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W 15b

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REGULAR CALENDAR : STAFF RECOMMENDATION

Permit Number: **E-95-9**

Applicant: **Phillips Petroleum Company**

Agent: E. E. Morton, III, Morton Associates, Inc.

Project Description: Abandon four subsea completion gas wells (Well Nos. 2, 3, 7 and 8); remove the wellhead from a previously abandoned well (Well No. 4A); and remove/abandon-in-place 27 flowlines in State waters (PRC 2933 and 2198), 9,500 to 15,000 feet offshore of Tajiguas Canyon, Santa Barbara County (Exhibit 1).

Approvals Received: State Lands Commission certified EIR No. 663 (No. 94121042) and approved the Santa Barbara Channel Subsea Well Abandonment and Flowline Abandonment/Removal Program, October 17, 1995.

Substantive File Documents: See Appendix A.

SYNOPSIS

Phillips Petroleum Company ("Phillips") proposes to (1) abandon permanently four subsea completion gas wells (including removal of the wellheads) (Well Nos. 2, 3, 7, and 8); (2) remove the wellhead from a previously abandoned well (Well No. 4A); and (3) remove/abandon-in-place 27 flowlines (six flowline "bundles") in State waters (State oil and gas leases PRC 2933 and 2198), 9,500 to 15,000 feet offshore of Tajiguas Canyon in Santa Barbara County (Exhibit 1).

Table 1. Issue Summary: Potential Impacts and Proposed Mitigation Measures/Conditions

Significant Issue Area	Proposed Mitigation Measures/Special Conditions/Other
Oil and Gas Spills	**Issue:** An oil or gas release could occur from: (1) a well blowout; (2) rig-vessel collision; or (3) flowline rupture or leak. **Mitigation Measures:** • Phillips will equip every well with a blowout prevention system prior to well abandonment activities. • In 1990, Phillips pigged and purged with fresh water all flowlines. **Special Condition 3** requires that the flowline contents be tested for oil and grease content. The flowlines are not to be cut until the oil and grease content is below 30 ppm. • After Phillips completes a pre-abandonment survey (**Special Condition 5**) of the work area, and before commencement of project activities, Phillips is to submit and implement a Final Anchoring Plan (**Special Condition 6**) that includes (1) anchoring procedures and locations, and (2) anchor preclusion zones (areas where oil and gas subsea infrastructure exists). • **Special Condition 4** requires Phillips to maintain an oil pollution seep tent on the standby vessel during all offshore flowline cutting and removal activities. • Phillips will maintain a designated standby vessel at the project site at all times equipped with 2,000 feet of boom, an 18-foot boom boat, skimmer and absorbent pads. Phillips is also a member of the Clean Seas oil spill cooperative.
Commercial/ Recreational Fishing	**Issue:** The project could result in the following economic impacts to commercial fishermen and sportfishing groups: (1) jack-up rig placement will temporarily preclude fishing in the work area, and (2) removal of the wellheads will result in a reduction of artificial structures at which certain commercial and sportfishing occurs. The Central Coast Hook and Line Fishermen's Association, has requested that either (1) the wellheads structures be abandoned-in-place; or (2) the well operators build new deep water reefs to replace the wellheads. **Mitigation Measures:** • Phillips will comply with all established vessel traffic corridors and oil service support corridors while in the Santa Barbara Channel. • Local fishermen will be notified of project activities via a Notice to Mariners and through Joint Oil/Fisheries Committee notification procedures. • Phillips and the other well operators have agreed to pay compensation to commercial hook and line fishermen for documented loss of catch associated with areal preclusion caused during rig operations at the well locations. **Other Issues:** • The Commission finds that abandoning the wellheads in place is not a "feasible" project alternative. *(See section 4.3.2 of these findings.)* • The Commission does not believe that the well operators should be required to provide mitigation for economic impacts to commercial/recreational fishermen due to the removal of wellheads placed on the seafloor for the sole purpose of oil and gas production, not fisheries enhancement. The fishermen and sportfishing groups that successfully fish at these wellhead sites have over the years derived an incidental economic benefit from the placement of these structures on the seafloor. SLC lease provisions are expressly clear that these wellheads and other oil and gas structures are to be removed upon termination or relinquishment of the leases. *(See section 4.5.3.3 of these findings.)*

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director. Phillips shall submit to the executive director for review and approval the work plan for the pre-abandonment survey prior to its implementation. The pre-abandonment survey shall include but not necessarily be limited to: (1) quantification of kelp plant abundance by species, age class (i.e., new recruit, juvenile or adult) and location (i.e., on or off the flowlines) in a corridor centered over the flowline bundles and a nearby control area of the same size; (2) quantification of the number of stipes of each giant kelp (*Macrocystis pyrifera*) plant encountered during the survey; (3) the location, areal extent and physical characterization (i.e., high or low relief, sand-covered, etc.) of hard bottom habitat within the project's impact zones; (4) estimates of diversity and abundance of (a) benthic species and (b) fish associated with hard bottom habitat in the project area; and (5) the burial status of the flowline segments that are proposed to be abandoned-in-place.

Within 45 days of completing the pre-abandonment survey, Phillips' consultant shall submit directly to the executive director a written report describing the results of the pre-abandonment survey. The executive director may for good cause grant an extension of this deadline provided that Phillips submits a written request for an extension that includes reasons for the extension and a revised timeline for submitting the pre-abandonment survey.

6. After the pre-abandonment survey is completed and prior to commencement of project activities, Phillips shall submit to the executive director for review and approval a Final Anchoring Plan that includes (1) anchoring procedures and locations; and (2) anchor preclusion zones (i.e., areas where the pre-abandonment survey identified the presence of hard bottom, kelp and subsea oil and gas infrastructure (e.g., flowlines)).

7. Within 30 days of project completion, Phillips' consultant (approved under Special Condition 5) shall complete a post-abandonment survey of the offshore project area. Phillips shall submit to the executive director for review and approval the work plan for the post-abandonment survey prior to its implementation. The post-abandonment survey shall: (1) identify the location and quantify the extent (i.e., number of square feet) of any disturbance to hard bottom areas caused by project operations; (2) identify the location and quantify the extent of any damage to kelp plants caused by project operations; and (3) verify that the project area is free of debris.

   Within 45 days of completing the post-abandonment survey, Phillips' consultant shall submit directly to the executive director a written report describing the results of the post-abandonment survey and an analysis of pre- and post-abandonment survey results to derive net project impacts to hard bottom habitat and kelp resources. The executive director may for good cause grant an extension of this deadline, provided that Phillips submits for approval by the executive director a written request for an extension that includes reasons for the extension and a revised timeline for submitting the post-abandonment survey.

8. Phillips shall compensate for all project-related adverse impacts to hard bottom habitat through payment of a compensatory hard bottom mitigation fee to be used to construct a

To abandon each of the 23 subsea wells, the well operators propose to bring a single, shared jack-up rig[1] to the Santa Barbara Channel. Under this approach, only a single rig mobilization to the Santa Barbara Channel region will be required, thereby reducing environmental impacts and lowering the costs each individual operator would incur should independent rig mobilization be pursued. At present, there is no such rig located on the western coast of the United States. The operators have not yet contracted for a drilling rig[2]. However, for purposes of environmental review, the well operators chose a representative jack-up rig, the *Glomar Adriatic VIII*, as the type of rig to be used for well abandonment.

The rig will most likely be "dry-towed" into the Santa Barbara Channel on board a long-distance, heavy-lift vessel. Upon reaching the Santa Barbara Channel, the jack-up rig is to be floated and towed by support vessels to its destination. The jack-up rig will be supported by two workboats, one standby vessel, one tug/anchor assist vessel and one crewboat. The operators plan to abandon the 23 wells in geographic sequence, if feasible, from west-to-east. The well abandonment phase of the overall project is estimated to take 12 months to complete.

Three of the operators, ARCO (PRC 2199), Phillips (PRC 2933) and CalResources (PRC 2920), propose also to remove/abandon-in-place 47 flowlines (or "pipelines") that extend from wellsites to onshore processing facilities. The flowline abandonment/removal phase involves (1) abandonment-in-place of flowlines in the subtidal zone; and (2) removal of flowline segments in the nearshore shallow intertidal zone (shoreward from the 15 foot water depth).

4.1.2 Separate Coastal Development Permit Applications

Although the six offshore well operators are contracting jointly to bring a single jack-up rig to the Santa Barbara Channel as a means to abandon the 23 subsea wells, the well operators consider each company's well abandonment and flowline removal/abandonment activities to be separate projects. The six companies have submitted a total of seven individual coastal development permit ("CDP") applications for each company's respective well and flowline abandonment/removal activities. This staff report evaluates Phillips' project only.

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[1] A jack-up rig is a mobile, floating well-drilling platform that is designed to operate in shallow water generally less than 360 feet deep. Jack-up rigs have a flat-bottomed hull that is supported by a number of lattice or tubular legs. When the rig is under tow to the drilling location the legs are raised. On arrival at the drill site, the legs are lowered by electric or hydraulic jacks until they rest on the seabed. The platform is then jacked up above the ocean surface to provide a stable working platform.

[2] The well operators plan to contract for a specific jack-up rig after all necessary discretionary permits for the Subsea Well Abandonment Program have been obtained.

4.2.2 Phase II - Flowline Abandonment/Removal

Phillips' 27 flowlines extend northeast from Well Nos. 1, 2, 3, 4A, 7 and 8 on State lease PRC 2933 and terminate onshore at the abandoned Tajiguas processing facility. Each flowline ranges in length from 12,800 - 14,800 feet.

During Phase II of the project, Phillips proposes to abandon-in-place segments of the 27 flowlines that extend from the wells to a point approximately 600 feet from shore on adjacent State lease PRC 2198 (Exhibit 1). Also proposed for in-place abandonment is a single gas flowline (2100 feet in length) that extends between Wells Nos. 7 and 8 (Exhibit 1). Four of the flowline bundles (21 flowlines) are associated with Phillips' Molino gas Well Nos. 2, 3, 7 and 8, which are proposed as part of Phillips' application to be plugged and abandoned. The other two pipeline bundles (six flowlines) are associated with gas Well No. 4A and previously-abandoned injection Well No. 1. To abandon-in-place the offshore sections of flowlines requires a workboat to be staged at each wellhead to cap the lines with blind flanges.

Phillips proposes also to remove the flowline segments (about 300-400 feet) that lie within the intertidal and shallow subtidal zones (shoreward from the approximately 15 foot water depth) near landfall at the Phillips Tajiguas site, located in State lease PRC 2198 (Exhibit 4). The flowlines originate at a seawall (which is located at the mean high tide mark) (Exhibit 1). Onshore, the flowlines extend below the beach surface and remain buried until they reach a point 130 feet from the seawall. All excavation associated with flowline removal will occur in the sandy intertidal area (seaward of the seawall). An estimated 15 to 120 cubic yards of sand will be excavated seaward of the seawall, depending on the site conditions at the time of pipeline removal. Due to beach scouring during months of heavy surf (typically November-March), the lines may be completely exposed or buried less than 1-2 feet. During months of light surf (typically April-October), higher sand accumulation occurs, and the lines may be buried up to four feet at the seawall, and exposed again in the lower intertidal area. The distance of the exposed beach spanned by the pipelines varies daily with tides, from zero feet at mean high water, to about 50-60 feet at mean lower low water.

Onshore, the sand overlying the flowlines will be excavated between the base of the seawall and the waterline, during periods of low tide. Flowline sections will be severed from the base of the seawall, the seawall will be capped, and the flowline sections will be removed. A single wheeled excavator will be used for this work. The excavator will enter and exit the work area via the existing Arroyo Quemada access road and be parked overnight along an existing paved access road that parallels the former onshore gas facility site. No equipment will be staged on the beach between work shifts. No project-related activities are proposed on the bluff above the seawall.[4]

[4] The exposed pipes located on top of the seawall will be mechanically cut and manually removed later as part of Phillips' separate proposal to abandon the Tajiguas gas processing facility.

communication with Phil Schenck, Central Coast Hook & Line Fishermen's Association, December 15, 1995). Another option is to abandon the wells as proposed by the well operators (which requires that the wellheads be dismantled and cut at the mudline) and place the wellheads on the seafloor next to the abandoned wellbore. The Association maintains that the economic livelihood of hook and line fishermen in the Santa Barbara Channel area is dependent in part on fishing at these wellhead sites. These potential "wellhead-to-reef" project alternatives are described and evaluated below.

4.3.2.1 Slant-Drilling/In-Place Abandonment of Wellheads

The Association proposes that the well operators permanently abandon their subsea wells via the use of slant drilling and leave the wellhead structures in place and undisturbed as a "fish sanctuary" for the benefit of commercial hook and line fishermen and sportfishing groups (personal communication with Phil Schenck, December 15, 1995 and letter (undated) from Phil Schenck to the Coastal Commission (received on February 20, 1996)) (Exhibit 5).

After investigating this project alternative, the Commission finds that it is not a "feasible" project alternative as defined in the Coastal Act (*PRC section 30000 et. seq.)*. Coastal Act section 30108 defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

According to the California Department of Oil and Gas and Geothermal Resources ("DOGGR"), the agency responsible for regulating well abandonments, slant drilling is not a "feasible" technique to abandon properly a vertically-drilled well such as those proposed for abandonment in the Subsea Well Abandonment Program (personal communication with Bill Winkler, DOGGR, January 11, 1996). To properly and permanently seal a drill pipe in a conventional (vertical) well requires plugging directly through the wellbore, not slant drilled via a new wellbore. Also, while slant drilling has been used in the past to control a well blowout (such as the 1969 Platform A blowout), its use is technically difficult and extremely expensive (2-3 times more costly than conventional well abandonments).

Also, to obtain State Lands Commission ("SLC") approval for such a "wellhead-to-reef" project would require an agency like the California Department of Fish and Game ("CDFG") (which administers the California Artificial Reef Program) or a group like the Central Coast Hook & Line Fishermen's Association to take ownership of the wellhead structures and indemnify the well operators against all costs and liabilities connected with the wellheads (personal communication with Dwight Sanders, SLC, January 1996). The CDFG staff has informed the Commission staff, however, that it is not interested in assuming ownership of and liability for such a "wellhead-to-reef" project (personal communication with Dave Parker, CDFG, January 1996). The Central Coast Hook & Line Fishermen's Association have no financial resources available to it that would permit the group to assume the ownership of and liability for the abandoned wellhead structures (personal communication with Phil Schenck, Central Coast Hook & Line Fishermen's Association, February 27, 1996). The Commission therefore finds that this "wellhead-to-reef" concept is not a "feasible" project alternative.

4.4.2 Regional Water Quality Control Board - Central Coast Region

The Central Coast Regional Water Quality Control Board regulates marine water quality in the subsea well abandonment project area. The well operators, ARCO, Chevron, Phillips, CalResources, Texaco and Unocal each propose to discharge up to 225,000 gallons per day of treated sanitary wastes, kitchen and laundry graywaters, deck washdown water and desalination plant brine into the Pacific Ocean. Each applicant has chosen to individually report waste discharges to the Central Coast RWQCB and apply for an individual National Pollutant Discharge Elimination System ("NPDES") permit. The Central Coast RWQCB has issued Draft Proposed Order No. 95-68 (NPDES Permit No. CAG283001) for Phillips' proposed discharges associated with its subsea well abandonment project. Order No. 95-68 is described in more detail in the "Water Quality Impacts" section of this report. **Special Condition 2** requires Phillips to submit to the Commission's executive director prior to construction a copy of the Final NPDES permit.

4.4.3 County of Santa Barbara Air Pollution Control District (APCD)

The County of Santa Barbara Air Pollution Control District ("APCD") is the local air district responsible for implementing federal and state air quality standards in the Subsea Well Abandonment Program area. APCD Rule 202.C.2.g exempts from permit requirements piston type internal combustion engines on work-over rigs when the engines are used for the repair, work-over, maintenance or abandonment of wells. The engines on the jack-up rig and support vessels qualify for this exemption. Consequently, on July 25, 1994, the APCD determined that Phillips' project is exempt from APCD permit requirements (Exhibit 10).

However, in a November 13, 1995 letter to the Coastal Commission staff, the APCD states that notwithstanding its exemption from current APCD rules and regulations, the Subsea Well Abandonment Program will generate significant Class I air impacts that, if not properly mitigated, will be inconsistent with the County of Santa Barbara's adopted 1994 Clean Air Plan (Exhibit 11).

In response to the concerns raised by the APCD, Phillips and the other well operators have agreed to an "Emission Reduction Agreement" that includes providing the APCD with $748,750 (of this total, Phillips is to pay $204,605) that, in combination with other APCD funds, will be used to fund programs (such as retrofitting trawling vessel engines) to mitigate the short-term air quality impacts of the Subsea Well Abandonment Program (Exhibits 12 and 13). (*The "Emission Reduction Agreement" is described in more detail in section 4.5.4 of these findings.*)

4.4.4 U.S. Army Corps of Engineers

On April 25, 1995, the Los Angeles District of the U.S. Army Corps of Engineers ("ACOE") conditionally approved Provisional Permit 94-50910-MSJ for the proposed project pursuant to Section 10 of the River and Harbor Act of 1899 (*33 U.S.C. 403*) and Section 404 of the Clean Water Act ("CWA") (*33 U.S.C. 1344*). Section 10 of the River and Harbor Act regulates the

event a well blowout occurred during abandonment, no more than 441 bbl/day of hydrocarbon is expected to be released during a free flow condition. Allowing seven days to control the well results in a potential hydrocarbon release of 2,898 barrels.

Phillips' risk and hazard assessment concludes that an offshore hydrocarbon spill in the project area has the potential to foul the coast within nine nautical miles of its source within six hours. In spring and summer, prevailing winds and currents would tend to drive the slick to the east, onto the beach. In the fall and winter a slick would tend to go west. Under conditions of moderate southerly winds, a spill from the jack-up rig would reach the beach within 3-4 hours. It is also possible that a spill could reach the Channel Islands, the nearest points of which are about 22 nautical miles from Phillips' wells.

4.5.1.2 Oil Spill Prevention

Section 30232 of the Coastal Act first requires the applicant to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances ...." As noted above, the proposed project could result in an accidental oil or gas release. Phillips proposes to implement certain measures to minimize the risk of a spill occurring.

Phillips' primary method of well control is its use of hydrostatic pressure (exerted by a column of drilling mud) to prevent an undesired flow of formation fluid into the wellbore. Phillips is also required by the State Lands Commission to equip every drilling well with a blowout prevention system as a secondary control mechanism to prevent an uncontrolled flow of liquids to the surface. These two measures will minimize the potential for a well blowout.

An oil or gas release could also occur from a fractured or leaking flowline. Phillips terminated all Molino field gas well production in 1990. At that time, Phillips shut-in, pigged and purged with freshwater all production and hydraulic flowlines. Flushing and cleaning the lines prior to the construction period significantly reduces the risk of spill by eliminating hydrocarbons (gas condensate or oil) in the flowlines. To verify that the lines were adequately purged of hydrocarbons in 1990, Phillips will test the content of the flowlines prior to initiating any subsea well abandonment project operations. The Commission is requiring in **Special Condition 3** that the contents of the flowlines be tested for oil and grease content at the flowline outlets. The flowlines are not to be cut until the oil and grease content is below 30 ppm. If necessary, Phillips may need to flush the flowlines again until the oil and grease content is less than 30 ppm.

The Commission is requiring in **Special Condition 6** that after Phillips completes a pre-abandonment survey of the project area, and prior to the commencement of project activities, Phillips submit to the executive director for approval a Final Anchoring Plan to be implemented during project operations that includes (1) anchoring procedures and locations; and (2) anchor preclusion zones (including but not limited to the location of subsea oil and gas infrastructure (e.g., flowlines)).

Coastal Act section 30232, which requires "effective" containment and clean-up equipment for spills that do occur, cannot be met at this time. The Commission interprets the word "effective" to mean that spill containment and recovery equipment must have the ability to keep spilled oil off the coastline. Unfortunately, the state-of-the-art is such that no equipment currently available has the capability to recover all oil from large spills and often even small spills in the open ocean.

Testing results of equipment at government research facilities in the United States and Canada have demonstrated that oil recovery equipment operates with about 50% efficiency in relatively calm waters. These tests and actual experience in the field demonstrate that recovery efficiencies decrease as the dynamics of the sea (turbulence) increases. Clean-up capabilities in the open ocean will continue to deteriorate if sea dynamics increase. All booms and skimmers available for containment and recovery are limited in their effectiveness depending on wave height and wind speed. In wind wave conditions, the containment effectiveness of boom begins to lessen at a wave height of two feet. Under conditions of significant wave heights above six feet, booms and skimmers are largely ineffective (i.e., no measurable amounts of hydrocarbons are recovered). High winds can cause some types of boom to lay over, allowing oil to splash or flow over the boom.

In addition to sea dynamics, weather conditions, characteristics of spilled oil, response time, amount of oil spilled, the availability of equipment and trained personnel all influence the degree to which a response to a spill is successful. Data from the General Accounting Office indicates that although spill response technology has improved in recent years no more than 10-15% of the oil in most major spills is ever recovered. Shoreline contamination is probable with any major spill in the area. In a much smaller spill, such as the rupture of a pipeline at the El Segundo Marine Terminal in 1991, about 25% of the estimated 660 barrels of spilled oil were recovered in spite of a rapid and large spill response.

Therefore, notwithstanding the on-site spill response equipment provided by Phillips and Clean Seas, the ability to effectively contain and clean-up an oil spill does not exist at this time. The proposed project is thus inconsistent with the second requirement of Coastal Act section 30232.

4.5.2 Marine Resources

Coastal Act section 30230 states:

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

Coastal Act section 30231 states:

Additionally, the NPDES permit sets effluent limitations in accordance with the federal Clean Water Act. The Ocean Plan limits discharge concentrations for settleable solids, turbidity, pH and acute toxicity while the Clean Water Act limits the discharge of grease and oil, suspended solids and elevation of biochemical oxygen demand due to a discharge. In part, the RWQCB's monitoring program requires Phillips to monitor daily the water flow rate and monitor weekly total coliform organism count, turbidity, suspended and settleable solids, pH, and the concentration of grease and oil.

The State Lands Commission currently prohibits the discharge of drilling fluids, solids, muds, cuttings and untreated water into State waters. Therefore, all toxic wastes associated with subsea well abandonment, such as drilling muds and cuttings, excess mud containing cement, and oily waste associated from platform deck machinery will be transported to shore and disposed of at an approved onshore site.

Additional short-term impacts to water quality could be caused by Phillips' flowline removal activities. Hydrojetting, cutting and capping of flowlines may disturb adjacent sediments resulting in a reduction in feeding ability of benthic organisms (i.e. filter feeders) and available light for photosynthesis. The increased turbidity caused by sand displacement will be localized and temporary, however.

The Commission therefore finds the project consistent with Coastal Act section 30231 which requires that "[t]he biological productivity and quality of coastal waters... shall be maintained... [through] minimizing adverse effects of wastewater discharges."

4.5.2.2 Hard Substrate

Hard substrate (or "hard bottom") areas are stable rocky substrates that provide habitat for a diverse group of plants and animals to settle, attach and grow. The species composition of hard bottom communities is largely dependent on substrate characteristics (e.g., size, texture and relief), degree of wave and current exposure, as well as light and nutrient availability. The hard bottom, rock substrate attracts a variety and abundance of fishes that exceed the diversity and numbers of fishes occurring on soft-bottom substrate. In nearshore waters, hard bottom also provides attachment substrate for various kelp species (e.g. *Macrocystis pyrifera*), typically from the edge of the surfzone to depths of 100 feet. The amount and duration of sediment cover is a major factor influencing the biological diversity of hard bottom habitats. Excessive sedimentation, which can smother benthic organisms and prevent settlement, can reduce species diversity and abundance.

The EIR characterizes the seafloor conditions at Phillips' project area as nearly flat and featureless, a soft sediment-covered shelf with scattered, irregular and seasonal low[6] - to medium-relief hard bottom outcrops (consolidated or semi-consolidated mudstone and siltstone).

[6] Storm activities and currents are known to erode and accrete nearshore sediment deposits on a seasonal basis. Low relief hard bottom is seasonally exposed and buried by a thin sediment veneer.

apparatus of hard bottom epifauna, or reducing available light for photosynthesis. However, impacts to hard bottom communities in shallow water may be minimal because organisms are more adapted to extreme variation in natural turbidity and light availability due to seasonal wave action and currents.

To assess the extent of impacts to hard bottom, the Commission is requiring in **Special Condition 5** that prior to the start of the project Phillips contract with a qualified consultant to conduct a pre-abandonment survey within the project's impact zones to identify in part the location, areal extent and physical characterization (i.e., high- or low-relief, sand-covered, etc.) of hard bottom. In **Special Condition 6** the Commission is requiring Phillips to submit to the executive director for approval a Final Anchoring Plan to be implemented during all offshore project activities that includes (1) anchoring procedures and locations; and (2) anchor preclusion zones (i.e., areas where the pre-abandonment survey identifies the presence of hard bottom, kelp and subsea oil and gas infrastructure (e.g., flowlines)).

In **Special Condition 7** the Commission is requiring that within 30 days of project completion, Phillips' consultant conduct a post-abandonment survey of the offshore area to identify in conjunction with the results of the pre-abandonment survey the location and quantify the extent (i.e., the number of square feet) of any disturbance to hard bottom areas that could not be avoided during project operations. Within 45 days of the completing the post-abandonment survey, Phillips' consultant is to submit directly to the executive director a written report describing the results of the post-abandonment survey along with an analysis of the pre-and post-abandonment survey results to derive net project impacts to hard bottom.

If a comparison of the pre- and post-abandonment surveys shows that impacts to hard bottom have occurred, the Commission is requiring in **Special Condition 8** that Phillips compensate for all project-related adverse impacts to hard bottom through payment of a compensatory hard bottom mitigation fee to the United Anglers of Southern California (UASC). The fee is to be used to construct a new artificial reef or augment an existing artificial reef in State waters within the Southern California Bight.

Special Condition 8 requires that the amount of the compensatory hard bottom mitigation fee be calculated by multiplying the total square footage of adversely affected hard bottom (as determined by comparing the pre- and post-abandonment surveys) by a compensation rate of $6.57. The compensation rate is based on the overall cost to build a new artificial reef, or augment an existing artificial reef in State waters within the Southern California Bight. The overall cost is based on the following information:

According to the terms of the MOA, the UASC is to deposit all funds in an interest-bearing account within 30 days of receipt of any fee. These funds including all earned interest shall be expended by the UASC solely for reef materials, construction costs, and the UASC's administration of the fund (not to exceed 10% of the total collected fees). The CDFG will absorb any costs associated with the planning, siting, design and permit requirements to construct a new artificial reef or augment an existing reef.

The MOA further requires:

- Within 180 days of the date on which all fees have been paid to the UASC the CDFG shall develop and submit for review and approval, by the Commission's executive director, a plan to spend the monies within the fund on either the construction of a new artificial reef or augmentation of existing artificial reef within the Southern California Bight;

- Within one year of the Commission's executive director approval of a plan to spend the compensatory hard bottom mitigation fund, the CDFG is to secure all necessary government approvals to construct a new artificial reef or augment an existing artificial reef;

- Within 90 days of either: (1) the granting of all necessary governmental approvals, or (2) approval by the Commission's executive director of a plan to spend the monies in the fund, whichever occurs later, the UASC is to secure and enter into a construction contract with a contractor to construct either a new artificial reef or augment an existing artificial reef; and

- Within two years of approval by the Commission's executive director of a plan to spend the monies in the fund, the UASC is to spend these monies to complete the construction of either a new artificial reef or augmentation of an existing artificial reef.

The Commission therefore finds that Phillips' efforts to avoid hard bottom in the project area, where feasible, in combination with payment of a compensatory hard bottom mitigation fee (for the purpose of creating a new artificial reef or augmenting of an existing artificial reef) if hard bottom is impacted during project operations (Special Condition 8), is consistent with Coastal Act section 30230 which requires that "[m]arine resources shall be maintained, enhanced, and where feasible, restored."

4.5.2.3 Kelp

A July 1995 aerial survey of Phillips' project area shows that the flowlines associated with Well No. 3 pass through approximately 300 feet of kelp bed between a distance of 500 to 800 feet from shore. Flowlines associated with Well Nos. 2 and 4A appear to be completely clear of kelp. The nearest kelp to Well Nos. 7 and 8 flowlines is within 100 feet of the flowlines (at a distance of 900-1250 feet from shore). All of Phillips' wellheads are located in water depths (190-230 feet) that are beyond the normal depth ranges for kelp growth. The closest canopy to these wells lies approximately 1.5 miles inshore of Well No. 3.

expected to scatter to adjacent hard bottom. The EIR found that most of the wellheads slated for abandonment are located in areas of intermittent low- to medium-relief naturally-occurring hard bottom outcroppings. The extent of hard bottom in the immediate environs (i.e., within anchoring radius) based on ROV survey observations ranged from 5 to 80% (mean: 35.6%). The EIR found that while the fish will not be able to aggregate around the wellheads as they presently do, individuals will not necessarily be lost from the system. The EIR states that the naturally-occurring rock outcrops of varying relief in close proximity to the wellheads will provide alternative habitat for many of the displaced fishes.

In commenting on the Draft EIR, the Central Coast Hook & Line Fishermen's Association stated that if the wellheads were to be removed, the fishery stock would be depleted. The Association maintains that the hard wellhead structures serve to produce fish biomass rather than simply act as aggregation sites for adults and sub-adults. The Association suggests that the presence of the wellhead structures results in increased productivity of the fish species aggregating on the structures, and that over time, this increased productivity results in more fish in the surrounding areas.

The ability of artificial structures to actually enhance fish productivity is not clear. In a comprehensive study comparing the fish assemblages on artificial and natural reefs along the Southern California coast, Ambrose and Swarbrick (1989) concluded:

> *[t]he ability of artificial reefs to attract fish, and hence increase fishing success, is well established, but the extent to which the reefs actually produce fish (i.e., cause an overall increase in fish biomass) is not clear.... It is generally acknowledged that the high density of fish on new artificial reefs is due primarily to aggregation; the implication is that older reefs, with more mature biota, have produced the high densities of fish.... However, high densities of fish on older reefs could also be due in large part to aggregation... Therefore, the presence of high densities of fish, even on reefs that have abundant resources, does not guarantee that the reef has increased the productivity, nor that all of the fish on the reef were produced on the reef.*

Thus, while there is good evidence to show that large aggregations of fish do occur at the wellheads, the scientific evidence available at this time does not demonstrate that all artificial structures actually enhance fish productivity. (The attraction factor of artificial reefs could actually make adult fish more vulnerable to overfishing.) Thus, one of the most probable effects of removing the wellheads would be the loss of vertical structures that serve as aggregation sites for adult and sub-adult fish. In this respect, the EIR concludes that removal of the wellheads will have an adverse but insignificant effect (Class III).

The Commission therefore believes that removal of the wellhead structures will not cause significant long-term impacts to the biological productivity of the marine environment. The Commission finds the project consistent with Coastal Act section 30230 which requires that "[u]ses of the marine environment ... be carried out in a manner that will sustain the biological productivity of the coastal waters...."

Conception) and to the south (Carpinteria). There is, therefore, a potential for onshore excavation activities to disturb new seal and sea lion haul-out areas especially during peak breeding season when there are large numbers of animals in the area. The U.S. Army Corps of Engineers is prohibiting Phillips from conducting onshore work during the months of February through May, which corresponds with the breeding season for regional species such as the harbor seal.

Phillips has completed a Marine Mammal Wildlife Contingency Plan to be distributed prior to commencement of project operations to all vessel operators. The plan (1) identifies the marine mammals that may be observed in the project area, including species present and their migration and/or behavioral patterns; (2) advises vessel operators of marine mammal avoidance strategies; (3) establishes response procedures for a vessel operator to follow if the vessel collides with a marine mammal; and (4) includes the names and phone numbers of persons within the responsible government agencies and local marine mammal care and rehabilitation centers who should be contacted in the event that a vessel collides with a marine mammal.

The Commission therefore finds that the project will be carried out in a manner consistent with Coastal Act section 30231 which requires that "[u]ses of the marine environment ... be carried out in a manner ... that will maintain healthy populations of species of marine organisms."

4.5.2.6 Conclusion

Phillips has incorporated a number of mitigations into the proposed project, in combination with Special Conditions 5, 6, 7 and 8 of this permit, that will reduce potential impacts to marine water quality and marine resources during project operations. The Commission therefore finds the project consistent with Coastal Act sections 30230 and 30231.

4.5.3 Commercial and Recreational Fishing

Coastal Act section 30234.5 states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Commercial fishing opportunities in the Santa Barbara Channel include sea urchin, Pacific bonito, rock crab, Pacific mackerel, Pacific sardine, yellowfin tuna, skipjack tuna, and red rockfish. Principal fishing gear employed in the region include purse seine, trawl, trap, diving and hook and line. Santa Barbara Channel regional landings data reflect a multi-species fishery consisting of invertebrates and finfish with an average annual dockside or ex-vessel value exceeding 24 million dollars. The 23 well sites in the overall Subsea Well Abandonment Program are found within California Department of Fish and Game ("CDFG") Blocks 657, 656, 655, 654 and 652, encompassing the area from Pt. Conception to Ventura. These blocks consist of 10 minute latitude by 10 minute longitude cells used to track fish catches from California coastal and offshore waters. The primary species caught across all blocks from 1988 to 1992

Coast Hook & Line Fishermen's Association maintains that removal of the wellheads could result in a loss of 20% of hook and line fishermen's annual income (letter (undated) from Phil Schenck, Central Coast Hook & Line Fishermen's Association, to the Coastal Commission (received February 20, 1996))(Exhibit 5).

The Association has requested that the wellhead structures be left intact and abandoned-in-place after the well holes have been permanently sealed. The Commission has examined the alternative of leaving the wellhead structures in place but has found that this project alternative is not feasible. (*See the discussion of "Project Alternatives" in section 4.3 of these findings.*)

The Association further argues that if the wellhead structures cannot be left on the seafloor, the State and/or the well operators should build new deep water artificial reefs (> 100 foot depth) to replace the wellheads. According to the CDFG it would cost between $100,000- $200,000 to build 8-10 small deep water reefs with quarry rock (each about 1-1.5 meters high). There are currently no public funds available to design and build such deep water artificial reefs.

The Coastal Act does not require that Phillips and the other well operators should be required to provide mitigation for economic impacts to commercial and recreational fishermen due to the removal of wellheads placed on the seafloor for the sole and exclusive purpose of oil and gas production, not fisheries enhancement. The commercial fishermen and sportfishing groups that successfully fish at these wellhead sites have over the years derived an incidental economic benefit from the placement of these hard vertical structures on the seafloor. Furthermore, the well operators' SLC oil and gas lease provisions are expressly clear that these wellheads and other associated oil and gas structures are to be removed upon termination or relinquishment of the leases. The leases explicitly require the lessees, at the request of the State, to remove all "platforms, fixed or floating structures" and "restore the premises" upon the expiration or termination of the lease. (*See, for example, SLC Oil and Gas Lease PRC 2933.1, section 14, issued to Phillips in September 1962.)* Thus, the fishermen could not reasonably expect that these wellhead structures would remain on the seafloor in perpetuity. The Commission therefore finds that requiring mitigation for economic impacts suffered by commercial hook and line fishermen and sportfishing groups is not warranted.

4.5.3.4 Trawling Impacts

Pipeline diver surveys conducted once every two years (until 1990) found that Phillips' flowlines are intermittently buried and exposed between the wellhead and the nearshore zone. Exposed pipelines on the seafloor could potentially create a hazard and interfere with commercial trawling activities in the future. The extent to which abandoned subsea flowlines may pose a hazard to commercial trawlers is dependent in part on (1) the location of the exposed flowline segments; (2) the relief of the exposed flowlines; and (3) other features in the area that may preclude trawling anyway, even if the flowlines are removed.

According to Phillips, the flowline bundles associated with Well Nos. 1, 2, 3 and 4A are primarily buried, with the exception of those pipe segments that cross hard bottom or are

Phillips' proposed project will result in air emissions from the jack-up rig, workboat and tug assist vessel engines and onshore heavy equipment (including excavator, front end loader, small crane, flat bed trucks, pumps, etc.). Preliminary project emissions are estimated to be 25.2 tons nitrogen oxides ($No_{x)}$, 8.8 tons carbon monoxide (CO), 2.5 tons reactive organic compounds (ROC), 0.7 ton sulfur dioxide ($SO_{2)}$ and (5) 4.0 tons particulates ($PM_{10)}$.[10]

The Santa Barbara County Air Pollution Control District ("APCD") is the local air pollution control district responsible for implementing federal and state air quality standards in the project area. APCD Rule 202.C.2.g exempts from permit requirements piston type internal combustion engines on work-over rigs when the engines are used for the repair, work-over, maintenance or abandonment of wells. The engines on the jack-up rig and support vessels qualify for this exemption. Consequently, on July 25, 1994, the APCD determined that Phillips' proposed project is exempt from current APCD permit requirements (Exhibit 10).

However, in a November 13, 1995 letter to Coastal Commission staff, the APCD stated that notwithstanding its exemption from current APCD new source rules and regulations[11], the overall Subsea Well Abandonment Program will generate significant Class I air impacts that, if not properly mitigated, will be inconsistent with Santa Barbara County's adopted 1994 Clean Air Plan (Exhibit 11). The APCD estimates that the Subsea Well Abandonment Program will emit a total of 90 tons of No_x, a precursor to ozone. Santa Barbara County is currently a designated non-attainment area for both the federal and state ozone standards. The APCD states that if the program were not exempt from APCD current rules and regulations, the emission totals would trigger APCD requirements for Best Available Control Technology, formal air quality impact analysis, and offsets.

In response to the concerns raised by the APCD, Phillips and the other well operators have agreed to an "Emission Reduction Agreement" that includes providing the APCD with $748,750 (of this total, Phillips is to pay $204,605) that, in combination with other APCD funds, will be used to fund programs (such as the retrofitting of trawling vessel engines) to mitigate the short-term air quality impacts of the Subsea Well Abandonment Program (Exhibit 12).

By letter of February 23, 1996, Phillips amended its project description to include the terms of the "Emission Reduction Agreement" as follows (Exhibit 13):

- Phillips shall pay $204,605 to the APCD for programs to help mitigate Phillips' proportional share of the short-term air emissions associated with the Subsea Well Abandonment Program. A total payment of $748,750 will satisfy the air quality mitigation obligation for

[10] Emission totals for Phillips' project is based on emission totals (average power consumption rates) for the jack-up rig *Glomar Adriatic VIII* and specific support vessels. In the event a different drilling rig or support vessels are selected, emission inventories will be recalculated by the APCD.

[11] APCD Rule 202 is currently undergoing potentially significant revisions which may change the requirements and exemptions of Rule 202.C.

Recreational resources along this stretch of coast from Gaviota to Capitan include three state parks of statewide importance, Gaviota, Refugio, and El Capitan. Phillips' project is in the vicinity of Gaviota State Park and Refugio State Beach.

The nearest public access to the beach at Phillips' Tajiguas landfall area (the onshore excavation site) is from Gaviota State Beach, approximately seven miles west of landfall. However, access to this stretch of beach is geographically limited because of a prominent rocky outcrop (1/4 mile to the east) that separates Tajiguas Beach Cove from the relatively straight beach fronting the seawall. Also, the landfall area is infrequently used by beach goers because there is normally little or no dry beach at high tide (the seawall is the designated mean high tide mark).

In order to ensure the public's safety during critical operations, the public may be precluded from traversing the sandy beach at the work site for approximately six hours over an estimated two week period during the onshore flowline removal phase of the project. At present, the top of the seawall provides the only dry lateral access across this stretch of beach during periods of high tide. No equipment staging or operations are proposed on the bluff above the seawall, or on top of the seawall. Therefore, when project operations temporarily close of the sandy beach, beach access will still be available by walking on top of the seawall.

The Commission thus believes that recreational uses and public access at the project site will not be significantly impacted since construction activities will be temporary and short-term, and lateral public access will be maintained throughout the duration of the project. The Commission therefore finds the proposed project consistent with Coastal Act sections 30211 and 30220.

4.5.6 Cultural Resources

Coastal Act section 30244 states:

> *Where development would adversely impact archaeological or paleotological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Cultural resources consist of places or objects important to cultures, communities and individuals for scientific, historical and religious reasons. Cultural resources include archaeological sites and remains, shipwrecks, artifacts and places of importance that provide evidence of past human activities.

The EIR identifies two shipwrecks (BLM-480 and BLM 272) and one underwater prehistoric site within the offshore area of PRC 2933. None of these documented cultural resources occur within the project impact area (i.e. well site disturbance radii), however. Therefore, no direct or indirect impacts to offshore cultural resources are anticipated to occur as a result of project activities.

Support operations for shallow subtidal and intertidal flowline abandonment/removal activities have the potential to impact cultural resources within the vicinity of Tajiguas, the landfall

visual impact area. However, since offshore and nearshore project activities are to be completed within 2.5 months, any adverse visual impacts will be short-term.

The onshore flowline removal work will not be visible to recreational users or travelers on U.S. Highway 101 due to topography and vegetation. Recreational users of Tajiguas Beach Cove would not be able to see the flowline removal operations onshore because views are blocked by a prominent rocky outcrop. No significant visual impacts are anticipated from the onshore flowline abandonment operations.

The Commission therefore finds the proposed project consistent with Coastal Act section 30251 which requires that the "scenic and visual qualities of coastal areas ... be protected."

4.5.8 Section 30260 Coastal-Dependent Industrial "Override" Provision

Section 30101 of the Coastal Act defines a coastal-dependent development or use as that which "requires a site on or adjacent to the sea to be able to function at all." Ports, commercial fishing facilities, offshore oil and gas developments (e.g. subsea wells and associated pipelines) are examples of development considered "coastal dependent" under section 30101.

In section 30260, the Coastal Act further provides for special approval consideration of coastal-dependent industrial facilities that are otherwise found inconsistent with the resource protection and use policies contained in Chapter 3 of the Coastal Act. Subsea oil and gas completion wells and their associated flowlines qualify as "coastal-dependent industrial facilities." Coastal-dependent industrial facilities must first be tested under all applicable policies in Chapter 3. If the proposed project does not meet one or more of these policies, the development can then be analyzed under the three requirements of section 30260 of the Coastal Act which specifically states:

> *Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and section 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental affects are mitigated to the maximum extent feasible.*

As described in section 4.5.1 of this report, Phillips' proposed development project does not meet the standards of section 30232 due to the potential for and significant impacts caused by a marine oil or gas spill. Since the project qualifies as a "coastal-dependent industrial facility" the Commission may nevertheless approve the project if the three requirements of section 30260 can be met.

4.4.1 of this report, the Commission has determined that the project is inconsistent with Coastal Act section 30232 due to the potential for and resulting impacts of an oil spill. However, upon the applicant's acceptance of this permit, as conditioned, the Commission can find that the environmental impacts generated by this project have been mitigated to the maximum extent feasible.

5.0 California Environmental Quality Act

As "lead agency" under the California Environmental Quality Act ("CEQA"), the State Lands Commission adopted an EIR (*EIR No. 663, October 17,* 1995) for the proposed project. The Commission's permit process has also been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. Pursuant to section 21080.5(d)(2)(i) of the CEQA and section 15252(b)(1) of Title 14, California Code of Regulations (CCR), the Commission may not approve a development project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment."

Although the Commission believes that Phillips' project may generate adverse coastal zone impacts and pose a threat to the marine environment in the event of an oil or other hazardous liquid spill, the Commission finds that there are no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the activity may have on the environment, other than those identified herein. Therefore, the Commission finds that the project is consistent with the provisions of the CEQA.

22\ad\subsea\E959.rpt

Correspondence

Letter from D.C. Gill, Phillips Petroleum Company to Alison Dettmer, California Coastal Commission, April 13, 1995.

Letter from D.C. Gill, Phillips Petroleum Company to Alison Dettmer, California Coastal Commission, September 13, 1995.

Letter from Tim Murphy, Morton Associates, Inc. to Lisa Summers, California Coastal Commission, September 13, 1995.

Letter from Tim Murphy, Morton Associates, Inc. to Alison Dettmer, California Coastal Commission, October 31, 1995.

Letter from Ron Tan, Santa Barbara County Air Pollution Control District, to Susan Hansch, California Coastal Commission, November 13, 1995.

Letter from Tim Murphy, Morton Associates, Inc. to Alison Dettmer, California Coastal Commission, November 16, 1995.

Letter from E.E. Morton, Morton Associates, Inc. to Susan Hansch, California Coastal Commission, November 21, 1995.

Letter from C.F. Raysbrook, California Department of Fish and Game, to Peter Douglas, California Coastal Commission, January 26, 1996.

Letter from Phil Schenck, Central Coast Hook & Line Fishermen's Association, to California Coastal Commission, (undated) received on February 20, 1996.

Letter from D.C. Gill, Phillips Petroleum Company, to Susan Hansch, California Coastal Commission, February 23, 1996.

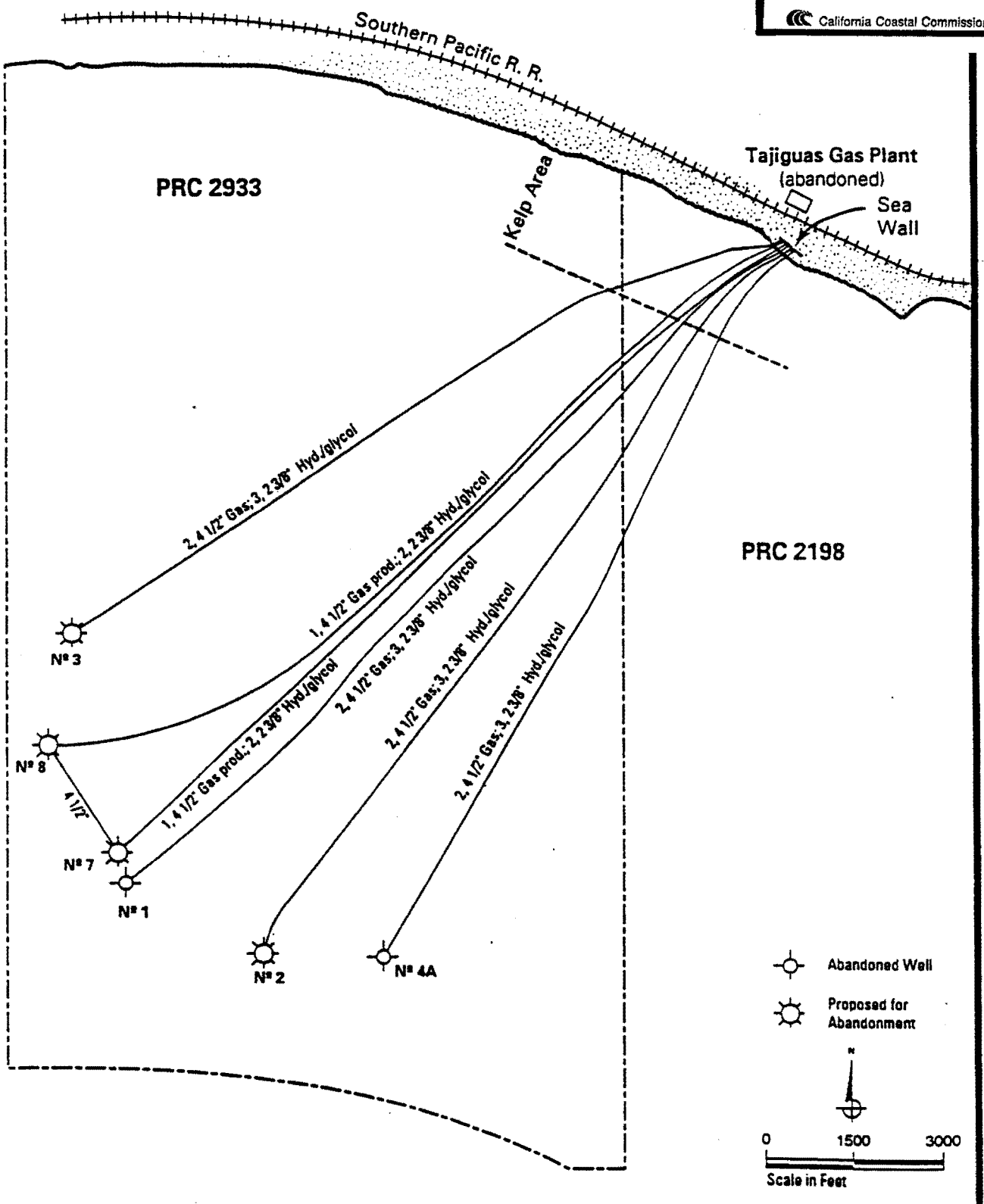


Figure 2.28. Flowlines coming ashore at the Tajiguas Gas Plant from PRC 2933 (From: Morton Associates, Inc., 1994).

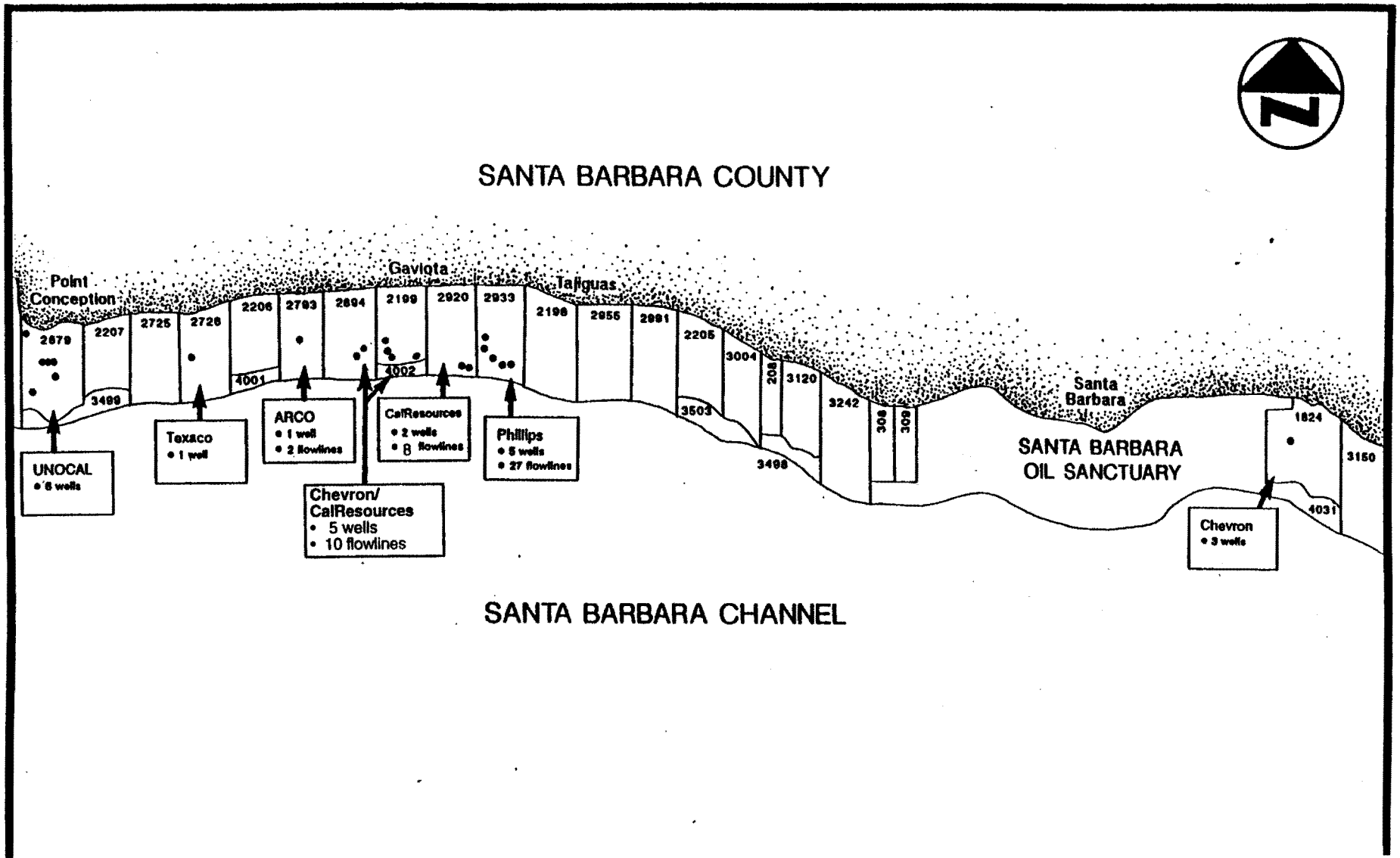


Figure ES.1. Subsea well abandonment and flowline abandonment/removal planning area.

EXHIBIT NO. 3
APPLICATION NO.
E-95-9

California Coastal Commission

To: CALIFORNIA COASTAL COMMISSION

This letter is in response to the State Lands Commission well head removal program in the Gaviota area. WE WANT THESE REEFS PRESERVED.

I. ECOLOGICAL AND BIOLOGICAL VALUE

1. The marine life on and associated with these man-made reefs is so much more abundant than natural reefs and it is most difficult to believe without seeing. Look at these man made reefs as compared to the natural ones in the State Land's video and see how much more abundant they are.

2. In an era when our marine resources are by and large stretched to the limit, these reefs provide SANCTUARY for the fishes and other sea creatures. The fish are protected by these structures, out of reach of draggers, gill nets and for the most part, the hook and line fisherman also.

3. The fishes on these reefs are resupplying the surrounding areas depleted by the years of unrestrained SEISMIC surveys.

II. ECONOMIC VALUE

1. Several other fishermen and myself have discussed the contributions of these reefs to our incomes. After many discussions, we feel the minimum losses to be approximately 20%, which means that if these reefs are removed, there goes health insurance for our families, retirement funds, etc.

2. Some of these reefs are nearly 50 years old. I have been "using" them for 20 years, and to have these reefs

2. Post a bond similar to the deal Exxon and MMS came to on abandoned deep well heads in their Santa Rosa tract.

VI. FISHERY SOLUTIONS

(preferred solution)

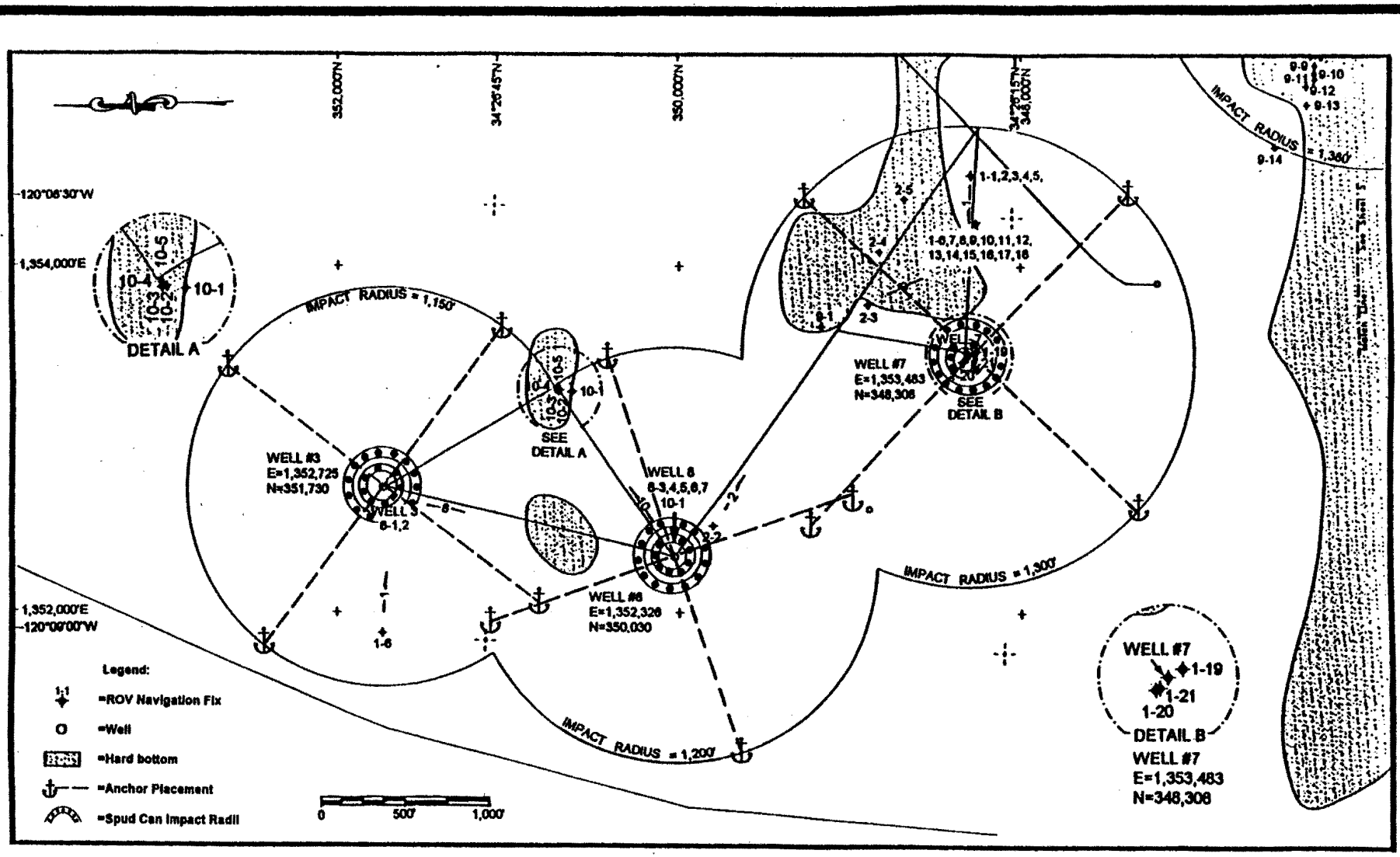
1. Leave everything as it is.

2. Re-close the well heads with as little disturbance as possible to the established marine life.

3. Replace the well heads with artificial reefs of modern design to promote fast marine growth and rapidly re-establish fish schools.

4. Some program to help the directly affected fishermen get through the re-establishment period.

Phil Schenck
F/V Terri's Gale
Central Coast Hook & Line Assoc
(714) 898-7825



Notes:
1. Coordinates shown on this sketch conform with the California Coordinate System (Lambert Projection) Zone 5 in feet, NAD 1927.
2. Hard bottom relief and well locations acquired from SEA map dated 1991.
3. Water depth Well #3 = 191 ft.
4. Water depth Well #7 = 222 ft.
5. Water depth Well #8 = 200 ft.

Figure H1.4. Impact radii for spud can and anchor placement relative to geophysically-defined hard bottom, Well Nos. 3, 7, and 8, PRC 2933.

EXHIBIT NO. 6
APPLICATION NO.
E-95-9

California Coastal Commission

We are now working with CCC staff to develop a draft Memorandum of Agreement which will specify each participant's roll and responsibility in the timely and effective use of these potential mitigation funds. If you should have any questions or need more information during this process, please contact Mr. David Parker of my staff at our Long Beach office, 330 Golden Shore, Suite 50, Long Beach, California 90802, telephone (310) 590-5129.

Sincerely,

C. F. Raysbrook
Interim Director

cc: Ms. Alison Dettmer
California Coastal Commission

Mr. Jim Paulk
United Anglers-Southern California

Mr. David Parker
Marine Resources Division-Long Beach

WHEREAS, the DFG is the principal State agency responsible for the establishment and control of fishery management programs. The DFG is the State trustee agency with jurisdiction over the conservation, protection and management of fish, and habitat necessary for biologically sustainable populations of fish species (Fish and Game Code, section 1802, 711.7).

WHEREAS, the DFG administers the California Artificial Reef Program for the purposes of (1) placing artificial reefs in state waters; (2) studying existing artificial reefs and all new reefs to determine the design criteria needed to construct artificial reefs capable of increasing fish and invertebrate production in waters of the state; and (3) determining the requirements for reef siting and placement (Fish and Game Code, sections 6420-6425).

WHEREAS, the DFG desires to assume the lead responsibility for the planning, siting, design and permit requirements for the construction of any new artificial reef or augmentation of an existing artificial reef in state waters using the fee(s) obtained from the Applicants.

WHEREAS, the UASC are a volunteer group of recreational anglers interested in preserving, protecting and enhancing marine resources and fishing opportunities.

WHEREAS, the UASC desires to secure and enter into a construction contract with a contractor to construct any new artificial reef or augment an existing artificial reef using the fee(s) obtained from the Applicants.

NOW, THEREFORE, in consideration of the benefits to marine resources of the State of California, the Commission, the DFG and the UASC agree as follows:

1. The UASC agree to receive any fees paid by the Applicants. Within 30 calendar days of receipt of any fee, the UASC shall deposit the funds in an interest-bearing account ("the compensatory hard bottom mitigation fund" or "fund"). These funds including all earned interest shall be expended by the UASC solely for reef materials, construction costs, and the UASC's administration of the fund (not to exceed 10% of the total collected fees).

2. Within 180 days of the date on which all fees have been paid to the UASC the DFG shall develop and submit for review and approval, by the Commission's executive director, a plan to spend the monies within the fund on either the construction of a new artificial reef or augmentation of an existing artificial reef within the Southern California Bight.

3. Within one year of approval by the Commission's executive director of a plan to spend the compensatory hard bottom mitigation fund, the DFG shall secure all necessary governmental approvals, including a coastal development permit, to construct a new artificial reef or augment an existing artificial reef within the Southern California Bight.

4. Within 90 days of either: (1) the granting of all necessary governmental approvals to construct a new artificial reef or augment an existing reef, or (2) approval by the Commission's executive director of a plan to spend the monies in the fund, whichever occurs later, the UASC shall secure and enter into a construction contract (the "Contract")

IN WITNESS WHEREOF, the Parties have executed this MOA to this effect as of the date last signed below.

CALIFORNIA COASTAL COMMISSION

By: _____ _____

PETER M. DOUGLAS — Date
Executive Director

CALIFORNIA DEPARTMENT OF FISH AND GAME

By: _____ _____

JACQUELINE SCHAFER — Date
Executive Director

UNITED ANGLERS OF SOUTHERN CALIFORNIA

By: _____ _____

JIM PAULK — Date
President

Santa Barbara County
Air Pollution Control District

July 25, 1994

Mr. E.E. Morton
E.E. Morton Associates, Inc
116 E. Yanonali
Santa Barbara, Ca. 93101

Re: Rule 202 C.2.g. Exemption Request for Phillips Subsea Well Abandonment Program

Dear Mr. Morton:

On July 19, 1994, the Santa Barbara County Air Pollution Control District received your permit exemption request for the plugging and abandonment of five subsea wells and associated subsea pipelines. A jackup type rig will be used as a work-over rig for the abandonment of these wells. We have determined that the use of this equipment for this activity qualifies for the specified exemption. Please be advised that this exemption applies only to the abondonment of the five subsea wells described in the Subsea Well Abondonment Program document referenced in your request.

If you have any questions regarding this letter, please call me at (805) 961-8814.

Sincerely,

Jerry Schiebe
Engineering Supervisor

cc: Exemption File
Engineering Chron File

Douglas W. Allard Air Pollution Control Officer
26 Castilian Drive B-23, Goleta, CA 93117 Fax: 805-961-8801 Phone: 805-961-8800
A Division of the Department of Agriculture and Environmental Management

5. Chevron USA Production Company
6. Texaco Exploration and Production Inc.

The State Lands Commission, as the lead agency under CEQA, prepared and adopted EIR No. 663 on October 17, 1995. The EIR concludes that this project will result in significant adverse air quality impacts unless feasible mitigation measures are implemented.

APCD staff provided data on emissions and mitigation measures. During the preparation of the draft EIR, we found the resulting EIR to be adequate. However, during the SLC adoption hearing in October, the mitigation language in the draft EIR was substantially changed without any prior public notice. The Final EIR required implementation of air quality mitigation measures only to the extent required by APCD rules and regulations.

2. Basis for APCD Permit Exemption

APCD Rule 202 C. 2. g (see Attachment 1) exempts from permit requirements piston type internal combustion engines on work-over rigs when the engines are used for the repair, work-over, maintenance or abandonment of wells. The engines on the jack-up rig and support vessels qualify for this exemption. The APCD has granted this exemption to the five lessees who have applied for it. Only Texaco has not applied for this exemption.

3. Project Emissions and Recommended Mitigation Measures

SLC's EIR estimates that the project (abandonment work at all sites) will generate significant emissions as shown in the attached table (Attachment 2). If the project were not exempt from APCD new source review rules and regulations, these amounts would trigger APCD requirements for Best Available Control Technology, formal air quality impact analysis, and offsets. Feasible mitigation measures, including emission offsets, an innovative emission control program funded by mitigation fees and/or installing marine-vessel engine modifications were included in the EIR (Attachment 3). As mentioned above, the Final EIR required implementation of air quality mitigation measures only to the extent required by APCD rules and regulations.

4. Consistency with the 1994 Clean Air Plan for Santa Barbara County

CEQA Guidelines Section 15125 requires that a proposed project be consistent with adopted goals and plans. With respect to air quality, the applicable goals/plan is Santa Barbara County's adopted 1994 Clean Air Plan (CAP).

In order for a project to be consistent with the CAP, the project's emissions must either be included in the CAP's emission inventory or the project emissions mitigated to insignificance.

MORTON ASSOCIATES, INC.

SERVING THE PETROLEUM INDUSTRY

February 26, 1966

Mr. Keith Howell, Chevron
Mr. Tom Kennedy, Phillips
Mr. Roger Johnson, Texaco
Mr. Hugh Herndon, UNOCAL
Mr. Mark T. Drumm, ARCO
Mr. Jeff Milton, CalResources
Mr. Doug Allard, APCO, Santa Barbara County Air Pollution Control District

Enclosed find two (2) copies of the Subsea Well Abandonment Program Emission Reduction Agreement. Please execute both copies, retain one for your files, and return one to me for assembly and subsequent distribution of the completely executed document to all parties.

Our objective is to have all signatures no later than March 6, 1996. If you cannot meet this schedule, please call and advise when your executed copy will be transmitted.

Thank you for your cooperation and assistance in this matter.

Yours Very Truly,

E. E. Morton

cc: w/copies
W. Dillon, S.B. County Counsel
S. Moore, SWARS Counsel
S. Hansch, California Coastal Commission
D. Sanders, California State Lands Commission
F. Holmes, WSPA

116 E. YANONALI ST., SUITE A • SANTA BARBARA • CA 93101 • TELEPHONE (805) 966-3556 • FAX (805) 966-6447

his intent to strongly recommend and support the position that the current proposed Reg II and Reg VIII rule changes will not apply to this subsea well abandonment program.

6. Article 5 above is subject to a future favorable ruling of the APCD Board and subject to program completion by the end of 1998.

7. All emissions estimates are based on EIR and EIR-equivalent for Gaviota Mitigated Negative Declaration (ND) wells.

8. Operators shall employ a single rig utilizing Caterpillar D-399 TA SCAC or other engines with equivalent or lower emissions than those described in the certified EIR. All subsea well operators participating in the program shall comply with all project descriptions and assumptions used to prepare the air emission estimates within the certified EIR and with this mitigation agreement.

9. These mitigation measures are program specific and are not intended to represent future policies or future mitigation measures.

10. Subsea well abandonment program operators will put forth a good faith effort to provide a workboat or crewboat for the APCD to demonstrate effectiveness of lean burn catalyst.

11. A deposit of $74,875 shall be paid to the SBCAPCD within 30 calendar days after all operators receive their Coastal Development Permits (CDP's). Final payment of $673,875 to the SBCAPCD will be paid no later than 30 days after all operators execute a binding rig contract. Operators shall not mobilize the rig to the first wellsite until 120 days after the date of SBCAPCD's receipt of the entire payment of $748,750.

12. SBCAPCD shall return the deposit 30 days from the date that the operators notify the District that the operators have surrendered their CDP's because the program is not going to proceed.

13. Operators shall keep SBCAPCD informed of rig procurement progress, contracting progress and timing of rig mobilization.

14. Operators shall request the SLC to include their CCC CDP commitments into the SLC Mitigation Monitoring Plan.

COPY

DRAFT ••• PHILLIPS LETTERHEAD ••• DRAFT

ATTACHMENT A

February _____, 1996

Ms. Susan Hansch
California Coastal Commission
Energy and Ocean Resources Unit
45 Freemont Street, Suite 2000
San Francisco, CA 94105-2219

RE: Proposed Amendments to Coastal Development Permit (CDP) Application No. _____ :
E-94-17: Phillips Petroleum Company's Subsea Well Abandonment Project

Dear Ms. Hansch:

The Coastal Development Permit applicants for the Subsea Well Abandonment Rig Sharing (SWARS) program have reached agreement with the Santa Barbara County Air Pollution Control District (SBCAPCD) concerning mitigation of air emissions associated with the "Program". The program consists of all well abandonments reviewed in State Lands Commission (SLC) EIR No. 663 and Gaviota well abandonments reviewed in State Lands Commission ND No. 563.

The terms of this agreement are outlined below, and are provided on behalf of Phillips. By this letter, Phillips incorporates into the project description for Phillips' CDP application the following:

1. Phillips shall pay its proportionate share of the applicants' payment to the Santa Barbara County Air Pollution Control District for programs to help mitigate Phillips' proportional share of the short term air emissions associated with the subsea well abandonment program. A total payment of $748,750 will satisfy the air quality mitigation obligation for the entire SWARS program and the resulting long term emission reductions will belong to SBCAPCD and will be used to provide a long term clean air benefit.

PHILLIPS PETROLEUM COMPANY
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Houston, Texas 77251-1967
North America
Exploration and Production

4330 West Loop South
Bellaire, Texas 77401

February 23, 1996

Ms. Susan Hansch
California Coastal Commission
Energy and Ocean Resources Unit
45 Freemont Street, Suite 2000
San Francisco, CA. 94105-2219

Ref. ***Proposed Amendments to Coastal Development Permit (CDP) Application No. E-94-17: Phillips Petroleum Company's Subsea Well Abandonment Project***

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2. The pre-survey work and the subsea well abandonment portion of the program is anticipated to be complete within a 12 consecutive month period. Pipeline/flowline abandonment/removal operations shall be deferred to a 12 consecutive month period separate from the subsea well abandonment portion of the program.