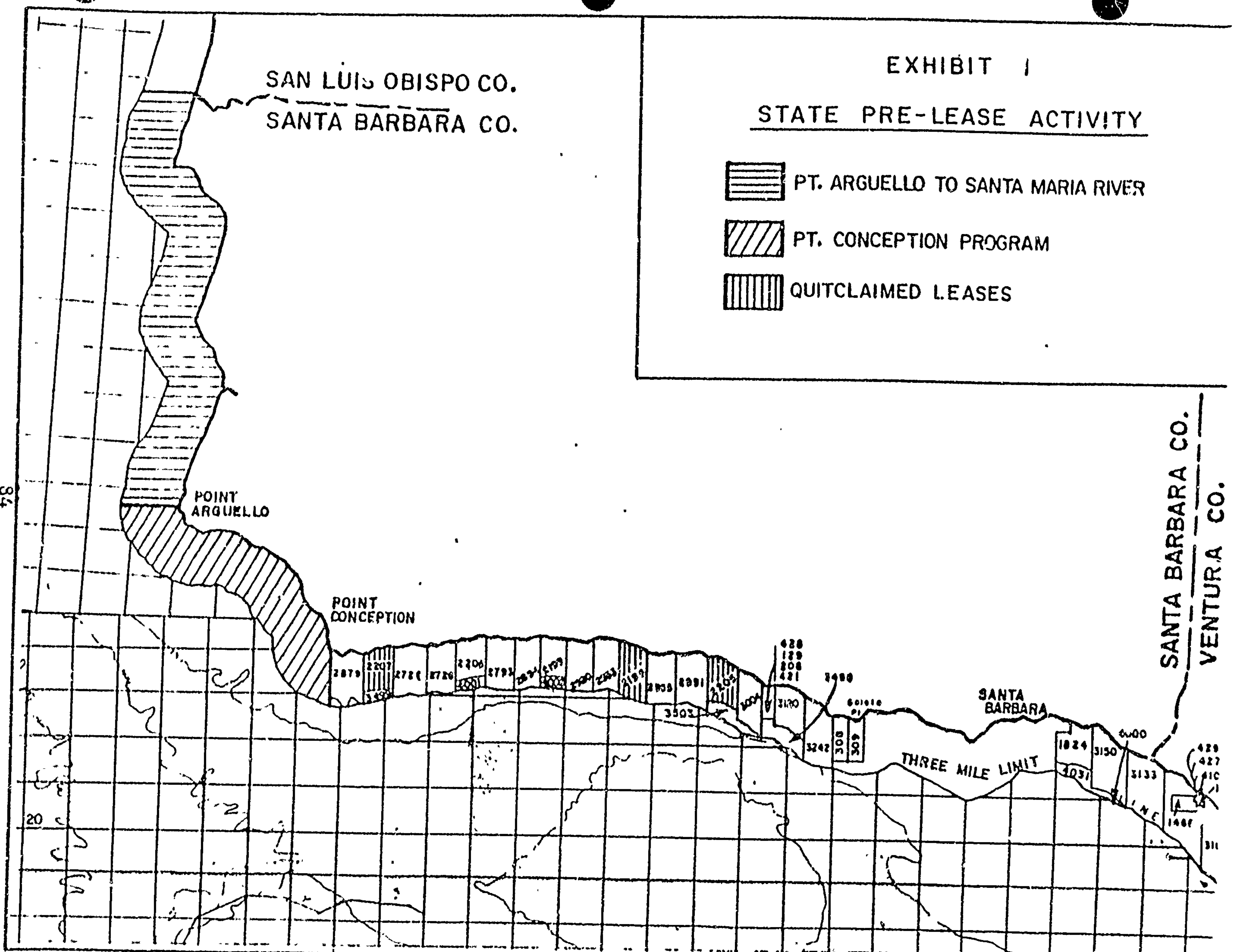
TABLE 1 (cont.)

GROUP	TIMING	TRACTS	CONDITIONS	BID FACTORS	OTHER
F. Scenic Shoreline Preservation Conference					The lease should be postponed and any oil and gas resource placed in a reserve status. Other alternatives to oil and gas use should be explored, such as conservation. Any decision to lease should occur at a public hearing in the area affected. Also concerned about "short notice" for the hearing.
3. FISHERMEN					
A. Frank Donohue					Expressed concerns regarding conflicts between oil and gas activities and commercial fishing particularly regarding underwater obstructions. Suggested the establishment of a fund to compensate fishermen for equipment lost or damaged due to such obstructions.

TABLE 1 (cont.)

GROUP	TIMING	TRACTS	CONDITIONS	BID FACTORS	OTHER
B. Gordon Cota-Pacific Coast Federation of Fisherman's Association					Same as 3A.
*4. OIL AND GAS INDUSTRY					
A. Chevron U.S.A., Inc.	Tracts should be put out to bid in early 1983.	All eight		Bonus bid, fixed royalty.	
B. Ogle Petroleum	Bids should be required to be submitted by the third quarter of 1983.	All eight		Bonus bid, fixed royalty.	
C. Champlin		All eight	Lessees should have more say in the application and conduct of the stipulations. Other changes also suggested to eliminate or lessen stipulations.	Bonus bid, fixed royalty.	
D. Getty Oil	Same as B above	All eight		Bonus bid, fixed royalty.	

*Indicates subject matter not covered by testimony or comments received previously by the Commission.



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