AMENDMENT OF STATE OIL AND GAS LEASE PRC 3120.1

Pursuant to Calendar and Minute Item No. 34 of February 25, 1982, a copy of which is attached, the parties agree to amend State Oil and Gas Lease PRC 3120.1 to include the following new section:

> "Lessee agrees to conduct all operations under this lease in accordance with the offshore drilling regulations of the State Lands Commission."

STATE:
STATE OF CALIFORNIA
STATE LANDS COMMISSION

BY: W. M. Thompson

TITLE: Chief, Extractive Development Program

DATE: 11-7-84

LESSEE:
ATLANTIC RICHFIELD COMPANY,
A PENNSYLVANIA CORPORATION

BY: [signature] RWH JAD

TITLE: Its Attorney-in-Fact

DATE: October 1, 1984

LESSEE:
MOBIL OIL CORPORATION,
A NEW YORK CORPORATION

BY: [signature]

TITLE:

DATE: 10-1-84

APPROVED
LAND
LEGAL

MINUTE ITEM

This Calendar Item No. 34 was approved as Minute Item No. 34 by the State Lands Commission by a vote of 2 to 0 at its 2/25/82 meeting.

CALENDAR ITEM

34

2/25/82
W 40183
Willard

RESUMPTION OF
OFFSHORE EXPLORATORY DRILLING OPERATIONS
ON STATE OIL AND GAS LEASES
PRC 3120.1 AND PRC 3242.1,
SOUTH ELLWOOD OFFSHORE FIELD,
SANTA BARBARA COUNTY

OPERATOR: ARCO Oil and Gas Company
P. O. Box 2540
Goleta, California 93018
Attention: Peter K. Bacon

AREA, TYPE LAND AND LOCATION:
State Oil and Gas Leases 3120.1 and 3242.1 were issued to Richfield Oil Corporation (now Atlantic Richfield Company) and Socony Mobil Oil Company, Inc., (now Mobil Oil Corporation) on April 29, 1964 and April 8, 1965, and contain approximately 3,324 and 4,290 acres respectively of tide and submerged lands west of Coal Oil Point, South Ellwood Field, Santa Barbara County (see Location Map attached).

SUMMARY: ARCO Oil and Gas Company (a subsidiary of the Atlantic Richfield Company and operator of its State leases) has submitted an application to resume exploratory drilling operations on State Oil and Gas Leases PRC 3120.1 and PRC 3242.1. The primary objective of this exploratory program is to determine the extent of recoverable reserves underlying the leases. As part of the proposed program, ARCO intends to use a mobile drilling vessel to drill one to five exploratory (no development) wells and one possible joint well on the boundary joining leases PRC 208.1 and PRC 3120.1 (see Exhibit "A" - Location Map).

BACKGROUND: On February 1, 1969, in response to an oil and gas well blowout on the Federal OCS in the Santa Barbara Channel, the State Lands Commission declared a moratorium on further drilling on State offshore oil

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and gas leases, and announced that no new wells would be approved pending a complete review of all offshore drilling regulations, techniques and procedures.

On July 31, 1969, the Commission unanimously adopted a resolution rejecting the staff's recommendation that oil and gas drilling on State offshore leases be resumed. However, the resolution did provide that:

"Recommendations for drilling wells on existing leases may be brought to the Commission for consideration on a well-by-well basis if there are unique circumstances that justify and require such drilling." (Minutes, State Lands Commission, 1969, p. 862).

In December 1974, the Commission authorized (1) the adoption of procedures for drilling and production operations from existing offshore leases, and (2) the resumption of drilling operations on a lease-by-lease basis, such resumption predicated upon a review by the Staff of the Commission for compliance with these procedures and the requirements of CEQA, with final approval by the State Lands Commission.

In early 1974, ARCO applied to the State Lands Commission requesting approval to resume drilling operations from Platform Holly. In order to evaluate the potential environmental effects associated with the proposed operations, the Commission directed preparation of an EIR. This EIR was prepared by the consulting firm of Dames & Moore and was limited to the drilling of 17 new development wells from Platform Holly.

AB 884: 3/1/82.

PERTINENT INFORMATION:

ARCO proposes to explore areas within the subject leases which have not been fully evaluated. ARCO will drill one to five exploratory (no development) wells, with one possible joint well, from either a drillship, semi-submersible or jack-up

drilling rig. After each well is drilled, logged and tested, ARCO will plug and abandon the well in a manner that will allow re-entry should development be considered at a later time.

Because of a similar project by Aminoil USA, Inc., on the contiguous State Oil and Gas Lease PRC 208.1 (also appearing on this agenda), Aminoil and ARCO have agreed to combine the two projects into one for the purpose of environmental analyses. A final EIR was prepared for the Commission by Environmental Resources Group, a division of Jacobs Engineering Group Inc., pursuant to CEQA and the State EIR Guidelines. It was found that the project will not have a significant effect on the environment.

The final EIR for this project is on file in the office of the Commission and is incorporated by reference as though fully set forth herein. An Executive Summary of the environmental document is attached hereto as Exhibit "B".

The project is situated on lands identified as possessing significant environmental values pursuant to P.R.C. 6370.1, and is classified in use category "Class B" which authorizes limited use. The project as proposed will not have a significant effect upon the identified environmental values.

STATUTORY AND OTHER REFERENCES:

A. PRC: Div. 6, Parts 1 and 2.

B. Cal. Adm. Code: Title 2, Div. 3; Title 14, Div. 6.

AGREEMENTS FOR THE PROTECTION OF THIRD PERSONS:

Staff has prepared agreements which are additions to the present lease requirements, are acceptable to the Lessee. and offer increased protection to third persons for any damages that may arise from operations conducted under the lease. The agreements provide:

1. ARCO Oil and Gas Company will furnish the State Lands Commission with a certificate of insurance in the amount of $10 million, evidencing insurance against liability for damages to third persons.

2. Procedures shall be established for the prompt processing of all claims and the prompt payment of uncontested claims.

3. ARCO Oil and Gas Company will agree to mediation procedures approved by the Executive Officer, after consultation with the Office of the Attorney General, to facilitate the settlement of contested claims by third persons without the necessity of litigation.

EXHIBITS: A. Location Map.
B. Executive Summary.

IT IS RECOMMENDED THAT THE COMMISSION:

1. DETERMINE THAT A FINAL EIR HAS BEEN PREPARED FOR THIS PROJECT BY THE COMMISSION, FOLLOWING EVALUATION OF COMMENTS AND CONSULTATION WITH PUBLIC AGENCIES HAVING JURISDICTION BY LAW; INCLUDING ALL RESPONSIBLE AND TRUSTEE AGENCIES.

2. CERTIFY THAT FINAL EIR NO. 294 (SCH 80110416) has BEEN COMPLETED IN ACCORDANCE WITH CEQA, THE STATE EIR GUIDELINES AND THE COMMISSION'S ADMINISTRATIVE REGULATIONS, AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

3. DETERMINE THAT THE PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND THAT MITIGATION MEASURES HAVE BEEN INCORPORATED INTO THE PROJECT TO AVOID SIGNIFICANT ENVIRONMENTAL EFFECTS IDENTIFIED IN THE FINAL EIR.

4. CONDITION APPROVAL OF ARCO'S APPLICATION ON ITS ACCEPTANCE OF AN AMENDMENT OF STATE OIL AND GAS LEASES PRC 3120.1 AND PRC 3242.1 TO PROVIDE FOR COMPLIANCE WITH STATE LANDS COMMISSION REGULATIONS IN EFFECT ON FEBRUARY 25, 1982.

5. AUTHORIZE THE RESUMPTION OF EXPLORATORY DRILLING OPERATIONS ON STATE OIL AND GAS LEASES PRC 3120.1 AND PRC 3242.1 IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE

LEASES AND THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION SUBJECT TO THE UNDERSTANDING THAT ARCO OIL AND GAS COMPANY HAS AGREED TO THE FOLLOWING PROVISIONS:

A. ARCO OIL AND GAS COMPANY WILL FURNISH TO THE STATE LANDS COMMISSION A CERTIFICATE OF INSURANCE FROM A RECOGNIZED INSURANCE COMPANY, DOING BUSINESS IN CALIFORNIA, IN THE SUM OF $10 MILLION INCLUDING THE STATE AS A NAMED INSURED AND EVIDENCING INSURANCE AGAINST LIABILITY FOR DAMAGES TO THIRD PERSONS CAUSED BY ANY AND ALL DRILLING ACTIVITIES UNDER SAID LEASES. THIS CERTIFICATE SHALL NOT BE CANCELED, EXCEPT UPON 30 DAYS NOTICE AND ARCO REPLACING SAID CERTIFICATE OF INSURANCE WITH A SIMILAR ONE WHICH FULFILLS THE ABOVE REQUIREMENTS, AND SHALL BE IN EFFECT AT ALL TIMES UNTIL ALL DRILLING FROM SAID LEASES TERMINATE AND ALL WELLS HAVE BEEN PROPERLY ABANDONED IN THE MANNER REQUIRED BY LAW;

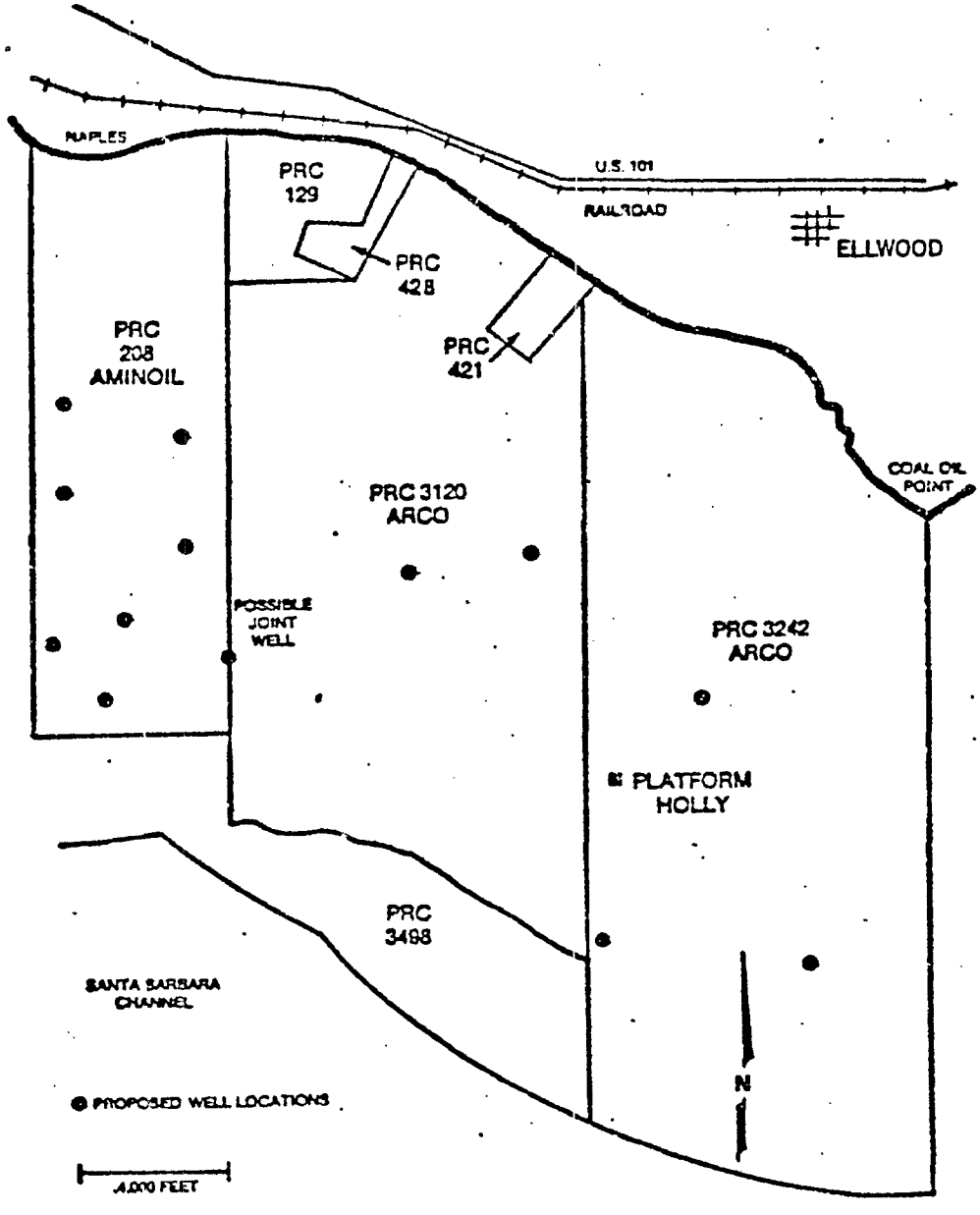
B. SHOULD ANY EVENT OCCUR CAUSING A SUBSTANTIAL NUMBER OF CLAIMS FOR DAMAGES TO BE FILED AGAINST ARCO OIL AND GAS COMPANY AS A RESULT OF OPERATIONS UNDER SAID LEASES, ARCO SHALL WITHIN TEN DAYS AFTER SUCH EVENT, CAUSE TO BE OPENED OR OPEN A CLAIMS OFFICE WITHIN THE CITY OF SANTA BARBARA STAFFED WITH SUFFICIENT PERSONNEL AND AUTHORITY TO PROCESS ALL CLAIMS AND TO SETTLE ALL UNCONTESTED CLAIMS. BARRING UNUSUAL CIRCUMSTANCES, THE STAFFING OF SAID OFFICE SHALL BE SUFFICIENT TO PROCESS ALL CLAIMS AND SETTLE ALL UNCONTESTED CLAIMS WITHIN 60 DAYS OF THE ESTABLISHMENT OF SAID OFFICE;

C. TO FACILITATE THE SETTLEMENT OF CONTESTED CLAIMS BY THIRD PERSONS WITHOUT THE NECESSITY OF LITIGATION, ARCO OIL AND GAS COMPANY AGREES TO MEDIATION PROCEDURES APPROVED BY THE EXECUTIVE OFFICER AFTER CONSULTATION WITH THE OFFICE OF THE ATTORNEY GENERAL;

D. ALL DRILLING SHALL BE CONDUCTED UNDER EACH LEASE IN ACCORDANCE WITH APPLICABLE LAW, THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION AND THE DIVISION OF OIL AND GAS, AND AS REFERENCED OR DESCRIBED IN THE FINAL ENVIRONMENTAL IMPACT REPORT RELATING TO EXPLORATORY DRILLING OPERATIONS BY ARCO OIL AND GAS COMPANY AND AMINOIL USA, INC., STATE OIL AND GAS LEASES PRC 3120.1, PRC 3242.1 AND PRC 208.1, ADOPTED BY THE STATE LANDS COMMISSION;

E. ARCO OIL AND GAS COMPANY SHALL IMPLEMENT AND MAINTAIN PROPERLY AND EFFICIENTLY THE OIL SPILL CONTINGENCY PLAN ON FILE IN THE OFFICE OF THE COMMISSION.

EXHIBIT "A"
LOCATION MAP
W40183



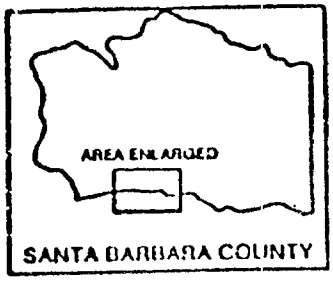


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EXHIBIT "B"

EXECUTIVE SUMMARY

A. INTRODUCTION

This Environmental Impact Report (EIR) has been prepared in accordance with the state EIR Guidelines implementing the California Environmental Quality Act of 1970 (CEQA). The EIR has been developed under a contractual agreement with the Lead Agency, the California State Lands Commission (SLC). It addresses the combined environmental impacts of exploratory drilling programs proposed by ARCO Oil and Gas Company and Aminoil, U.S.A., Inc. on adjoining oil and gas lease areas in State Tidelands offshore Santa Barbara County.

B. PROJECT DESCRIPTION

Utilizing mobile drilling units (either drillship, semi-submersible or jack-up drilling rigs), ARCO and Aminoil propose to drill up to 13 exploratory wells (five by ARCO, seven by Aminoil and one possible joint well on the boundary between two lease tracts) within State Oil and Gas Lease Tracts PRC 3120.1 and PRC 3242.1 (leased by ARCO) and PRC 208.1 (leased by Aminoil). Upon completion of short-term production testing, the proposed wells will be plugged and abandoned in accordance with SLC regulations. This will be performed in a manner so as to permit reentry and well completion should development be considered subsequently.

The primary objective of the ARCO/Aminoil exploratory programs is the determination of the existence of economically recoverable hydrocarbons from the Monterey Formation which underlies the project area; deeper geologic formations also may be tested for possible commercial hydrocarbons. The average well depths for the up to 13 wells is 7,600 feet (2,320 meters); drilling operations are expected to require roughly 62 days per well. If all 13 wells were to be drilled, and if all wells were drilled sequentially, a total of about 115 weeks would be required. If some wells were drilled concurrently (i.e., ARCO and Aminoil each successfully obtained a drilling vessel within overlapping time frames), total project duration would be substantially shorter.

ARCO/Aminoil propose to install, maintain and test blowout prevention (BOP) systems to assure well control throughout the project period. Oil contaminated drilling muds and cuttings would be transported to shore for disposal at an approved onshore disposal site; non-contaminated muds and oil-free and cleaned cuttings would be discharged to the ocean in accordance with National Point Discharge Elimination System (NPDES) permit requirements.

ARCO/Aminoil anticipate that up to 48 hours of production testing may be required per well. A maximum of 5,000 barrels (795 cubic meters) of crude oil could be produced during testing, with associated natural gas produced during testing being flared in accordance with Santa Barbara Air Pollution Control District requirements. Maximum daily production would not be expected to exceed 350,000 cubic feet (9,915 cubic meters) of gas or 800 barrels (127 cubic meters) of oil. The crude oil produced would be barged to Wilmington or Long Beach.

Project personnel would receive training in well control procedures. ARCO/Aminoil also have developed contingency plans to cope with possible oil spills and other potential emergency conditions (e.g., the presence of

hydrogen sulfide gas). Critical operations and curtailment plans also have been developed which identify various "critical" operations and specify the conditions under which such operations would not be started.

C. ENVIRONMENTAL IMPACTS AND MITIGATION

1. Geologic and Geotechnical Considerations

The proposed exploratory activities are not expected to have any significant direct effects on the geologic environment. The most significant geologic features or processes in the lease areas that may adversely affect drilling operations, and thus indirectly possibly cause adverse environmental impacts are earthquake-related (seismic shaking, fault rupture, tsunamis, liquefaction and submarine landslides). The probability of potentially damaging earthquakes occurring during the relatively short timeframe of the proposed project is considered extremely small, however.

Significant seismic shaking (peak horizontal bedrock accelerations of about 0.45g) may result from the maximum probable earthquakes on major faults in the region. The likelihood of seismic shaking-caused damage to project equipment is low; however, it could be further reduced by selecting appropriate drilling rigs and other equipment. Damage to wells or drilling equipment due to fault rupture is unlikely because the proposed drilling wells are not expected to intersect known faults in the area. Although the potential for liquefaction in the project area has not been fully evaluated, the likelihood of a strong seismic event triggering liquefaction in the vicinity during exploratory drilling is very small. A large tsunami (seismic sea wave) could adversely affect offshore drilling activities in shallow waters. However, a major tsunami is unlikely during the relatively short project period. Drilling activities would not be expected to be affected by submarine mass-movement processes, as seafloor gradients in the project areas are low and no evidence has been found of submarine landslides or other mass-movement processes near the proposed drilling sites.

Several proposed drilling sites are in or near areas of exposed bedrock or irregular seafloor topography. This conceivably could cause problems for supporting jack-up rigs (which rest on the seafloor) or in anchoring floating rigs. Selection of drilling rigs designed to operate in such areas and appropriate foundation studies should mitigate any potential problems, however.

Gas zones may be present at depths below the proposed drilling sites. Deep gas zones might be under abnormally high pressure and could be hazardous if encountered unexpectedly. However, any adverse impacts are unlikely if drilling is performed in accordance with standard industry practice and applicable state regulations, and with the knowledge that gas zones may be encountered.

2. Air Quality

The major sources of air emissions expected from the proposed exploratory activities would be the diesel reciprocating engines generating power for drilling vessel movement/positioning, well drilling, testing, and other miscellaneous uses; and the internal combustion engines powering the support

vessels (e.g. supply boats, crew boats). Emissions also would result from the flaring of gas produced during well production testing, the loading of crude oil produced during testing, employee vehicles, and helicopter use, although emissions from these sources would be relatively insignificant.

The type of pollutant emitted, by far, in the largest quantities would be nitrogen oxides (NO_x), with emission levels almost five times greater than that of the second highest pollutant (carbon monoxide), on an annual basis. The largest portion of nitrogen oxide emissions would result from support vessel activities with a major part of the emissions distributed over an area between the offshore drilling sites and the onshore staging area in Port Hueneme. Daily levels of nitrogen oxide emissions may exceed 2,100 pounds (953 kilograms) during the drilling vessel move-on and move-off phases and 2,200 pounds (998 kilograms) per day during actual drilling. On an annual basis, project emissions would be (in descending order): nitrogen oxides (635.2 tons or 576.6 metric tons per year), carbon monoxide (127.5 tons or 115.7 metric tons per year), sulfur oxides (43.6 tons or 39.6 metric tons per year), total suspended particulates (34.4 tons or 31.2 metric tons per year) and total hydrocarbons (28.1 tons or 25.5 metric tons per year).

Computer simulation modeling has indicated that maximum project emissions would be expected to result in a maximum hourly increment in onshore ambient pollutant levels of 110 micrograms/cubic meter ($\mu g/m^3$) for nitrogen dioxide. When comparing the state hourly standard for nitrogen dioxide of 470 $\mu g/m^3$ to the highest recorded onshore level (300 $\mu g/m^3$), and expected project increments (110 $\mu g/m^3$), it is not expected that a violation of the short-term standard would occur. Short-term project increments for total hydrocarbons, sulfur dioxide, and total suspended particulates would not be expected to result in violations of state or federal standards. While the increase in ambient hourly carbon monoxide levels would be relatively small (20 $\mu g/m^3$), southern Santa Barbara County is in a nonattainment status with respect to the carbon monoxide standard. Thus, any additional increase in carbon monoxide levels could cause a slight deterioration in existing conditions.

Long-term project increments were predicted to be much less than one $\mu g/m^3$ per year for all pollutants. Thus, while there would be no violations of any standards for pollutants for which the area already is in an attainment of applicable standards, any increases in ambient levels of those pollutants already exceeding standards (such as total suspended particulates) would further exacerbate existing conditions.

Mitigation of air quality impacts associated with the proposed exploratory activities is proposed through the implementation of a program to contain the emissions from a naturally occurring oil and gas seep offshore Coal Oil Point. A Memorandum of Agreement has been developed between ARCO and the Santa Barbara County Air Pollution Control District (APCD) regarding the Seep Containment Project (in which Aminoil also will be a participant).

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Project air emissions are such that under existing County APCD regulations and implementing policies, air pollution offsets would apparently be required. The proposed exploratory activities would emit an estimated 61.9 tons (56.2 metric tons) per quarter of nitrogen oxides. Under the terms of the Memorandum of Agreement, reactive hydrocarbons could be used as offsets for nitrogen oxide emissions at a ratio of 2.0:1.0. Given the anticipated amount of emissions expected to be controlled through implementation of the Seep Containment Project, it would appear that the Seep Containment Project would be sufficient to provide offsets to allow the (unlikely) concurrent activities of not only the proposed ARCO and Aminoil exploratory projects under discussion here, but another ARCO exploratory drilling project on state Leases PRC 308 and 309 in the same vicinity, as well.

3. Oceanography

The impact of exploratory drilling on currents and tides in the project area would be limited to a negligible increase in local turbulence. Wave activity would not be impacted, although high waves and winds associated with severe local storms could hamper drilling operations. The discharge of drilling muds, drill cuttings, treated sewage and cooling water would be expected to have a negligible impact on the temperature, salinity and density of ambient seawater. Impacts on nutrient and dissolved oxygen levels should be minor. Rapid dilution of heavy metals and other chemical pollutants from discharged liquid materials would be expected. These discharges would have minimal impact on seawater transparency at the drill sites.

The effects of mud and cuttings discharges would be mitigated by adherence to NPDES limitations and prohibitions. Water clarity impacts could be mitigated by discharging mud and cuttings continuously during drilling, thus avoiding large volume slug discharge and by reducing the elevation of the discharge point to as near the sea floor as possible.

4. Water Quality

Discharge of drilling muds and drill cuttings would not be expected to result in significant long-term elevations in the concentrations of trace metals or hydrocarbons. Significant changes in transparency, dissolved oxygen, conductivity, pH or temperature would not be expected. Any minor impacts would be located close to discharge points and would be temporary in nature. Any thermal discharges would be expected to rapidly cool to ambient temperature. The discharge of treated sewage could result in a minor increase in oxygen demand, nutrients, residual chlorine and light attenuation; however, any such effects would be highly localized and temporary in nature. The above impacts could be eliminated altogether with the disposal of all project muds and cuttings onshore. This disposal, however, would entail other significant costs and potential impacts involved in the ocean and onshore transport and handling of the materials, and in their disposal at an approved onshore site.

The most serious potentially adverse impact on water quality would come in the unlikely event of a major oil spill. The probability of oil spill water quality effects on nearby coastal wetlands such as Devereux Slough or Goleta Slough would be low, however, due to the physical location

of the wetlands and prevailing oceanographic and meteorological conditions. Oil spills could cause a temporary decrease in oxygen concentrations in the surface waters; an increase in odor and toxic components would also be expected. The implementation of federal, state, and oil company spill containment and cleanup procedures should mitigate water quality impacts, the extent to which would depend on the prevailing oceanographic and meteorological conditions. Care must be taken in the use of chemical dispersants for spilled oil to avoid impacts above and beyond those related to any actual oil spillage.

5. Biology

Biological impacts from the proposed exploratory program can be separated into those stemming from equipment and activities associated with routine drilling operations, including discharges of waste material, and those due to a catastrophic, although unlikely, event such as a well blowout or oil spill. The most direct impact from routine operations would be from the temporary crushing, burying or displacing of benthic organisms in the immediate vicinity of the drilling sites. Disposal of drill cuttings and muds would temporarily impact organisms in the water column and benthos. Impacts would be primarily from burial, loss of habitat or increased sedimentation and turbidity. Any minor impacts from trace metals contained in drilling muds would be temporary and highly localized in nature. Drilling operations would be expected to have little effect on intertidal communities and result in minor impacts to fish or marine birds. Some marine mammals might alter their migratory routes as a result of the exploratory activities.

While the probability of a catastrophic accident such as an oil spill occurring during offshore exploratory activities may be low, significant and widespread impacts on biotic communities could result. The extent of such impacts, however, cannot be predicted because of the many variables that come into play. Sessile (non-mobile) intertidal and subtidal organisms, and diving marine birds would be the most susceptible to damage. Recovery to biotic communities from a major oil spill could take up to a number of years. Should floating oil reach the Channel Islands, piniped (seals, sea lions) breeding populations could be impacted. In addition, unique biological communities of the Channel Islands and along the mainland coastline also could suffer harm. Rare or endangered species potentially impacted in the event of a major oil spill are the California brown pelican, California least tern, Belding's Savannah sparrow and the Guadalupe fur seal.

Impacts to biota from drilling operation muds and cuttings discharges could be reduced by lowering the discharge point, thus reducing the discharge and settling area. The substitution of sodium lignosulfonate for the more toxic ferrochrome lignosulfonate would reduce any potential impacts from trace metals contained in drilling muds. Potential abandonment of migratory routes of the gray whale could be mitigated by limited drilling activities to months when whales are not migrating. The mitigation of impacts due to a catastrophic oil spill is a function of an effective oil spill contingency program, including methods for prevention and rapid and thorough cleanup. Careful use of chemical dispersants would be warranted.

6. Socioeconomics

The proposed project would generate a maximum of roughly 200 jobs, assuming sequential drilling of all proposed wells by ARCO and Aminoil, or almost 400 jobs (of shorter duration) if the ARCO/Aminoil programs were fully concurrent. No significant impacts on Santa Barbara County population or employment are anticipated: most drilling crew and subcontractor jobs will originate from outside the County; many workers are presently in similar jobs (and therefore no new employment would be represented by project jobs); and all project employment would be temporary - for the period of exploratory drilling only (or shorter). Housing impacts would not be expected to be significant. Local payroll spending, together with local spending for materials and equipment, would generate some temporary indirect employment. However, this also is expected to be insigificant.

Some temporary minor space use conflicts with commercial and sportfishing activities would result from drilling activities; bottom trawl and purse seine fisherman would have to temporarily avoid the immediate area of the the drilling units. A major oil spill, although considered unlikely, could preclude spill area fishing activities for a period of time. No significant impacts on recreational activities are anticipated from normal operations. An oil spill, however, could adversely affect local coastal and marine recreation for a period of time.

7. Land Use

No onshore activities are anticipated in the project area other than personnel transport from existing facilities (i.e., Ellwood Pier, Aminoil's Ellwood facilities, and the Santa Barbara Airport) which can accommodate project needs without modification. All heavy materials and equipment will be staged from Port Hueneme, which currently has the needed facilities in place.

The proposed drilling activities are generally consistent with the policies of the Santa Barbara Local Coastal Program (LCP) and the Coastal Act. Project activities are also consistent with the Draft County Coastal Zoning Ordinance. Piers and staging areas to be utilized are permitted in M-CD Districts (Coastal Dependent Industry). Normal operations are not expected to impact the Channel Islands National Monument; no impacts are expected on agricultural areas in the Ellwood to Gaviota coastal zone.

No significant aesthetic impacts would be expected from normal project operations. Project activities would be visible from beach areas west of Ellwood and from a few locations in the Goleta area and beaches further east. However, project visual impacts would be temporary; drilling activities would be occurring in the distance when viewed from shore and would appear quite small in scale. Further, an offshore drilling platform (Platform Holly) already exists in one of the lease tracts proposed for exploration.

8. Cultural (Archaeologic and Historic) Resources)

The project vicinity has the potential for submerged sites of cultural resources significance: a prehistoric site is known at Naples Reef in the

northern portion of state Lease PRC 208.1; several historic (recent) shipwrecks also are reported in the vicinity. Based on a literature review and on a review of geophysical data developed for the proposed exploratory drilling activities, the following conclusions are offered:

- The proposed drilling sites themselves contain no cultural resources.
- A number of anomalies noted in the geophysical data, while they conceivably might be of cultural resources significance, are not at the proposed drilling sites and should not be affected even if they are, in fact, cultural resources sites.
- The reported shipwreck sites are not in the actual drilling areas and also should not be affected.

As exploratory activities proceed, care should be taken to completely avoid all known (i.e., the prehistoric site at Naples Reef) and possible cultural resource sites in the project vicinity. If any unexpected resources were to be encountered, a qualified underwater archaeologist should be called in immediately to assess their significance and make appropriate recommendations for subsequent actions.

9. Marine Traffic and Navigation

The potential for accidents involving the drilling vessels and commercial vessels is considered extremely low, primarily because the closest of the proposed exploratory well sites is roughly one mile (1.6 kilometers) north of the nearest (northbound) Vessel Traffic Separation Scheme (VTSS) lane. Further, activities at this site would last about two months (the maximum duration of the exploratory drilling activity is roughly 115 weeks, assuming sequential drilling of 13 wells). Risks to recreational and fishing also would be low: because petroleum activities/platforms are common in the Santa Barbara Channel, fishermen/recreational boaters are accustomed to their presence. Further, the proposed exploratory sites are well-removed (roughly 12 miles or 20 kilometers) from the recreation/fishing harbor at Santa Barbara. Support vessels (crew and supply boats) conceivably could pose some hazard to fishermen/recreational boaters. However, the presence of project vessels would not significantly alter the present mix of vessels presently utilizing the Santa Barbara Channel. Specific mitigation measures that could further reduce project risks are primarily in the form of advance notice and warnings to vessel operators.

10. Oil Spills Projections and Contingency Plans

The probability of a major oil spill as a result of the proposed exploratory activities appears to be extremely small. However, as the proposed exploration would add to the petroleum-related activities in the Santa Barbara Channel, the overall risk of oil spills in the Channel would be slightly increased. Considering oceanographic and meteorological factors, an oil spill in the project area would likely make a landfall between Tajiguas and Goleta Point. If westerly winds prevailed, a landfall on the Channel Islands would be unlikely. During a protracted interval (five days or more) of easterly winds, an oil spill could reach the northwest shore of San Miguel Island.

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In addition to federal (e.g., U.S. Coast Guard) and state oil spill response capabilities/contingency plans, both ARCO and Aminoil have developed oil spill contingency plans for their proposed exploratory activities. These plans are designed to provide company employees with procedures for responding to an oil spill (i.e., initial abatement of pollution; notification of government agencies that a spill has occurred and coordination with federal and state response teams; and spill containment and cleanup).

Both ARCO and Aminoil will have available to them spill control equipment on the drilling vessels themselves, on ARCO's Platform Holly (which is located in the immediate area of the proposed exploratory activities) and the spill response equipment and resources of contractors such as Clean Seas.

D. ALTERNATIVES TO THE PROPOSED PROJECT

Alternatives to the exploratory activities as proposed include denial or abandonment of the proposed project(s) ("No Project"), delay of the proposed activities, or modification of proposed drilling methods/locations.

A decision to abandon or deny the proposal(s) would mean that none of the environmental impacts described in this document would occur. The area would continue to be affected by all ongoing natural processes and human activities. Also, the evaluation of the potential hydrocarbon resources of the project area would not occur. Deferring action on the proposed ARCO/Aminoil exploratory drilling programs would merely delay, and not mitigate, all project impacts both positive and negative.

Selecting alternative drilling locations within the subject lease tracts would not substantially alter project impacts, unless particular drilling site-specific impacts were to be avoided. However, the particular drilling sites proposed were selected on the basis of sophisticated analyses as offering the best prospects for successful exploration, and analyses conducted for this EIR have not revealed any significant impact that could be avoided merely by employing alternative sites.

Drilling from nearby federal or state lease tracts could not reach most of the particular locations targeted for exploration by ARCO or Aminoil. Also, neither ARCO or Aminoil has the rights to conduct drilling operations from adjacent federal or state tracts. Platform Holly could not be used because all of the drilling slots on the platform are already filled. Because of the horizontal distances from shore that would be involved, and because of the drilling angles that would be required, few or none of the target offshore locations proposed for exploration by ARCO/Aminoil could be reached by directional drilling from onshore.

Onshore disposal of <u>all</u> muds and cuttings (as an alternative to ocean discharge of uncontaminated muds and cuttings and onshore disposal only of oil-contaminated materials) would avoid any potential associated impacts on biota/water quality. However, onshore disposal of all muds and cuttings would pose potential impacts related to additional ocean and onshore transport and handling, as well as contributing somewhat to existing onshore disposal

site availability/capacity problems. Thus, selecting one of these two alternatives (onshore or offshore) would merely transfer potential impacts to a different location and a different medium (i.e., land or water), and not avoid impacts altogether.

E. CUMULATIVE, IRREVERSIBLE, SHORT-TERM VERSUS LONG-TERM AND GROWTH-INDUCING IMPACTS

The impacts of the relatively short-term ARCO/Aminoil exploratory projects generally would be cumulative with the impacts of ongoing petroleum projects in the vicinity, as well as with the impacts of several other exploratory projects proposed but not yet implemented in State Tidelands between Goleta and Point Conception. These other State Tidelands projects include exploratory drilling by ARCO, Phillips, Texaco and Union and Shell.

ARCO/Aminoil project impacts also generally would be cumulative with those of exploratory drilling projects in federal waters of the Santa Barbara Channel. A substantial number of federal tracts have been leased or will be offered for bid in upcoming Outer Continental Shelf (OCS) Lease Sale No. 68.

The proposed exploratory drilling activities would not irreversibly commit the area's hydrocarbon resources, although ultimate production (if exploration were successful) would do so. Project energy uses (i.e., fuel) and materials (e.g., cement, muds) would be irretrievably committed.

Exploratory drilling is a short-term use of the environment. Developing data regarding the presence of commercially recoverable hydrocarbons could be considered to affect the area's long-term productivity. Longer-term degradation could result from the introduction of oil and other substances (e.g. drilling muds, cuttings) into the environment. No definitive conclusions are yet possible regarding the effects on long-term environmental productivity of oil spills and/or muds and cuttings discharges.

Growth-inducing impacts of the proposed exploratory drilling activities would not be expected to be significant, because the projects are short-term in nature and would involve very little, if any, population in-migration. Potential growth inducement (individually or cumulatively) from possible future proposals for petroleum exploration/production by ARCO or Aminoil, by other lessees of State Tidelands oil and gas leases, and/or by lessees of federal tracts in the Santa Barbara Channel) will be addressed in the environmental review process specific to these other proposed exploratory or production projects.

F. UNAVOIDABLE ADVERSE IMPACTS

1. Earthquake-related geologic processes conceivably could expose people and structures to geologic hazards, although the likelihood of this occurring during the relatively short project period is considered very low. Selection of appropriate drilling equipment and adherence to applicable regulations and standard industry practices should mitigate this potential impact.

2. Project discharges of drilling muds and cuttings, treated sewage and cooling water would have a minor, localized and temporary impact on water quality, chemical oceanography and marine biota. Onshore disposal of muds and cuttings would mitigate impacts in the vicinity of the drilling sites, but would substitute impacts associated with marine and onshore transport, handling and disposal of these materials. Other mitigation measures would include adherence to NPDES requirements, discharging muds and cuttings continuously during drilling and lowering the discharge point to as near as possible to the sea floor.

3. A major oil spill, although very unlikely, would adversely affect water quality, marine biota, sensitive coastal wetlands, marine and coastal fishing and recreational activities, and the aesthetics of the coastal areas in the project vicinity. Careful adherence to applicable regulations, proper equipment design and operation, adequate personnel training, and effective implementation of spill containment and contingency procedures would both decrease the likelihood of a spill occurring and mitigate the effects of oil spills if they did occur. It should be noted, however, that complete protection of the marine environment from hydrocarbon contamination is not possible.

4. The offshore drilling activities would have a minor and temporary effect on the visual aesthetics of the project vicinity, in onshore locations from which the drilling activities would be visible.

5. The proposed activities unavoidably will consume substantial amounts of fuel to power the drilling units, support vessels, etc. However, the potential for discovery of additional hydrocarbon resources can be considered to mitigate this impact.

CALENDAR PAGE 227 J
MINUTE PAGE 543

PRC 3120.1

AGREEMENT OF UNDERTAKING

BY ATLANTIC RICHFIELD COMPANY

Atlantic Richfield Company (hereinafter sometimes referred to as "Operator"), as Operator of State Oil and Gas Lease PRC 3120.1, for itself and Mobil Oil Corporation, hereby advises the State Lands Commission that, pursuant to State Lands Commission Calendar and Minute Item No. 34 of February 25, 1982, authorizing resumption of exploratory drilling operations under said lease, Atlantic Richfield Company, its heirs, successors and assigns, agree to undertake the following:

1. Should any oil spill, leakage or emission occur as a result of operations on said lease and should any such oil spill, leakage or emission be likely to cause a substantial number of claims for damages filed against Operator, then Operator will, within ten (10) days after such oil spill, leakage or emission, open or cause to be opened, for a period of at least sixty (60) days, a claims office within the City of Santa Barbara. Operator will provide publicity adequate to notify the public that said office has been opened. Said claims office shall be staffed with personnel having authority to process all claims received and to settle any uncontested claims. Further, said claims office shall be staffed with sufficient personnel so that, barring unusual circumstances, each claim received can be processed, and each uncontested claim can be settled, within sixty (60) days of the receipt of such claim.

2. In the event that Operator and any Claimant cannot reach a mutually satisfactory resolution of any claim for damages arising out of such oil spill, leakage or emission within sixty (60) days after such claim is first presented to Operator, then Operator shall give notice, in the form attached hereto as Exhibit A, to Claimant of his right to (1) demand arbitration of any claim for $5,000 or less, or (2) seek mediation of any claim in excess of $5,000.

3. If Claimant, within thirty (30) days of receipt of the notice provided for in paragraph 2 above, gives written notice to Operator of his election to demand arbitration or mediation (as the case may be), then Operator shall enter into an agreement with Claimant for arbitration or mediation of the contested claim. Said agreement shall be in the form attached hereto as Exhibit B.

Dated: October 1, 1984

By: [signature]

Title: Attorney-in-Fact

EXHIBIT A, FORM 1

NOTICE TO CLAIMANT OF RIGHT TO SEEK ARBITRATION

(CLAIMS OF $5,000 OR LESS)

Dear (Claimant):

Notice is hereby given that Atlantic Richfield Company has rejected your claim for damages in the amount of $_____. Pursuant to Calendar and Minute Item No. 34 adopted by the State Lands Commission on February 25, 1982, you have the option of referring this claim to binding arbitration. In order to exercise this option, you must sign and date this form in the space provided below and return it within thirty (30) days of receipt of this notice to:

Atlantic Richfield Company
Attention: Claims Office
_____
Santa Barbara, CA _____

Please note that if you elect to refer your claim to arbitration, you will be required to sign an agreement which sets forth the procedures to be followed and which binds you to accept the outcome of the arbitration. Upon execution of this agreement, the pleading of any statute of limitations as a defense to any and all obligations or claims arising from this controversy will be waived by Atlantic Richfield Company and Claimant, to the full extent permissible by law.

If you have any questions or need additional information, please contact _____ (name and telephone number) at the address above.

Very truly yours,

_____

I (Claimant) elect to refer the above referenced claim to binding arbitration, pursuant to the Arbitration Agreement which has been sent to me with this Notice to Claimant.

Signed: _____

Dated: _____

Enclosure: Arbitration Agreement

cc: State Lands Commission
245 W. Broadway - Suite 425
Long Beach, California 90802-4471

EXHIBIT B, FORM 1

ARBITRATION AGREEMENT

(CLAIMS OF $5,000 OR LESS)

THIS AGREEMENT is made and entered into as of the _____ day of _____, 19__, by and between _____ (hereinafter referred to as "CLAIMANT") and Atlantic Richfield Company, a Pennsylvania corporation authorized to do and doing business within the State of California (hereinafter referred to as "ARCO").

W I T N E S S E T H:

THAT there is a controversy between CLAIMANT and ARCO in the amount of $_____ arising as follows:

(Describe factual circumstances underlying the dispute.)

AND THAT, CLAIMANT and ARCO wish to submit such controversy to a panel of three arbitrators.

NOW, THEREFORE, the parties agree as follows:

1. Selection of Arbitrators

Within ten (10) days after the execution of this Agreement, ARCO will appoint an arbitrator. Said arbitrator shall then give written notification to the CLAIMANT of his appointment. Within thirty (30) days after receipt of said notification, CLAIMANT shall appoint the second arbitrator. Within thirty (30) days after the appointment of the second arbitrator by CLAIMANT, said arbitrator and the arbitrator selected by ARCO shall appoint a third arbitrator (hereinafter referred to as "NEUTRAL ARBITRATOR"). In the event that the arbitrators selected by ARCO and CLAIMANT fail to reach agreement on the selection of a NEUTRAL ARBITRATOR within the thirty (30) day period, a notice will be forwarded to the American Arbitration Association requesting that said Association select the NEUTRAL ARBITRATOR within thirty (30) days after receipt of said request.

2. Submission of Controversy

The controversy between CLAIMANT and ARCO referred to above shall be submitted to the three arbitrators selected pursuant to paragraph 1, above. The provisions of the California Code of Civil Procedure sections 1282 through 1284.2 (including without limitation by reason of the specification thereof section 1283.05) shall govern the conduct of the arbitration proceedings except where inconsistent with an express provision of this Agreement.

3. Waiver of Oral Hearings

The parties may agree in writing to waive oral hearings and to permit arbitration based on submission of written arguments and documentary evidence. Where oral hearings are waived, the NEUTRAL ARBITRATOR shall determine the deadlines for submitting evidence.

4. Inspection by Arbitrators

At the initiation of arbitration, either party may request an inspection or a hearing at a site appropriate for inspection. The arbitrators have the absolute discretion to inspect the product or premises involved. If the inspection is to be conducted separately from the hearing, the NEUTRAL ARBITRATOR shall provide notice to the parties and invite their presence. If a party cannot attend the inspection, he shall be allowed the opportunity to comment upon the observations made there by the arbitrators. The arbitrators shall also arrange for the presence of a technical expert at the inspection, at the discretion of the arbitrators. If possible, inspections should be conducted prior to the hearing.

5. Laboratory Tests, Expert Opinions

The arbitrators may require the submission of any article in dispute to an independent testing laboratory for examination and analysis or may engage the services of an independent, impartial expert to inspect and analyze the article or premises in question. The reasonable or ordinary costs, if any, of such services are to be borne equally by the parties.

6. Attendance at Proceedings

Unless otherwise agreed by the parties in writing, only those persons party to or having a direct interest in the dispute are entitled to attend hearings. The NEUTRAL ARBITRATOR shall have the discretion to require any witness to absent himself from the hearing room when the NEUTRAL ARBITRATOR deems his presence to be unnecessary or undesirable.

7. Admission of Evidence

The NEUTRAL ARBITRATOR shall judge the relevance of the evidence and may request additional evidence from either party. He may refuse to admit evidence deemed irrelevant, stating reasons therefor.

8. Modification

The parties may modify any provision of this Agreement by mutual agreement.

9. Statute of Limitations

The pleading of any statute of limitations by either party as a defense to any and all obligations or claims arising from this controversy is hereby waived, to the full extent permissible by law.

10. Effect of Arbitration

The parties agree that they will abide by any award rendered by a majority of the arbitrators and that an action may be brought in any court having jurisdiction to confirm such award pursuant to California Code of Civil Procedure, Part 3, Title 9, Chapter 4.

11. Heirs, Successors and Assigns

This Agreement shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

Atlantic Richfield Company

By_____

CLAIMANT

By_____

EXHIBIT A, FORM 2

NOTICE TO CLAIMANT OF RIGHT TO SEEK MEDIATION

(CLAIMS IN EXCESS OF $5,000)

Dear (Claimant):

Notice is hereby given that Atlantic Richfield Company, has rejected your claim for damages in the amount of $_____. Pursuant to Calendar and Minute Item No. 34 adopted by the State Lands Commission on February 25, 1982, you have the option of referring this claim to mediation (i.e., non-binding arbitration). In order to exercise this option, you must sign and date this form in the space provided below and return it within thirty (30) days of receipt of this notice to:

Atlantic Richfield Company
Attention: Claims Office
_____
Santa Barbara, CA _____

Please note that if you elect to refer your claim to mediation, you will be required to sign an agreement which sets forth the procedures to be followed. You should also be advised that mediation is a practice designed to facilitate the settlement of claims without the necessity of litigation. The conclusions of the mediation panel are not binding upon either party. Upon execution of this agreement, the pleading of any statute of limitations as a defense to any and all obligations or claims arising from this controversy will be waived by Atlantic Richfield Company and Claimant, to the full extent permissible by law.

If you have any questions or need additional information, please contact _____ (name and telephone number) at the address above.

Very truly yours,

_____

I (Claimant) elect to refer the above referenced claim to mediation, pursuant to the Mediation Agreement which has been sent to me with this Notice to Claimant.

Signed:_____

Dated:_____

Enclosure: Mediation Agreement

cc: State Lands Commission
245 W. Broadway - Suite 425
Long Beach, California 90802-4471

EXHIBIT B, FORM 2

MEDIATION AGREEMENT

(CLAIMS IN EXCESS OF $5,000)

THIS AGREEMENT is made and entered into as of the ____ day of _____, 19__, by and between_____ (hereinafter referred to as "CLAIMANT") and Atlantic Richfield Company, a Pennsylvania corporation authorized to do and doing business within the State of California (hereinafter referred to as "ARCO").

W I T N E S S E T H:

THAT there is a controversy between CLAIMANT and ARCO in the amount of $ _____ arising as follows:

(Describe factual circumstances underlying the dispute.)

AND THAT, CLAIMANT and ARCO wish to submit such controversy to a panel of three mediators.

NOW, THEREFORE, the parties agree as follows:

1. Selection of Mediators

Within ten (10) days after the execution of this Agreement, ARCO will appoint a mediator. Said mediator shall then give written notification to the CLAIMANT of his appointment. Within thirty (30) days after receipt of said notification, CLAIMANT shall appoint the second mediator. Within thirty (30) days after the appointment of the second mediator by CLAIMANT, said mediator and the mediator selected by ARCO shall appoint a third mediator (hereinafter referred to as "NEUTRAL MEDIATOR"). In the event that the mediators selected by ARCO and CLAIMANT fail to reach agreement on the selection of the NEUTRAL MEDIATOR within the thirty (30) day period, a notice will be forwarded to the American Arbitration Association requesting that said Association select the NEUTRAL MEDIATOR within thirty (30) days after receipt of said request.

2. Submission of Controversy

The controversy between CLAIMANT and ARCO referred to above shall be submitted to the three mediators selected pursuant to paragraph 1, above. The provisions of the California Code of Civil Procedure, sections 1282 through 1284.2 (including without limitation by reason of the specification thereof section 1283.05) shall govern the conduct of the mediation proceedings except where inconsistent with an express provision of this Agreement.

3. Waiver of Oral Hearings

The parties may agree in writing to waive oral hearings and to permit mediation based on submission of written arguments and documentary evidence. Where oral hearings are waived, the NEUTRAL MEDIATOR shall determine the deadlines for submitting evidence.

4. Inspection by Mediators

At the initiation of mediation, either party may request an inspection or a hearing at a site appropriate for inspection. The mediators have the absolute discretion to inspect the product or premises involved. If the inspection is to be conducted separately from the hearing, the NEUTRAL MEDIATOR shall provide notice to the parties and invite their presence. If a party cannot attend the inspection, he shall be allowed the opportunity to comment upon the observations made there by the mediators. The mediators shall also arrange for the presence of a technical expert at the inspection, at the discretion of the mediators. If possible, inspections should be conducted prior to the hearing.

5. Laboratory Tests, Expert Opinions

The mediators may require the submission of any article in dispute to an independent testing laboratory for examination and analysis or may engage the services of an independent, impartial expert to inspect and analyze the article or permises in question. The reasonable or ordinary costs, if any, of such services are to be borne equally by the parties.

6. Attendance at Proceedings

Unless otherwise agreed by the parties in writing, only those persons party to or having a direct interest in the dispute are entitled to attend hearings. The NEUTRAL MEDIATOR shall have the discretion to require any witness to absent himself from the hearing room when the NEUTRAL MEDIATOR deems his presence to be unnecessary or undesirable.

7. Admission of Evidence

The NEUTRAL MEDIATOR shall judge the relevance of the evidence and may request additional evidence from either party. He may refuse to admit evidence deemed irrelevant, stating reasons therefor.

8. Modification

The parties may modify any provision of this Agreement by mutual agreement.

9. Statute of Limitations

The pleading of any statute of limitations by either party as a defense to any and all obligations or claims arising from this controversy is hereby waived, to the full extent permissible by law.

10. Effect of Mediation

Any award rendered by a majority of the mediators shall be solely for the purposes of facilitating settlement of the controversy by allowing the parties to better evaluate their positions. Such award shall not be binding on any party to this Agreement and shall not be admissible in any litigation between the parties.

11. Heirs, Successors and Assigns

This Agreement shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

Atlantic Richfield Company

By_____

CLAIMANT

By_____