

Appendix for Chapter 1

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Appendix 1

APPENDIX 1.1. LEASING, DEFERRAL, AND LITIGATION HISTORY OF THE PACIFIC OCS REGION

The earliest offshore oil production in the United States was off Summerland, California (near Santa Barbara), in 1896, an extension of an onshore discovery made before 1894. The Submerged Lands Act of May 22, 1953, granted the coastal states a belt of submerged lands seaward of their coastlines to a distance of three geographical miles, or more, if there were evidence that the State had been given jurisdiction over a larger area before becoming a State.

The Outer Continental Shelf Lands Act of August 7, 1953, reaffirmed that, in general, those lands beyond the three geographical mile limit are subject to the jurisdiction of the Federal Government for the benefit of the entire Nation. It further authorized the Secretary of the Interior to prescribe necessary regulations and to grant mineral leases for the OCS lands.

The Pacific OCS Region has been the subject of twelve OCS sales, which will be briefly described below.

Phosphate Lease Sale, December 15, 1961

In January 1961, Collier Carbon & Chemical Corporation requested that phosphate leases be offered offshore San Clemente Island off California. The Navy told the Department of Interior (DOI) that the area proposed was only 10 miles from an explosive dumping area; however, they would consent to the leasing with reservations. The Call for Nominations was issued on July 17, 1961 offering portions of 16 blocks in 600 feet of water, 40 miles off the coast of California between San Diego and San Clemente Island. Collier was the only company that submitted nominations, and the only company that bid at the sale held on December 15, 1961, in Los Angeles.

Collier was awarded leases on the six tracts upon which they bid, and began exploration immediately. Officials from the Gulf of Mexico Office and Headquarters conducted the sale; the lease files were then sent to Washington, D.C. In March, 1962, Collier discov-

ered live ammunition from Navy target practice on their leases. They asked the Navy if mining operations could safely be conducted. The Navy responded that unexploded projectiles probably did exist on the ocean floor, but they could not survey the area or remove the ammunition. Collier suspended exploration, and requested they be reimbursed by the Government for the bonuses, lease rentals, and exploration expenses they had incurred. The U.S. Geological Survey stated that Collier should have been aware of the target practice area, and recommended the claim be rejected. BLM then recommended the same to the DOI Solicitor and to the Secretary of the Interior. Collier relinquished the leases in October, 1963, but did not waive their claim.

The General Accounting Office disallowed Collier's claim in December, 1963, but Collier appealed, and in April, 1965, the U.S. Comptroller General authorized payment to Collier of \$137,120, which covered all bonuses and rentals paid, but no reimbursement for exploration.

Later in 1965 and in 1969 two companies expressed interest in phosphorite leasing in Southern California, but the Bureau of Mines stated that it was not economically viable at the time.

Sale P-1, May 14, 1963

The Call for Nominations for this 1963 Sale, the first offshore California, was issued from Headquarters in January, 1962, and included approximately 4 million acres offshore Central and Northern California. One hundred seventy-four blocks (approximately 900,000 acres) were nominated.

To avoid conflict with San Francisco Bay shipping, no blocks were offered between San Francisco and the Farallon Islands. Also deleted, at the request of the Department of Defense and to avoid conflict with shipping were blocks off Vandenberg Air Force Base and Point Arguello and blocks opposite Arcata and Humboldt Bays. Stipulations were applied to some blocks: a Defense Department Suspension of Operations, one stating no pipelines in the Point Reyes National Seashore area, and one disallowing drilling or

production activities above the ocean bed in the San Francisco Bay Area.

A total of 129 tracts were offered, and 57 (312,945 acres) were leased. Seventeen blocks were leased in the Eureka area, 10 in Point Arena, 24 in the San Francisco area, and 6 in the Santa Maria Basin. Twenty exploratory wells were drilled on 17 leases, but the high production and transportation costs determined that Monterey Formation oil would not be economic in the offshore environment at that time. All of the leases from the sale were relinquished prior to the expiration of their five year terms.

Sale P-2, October 1, 1964

The Call for Nominations for the first OCS sale in the Pacific Northwest, published August 14, 1963, covered 1,676 blocks (9.5 million acres) offshore Oregon and Washington. There were 650 blocks (3.5 million acres) nominated by six companies. Some blocks nominated in the Cape Flattery, Copalis Beach, and Coos Bay areas were deleted because they fell within Department of Defense concerns, and tracts off northern Washington were not offered because of the disputed international boundary.

One hundred ninety-six blocks (1.1 million acres) were offered in the sale; all with the Department of Defense stipulation agreeing to suspend operations at the request of the U.S. Navy. One hundred one blocks were leased. Offshore Oregon in the Tillamook Area 13 were leased, 31 in the Newport Area, and 30 in the Coos Bay Area. Offshore Washington 9 were leased in the Cape Flattery Area, and 18 in the Copalis Beach Area.

Eight exploratory wells were drilled offshore Oregon, and 4 offshore Washington, on a total of ten leases but none were deemed to be economically producible. All leases were relinquished between 1966 and 1969.

Sale P-3, December 15, 1966

One block in the Santa Barbara Channel was offered in this Drainage Sale, when it was determined that probable drainage of oil and gas was imminent because of production on an adjacent State of California lease. Seven bids were received; the lease was issued effective January 1, 1967, and first production from Platform Hogan was reported June 10, 1968. A second platform, Houchin, reported first production April 28, 1969; and the lease, OCS-P 0166, is still producing.

Sale P-4, February 6, 1968

The Call for Nominations was issued on December 29, 1966, covering 144 blocks (approximately .8 million acres) in the Santa Barbara Channel. All acreage nominated was offered with the following exceptions; 1) a special two-mile "buffer zone" along an eighteen mile stretch paralleling the boundary of the State of California's Santa Barbara Sanctuary to protect the sanctuary from drainage, 2) 14 blocks located in waters deeper than 1,200 feet that received only single nominations, and 3) two blocks and portions of two other blocks that might be involved in future jurisdictional questions with the State of California.

Of the 110 blocks offered in the Sale, 75 received bids, and 71 leases were awarded. One hundred forty-two exploratory wells and 392 development wells have been drilled on these leases, and there are eleven producing platforms.

There was extensive litigation and suspensions on these leases as a result of the February 1969 oil spill from lease OCS-P 0241. The lease terms of the five leases that were drilling at the time of the oil spill were extended by the number of days their actions had been suspended.

As of December, 2000, 26 leases from this sale remain active: 13 are in the producing Santa Ynez Unit, 7 in the producing Santa Clara Unit, 1 in the producing Pitas Point Unit, 2 in the producing Point Hueneme Unit, and 2 leases are not in units but producing.

Sale 35 - December 11, 1975

The Call for Nominations, issued in January, 1974, covered 1,424 blocks, approximately 7.7 million acres. The Call area excluded Santa Barbara Channel, but included areas in the San Pedro Channel southward and eastward from Ventura and southward and westward from the Channel Islands. The area extended as much as 110 miles seaward, and included substantial areas of deep water. Seventeen companies nominated 1,350 blocks; however, only 297 blocks, covering approximately 1.6 million acres were studied in the Environmental Impact Statement (EIS), the first EIS prepared by the Pacific OCS Region, after enactment of the National Environment Policy Act 1969 (NEPA).

All blocks in the Santa Monica Bay were deferred from consideration, as were blocks south of San Miguel Island. A three-quarter mile buffer zone was established adjacent to State waters.

The State of California, the Southern California Association of Governments, the County of Los Angeles, and the California Coastal Zone Conservation Commission filed two suits contending that the DOI failed to comply with NEPA in the preparation of the Sale 35 EIS's and that Sale 35 will have direct and

significant impact upon environmental quality of the coastal zone of Southern California. On December 5, 1975, Judge Williams determined sufficiency of the EIS's challenged, and that it was inappropriate to enjoin Sale 35; Judge Robinson, ruling on the latter issues, stated that his case was bound by Judge Williams' decision.

Of the 231 blocks (1,257,593 acres) offered, 70 were bid on, 14 were rejected, and 56 (310,049 acres) were leased. Four leases, on which there are four platforms, remain active within the Beta Unit. One platform is used for processing only, the other three are producing; the first, Ellen, since January, 1981.

Sale 48 - June 29, 1979

The Call for Nominations, covering 2,505 blocks (14.1 million acres) in the Southern California Bight Area, extending 190 miles seaward from Point Conception to the Mexican border, was issued on July 16, 1976. Seventeen companies nominated 970 blocks; however, only 217 blocks were studied in the EIS.

Three months before the June sale, Secretary of the Interior Andrus deleted 69 blocks: 26 offshore Dana Point and San Diego; 3 off Santa Barbara Island; 21 off northern Channel Islands; and 19 because of conflicts with shipping lines, geologic hazards, and Department of Defense.

After the Final Notice of Sale was published, Energy Action Educational Foundation and 13 other individuals and organizations, including the City of Long Beach and the California State Lands Commission, filed suit to prohibit all future OCS lease sales until the Department of Energy (DOE) promulgated regulations implementing alternative bidding systems authorized by the OCSLA Amendments. In a separate action, the group sought a preliminary injunction blocking Sale 48 for the above same reasons.

On June 27, 1979 (two days before the sale), District Judge Robinson, Jr. denied the group's motion for a preliminary injunction. The next day the appellants filed a motion to restrain the DOI from awarding cash bonus-fixed royalty leases under Sale 48; this motion was also denied by the District Court. After the lease sale, the appellants again appealed stating that the Secretary of the DOI had failed to experiment with the bidding systems that do not use the size of a cash bonus as the bidding variable. The Court of Appeals ruled in their favor, but the United States Supreme Court reversed the judgment of the Court of Appeals December 1, 1981.

Fifty-five of the 148 blocks offered at Sale 48 were bid on; only one of those was rejected. Nine leases remain active and are in four units. Two are in the producing Santa Ynez Unit. One is in the producing Pitas Point Unit. Two are in the producing Point Arguello Unit. Four are in the non-producing Sword, Unit.

Sale 53 - May 28, 1981

The Call for Nominations and Comments for Proposed Sale 53 offshore Central and Northern California was issued November 29, 1977. The Call area included 2,036 blocks (10.7 million acres), from Eureka in Northern California to Point Conception, seaward to 70 miles in water depths to over 12,000 feet.

Of the 1,743 blocks (8.4 million acres) nominated by 27 companies, 242 blocks comprising 1.3 million acres were selected for environmental study. The tracts were in five geologic basins: Eel River Basin offshore Eureka; Point Arena Basin offshore Mendocino County; Bodega Basin offshore Sonoma and Marin Counties north of the Point Reyes National Seashore; Santa Cruz Basin north of Monterey Bay; and the Santa Maria Basin offshore northern Santa Barbara County and San Luis Obispo County.

In October, 1980, Secretary of the Interior Andrus released the Proposed Notice of Sale for Sale 53, offering only 115 tracts in the Santa Maria Basin. However, in February, 1981, the new Secretary of the Interior Watt reissued a Proposed Notice of Sale with all five basins again included for consideration.

When the Final Notice of Sale was published, only 111 tracts in the Santa Maria Basin, were offered. Secretary Watt said that a decision regarding the other four basins would be made later. A suit was filed by the State of California and the following California agencies: Coastal Commission, Air Resources Board, Resources Agency, Department of Fish and Game, and Department of Conservation. A similar suit was also filed by the Natural Resources Defense Council, Inc., Friends of the Sea Otter, and the Environmental Coalition on Lease Sale 53.

The suits sought to prevent 34 of the 115 tracts from being offered in the Sale on the grounds that the leasing of those tracts was inconsistent with California's federally approved Coastal Management Plan, and requested that a consistency determination be conducted by the DOI. Other grounds cited in the suits were deletion of 34 southern tracts to protect the Southern sea otter, and other marine life such as the gray whale, seabirds and fisheries; 31 tracts to protect recreation and tourism; 11 tracts to protect against geological dangers; and 14 tracts based on considerations of marine safety and the potential impacts of tanker accidents.

A preliminary injunction was issued May 28, 1981, by the U.S. District Court for the Central District of California, enjoining the Bureau of Land Management (BLM) from accepting or rejecting any bids or issuing any leases on 32 tracts in the Santa Maria Basin. The BLM (now MMS) was allowed to receive, open, and conduct internal administrative review of bids on those tracts, as well as on all others.

Forty-three companies participated in the sale, submitting a total of 301 bids on 81 tracts. The high-

est bid on a single tract, \$333.6 million, is still a National OCS sale record. BLM was enjoined from awarding leases on bids received on 21 tracts in the northern part of the basin pending determination of a Federal Court's Temporary Injunction. Of the 81 tracts receiving bids, 60 were outside the area of litigation, and 54 of those were leased.

In July, 1981, the Preliminary Injunction was modified; 2 tracts were withdrawn from the litigation. One of the bids was rejected, the other was leased. A month later, Secretary Watt announced that because of the appeals pending on Sale 53 litigation, the other four basins would not be offered.

In May, 1984, the U.S. Supreme Court dissolved the injunction, ruling in favor of the DOI by determining that lease sales are not subject to consistency determinations. By that time, the price of oil had fallen, and the majority of the companies who bid on the litigated tracts decided to forfeit their one-fifth bonuses, rather than pay the four-fifth balances due. The bonuses on twelve leases, amounting to \$41,081,734.40, were forfeited by ten companies. Two bids were rejected, and five leases, on the northern edge of the Santa Maria Basin.

Twenty-one discoveries have been announced on the other Sale 53 leases. One of the first, in October, 1982, announced a giant offshore oil field 7 miles west of Point Conception, holding at least 100 million recoverable barrels of oil: Of the 33 remaining active leases, 37 are in approved units, three of which are producing.

Sale 68 - June 29, 1982

The Call for Nominations and Comments for this proposed Southern California sale was issued December 28, 1979, covering 2,900 blocks (16.3 million acres) seaward 135 miles from Point Conception to the Mexican border. Two areas were specifically deleted from the Call: blocks from 3 to 30 miles offshore Dana Point and San Diego to the Mexican Border, and blocks in the Santa Barbara Channel immediately north of the Channel Islands.

Of the 609 blocks nominated, 218 (1.1 million acres) were selected for inclusion in the EIS, and 164 were offered in the Final Notice of Sale. Suits were filed by the State of California, who was joined by the cities of Los Angeles, Santa Monica, Beverly Hills, Manhattan Beach, Torrance, San Clemente, Newport Beach, and Laguna Beach, and the Sierra Club, and by a coalition of independent oil and gas companies, known as the "Pauley Group," made up of Pauley Petroleum, Inc., Derby Refining Co., Mesa Petroleum Co., and Husky Oil Co.

Twenty-four blocks were deleted just prior to the sale, after the U.S. District Court and the Appellate Court ruled in favor of the State of California and other

plaintiffs that certain portions of the sale area were not in accord with consistency requirements of the California Coastal Zone Management Plan, and that "full and careful consideration" was not given to the Governor's comments to the Proposed Notice of Sale. This case was pending until the Sale 53 litigation was resolved. That decision, in 1984, by the U.S. Supreme Court, ruled that lease sales are not subject to consistency determinations.

Thirty-five of the 140 blocks offered were bid on, 29 were leased, and three remain active. Two have been incorporated into existing units (one of which is the producing Santa Ynez Unit. and the other two make up the Gato Canyon unit.

RS-2 (Reoffering Sale) - August 5, 1982

No Call for Nominations and Comments or EIS was required for this second reoffering of OCS tracts not leased in the previous year. Thirty-seven tracts from the Pacific OCS Region's Central California Sale 53 were included in the Proposed Notice of Sale; however, since ten of those tracts were the subject of Sale 53 litigation still unresolved, only 27 blocks were actually offered at the August sale held in Washington, D.C.

On July 19, 1982, the State of California and the California Coastal Commission filed suit against the DOI seeking to enjoin the offering of two tracts. They alleged that the Secretary of Interior violated 1) Section 19 of the OCSLA by not adopting all of the Governor's recommendations; and 2) the NEPA and CEQ regulations by failing to discuss and assess new information in the environmental assessment. The court dismissed the suit as moot.

Bids were received on twelve of the 27 blocks; two bids were rejected. On the ten blocks leased, only one well has been drilled. That was on one of the leases that have since been relinquished. Two other leases within an existing unit remain active.

Sale 73 - November 30, 1983

When the Call for Nominations and Comments was issued November 28, 1980, the Call area stretched from the California-Oregon border on the north to the United States-Mexico border on the south, approximately 4,500 blocks (24.1 million acres). The following areas were excluded from the Call: the Dana Point-San Diego tracts omitted from Sale 68; the Santa Monica Bay and Federal Ecological Preserve tracts; the recently designated Channel Islands National Marine Sanctuary; tracts in the Bodega, Santa Cruz, Point Arena, and Eel River Basins deleted from Sale 53; tracts within three geographical miles of state waters from the town of Big Sur north to the Santa Cruz basin tracts also excluded from Sale 53; and

tracts in the vicinity of the Point Reyes Wilderness Area removed from oil and gas activity by the OCS Lands Act Amendments of 1978.

Approximately 2,800 blocks (15.1 million acres) were nominated offshore California; however, in July, 1981, Interior Secretary Watt announced a new proposed five-year oil and gas leasing program at which time Sale 73 was designated as a Central and Northern California sale.

In May, 1982, BLM Director Robert Burford said that the Sale 73 environmental impact statement would cover areas from 3 to 75 miles off the California coast, from Point Conception north to the Oregon border, excluding the four Northern California Basins. In December, 1982, however, the Appropriations Bill for Fiscal Year 1983 was approved. This restricted the DOI from any leasing north of the vicinity of Morro Bay, which was the northern border of the Region's active leases.

Prior to the Final Notice of Sale, 121 tracts were deferred as a result of consultation with the Department of the Navy, and 22 as a result of the Memorandum of Agreement with the State of California. One hundred thirty-seven tracts covering about 770,000 acres were offered at the Sale; however, a preliminary injunction had been issued preventing the opening of the bids, pending disposition of the State of California's lawsuit regarding "consistency determination." This injunction was stayed on December 20, 1983, and the bids were opened and announced. Eight tracts were bid on, none were rejected. On January 11, 1984, the Supreme Court of the United States held that "Interior's sale of OCS oil and gas leases is not an activity 'directly affecting' the coastal zone within the meaning of Sec. 307(c)(1), and thus a consistency review is not required under that section before such sales are made."

The Sale 73 leases were then issued. All Sale 73 leases have been relinquished or terminated. No wells were drilled on any of the leases.

Sale 80 - October 17, 1984

The Call for Information and Nominations was issued November 23, 1982, covering 4,100 blocks (22.4 million acres) seaward 130 miles offshore Southern California, between Point Conception and the U.S.-Mexico Border. The only areas deleted from the Call were the Santa Barbara Channel Ecological Preserve and Buffer Zone and the Channel Islands National Marine Sanctuary. Over 2,300 blocks (11.6 million acres) were studied in the EIS.

The Appropriations Bill for FY 84, approved November 4, 1983, included a Congressional moratorium that covered from the State's three mile line to 20 miles offshore both San Diego and Orange Counties, and from 3 to 27 miles offshore Los Angeles

County, including Santa Monica Bay. In addition, some 1,295 whole and partial blocks were excluded because of Department of Defense concerns, and 18 others, at the request of the State of California, near the border of Ventura and Los Angeles Counties and surrounding the southern portion of Santa Catalina Island.

Of the 657 blocks (3.1 million acres) offered in Sale 80, 25 blocks were bid on, and 23 were leased. One lease is still active and is part of the Cavern Point Unit. No drilling has occurred on this lease to date.

Appendix 1.2 Ownership Suspension History, Lease Stipulations, and Exploration History.

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
N/A	Aera ¹ Delta ⁵ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵	Aera ¹	53 7/81 6/86	7/86-6/87 SOP* for proposed installation of Platform Julius. 7/87-6/89 SOP to obtain permits for construction and installation of Platform Julius. 6/89-6/90 SOP to obtain permits, reinterpret 3D seismic data, participate in cooperative effort to secure a drilling rig (IROCC). 7/90-6/94 SOP to reinterpret 3D seismic data, participate in rig cooperative, unitize with Lion Rock Unit. 1/93-6/99 Directed SOO ¹ for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	9 exploratory wells approved by CCC. 6 wells drilled between 11/82 and 3/84. 3 previously approved wells have not been drilled.
Lion Rock Unit OCS-P 0396 0402 0408 0414	Aera ¹ REM Petroleum ¹⁴	Aera ¹	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/90 SOP to drill unit well by 1/90. 7/90-6/94 SOP to participate in rig cooperative (IROCC). Drill and test well. Unitize with 0409. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	24 exploratory wells approved by CCC for Lion Rock Unit. 6 wells drilled between 6/82-4/85. 18 previously approved wells have not been drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Lion Rock Unit OCS-P 0397 0403	Aera ¹ RME Petroleum ¹⁴ Nuevo ⁷	Aera ¹	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/90 SOP to drill unit well by 1/90. 7/90-6/94 SOP to participate in rig cooperative (IROCC), Drill and test well. Unitize with 0409. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (c). Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	see previous
Point Sal Unit OCS-P 0415 0421	Aera ¹ Delta ⁵ Nuevo ⁷ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵	Aera ¹	53 7/81 6/86	6/86-12/87 SOP to acquire and interpret 3D seismic data; simulation of Monterey reservoir. 12/87-12/89 SOP to drill unit well by 6/89, finalize 3D analysis. 7/89-6/94 SOP to participate in rig cooperative (IROCC), drill and test well, evaluate results, commence development planning. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	14 exploratory wells approved by CCC for Point Sal Unit. 4 wells drilled between 1/84 and 9/85. 10 previously approved wells have not been drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Point Sal Unit OCS-P 0416 0422	Aera ¹ Delta ⁵ Nuevo ⁷ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵	Aera ¹	53 7/81 6/86	6/86-12/87 SOP to acquire and interpret 3D seismic data; simulation of Monterey reservoir. 12/87-12/89 SOP to drill unit well by 6/89, finalize 3D analysis. 7/89-6/94 SOP to participate in rig cooperative (IROCC), drill and test well, evaluate results, commence development planning. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (c). Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Drilling Restrictions near State Boundary	see previous
Purisima Point Unit OCS-P 0426	Aera ¹	Aera ¹	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/90 SOP to drill unit well by 1/90. Analyze 3D data. 7/90-6/94 SOP to reinterpret 3D seismic, redefine unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-02/01/03 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Drilling Restrictions near State Boundary	21 exploratory wells approved by CCC for Purisima Point Unit. 3 wells drilled between 11/82 and 9/83. 18 previously approved wells have not been drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Purisima Point Unit OCS-P 0427 0432	Aera ¹ Nuevo ⁷ Ogle ¹⁰ OLAC ¹¹ Devon Energy ⁶ Samedan ¹⁵	Aera ¹	53 7/81 686	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/90 SOP to drill unit well by 1/90. Analyze 3D data. 7/90-6/94 SOP to reinterpret 3D seismic, redefine unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-12/01/03 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (c). Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustment. Drilling Restrictions near State Boundary	see previous
Purisima Point Unit OCS-P 0435	Aera ¹ Nuevo ⁷	Aera ¹	53 7/81 686	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/90 SOP to drill unit well by 1/90. Analyze 3D data. 7/90-6/94 SOP to reinterpret 3D seismic, redefine unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-02/01/03 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustment. Drilling Restrictions near State Boundary	see previous

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Santa Maria Unit OCS-P 0425	Aera ¹ TotalFinaElf ⁶	Aera ¹	53 7/81 6/86	7/86-11/86 Unit held by drilling. 11/86-11/87 SOP for heavy oil study, acquisition and interpretation of 3D seismic data. 11/87-11/89 SOP for 3D seismic interpretation. 11/89-6/94 SOP for 3D seismic interpretation, redefining unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	31 exploratory wells approved by CCC for Santa Maria Unit. 5 wells drilled between 5/82 and 6/86. 26 previously approved wells have not been drilled
Santa Maria Unit OCS-P 0430	Aera ¹ TotalFinaElf ⁶	Aera ¹	53 7/81 6/86	7/86-11/86 Unit held by drilling. 1/86-11/87 SOP for heavy oil study, acquisition and interpretation of 3D seismic data. 1/87-11/89 SOP for 3D seismic interpretation. 11/89-6/94 SOP for 3D seismic interpretation, redefining unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program.	see previous

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Santa Maria Unit OCS-P 0431	Aera ¹ TotalFinaElf ¹⁶	Aera ¹	53 7/81 6/86	7/86-11/86 Unit held by drilling. 11/86-11/87 SOP for heavy oil study, acquisition and interpretation of 3D seismic data. 11/87-11/89 SOP for 3D seismic interpretation. 11/89-6/94 SOP for 3D seismic interpretation, redefining unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-3/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments. Drilling Restrictions near State Boundary	
Santa Maria Unit OCS-P 0433	Ogle ¹⁰ OLAC ¹¹ Nuevo ⁷ RAM ¹³ Samedan ¹⁵	Aera ¹	53 7/81 6/86	7/86-11/86 Unit held by drilling. 1/86-11/87 SOP for heavy oil study, acquisition and interpretation of 3D seismic data. 11/87-11/89 SOP for 3D seismic interpretation. 11/89-6/94 SOP for 3D seismic interpretation, redefining unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-3/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments.	see previous

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Santa Maria Unit OCS-P 0434	Aera ¹ TotalFinaElf ⁶	Aera ¹	53 7/81 6/86	7/86-11/86 Unit held by drilling. 11/86-11/87 SOP for heavy oil study, acquisition and interpretation of 3D seismic data. 1/87-11/89 SOP for 3D seismic interpretation. 11/89-6/94 SOP for 3D seismic interpretation, redefining unit boundaries, participate in rig cooperative (IROCC), drill and test well, evaluate results. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-11/01/02 SOP to proceed toward production.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments. Drilling Restrictions near State Boundary	
Bonito Unit OCS-P 0443	Nuevo ⁷ Poseidon ¹²	Nuevo ⁷	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/89 SOP to interpret 3D seismic data. 6/89-12/89 SOP to complete 3D analysis, resolve permitting problems. 12/89-12/94 SOP to process and interpret 3D seismic data, permitting delays at Gavioa, participate in rig cooperative (IROCC), spud unit well in first quarter 1994. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/02 SOP to proceed toward production, spud delineation well.	24 wells approved by CCC for Bonito Unit. 10 wells drilled between 4/82 and 9/85. 14 previously approved wells have not been drilled. Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (b) Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments.	

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Bonito Unit OCS-P 0445 0449 0500	Nuevo ⁷ Poseidon ¹²	Nuevo ⁷	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/89 SOP to interpret 3D seismic data. 6/89-12/89 SOP to complete 3D analysis, resolve permitting problems. 12/89-12/94 SOP to process and interpret 3D seismic data, permitting delays at Gaviota, participate in rig cooperative (IROCC), spud unit well in first quarter 1994. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/02 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (b) Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate adjustments.	
Bonito Unit OCS-P 0446	Nuevo ⁷ Poseidon ¹²	Nuevo ⁷	53 7/81 6/86	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/89 SOP to interpret 3D seismic data. 6/89-12/89 SOP to complete 3D analysis, resolve permitting problems. 12/89-12/94 SOP to process and interpret 3D seismic data, permitting delays at Gaviota, participate in rig cooperative (IROCC), spud unit well in first quarter 1994. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/02 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (b) Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments. Drilling Restrictions near State Boundary	see previous

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Bonito Unit OCS-P 0499	Nuevo ⁷ Poseidon ¹²	Nuevo ⁷	RS2 9/82 8/87	6/86-6/88 SOP to acquire and interpret 3D seismic data. 6/88-6/89 SOP to interpret 3D seismic data. 6/89-12/89 SOP to complete 3D analysis, resolve permitting problems. 12/89-12/94 SOP to process and interpret 3D seismic data, permitting delays at Gavioa, participate in rig cooperative (IROCC), spud unit well in first quarter 1994. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/02 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards, Part (b) Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Royalty Rate Adjustments.	
Rocky Point Unit OCS-P 0452 0453	Whiting ¹⁷	Arguello ¹⁸	53 7/81 6/86	6/86-6/88 SOP to drill from Hermosa to 0451. 6/88-6/90 SOP for extended production test for well B-7. 3/90-12/94 SOP for one year production test, permitting problems at Gavioa. 1/93-3/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-06/01/01 SOP to proceed toward production, spud development well.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Drilling Restrictions near State Boundary	6 wells approved by CCC. 4 wells drilled between 9/82 and 6/84. 2 previously approved wells have not been drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Sword Unit OCS-P 0319	Amber ² Nuevo ⁷ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵ Atofina ³	Samedan	48 9/79 8/84	8/84-8/85 SOP to evaluate seismic data, spud unit well by 1/85. 2/85-5/85 Drilling delineation well. 8/85-11/85 SOP to analyze well test results. 1/85-12/87 SOP to spud well by 7/87. 12/87-6/89 SOP to process and interpret 3D seismic data. 6/89-6/94 SOP to continue seismic interpretation, drill 3 wells, participate in rig cooperative (IROCC), develop technology for heavy oil, submit development plan. 1/93-6/99 Directed SOO for COOGER study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-08/01/03 SOP to proceed toward production, spud delineation well.	Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Protection of Cultural Resources. Wells and Pipelines. Protection of Biological Resources. Transportation of Hydrocarbon Products.	11 wells approved by CCC. 3 wells drilled between 3/82 and 2/85. 8 previously approved wells have not been drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Sword Unit	Amber ² Atofina ³ Colton ⁴ Della ⁵ Elf ⁹ Nuevo ⁷ Nueve ¹⁰ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵ OEDC ⁹	Samedan ¹⁵	48 9/79 8/84	8/84-8/85 SOP to evaluate seismic data, spud unit well by 1/85. 2/85-5/85 Drilling delineation well. 8/85-11/85 SOP to analyze well test results. 11/85-12/87 SOP to spud well by 7/87. 12/87-6/89 SOP to process and interpret 3D seismic data. 6/89-6/94 SOP to continue seismic interpretation, drill 3 wells, participate in rig cooperative (IROCC), develop technology for heavy oil, submit development plan. 1/93-6/99 Directed SOO for COOGER study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-08/01/03 SOP to proceed toward production, spud delineation well.	Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Protection of Cultural Resources. Wells and Pipelines. Protection of Biological Resources. Transportation of Hydrocarbon Products.	see previous page

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Gato Canyon Unit OCS-P 0460	Amber ² Delta ⁵ Nuevo ⁷ Nycal ⁸ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵ RME ¹⁴	Samedan ¹⁵	68 8/82 7/87	8/87-7/89 SOP for interpretation of 3D seismic data, drill and test unit well. 1/89-4/89 Drilling delineation well. 7/89-7/91 SOP for acquisition and interpretation of 3D seismic data to delineate western portion of unit, participate in rig cooperative (IROCC). 6/90-7/94 SOP to complete 3D interpretation, spud unit well by 12/93. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/03 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Drilling Restrictions near State Boundary.	4 wells approved by CCC. A- 2 wells 5/85 and 1/89. 2 wells have not been drilled.
Gato Canyon Unit OCS-P 0464	Amber ² Delta ⁵ Nuevo ⁷ Nycal ⁸ Ogle ¹⁰ OLAC ¹¹ Samedan ¹⁵ RME ¹⁴	Samedan ¹⁵	68 8/82 7/87	8/87-7/89 SOP for interpretation of 3D seismic data, drill and test unit well. 1/89-1/89 Drilling delineation well. 7/89-7/91 SOP for acquisition and interpretation of 3D seismic data to delineate western portion of unit, participate in rig cooperative (IROCC). 6/90-7/94 SOP to complete 3D interpretation, spud unit well by 12/93. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-05/01/03 SOP to proceed toward production, spud delineation well.	Protection of Biological Resources. Protection of Cultural Resources. Potential Geologic Hazards. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Drilling Restrictions near State Boundary.	see previous page

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Cavern Point Unit OCS-P 0210	Poseidon ¹²	Venoco ²⁰	P4 4/68 3/73	<p>3/73-7/90 Lease 0210 was in the Santa Clara Unit and held by unit production.</p> <p>11/89-7/90 Lease 0527 was in the Santa Clara Unit and held by unit production.</p> <p>7/90-12/94 SOO to complete permitting for exploration plan, reinterpret seismic data, participate in rig cooperative (IROCC), spud unit well.</p> <p>1/93-3/99 Directed SOO for COOGER Study.</p> <p>7/99-8/16/99 Directed SOO for additional MMS review time on SOP request.</p> <p>8/17/99-11/15/99 Directed SOO to provide additional information.</p> <p>11/12/99-07/01/02 SOO to proceed toward exploration, spud exploration well.</p>	Federal Register, Vol.32, No. 250	No wells drilled.

Appendix 1.2 Suspension History, Lease Stipulations, and Exploration History (continued).

Unit and Leases	Owner(s)	Operator	Lease Sale, Lease Date, Original 5-Year Term	Lease Term Extensions * Suspension of Production † Suspension of Operations	Lease Sale Stipulations	Status
Cavern Point Unit OCS-P 0527	Poseidon ¹²	Venoco ²⁰	80 12/84 11/89	3/73-7/90 Lease 0210 was in the Santa Clara Unit and held by unit production. 11/89-7/90 Lease 0527 was in the Santa Clara Unit and held by unit production. 7/90-12/94 SOO to complete permitting for exploration plan, reinterpret seismic data, participate in rig cooperative (IROCC), spud unit well. 1/93-6/99 Directed SOO for COOGER Study. 7/99-8/16/99 Directed SOO for additional MMS review time on SOP request. 8/17/99-11/15/99 Directed SOO to provide additional information. 11/12/99-07/01/02 SOO to proceed toward exploration, spud exploration well.	Protection of Biological Resources. Protection of Cultural Resources. Operational Controls, electromagnetic Emissions, and Evacuation. Hold Harmless. Transportation of Hydrocarbon Products. Wells and Pipelines. Fisheries and Wildlife Training Program. Protection of Important Biological Resources, Parts (a), and (b). Testing of Oil Spill Containment Equipment. Onshore Oil Processing. Protection of Commercial Fisheries. Protection of Marine Biota. Protection of Air Quality.	No wells drilled.

¹ Aera Energy, LLC² Amber Resources, LLC³ Atofina Petrochemicals⁴ Colton Gulf Coast, Inc.⁵ Delta Petroleum Company⁶ Devon Energy Production Company, L.P.⁷ Nuevo Energy Company⁸ Nycal Corporation⁹ OEDC Exploration & Production, L.P.¹⁰ Ogle Petroleum Company, Inc.¹¹ OLAC Resources, LLC¹² Poseidon Petroleum, LLC¹³ RAM Energy, Inc.¹⁴ RME Petroleum Company¹⁵ Samedan Oil Company¹⁶ TotalfinaElfE&P USA, Inc.¹⁷ Whiting Petroleum Company¹⁸ Arguello, Inc.¹⁹ Elf Aquitaine Oil Programs²⁰ Venoco, Inc.

APPENDIX 1.3 HISTORY OF STATE OF CALIFORNIA OFFSHORE OIL AND GAS DEVELOPMENT/LEGISLATION

Summarized from *California Offshore Oil & Gas Leasing and Development Status Report*, <http://www.coastal.ca.gov/web/pubs.html>, May 25, 1999, Prepared by the California Coastal Commission Staff.

HISTORY OF STATE OF CALIFORNIA OFFSHORE OIL AND GAS DEVELOPMENT/LEGISLATION

Initial Development

Significant California oil development began onshore in the 1860's and expanded rapidly through the turn of the century. The first "offshore" development began from wooden piers extending out from a developed onshore oil field in Santa Barbara County. This early coastal oil development was originally "regulated" only by the private individuals and companies that owned property along the coast, and suffered from wasteful and polluting drilling practices. Furthermore, onshore and pier development was rapidly draining the oil reservoirs that underlay the submerged lands of the "marginal sea"-the three-mile wide band of ocean area adjacent to the coast traditionally understood to be the property of the "sovereign" coastal states.

The first oil well was drilled into the California tidelands at Summerland, Santa Barbara County in 1896. Access leases were acquired from the littoral landowners, and by 1906 approximately 412 wells had been drilled along the beach and from wooden piers extending out into the tidelands. At that time there were no state laws governing the extraction of oil and gas from state-owned lands.

The State of California first responded to this coastal oil development in 1915 when the legislature created the Division of Oil and Gas-now the Division of Oil, Gas, and Geothermal Resources (DOGGR)-as a branch of the State Mining Bureau.

Tidelands Leasing Act of 1921

The California legislature passed a statute in 1921 that asserted the state's sovereign authority over all minerals on state lands including the marginal sea (Chapter 303, Statutes of 1921). This law allowed the California State Surveyor General to issue prospecting permits and oil development leases with a 5% royalty provision for state lands in coastal waters.

State Lands Act of 1938

The legislature closed its coastal waters entirely to new offshore oil and gas development in 1929 be-

cause of continuing pollution and depletion of the oil resources under state waters (*Chapter 536, Statutes of 1929*). Nevertheless, the drainage of the state's oil resources from preexisting onshore wells continued. In the City of Huntington Beach, town-lot drilling was freely permitted immediately adjacent to the tidelands, and in 1932 a trespass well was directionally drilled from an onshore surface location to a bottom-hole location offshore. The state, in 1934, entered into leases with the operators of the trespass wells in compromise of litigation.

The need for a more comprehensive law governing offshore oil and gas development to protect tide and submerged lands against drainage from onshore drilling became increasingly apparent, and on June 11, 1938, the State Lands Act became effective (*Stats. 1938, Ex. Sess, c.5, p. 38, sec 131*). This act created the State Lands Commission and assigned it jurisdiction over all stateowned tide and submerged lands and administrative control over any remaining state interest in granted tide and submerged lands. Another of the more important provisions of the 1938 Act restricted the leasing of tidelands to those lands that were being drained of oil or that were under threat of being drained by wells on adjacent lands not owned by the state.

Establishment of Federal Jurisdiction

A jurisdictional dispute concerning the ownership of coastal submerged lands arose as new technology for developing offshore oil resources in increasingly deeper waters became available. This dispute was resolved in 1953 by two Congressional statutes that clarified federal and state rights and responsibilities for the "continental shelf" (the submerged lands extending from the coastline to the edge of the continental slope). The Submerged Lands Act of 1953 (*43 U.S. C sec. 1301 et seq.*) affirmed the coastal states' assertion of ownership of the submerged lands and resources within a three mile belt seaward of the line of low tide. The Outer Continental Shelf Lands Act of 1953 (OCSLA) established that the submerged lands and resources of the outer continental shelf (OCS) or beyond three miles, "appertained to the United States and [were] subject to its jurisdiction, control, and power of disposition" (*43 U.S. C. sec. 1331 et seq.*).

Cunningham-Shell Act of 1955

In 1955 the legislature passed the Cunningham-Shell Tidelands Act (Chapter 1724, Statutes of 1955). Under the 1938 Act, there was no exclusion of any state property from leasing provided that probable drainage of oil or gas from state lands was established. In contrast, the 1955 Act limited the application of its general leasing provisions to tide and submerged lands

along the coast between the northerly boundary of the City of Newport Beach in Orange County and a point six miles south of the town of Oceano in San Luis Obispo County (i.e. near known onshore productive oil and gas areas in Southern and Central California). Certain scenic lands along the coasts of Los Angeles, Santa Barbara and San Luis Obispo counties and the islands of San Clemente and Catalina were excluded from leasing under the provision except when subjected to probable drainage from wells drilled upon adjacent lands owned by others. The remainder of the coast was excluded from leasing unless threatened by drainage. In 1963 the area available for offshore oil and gas leasing was expanded to include additional tracts as far north as the Oregon border. The 1955 Act and the amendments in 1957 established the basic parameters under which most of the state's offshore leases were issued.

For information on the status of State leases "[Report to the State Lands Commission On The Status of State Offshore Oil and Gas Leases](http://www.slc.ca.gov/Reports/default.htm)", 9-03-99, is available at <http://www.slc.ca.gov/Reports/default.htm>.

APPENDIX 1.4 REGULATORY AND ADMINISTRATIVE FRAMEWORK

This appendix references only those portions of Federal public laws enacted by Congress related directly or indirectly to the Minerals Management Service's (MMS) regulatory responsibilities for mineral leasing, exploration, and development and production activities on leases located in the submerged lands of the outer continental shelf (OCS). It also includes responsibilities and jurisdictions of other Federal agencies and departments that also are involved in the regulatory process of oil and gas operations on the OCS. This is not intended to be a comprehensive summary of all laws associated with proposed exploration and development activities that significantly might affect the OCS. Explanations are merely to acquaint the reader with the law and are not meant as legal interpretations. Readers should consult the entire text of the law for additional requirements and information.

1.4.1 APPLICABLE FEDERAL LAWS AND POLICIES

The Outer Continental Shelf Lands Act

Under the Outer Continental Shelf Lands Act (OCSLA), the Department of the Interior is required to:

- Manage the orderly leasing, exploration, development, and production of oil and gas resources on the Federal OCS;

- Ensure the protection of the human, marine, and coastal environments;
- Ensure that the public receives a fair and equitable return for these resources; and
- Ensure that free-market competition is maintained.

Within the U.S. Department of Interior, MMS is charged with the responsibility of managing and regulating the development of OCS oil and gas resources in accordance with the provisions of the OCSLA. The MMS operating regulations are presented in Chapter 30, Code of Federal Regulations (CFR), Part 250. The MMS responsibilities and procedures in this regard are described in Section 1.5.2.

The OCS Lands Act extends the authority of the Secretary of the Army through the U.S. Army Corps of Engineers to the OCS to prevent obstruction to navigation in U.S. navigable waters.

The OCSLA grants authority to the USCG to promulgate and enforce regulations covering lighting and warning devices, safety equipment, and other safety-related matters pertaining to life and property on fixed OCS platforms and drilling vessels.

In accordance with the OCSLA (43 U.S.C. 1354) and the Export Administration Act of 1969 (50 App U.S.C. 2405(d)), oil that is produced on the U.S. OCS must go to a U.S. port.

The National Environment Policy Act and the Council on Environmental Quality

The National Environment Policy Act (NEPA) requires all Federal agencies to use a systematic, interdisciplinary approach to protection of the human environment. Such an approach ensures the integrated use of natural and social sciences in any planning and decision making that may have an impact on the environment. The NEPA also requires the preparation of a detailed EIS on any major Federal action that may have a significant impact on the environment. The EIS must address any adverse environmental effects that cannot be avoided or mitigated, alternatives to the proposed action, the relationship between short-term resources and long-term productivity, and irreversible and irretrievable commitments of resources.

In 1979, the Council on Environmental Quality (CEQ) established uniform procedures for implementing the procedural provisions of NEPA. These regulations provide for the use of the NEPA process to identify and assess reasonable alternatives to proposed actions that avoid or minimize adverse effects of these actions upon the quality of the human environment. "Scoping" is used to identify the scope and significance of important environmental issues associated with a

proposed Federal action through coordination with Federal, State, and local agencies; the general public; and any interested individual or organization prior to the development of an impact statement. The process also identifies and eliminates from further detailed study issues that are not significant or that have been covered by prior environmental review.

The Marine Mammal Protection Act

Under the Marine Mammal Protection Act (MMPA) of 1972, the Secretary of Commerce is responsible for the protection of all cetaceans and pinnipeds (except walrus) and has delegated authority for implementing the MMPA to the National Marine Fisheries Services (NMFS). The Secretary of the Interior is responsible for walrus, polar bears, sea otters, manatees, and dugongs and has delegated responsibility to USFWS for providing overview and advice to the responsible regulatory agencies on all Federal actions bearing upon the conservation and protection of these marine mammals.

The MMPA established a moratorium on the taking of marine mammals in waters under U.S. jurisdiction. The Act defines “take” to mean “hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal.” “Harassment” is defined as any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild (level A); or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (level B). The moratorium may be waived when the affected species or population stock is within its optimum sustainable population range and would not be disadvantaged by the authorized taking, e.g., be reduced below its maximum net productivity level, which is the lower limit of the optimum sustainable population range. The Act directs the Secretary, upon request, to authorize the unintentional taking of small numbers of marine mammals incidental to activities other than commercial fishing (e.g., offshore oil and gas exploration and development) when, after notice and opportunity for public comment, the Secretary finds that the total of such taking during the 5-year (or less) period would have a negligible impact on the affected species.

The Act also specifies that the Secretary shall withdraw, or suspend for a specified period of time, permission to take marine mammals incidental to oil and gas production, and other activities if the applicable regulations regarding methods of taking, monitoring, or reporting are not being complied with, or the taking is having, or may be having, more than a negligible impact on the affected species or stock.

In 1994, a new subparagraph (D) was added to Section 101(a)(5) to simplify the process of obtaining “small take” exemptions when unintentional taking is by incidental harassment only. Specifically, the incidental take of small numbers of marine mammals by harassment can now be authorized for periods of up to one year without rulemaking, as required by Section 101(a)(5)(A), which remains in effect for other authorized types of incidental taking.

To ensure that activities on the OCS adhere to MMPA regulations, MMS must actively seek information concerning impacts of OCS activities on local species of marine mammals.

Since 1986, MMS, the U.S. Army Corp of Engineers, and OCS operators have been following strict NMFS recommendations to prevent adverse impacts on endangered marine turtles and avoid the incidental taking of marine mammals.

The Magnuson - Stevens Act of 1976

The Magnuson - Stevens Act of 1976 (MFCMA) (16 U.S.C. 1801-1882) established and delineated an area from the States’ seaward boundary to approximately 200 nautical miles (nmi) out as a fisheries conservation zone for the United States and its possessions. The Act created eight regional Fishery Management Councils (FMCs) and mandated a continuing planning program for marine fisheries management by the FMCs. The Act, as amended, requires that a Fishery Management Plan (FMP) based upon the best available scientific and economic data be prepared for each commercial species (or related group of species) of fish that is in need of conservation and management within each respective region.

The Act was reauthorized by Congress through passage of the Sustainable Fisheries Act of 1996. The reauthorization implements a number of reforms and changes. For example, one change required the National Marine Fisheries Service (NMFS) to designate and conserve Essential Fish Habitat (EFH) for species managed under an existing FMP. The intentions of such changes are to minimize, to the extent practicable, any adverse effects on habitat caused by fishing or nonfishing activities and to identify other actions to encourage the conservation and enhancement of such habitat. The phrase “essential fish habitat” as defined in the Sustainable Fisheries Act encompasses “those waters and substrate necessary to fishes for spawning, breeding, feeding, or growth to maturity.”

EFH present within the Pacific OCS fall under the jurisdiction of the Pacific Fishery Management Council (PFMC). A total of 89 species are covered by three FMP’s: Coastal Pelagic Species, Groundfish Species, and Pacific Coast Salmon. FMPs are amended and updated as new information from studies and public input is received and assessed.

MMS will enter into formal consultation with NMFS for EFH as part of this EIS process.

The Endangered Species Act

The Endangered Species Act of 1973, as amended, establishes protection and conservation of threatened and endangered species and the ecosystems upon which they depend. The Act is administered by U.S. Fish and Wildlife Service (FWS) and NMFS. Section 7 of the Act governs interagency cooperation and consultation. The MMS formally consults with NMFS and FWS to ensure that activities on the OCS under MMS jurisdiction do not jeopardize the continued existence of threatened or endangered species and/or result in adverse modification or destruction of their critical habitat. As a part of the process for developing this EIS, MMS will complete Section 7 consultation with both FWS and NMFS regarding the proposed delineation projects in the Southern California Planning Area of the Pacific OCS.

The FWS and NMFS make recommendations regarding modifications of oil and gas operations to minimize adverse environmental impacts; however, it remains the responsibility of MMS to ensure that proposed actions do not impact threatened or endangered species

The Marine Protection, Research, and Sanctuary Act

The Marine Protection, Research, and Sanctuaries Act of 1972 established the National Marine Sanctuary Program, which is administered by the National Oceanic and Atmosphere Administration (NOAA) of the Department of Commerce. The Southern California Planning Area encompasses all or part of two sanctuaries: Channel Islands National Marine Sanctuary (NMS), which was designated in 1980; and Monterey Bay NMS, designated in 1992. National Marine Sanctuary Program Regulations prohibit exploring for, developing, and producing hydrocarbons within the Channel Islands NMS, except pursuant to leases executed prior to March 30, 1981, and except the laying of pipeline, provided specified oil spill contingency equipment is available at the site of such operations (15 CFR 922.71(a)(1)). The Regulations prohibit exploring for, developing, and producing hydrocarbons within the Monterey Bay NMS (15 CFR 922.132(a)(1)).

National Historic Preservation Act

Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470-470t) requires the head of any Federal agency, having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head

of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.

The historic properties (i.e. archaeological resources) on the Outer Continental Shelf (OCS) include historic shipwrecks, sunken aircraft, lighthouses, and prehistoric archaeological sites that have become undated due to the 120-meter rise in global sea level since the height of the last ice age (ca. 19,000 years ago). As the OCS is not federally-owned land, and as the Federal government has not claimed direct ownership of historic properties on the OCS, the MMS only has the authority under Section 106 of the NHPA to ensure that our funded and permitted actions do not adversely affect significant historic properties. Beyond avoidance of adverse impacts, we do not have the legal authority to manage the historic properties on the OCS.

The Oil Pollution Act

The Oil Pollution Act (OPA 90) establishes a single uniform Federal system of liability and compensation for damages caused by oil spills in U.S. navigable waters. OPA 90 requires removal of spilled oil and establishes a national system of planning for and responding to oil spill incidents. OPA 90 includes provisions to (1) improve oil-spill prevention, preparedness, and response capability; (2) establish limitations on liability for damages resulting from oil pollution; (3) provide funding for natural resource damage assessment; (4) implement a fund for the payment of compensation for such damages; and (5) establish an oil pollution research and development program. The Secretary of Interior is given authority over offshore facilities and associated pipelines (except deepwater ports) for all Federal and State waters, including responsibility for spill prevention, oil-spill contingency plans, oil-spill containment and clean-up equipment, financial responsibility certification, and civil penalties. The Coast Guard is responsible for enforcing vessel compliance with OPA 90.

The Clean Water Act

The Federal Water Pollution Control Act (FWPCA) of 1972, as amended, commonly referred to as the Clean Water Act (CWA), authorizes the U.S. Environmental Protection Agency (USEPA) to issue National Pollutant Discharge Elimination System (NPDES) permits to regulate discharges into waters of the United States. On March 4, 1993, the USEPA

issued revised Effluent Limitations Guidelines and New Source Performance Standards that set more restrictive conditions than were previously applied to discharges on the OCS.

Presently, two types of permits exist to regulate offshore oil and gas facility-associated effluents. One type is a General permit and the other is a series of Individual permits. The General permit was issued in 1983, reissued in January 1984, and expired in June 1984 with no new General permit (1984 General permit) to take its place. This permit covers 14 of the 23 platforms in the MMS Pacific Region. The remaining nine platforms are presently covered by Individual permits. Two of the Individual permits were issued in 1977 and have never been updated, while the permits for the remaining seven platforms were all applied after the 1984 General permit had expired. All the newer Individual permits are more stringent and cover a wider array of effluents than the General permit.

In October 1996, EPA, Region 9 began the process of issuing a new General permit (referred to hereafter as the "new General permit. In January 2001, the new General permit received California Coastal Commission (CCC) Consistency Certification. At present, EPA is considering how to handle the conditions and how to reissue the changed permit. There is no anticipated date of issuance.

The new General permit is more stringent than either the 1984 General permit or any of the Individual permits. The Individual permits are more stringent than the 1984 General permit by decreasing limits on some components of produced water, requiring more frequent monitoring, and monitoring an increased total number of effluents. The 1984 General permit regulated 12 discharges while the new draft permit will regulate those and 10 others.

An NPDES permit would be required for delineation drilling discharges. Individual operators or the MODU owner could apply for 1) coverage under the new permit when it becomes effective or 2) an individual permit.

Section 404 of the CWA delegates regulatory authority to the Secretary of the Army over discharge of dredged or fill material in wetlands. Permits for structures in State waters must consider environmental requirements before the issuance pursuant to Section 404 of the CWA.

The USCG has jurisdiction to enforce the CWA on the OCS. Under the CWA, the USCG approves the procedures to be followed and the equipment used for the transfer of oil from vessel to vessel and between onshore and offshore facilities and vessels. The USCG conducts pollution surveillance patrols to detect oil discharges with territorial sea and contiguous zone and has enforcement authority over violations. The USCG also has strike team responsibilities should an oil spill occur.

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act of 1899 requires that permits be issued for all offshore construction, including pipelines, in U.S. navigable waters. Structure permits for exploratory drilling vessels and for fixed and mobile platforms are issued by the Corps. Permits must also be issued for onshore facilities in which dredging and filling of U.S. navigable waters are involved.

Clean Air Act

The Clean Air Act of 1970 directs the attainment and maintenance of National Ambient Air Quality Standards (NAAQS). The 1990 Amendments to this Act affect attainment and maintenance of NAAQS (Title I), motor vehicles and fuel reformulation (Title II), hazardous air pollutants (Title III), acid deposition (Title IV), facility operating permits (Title V), stratospheric ozone protection (Title VI), and enforcement (Title VII).

Section 328 of the 1990 Clean Air Act Amendments (CAAA) transfers authority for air quality on the OCS to the EPA. On September 4, 1992, the EPA Administrator promulgated requirements (40 CFR Part 55) to control air pollution from OCS sources to attain and maintain Federal and State air quality standards and to comply with CAAA provisions for the Prevention of Significant Deterioration. The promulgated regulations require OCS sources to comply with applicable onshore air quality rules in the corresponding onshore area (COA). EPA delegated authority to the corresponding onshore Air Districts on November 5, 1993 to implement and enforce the requirements of 40 CFR Part 55. The full transfer of authority to Santa Barbara County APCD, Ventura County APCD, South Coast Air Quality Management District and San Luis Obispo County APCD to regulate OCS air emissions pursuant to 40 CFR Part 55 transpired on September 4, 1994.

The EPA instituted final rules for determining general conformity of federal actions with federal and state air quality implementation plans (SIP) on November 30, 1993. Section 176(c) of the CAA, the General Conformity Rule, requires federal agencies to ensure that actions undertaken in nonattainment or maintenance areas are consistent with the applicable implementation plan. A Federal agency must make a determination that a federal action conforms to the applicable implementation plan before the action is taken.

The Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) provides a framework for the safe disposal and

management of hazardous and solid wastes. Most oil-field wastes have been exempted from coverage under RCRA's hazardous waste regulations. Any hazardous wastes generated on the OCS that are not exempt must be transported to shore for disposal at a hazardous waste facility. Exempt wastes taken from the POCS for disposal are regulated in California.

The Coastal Zone Management Act

Pursuant to the Coastal Zone Management Act (CZMA) and the Coastal Zone Reauthorization Amendments of 1990, all Federal activities must be consistent to the maximum extent practicable with the enforceable policies of each affected State's coastal zone management (CZM) program. Each State's CZM program sets forth objective, policies, and standards regarding public and private use of land and water resources in the coastal zone.

A State with an approved CZM plan reviews Exploration Plans (EP's) and Development and Production Plans (DPP's) to determine whether the proposed activities are consistent with that State's CZM plan. The MMS may not approve 1) an Application for Permit to Drill for an EP or 2) a permit for activities described in a DPP unless the State concurs, or is conclusively presumed to have concurred, that the plan is consistent with its CZM plan.

The MMS expects the operators proposing delineation drilling to submit revisions to approved EP's in September 2001. MMS will examine the proposed revisions in accordance with 250.203(n)(2). If the revisions could result in a significant change to the impacts previously identified and evaluated or requires additional permits then the revisions would be subject to all of the procedures in 250.203 including review for Coastal Zone Consistency.

Ports and Waterways Safety Act

The Ports and Waterways Safety Act (33 U.S.C. 1223) authorizes Coast Guard to designate safety fairways, fairway anchorages, and traffic separation schemes (TSSs) to provide unobstructed approaches for vessels using ports. The Coast Guard provides listings of designated fairways, anchorages, and TSSs in 33 CFR 166 and 167. In general, no fixed structures such as platforms are allowed in fairways. Temporary underwater obstacles such as anchors and attendant cables or chains attached to floating or semisubmersible drilling rigs may be placed in a fairway under certain conditions. Fixed structures may be placed in anchorages, but the number of structures is limited.

A TSS is a designated routing measure designed to separate opposing streams of traffic by appropriate means and by the establishment of traffic lanes (33

CFR 167.5). The Coast Guard published a final rule on July 31, 2000 realigning the San Francisco TSS, extending the Santa Barbara Channel (SBC) TSS 18 nmi and linking the SBC TSS to the San Francisco TSS. The remainder of the TSS through the SBC and the Los Angeles TSS remain the same.

Merchant Marine Act of 1920 (Jones Act)

The Merchant Marine Act of 1920, commonly referred to as the Jones Act (P.L. 66-261) regulates coastal shipping between U.S. ports and inland waterways. The Act provides that "no merchandise shall be transported by water, or by land and water...between points in the United States...in any other vessel than a vessel built in and documented under the laws of the United States and owned by persons who are citizens of the United States..." Therefore, the Act requires that all goods shipped between different ports in the U.S. or its territories must be:

- Carried on vessels built and documented (flagged) in the U.S.,
- Crewed by U.S. citizens or legal aliens licensed by Coast Guard, and
- Owned and operated by U.S. citizens.

The rationale behind the Jones Act and earlier Cabotage laws was that the United States needed a merchant marine fleet to ensure that its domestic waterborne commerce remains under government jurisdiction for regulatory, safety, and national defense considerations. The same general principles of safety regulations are applied to other modes of transportation in the United States. While other modes of transportation can operate foreign-built equipment, these units must comply with U.S. standards. However, many foreign-built ships do not meet the standards required of U.S.-built ships and thus are excluded from domestic shipping.

The U.S. Customs Service has determined that facilities fixed or attached to the OCS for the purpose of oil exploration as described under Section 1333(a) of Title 43, United States Code, are considered points within the U.S. Therefore, OCS oil facilities are considered U.S. sovereign territory and fall under the requirements of the Jones Act. This carries the implication that all shipping to and from these facilities related to oil exploration on the OCS can only be conducted by vessels meeting the requirements of the Jones Act. Therefore, OCS facilities can only be legally served by U.S.-registered vessels and aircraft that are properly endorsed for coastwise trade under the laws of the U.S.

Executive Order 12898: Environmental Justice

The environmental-justice policy, based on Executive Order 12898, requires agencies to incorporate into NEPA documents analysis of the environmental effects of their proposed programs on minorities and low-income populations and communities. Scoping and review for the EIS is an open process that provides an opportunity for all participants, including minority and low-income populations, to express concerns that can be addressed in the EIS.

1.5.2 MMS REGULATORY AUTHORITY

The MMS is charged with responsibility for managing and regulating the development of OCS oil and gas resources in accordance with the provisions of OCSLA (described in Section 1.5.1). MMS operating regulations are provided in 30 CFR, Chapter 250. The MMS's established regulatory framework (including review, evaluation, and decision-making processes) is applicable to all on-lease activities considered in this EIS.

The MMS procedures for managing and regulating OCS activities, including those applicable to Exploration activities, are summarized below.

The MMS is responsible for regulating and monitoring the oil and gas operations and activities on the Federal OCS. The MMS has established operating regulations and procedures to ensure that proposed activities are orderly, safe, and pollution-free. These regulations include technical and environmental reviews and evaluations by the MMS to ensure all operations are conducted in a safe and environmentally sound manner. The focus of the regulations is to reduce the risks associated with actions conducted in the offshore environment. The lessee or operator has the primary responsibility for ensuring all operations meet or exceed MMS's regulatory requirements.

The MMS operating regulations, 30 CFR 250, are designed to, "... regulate all operations conducted under a lease, right of use and easement, or right-of-way to promote orderly exploration, development, and production of mineral resources and to prevent unreasonable harm or damage to, or waste of, any natural resource (including any mineral deposits in areas leased or not leased), any life (including fish and other aquatic life), property, or the marine, coastal, or human environment." The operating regulations provide requirements and guidance on each phase of offshore operations. The operating regulations incorporate by reference numerous industry practices, methods, codes, and measurements that are accepted as standards in conducting offshore operations. This allows the integration of the most current practices into all aspects of offshore work.

Prior to commencing exploration, development, or production activities on a lease, operators must submit detailed plans of these activities for MMS review, evaluation, and decision. No activities may occur until approval has been granted by MMS. Proposed activities are evaluated through established technical, safety, and environmental review processes. Specific requirements must be addressed in these plans relative to operating conditions and environmental considerations. Supporting environmental information required may include archaeological, biological, and geohazards surveys and reports. If a plan is approved, operators must still submit applications for specific operations for review and approval prior to commencing operations. Upon approval of activities, lessees must comply with all lease stipulations, operational regulations, permit requirements, mitigation measures, and other applicable Federal laws and regulations.

All proposed operations must meet or exceed the safety standards set by MMS. The MMS requires use of the Best Available and Safest Technology (BAST) for OCS operations, which include state-of-the-art drilling technology, production safety systems, completion of oil and gas wells, oil-spill response plans, pollution-control equipment, and specifications for platform/structure designs.

The MMS completes a technical and safety review of all proposed production facility designs and installation procedures. All proposed facilities in the POCS Region are reviewed for structural integrity. These detailed classical engineering reviews entail an intense evaluation of all operator proposals for fabrication, installation, modification, and repair of all mobile and fixed structures in the POCS Region.

To ensure that new structures are designed, fabricated, and installed using standardized procedures to prevent structural failures, MMS uses third-party (a Certified Verification Agent) expertise and technical input in the verification process. All surface production facilities, including separators, treaters, compressors, headers, and flowlines, must be designed, installed, and maintained in a manner that provides for efficiency, safety of operations, and protection of the environment. Safety systems utilized for drilling, well workover activities, and production operations on the OCS must be designed, installed, used, maintained, and tested in a manner to ensure the safety and protection of the human, marine, and coastal environments. All tubing installations open to hydrocarbon-bearing zones below the surface must be equipped with safety devices that automatically shut off the flow from the well in the event of an emergency (unless the well is incapable of flowing).

The MMS evaluates the design, fabrication, installation, and maintenance of pipelines. Proposed pipeline routes are evaluated for potential geologic haz-

ards and other natural or man-made seafloor or sub-surface features or conditions that could have an adverse impact on the pipeline. Routes are also evaluated for potential impacts on archaeological resources and biological communities. Operators are required to periodically inspect pipeline routes, and routine overflights are conducted to inspect pipeline routes for leakage.

The Oil Pollution Act of 1990 (OPA, 90) requires removal of spilled oil and establishes a national system for planning for and responding to oil-spill incidents. MMS mandates that the operator of a lease possess a pro-active spill prevention program, a current viable oil-spill contingency plan, financial responsibility certification, and a system to ensure that the operator can obtain oil-spill containment and clean-up equipment quickly. The MMS regulations (30 CFR 254) require all owners and operators of oil processing and handling, storage, or transportation facilities located seaward of the coastline to submit an Oil Spill Response Plan (OSRP) for approval before an owner/operator can use a facility. The facility must be operated in compliance with the approved plan. All MMS-approved OSRPs are required to be reviewed and updated every two years.

A Certificate of Financial Responsibility (COFR Program) is required for every POCS Region drilling, workover, production, and pipeline operation that may involve the accidental release of hydrocarbon liquids into the environment. The MMS determines the amount of financial responsibility required for offshore facilities as prescribed by OPA 90. The OPA agency analysis applies an assessment protocol to estimate the operator's likely liability for a worst-case spill from a facility or class of facility. The responsible party must demonstrate to MMS (or state) that sufficient funds for cleanup and damage liability would be available if needed.

All operators on the OCS involved in production of sour hydrocarbons that could result in atmospheric hydrogen sulfide concentrations above 20 parts per million (ppm) are required to file a contingency plan for hydrogen sulfide that includes procedures to ensure the safety of the workers on the production facility. All operators are required to adhere to National Association of Corrosion Engineers (NACE) Standard Material Requirement MRO75-97 for Sulfide Stress Cracking Resistant Metallic Materials for Oilfield Equipment (NACE, 1990). The American Petroleum Institute (API) has also developed "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide" (API, 1995). The MMS issued an NTL titled "Hydrogen Sulfide (H₂S) Requirements" to provide guidance on sensor location, sensor calibration, respirator breathing time, measures for protection against hydrogen sulfide, requirements for classifying an area for the presence of hydrogen sulfide, requirements for

flaring and venting of gas containing hydrogen sulfide, and other issues pertaining to operations that involve hydrogen sulfide.

The MMS has pollution prevention and control regulations (30 CFR 250.300) to ensure lessees do "...not create conditions that will pose an unreasonable risk to public health, life, property, aquatic life, wildlife, recreation, navigation, commercial fishing, or other uses of the ocean..." during offshore oil and gas operations. Control and removal of pollution is the responsibility of the lessee and is performed at the expense of the lessee. Operators are required to install curbs, gutters, drip pans, and drains on structures and deck areas in a manner necessary to collect all contaminants and debris not authorized for discharge. Disposal of any solid waste into the marine environment is prohibited. Fixed and floating structures, drilling rigs, manned production platforms/structures, and support vessels operating under a Federal oil and gas lease are required to develop Waste Management Plans and to post placards reflecting discharge limitations and restrictions. Operational discharges such as produced water, drilling fluids, and cuttings are regulated by USEPA through the NPDES program; MMS may restrict the rate of drilling fluid discharge or prescribe alternative discharge methods.

The MMS administers an active civil penalties program. This program provides a high-profile compliance and enforcement tool. A civil penalty in the form of substantial monetary fines may be issued against any operator that commits a violation that may constitute a threat of serious, irreparable, or immediate harm or damage to life, property, or the environment. The MMS may make recommendations for criminal penalties if a willful violation occurs. In addition, the regulation in 30 CFR 250 directs MMS to suspend any operation in the POCS Region if the lessee has failed to comply with a provision of any applicable law, regulation, or order or provision of a lease or permit. Furthermore, the Secretary may invoke his authority under 30 CFR 250 and cancel a lease.

The MMS conducts both announced and unannounced on-site inspections of all production facilities to ensure compliance with lease terms, NTLs, and approved plans, and to ensure that safety and pollution-prevention requirements of regulations are met. These inspections focus primarily on the facility's safety equipment and on the records the operator maintains that reflect the periodic testing required by the Operating Regulations. Inspectors may require the activation of some safety equipment on a facility to ensure it is working properly.

The MMS encourages all operators to participate in the Safety and Environmental Management Program (SEMP) that is detailed in the American Petroleum Institute's Recommended Practice, API RP 75. This comprehensive environmental and safety program addresses all facets of oil and gas operations.

1.4.3 COAST GUARD REGULATORY AUTHORITY

Primary responsibility for the enforcement of U.S. maritime laws and regulations in GOM waters falls upon Coast Guard. The Coast Guard's responsibilities for regulating activities on the OCS, the continental shelf, and in ports and harbors, as applicable to the proposed action, are presented in Title 33 CFR, chapters 1-199; Title 43 U.S.C. section 1331; Title 46 U.S.C., Part A and B; and OPA 90. The Coast Guard is responsible for managing and regulating provisions for safe navigation of vessels in U.S. waters, as well as the enforcement of environmental and pollution prevention regulations. As such, Coast Guard provides for the regulation and enforcement of hazardous working conditions on the OCS, for the management and regulation of measures for pollution prevention in territorial waters, and for ensuring that the provisions of OPA 90 and the MPPRCA (i.e., MARPOL Annex V) are implemented.

1.4.4 MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN MMS AND COAST GUARD

On December 16, 1998, MMS and Coast Guard updated and signed a Memorandum of Understanding (MOU) concerning responsibilities for offshore facilities on the OCS. Given the overlap in jurisdictions of MMS and Coast Guard regarding some issues, the MOU delineates lead responsibilities for managing OCS activities in accordance with OCSLA and OPA 90.

Because of jurisdictional overlap and the large array of regulatory provisions pertaining to activities on the OCS, MMS and Coast Guard have established a formal Memorandum of Understanding (MOU) that defines their respective roles. The MOU, dated August 1989 and updated December 1998 (and published in the Federal Register on January 15, 1999), defines the responsibilities of both agencies regarding the management of oil and gas activities in the OCS. The MOU is designed to minimize duplication and promote consistent regulation of facilities under the jurisdiction of both agencies.

The MOU assigns both agencies with responsibility for the various aspects of the design, implementation, and operation of OCS facilities. Generally, the MOU identifies MMS as the lead agency for matters concerning the equipment and operations directly involved in the production of oil and gas. These include among others: design and operation of risers, permanent mooring foundations of the facility, drilling and well production and services, inspection and testing of all drilling-related equipment, and platform decommissioning. Issues regarding the safe operation of the facility, its systems, and the equipment needed to sup-

port all operations on board generally fall under the jurisdiction of Coast Guard. These include among others: design of vessels, their seakeeping characteristics, propulsion and dynamic positioning systems, supply and lightering procedures and equipment, utility systems, safety equipment and procedures, and pollution prevention and response procedures.

Both agencies will continue to be responsible for accident investigations and will coordinate to minimize duplication of efforts. For those incidents where both agencies have an investigative interest in the systems involved, one agency will assume lead investigative responsibility, with supporting participation provided by the other agency.

1.4.5 MITIGATION MEASURES

In each OCS planning area, oil and gas exploration and development activities have the potential for causing adverse environmental impacts.

Many measures have been implemented by the MMS to "mitigate" or prevent and lessen possible impacts on environmental resources from both OCS and non-OCS activities. Mitigating measures are protective measures designed to prevent adverse impacts and to lessen and mitigate unavoidable impacts. The MMS develops and administers these requirements, which are part of the lease-term conditions at lease issuance.

In order to mitigate adverse environmental impacts for actions associated with a specific project (i.e., proposed plans for exploration, development, production, and site-clearance activities in an area located on an OCS lease block), additional mitigation requirements may be necessary. Conditions of plan approval are mechanisms determined by MMS to control or mitigate potential environmental or safety problems that are associated with a specific proposal. Special stipulations that limit operations are in addition to the lease-term stipulations. During the life of the action, these protective measures are specific to the individual activities proposed in a plan and are imposed following environmental reviews (according to the NEPA) of the OCS lease location and potential resources.

Lease-Term Stipulations

Some of these protective measures are developed and applied to specific blocks in a planning area before leasing a block and are based on the following:

- existing policies and laws;
- knowledge of the resources present in the planning area where the block is being offered for lease by the MMS; and
- current industry practices.

If a block is leased as a result of a lease sale, these protective measures are identified as lease-term stipulations and are attached to and become part of the lease and its conditions. These stipulations are designed to protect potentially sensitive resources in the affected block and to reduce possible multiple-use conflicts and are the requirements that the lessee must meet to mitigate adverse impacts. They also may be considered to apply to all activities that occur on the leased area throughout the life of the lease.

This EIS evaluates impacts of the proposal, delineation drilling, and cumulative impacts including development of the 36 undeveloped leases. The 36 undeveloped leases include the leases proposed for delineation drilling. The 36 undeveloped leases resulted from Lease Sales P4, 48, 53, 68, RS-2, and 80. The following lease-term stipulations apply, as appropriate, to the 36 undeveloped leases and, as such, are considered as part proposal for delineation drilling and future development.

Stipulations for Lease Sales, P4, 48, 53, 68, RS-2, 80

Sale P4 Stipulation No. 1

The lessee, recognizing that mineral explorations and exploitation and recovery operations on the leased areas of tide and submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, will come into effect upon the order of the Air Force Western Test Range Safety Officer, or higher authority, that national security interests necessitates such action. It is understood that any temporary suspension of operations ordered by said official may not exceed 72 hours, however, any suspension may be extended by order of the Secretary of Defense. During such periods equipment may remain in place.

Sale P4 Stipulation No. 2

The lessee assumes all risk of damage or injury to any person or persons who are the agents, employees, or invitees of the lessee, its agents, subcontractors or any independent contractor doing business with the lessee in connection with any activities being performed by the lessee on the leased premises, and of any damage to any property of the lessee, its agents, employees, invitees, subcontractors or independent contractors doing business with the lessee and which occurs on the leased premises, and which injury to

such person or property occurs by reason of the activities of any agency of the U.S. Government being conducted as a part of or in connection with the programs and activities of the Air Force Western Test Range, whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States or its contractors, or any of their officers, agents or employees, and whether or not based upon any concept of strict or absolute liability or otherwise; and the lessee agrees to indemnify and save harmless the United States against, and to defend at its own expense, all such claims for loss, damage, or injury sustained by the lessee, its agents, employees, invitees, subcontractors, or any independent contractors doing business with the lessee in connection with its activities on the leased premises, or their agents or employees, which such claims may arise by reason of injury or damage occurring in connection with the programs and activities of the said Air Force Western Test Range, whether the same be caused in whole or in part, by the negligence or fault of the United States or its contractors or any of their officers, agents, and employees, or based upon any concept of strict liability or otherwise.

Sale 48 Stipulation No. 1-A

(a) The lessee agrees that prior to operating or causing to be operated on its behalf boat or aircraft traffic into individual, designated warning areas, the lessee shall coordinate and comply with instructions from the Commander, Space and Missile Test Center (SAMTEC) and the Commander, Pacific Missile Test Center (PMTTC), or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating into the warning areas at all times.

(b) The lessee, recognizing that mineral exploration and exploitation and recovery operations on the leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances), will come into effect upon the order of the Supervisor, after consultation with the Commander, Space and Missile Test Center (SAMTEC) and the Commander, Pacific Missile Test Center (PMTTC), or other appropriate military agency, or higher authority, when national security interests necessitate such action. It is understood that any temporary suspension of operations for

national security may not exceed seventy-two hours; however, any such suspension may be extended by order of the Supervisor. During such periods equipment may remain in place.

(c) The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitees, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, Space and Missile Test Center (SAMTEC) and the Commander, Pacific Missile Test Center (PMTC), or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, his agents, employees, invitees, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: Provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

Sale 48 Stipulation No. 1-B

(a) The lessee agrees that prior to operating or causing to be operated on its behalf boat or aircraft traffic into individual, designated warning areas, the lessee shall coordinate and comply with instructions from the Commander, Space and Missile Test Center (SAMTEC) and the Commander; the Commander, Pacific Missile Test Center (PMTC); and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating into the warning areas at all times.

(b) The lessee, recognizing that mineral exploration and exploitation and recovery operations on the leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances), will come into effect upon the order of the Supervisor, after consultation with the Commander, Space and Missile Test Center (SAMTEC); the Commander, Pacific Missile Test Center (PMTC); and the Commander,

Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency, or higher authority, when national security interests necessitate such action. It is understood that any temporary suspension of operations for national security may not exceed seventy-two hours; however, any such suspension may be extended by order of the Supervisor. During such periods equipment may remain in place.

(c) The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitees, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, Space and Missile Test Center (SAMTEC); the Commander, Pacific Missile Test Center (PMTC); and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC) or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, his agents, employees, invitees, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: Provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

Sale 48 Stipulation No. 2

Whether or not compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occurs in, on, or above the Outer Continental Shelf, to any person or persons or to any property of any person or persons who are agents, employees or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors, or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the Space and Missile Test Center (SAMTEC), the Pacific Missile Test Center (PMTC), or other appropriate military agency.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of their officers, agents, or employees and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

Sale 48 Stipulation No. 3

If the Supervisor, having reason to believe that a site, structure or object of historical or archaeological significance, hereinafter referred to as a "cultural resource," may exist in the lease area, gives the lessee written notice that the lessor is invoking the provisions of this stipulation, the lessee shall upon receipt of such notice comply with the following requirements:

Prior to any drilling activity or the construction or placement of any structure for exploration or development on the lease, including but not limited to, well drilling and pipeline and platform placement, hereinafter in this stipulation referred to as "operation," the lessee shall conduct remote sensing surveys to determine the potential existence of any cultural resource that may be affected by such operations. All data produced by such remote sensing surveys as well as other pertinent natural and cultural environmental data shall be examined by a qualified marine survey archaeologist to determine if indications are present suggesting the existence of a cultural resource that may be adversely affected by any lease operation. A report of this survey and assessment prepared by the marine survey archaeologist shall be submitted by the lessee to the Supervisor and the Manager, Bureau of Land Management (BLM), Outer Continental Shelf (OCS) Office for review.

If such cultural resource indicators are present the lessee shall (1) locate the site of such operation so as not to adversely affect the identified location; or (2) establish, to the satisfaction of the Supervisor, on the basis of further archaeological investigation conducted by a qualified marine survey archaeologist or underwater archaeologist using such survey equipment and

techniques as deemed necessary by the Supervisor, either that such operation shall not adversely affect the location identified or that the potential cultural resource suggested by the occurrence of the indicators does not exist.

A report of this investigation prepared by the marine survey archaeologist or underwater archaeologist shall be submitted to the Supervisor and the Manager, BLM OCS Office for their review. Should the Supervisor determine that the existence of a cultural resource which may be adversely affected by such operation is sufficiently established to warrant protection, the lessee shall take no action that may result in an adverse effect on such cultural resource until the Supervisor has given directions as to its preservation.

The lessee agrees that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the Supervisor and make every reasonable effort to preserve and protect the cultural resource from damage until the Supervisor has given directions as to its preservation.

Sale 48 Stipulation No. 4

(a) Wells: Subsea well-heads and temporary abandonments, or suspended operations that leave protrusions above the sea floor, shall be protected, if feasible, by a shroud which will allow commercial trawl gear to pass over the structure without snagging or otherwise damaging the structure or the fishing gear. Latitude and longitude coordinates of these structures along with water depths, shall be submitted to the Supervisor. The coordinates of such structures will be determined by the lessee utilizing state-of-the-art navigation systems with accuracy of at least " 50 feet (15.25 meters) at 200 miles (322 kilometers).

(b) Pipelines: All pipelines, unless buried, including gathering lines, shall have a smooth-surface design. In the event that an irregular pipe surface is unavoidable due to the need for valves, anodes or other structures, they shall be protected by shrouds which will allow trawl gear to pass over the object without snagging or otherwise damaging the structure or the fishing gear.

Sale 48 Stipulation No. 5

(a) If the Supervisor has reason to believe that areas of special biological interest in the lease area contain biological communities or species of such extraordinary or unusual value (even though unquantifiable) that no threat of damage, injury, or other harm to the community or species would be acceptable, he shall give the lessee written notice that the lessor is invoking the provisions of this stipula-

tion and the lessee shall comply with the following requirements: Prior to any drilling activity or the construction or placement of any structure for exploration or development on lease areas including, but not limited to, well drilling and pipeline and platform placement, hereinafter referred to as "operation," the lessee shall conduct site specific surveys as approved by the Supervisor and in accordance with prescribed biological survey requirements to determine the existence of any special biological resource including, but not limited to:

- (1) Very unusual, rare, or uncommon ecosystems or ecotones.
- (2) A species of limited regional distribution that may be adversely affected by any lease operations

If the results of such surveys suggest the existence of a special biological resource that may be adversely affected by any lease operation, the lessee shall: (1) relocate the site of such operation so as not to adversely affect the resources identified; (2) establish to the satisfaction of the Supervisor, on the basis of the site-specific survey, either that such operation will not have a significant adverse effect upon the resource identified or that a special biological resource does not exist. The Supervisor will review all data submitted and determine, in writing, whether a special biological resource exists or may be significantly affected by lessee's operations. The lessee may take no action until the Supervisor has given the lessee written directions on how to proceed.

(b) The lessee agrees that if any area of biological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the Supervisor, and make every reasonable effort to preserve and protect the biological resource from damage until the Supervisor has given the lessee directions with respect to its protection.

Sale 48 Stipulation No. 6

(a) Pipelines will be required, (1) if pipeline rights-of-way can be determined and obtained, (2) if laying of such pipelines is technologically feasible and environmentally preferable, and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management ar-

reas. In selecting the means of transportation, consideration will be given to any recommendation of the intergovernmental planning program for leasing and management of transportation of Outer Continental Shelf oil and gas with the participation of Federal, State, and local government and the industry. Where feasible, and environmentally preferable, all pipelines, including both flow lines and gathering lines for oil and gas, shall be buried to a depth suitable for adequate protection from water currents, sand waves, storm scouring, fisheries' trawling gear, and other uses as determined on a case-by-case basis.

(b) Following the completion of pipeline installation, no crude oil production will be transported by surface vessel from offshore production sites, except in the case of emergency. Determinations as to emergency conditions and appropriate responses to these conditions will be made by the Supervisor. Where the three criteria set forth in the first sentence of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act of 1972 (46 U.S.C., 391a), as amended.

Sale 48 Stipulation No. 7

Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas, and the emplacement of pipelines will not be allowed within the potentially unstable portions of the lease block unless or until the lessee has demonstrated to the Supervisor's satisfaction that mass movement of sediments is unlikely or that exploratory drilling operations, structures (platforms), casing, wellheads, and pipelines can be safely designed to protect the environment in case such mass movement or faulting occurs at the proposed location. If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for mass movement of sediments. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas is allowed all potential mass movement of sediments in the lease block must be mapped. Down-hole pressure actuated control devices must be located below the base of the potentially unstable sediments located in the area in order to protect the environment in case such mass movement occurs at the proposed location. This may necessitate all exploration for and development of oil and gas be performed from locations outside of the area of instability, either within or outside of this lease block.

Sale 48 Stipulation No. 8

(a) The royalty rate on production saved, removed, or sold from this lease is subject to consideration for reduction under the same authority that applies to all other oil and gas leases on the Outer Continental Shelf (30 CFR 250.12(a)). The Director, Geological Survey, may grant a reduction for only one year at a time. Reduction of royalty rates will not be approved unless production has been underway for one year or more.

(b) Although the royalty rate specified in Sec.6(a) of this lease or as subsequently modified in accordance with applicable regulations and stipulations is applicable to all production under this lease, not more than 16 2/3 percent of the production saved, removed, or sold from the lease area may be taken as royalty in amount, except as provided in sec. 15 (d) of this lease; the royalty on any portion of the production saved, removed, or sold from the lease in excess of 16 2/3 percent may only be taken in value of the production saved, removed, or sold from the lease area.

Sale 48 Stipulation No. 9

To be Included in any leases resulting from this sale for the sliding scale royalty tracts listed in paragraph 4 of this notice.

(a) The royalty rate on production saved, removed or sold from this lease is subject to consideration for reduction under the same authority that applies to all other oil and gas leases on the Outer Continental Shelf (30 CFR 250.12 (a)). The Director, Geological Survey, may grant a reduction for only one year at a time. Reduction of royalty rates will not be approved unless production has been underway for one year or more.

(b) Although the royalty rate specified in Sec. 6(a) of this lease or as subsequently modified in accordance with applicable regulations and stipulations is applicable to all production under this lease, not more than 16 2/3 percent of the production saved, removed or sold from the lease area may be taken as royalty on any portion of the production saved, removed or sold from the lease in excess of 16 2/3 percent may only be taken in value of the production saved, removed or sold from the lease area.

Sale 48 Stipulation No. 13

No producing well may be drilled so that the well bore in the producing intervals is closer than 500 feet to the seaward boundary of the State except that the 500 feet constraint shall not apply:

(a) If oil or gas pools or fields underlying both the Outer Continental Shelf and lands subject to the jurisdiction of California are included in a production

unit entered into by the relevant lessees and approved by the lessors.

(b) If, in the absence of a production unit as described in (a) above, the State of California permits production from State lands from a point closer than 500 feet from the Federal-State boundary. In the event that such production from State lands does occur, the Federal lessee shall be allowed to produce from offset wells equally close to the boundary in the area of Federal jurisdiction.

Sale 53 Stipulation No. 1

(a) If the DCMOFO has reason to believe that biological populations or habitats exist and require protection, he shall give the lessee notice that the lessor is invoking the provisions of this stipulation and the lessee shall comply with the following requirements. Prior to any drilling activity or the construction or placement of any structure for exploration or development on lease areas including, but not limited to, well drilling and pipeline and platform placement hereinafter referred to as "operation," the lessee shall conduct site-specific surveys as approved by the DCMOFO and in accordance with prescribed biological survey requirements to determine the existence of any special biological resource including, but not limited to:

- (1) Very unusual, rare, or uncommon ecosystems or ecotones.
- (2) A species of limited regional distribution that may be adversely affected by any lease operations.

If the results of such surveys suggest the existence of a special biological resource that may be adversely affected by any lease operation, the lessee shall: (1) relocate the site of such operation so as not to adversely affect the resources identified; or (2) establish to the satisfaction of the DCMOFO, on the basis of the site-specific survey, either that such operation will not have a significant adverse effect upon the resource identified or that a special biological resource does not exist. The DCMOFO will review all data submitted and determine, in writing, whether a special biological resource exists and whether it may be significantly affected by the lessee's operations. The lessee may take no action until the DCMOFO has given the lessee written directions on how to proceed.

(b) The lessee agrees that if any area of biological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the DCMOFO, and make every reasonable effort to preserve and protect the biological resource from damage until the DCMOFO has given the lessee directions with respect to its protection.

Sale 53 Stipulation No. 2

If the DCMOFO, having reason to believe that a site, structure or object of historical or archaeological significance, hereinafter referred to as a “cultural resource,” may exist in the lease area, gives the lessee written notice that the lessor is invoking the provisions of this stipulation, the lessee shall upon receipt of such notice comply with the following requirements.

Prior to any drilling activity or the construction or placement of any structure for exploration or development on the lease, including but not limited to, well drilling and pipeline and platform placement, hereinafter in this stipulation referred to as “operation,” the lessee shall conduct remote sensing surveys to determine the potential existence of any cultural resource that may be affected by such operations. All data produced by such remote sensing surveys as well as other pertinent natural and cultural environmental data shall be examined by a qualified marine survey archaeologist to determine if indications are present suggesting the existence of a cultural resource that may be adversely affected by any lease operation. A report of this survey and assessment prepared by the marine survey archaeologist shall be submitted by the lessee to the DCMOFO and the Manager for review.

If such cultural resource indicators are present the lessee shall: (1) locate the site of such operation so as not to adversely affect the identified location; or (2) establish, to the satisfaction of the DCMOFO, on the basis of further archaeological investigation conducted by a qualified marine survey archaeologist or underwater archaeologist using such survey equipment and techniques as deemed necessary by the DCMOFO, either that such operation shall not adversely affect the location identified or that the potential cultural resource suggested by the occurrence of the indicators does not exist.

A report of this investigation prepared by the marine survey archaeologist, or underwater archaeologist shall be submitted to the DCMOFO and the Manager for their review. Should the DCMOFO determine that the existence of a cultural resource which may be adversely affected by such operation is sufficiently established to warrant protection, the lessee shall take no action that may result in an adverse effect on such cultural resource until the DCMOFO has given directions as to its preservation.

The lessee agrees that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the DCMOFO and make every reasonable effort to preserve and protect the cultural resource from damage until the DCMOFO has given directions as to its preservation.

Sale 53 Stipulation No.3

(a) Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas or , and the emplacement of pipelines will not be allowed within the potentially unstable portions of this lease block unless or until the lessee has demonstrated to the DCMOFO’s satisfaction that mass movement of sediments is unlikely or that exploratory drilling operations, structures (platforms), casing, wellheads and pipelines can be safely designed to protect the environment in case such mass movement occurs at the proposed location. This may necessitate that all exploration for and development of oil or gas be performed from locations outside of the area of unstable sediments, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for unstable bottom conditions. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas are allowed, all such unstable areas must be mapped. The DCMOFO may also require soil testing before exploration and production operations are allowed.

(b) Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas or emplacement of pipelines will not be allowed within the potentially unstable portions of this lease block unless or until the lessee has demonstrated to the DCMOFO’s satisfaction that exploratory drilling operations, structures (platforms), casing, wellheads and pipelines can be safely designed to protect the environment at the proposed location. This may necessitate that all exploration for and development of oil or gas be performed from locations outside of the area of submarine canyons or channels, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for unstable bottom conditions. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas are allowed, all such unstable areas must be mapped. The DCMOFO may also require soil testing before exploration and production n operations are allowed.

(c) Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas and emplacement of pipelines will not be allowed in the vicinity of a fault until the lessee has demonstrated to the DCMOFO’s satisfaction that exploratory drilling operations, structures (platforms), casing, wellheads and pipelines can be safely designed to protect the environment at the proposed location. This may necessitate that all exploration for and development of oil or gas be performed

from locations outside of the area of potential fault movement, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for active faulting. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas are allowed, all fault zones must be mapped. The DCMOFO may also require soil testing before exploration and production operations are allowed.

Sale 53 Stipulation No. 4

(a) The lessee agrees that prior to operating or causing to be operated on its behalf boat or aircraft traffic into individual, designated warning areas, the lessee shall coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC), the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating in the warning areas at all times.

(b) The lessee, recognizing that mineral exploration and exploitation and recovery operations of the leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances), will come into effect upon the order of the DCMOFO, after consultation with the Commander, Western Space and Missile Center (WSMC), the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC) or other appropriate military agency or higher authority, when national, security interested necessitate such action. It is understood that any temporary suspension of operations for national security may not exceed seventy-two hours; however, any such suspension may be extended by order of the DCMOFO. During such periods equipment may remain in place.

(c) The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitee, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, Western Space and Missile Center (WSMC), the Commander, Pacific Missile Test Center (PMTTC), or other appropriate military agency,

to the degree necessary to prevent damage to, or unacceptable interference with Department of Defense flight, testing of operations activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, his agents, employees, invitee, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitee, independent contractors or subcontractors and onshore facilities.

Sale 53 Stipulation No. 5

Whether or not compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or Property, which occurs in, on, or above the Outer Continental Shelf, to any person or persons or to any property of any person or persons who are agents, employees or invitee of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors, or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the Western Space and Missile Center (WSMC), the Pacific Missile Test Center (PMTTC), or other appropriate military agency.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against an claims for loss, damage, or injury sustained by the agents, employees, or invitee of the lessee, its agents or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of their officers, agents, or employees and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

Sale 53 Stipulation No. 6

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipelines is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the intergovernmental planning program for assessment and management of transportation of Outer Continental Shelf oil and gas with the participation of Federal, State, and local governments and the industry.

(b) Following the completion of pipeline installation, no crude oil production will be transported by surface vessel from offshore production sites, except in the case of emergency. Determinations as to emergency conditions and appropriate responses to these conditions will be made by the DCMOFO.

(c) Where the three criteria set forth in the first sentence of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Port and Tanker Safety Act of 1978 (PL 95-474).

Sale 53 Stipulation No. 7

(a) Wells. Subsea wellheads and temporary abandonments, To suspended operations that leave protrusions above the seafloor, shall be protected, feasible, in such a manner as to allow commercial trawling gear to pass over the structure without snagging or otherwise damaging the structure or the fishing gear. Latitude and longitude coordinates of these structures, along with water depths, shall be submitted to the DCMOFO. The coordinates of such structures will be determined by the lessee utilizing state-of-the-art navigation systems with accuracy of at least +/-50 feet (15.25 meters) at 200 miles (322 kilometers).

(b) Pipelines. All pipelines, unless buried, including gathering lines, shall have a smooth surface design. In the event that an irregular pipe surface is unavoidable due to the need for valves, anodes or other structures, those irregular surfaces shall be protected in such a manner as to allow trawling gear to pass over the object without snagging or otherwise damaging the structure or the fishing gear.

Sale 53 Stipulation No. 8

The lessee shall include in his exploration and development plans, submitted under 30 CFR 250.34, a proposed fisheries training program for review and approval by the DCMOFO. The training program shall be for the personnel involved in vessel operations (related to offshore exploration and development and production operations), and platform and shore-based supervisors. The purpose of the training program shall be to familiarize persons working on the project of the value of the commercial fishing industry, the methods of offshore fishing operations, the potential conflicts between fishing operations and offshore oil and gas activities, the locations of marine mammal and bird rookery sites in the area, the seasonal abundance and sensitivities of these animals to disturbance, and the Federal laws that have been established to protect endangered and threatened species from harassment and injury. The program shall be formulated and implemented by qualified instructors.

Sale 53 Stipulation No. 9

(a) The royalty rate on production saved, removed or sold from this lease is subject to consideration for reduction under the same authority that applies to an other oil and gas leases on the Outer Continental Shelf (30 CFR 250.21). The Director, U.S. Geological Survey, may grant a reduction for only one year at a time and reduction of royalty rates will not be approved unless production has been underway for one year or more.

(b) Although the royalty rate specified in section 6(a) of this lease or as subsequently modified in accordance with applicable regulations and stipulations is applicable to all production under this lease, not more than 16 2/3 percent of the production saved, removed or sold from the lease area may be taken as royalty in amount, except as provided in section 15 (d); the royalty on any portion of the production saved, removed or sold from the lease in excess of 16 2/3 percent may only be taken in value of the production saved, removed or sold from the lease area.

Sale 53 Stipulation No. 10

(1) No producing well may be drilled where the well bore in the producing intervals is closer to the seaward boundary of the State of California than the distance agreed to between the State and the Department based on analysis of pertinent site-specific data, except that in no event shall the agreed distance be further than 750 feet from the seaward boundary of the State. In the absence of an agreed distance, no well shall be drilled closer than 500 feet to the seaward boundary of the State.

(2) The constraint in paragraph (1) shall not apply:

(a) If oil or gas pools or fields underlying both the outer Continental Shelf and lands subject to the jurisdiction of California are included in a production unit entered into by the relevant lessees and approved by the lessors, or in a production unit entered into by the Federal lessee and the State of California when it is a carried, non-operating owner.

(b) If, in the absence of a production unit as described in (a) above, the State of California permits production from State lands from a point closer than 750 feet from the Federal-State boundary. In the event that such production from State lands does occur, the Federal lessee shall be allowed to produce from offset wells equally close to the boundary in the area of Federal jurisdiction.

Sale 68 Stipulation No. 1

(a) If the DMMOFO has reason to believe that biological populations or habitats exist and require protection, he shall give the lessee notice that the lessor is invoking the provisions of this stipulation and the lessee shall comply with the following requirements. Prior to any drilling activity or the construction or placement of any structure for exploration or development on lease areas including, but not limited to, well drilling and pipeline and platform placement, hereinafter referred to as “operation,” the lessee shall conduct site-specific surveys as approved by the DMMOFO and in accordance with prescribed biological survey requirements to determine the existence of any special biological resource including, but not limited to:

- (1) Very unusual, rare, or uncommon ecosystems or ecotones.
- (2) A species of limited regional distribution that may be adversely affected by any lease operations

If the results of such surveys suggest the existence of a special biological resource that may be adversely affected by any lease operation, the lessee shall: (1) relocate the site of such operation so as not to adversely affect the resources identified; (2) establish to the satisfaction of the DMMOFO on the basis of the site-specific survey, either that such operation will not have a significant adverse effect upon the resource identified or that a special biological resource does not exist. The DMMOFO will review all data submitted and determine, in writing, whether a special biological resource exists and whether it may be significantly affected by lessee’s operations. The lessee may take no action until the DMMOFO has given the lessee written directions on how to proceed.

(b) The lessee agrees that if any area of biological significance should be discovered during the con-

duct of any operations on the leased area, he shall report immediately such findings to the DMMOFO, and make every reasonable effort to preserve and protect the biological resource from damage until the DMMOFO has given the lessee directions with respect to its protection.

Sale 68 Stipulation No. 2

If the DMMOFO has reason to believe that a site, structure, or object of historical or archaeological significance, hereinafter referred to as a “cultural resource,” may exist in the lease area, and gives the lessee written notice that the lessor is invoking the provisions of this stipulation, the lessee shall upon receipt of such notice comply with the following requirements:

Prior to any drilling activity or the construction or placement of any structure for exploration or development on the lease, including but not limited to, well drilling and pipeline and platform placement, hereinafter in this stipulation referred to as “operation,” the lessee shall conduct remote sensing surveys to determine the potential existence of any cultural resource that may be affected by such operations. All data produced by such remote sensing surveys as well as other pertinent natural and cultural environmental data shall be examined by a qualified marine survey archaeologist to determine if indications are present suggesting the existence of a cultural resource that may be adversely affected by any lease operation. A report of this survey and assessment prepared by the marine survey archaeologist shall be submitted by the lessee to the DMMOFO and the Manager for review.

If such cultural resource indicators are present the lessee shall: (1) locate the site of such operation so as not to adversely affect the identified location; or (2) establish, to the satisfaction of the DMMOFO, on the basis of further archaeological investigation conducted by a qualified marine survey archaeologist or underwater archaeologist using such survey equipment and techniques as deemed necessary by the DMMOFO, either that such operation shall not adversely affect the location identified or that the potential cultural resource suggested by the occurrence of the indicators does not exist.

A report of this investigation prepared by the marine survey archaeologist or underwater archaeologist shall be submitted to the DMMOFO and the Manager for their review. Should the DMMOFO determine that the existence of a cultural resource which may be adversely affected by such operation is sufficiently established to warrant protection, the lessee shall take no action that may result in an adverse effect on such cultural resource until the DMMOFO has given directions as to its preservation.

The lessee agrees that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the DMMOFO and make every reasonable effort to preserve and protect the cultural resource from damage until the DMMOFO has given directions as to its preservation.

Sale 68 Stipulation No. 3

All or portion of this tract may contain mass transport deposits, steep slopes, or active faulting. Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas, and the emplacement of pipelines will not be allowed within the potentially unstable portions of the lease block unless or until the lessee has demonstrated to the DMMOFO's satisfaction that mass transport of sediments is unlikely or faulting is unlikely, or that exploratory drilling operations, structures (platforms), casing, wellheads, and pipelines can be safely designed to protect the environment in case such mass transport or faulting occurs at the proposed location. This may necessitate that all exploration for and development of oil and gas be performed from locations outside of the area of instability, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for faulting and mass transport of sediments. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas is allowed, all active faults or mass transport deposits in the lease must be mapped. The DMMOFO may also require soil testing before exploration and production operations are allowed.

Sale 68 Stipulation No. 4

(a) The lessee agrees that prior to operating or causing to be operated on its behalf boat or aircraft traffic into individual, designated warning areas, the lessee shall coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC), and the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating into the warning areas at all times.

(b) The lessee, recognizing that mineral exploration and exploitation and recovery operations of the leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to tempo-

rarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances), will come into effect upon the order of the DMMOFO, after consultation with the Commander, Space and Missile Test Center (WSMC), and the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or higher authority, when national security interests necessitate such action. It is understood that any temporary suspension of operations for national security may not exceed seventy-two hours; however, any such suspension may be extended by order of the DMMOFO. During such periods equipment may remain in place.

(c) The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitees, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, Space and Missile Center (WSMC), and the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, his agents, employees, invitees, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

Sale 68 Stipulation No. 5

Whether or not compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occurs in, on, or above the Outer Continental Shelf, to any person or persons or to any property of any person or persons who are agents, employees or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if

such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors, or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the Western Space and Missile Center (WSMC), the Pacific Missile Test Center (PMTTC), or other appropriate military agency.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of their officers, agents, or employees and whether such claims might be sustained under theories of strict .or absolute liability or otherwise.

Sale 68 Stipulation No. 6

No structures or drilling rigs will be allowed within portions of the tracts described below because of Department of Defense activities.

<u>Tract No.</u>	<u>Restricted Portion</u>
68-101	S ½ NE ¼ SE ¼
68-105	E ½ N ¼
68-112	South and East of a Diagonal line from NE corner to SW corner
68-125	South and East of a Diagonal line from NE corner to SW corner
68-164 (35N3 6W only)	W ½ E ½ E ½, W ½ E ½, E ½ E ½ W ½ (Federal Portions only)
68-169	W ½ E ½ NE ¼, W ½ NE ¼
68-204	NE ¼
68-207	E ½
68-212	N ½
68-213	N ½

Sale 68 Stipulation No. 7

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipelines is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the intergovernmental planning program for assessment and management of transportation of Outer Continental Shelf oil and gas with the participation of Federal, State, and local government and the industry.

(b) Following the development of sufficient pipeline capacity, no crude oil production will be transported by surface vessel from offshore production sites, except in the case of emergency. Determinations as to emergency conditions and appropriate responses to these conditions will be made by the DMMOFO.

(c) Where the three criteria set forth in the first sentence of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act of 1978 (46 U.S.C., 1221 et seq.), as amended.

Sale 68 Stipulation No. 8

(a) Wells. Subsea wellheads and temporary abandonments, or suspended operations that leave protrusions above the seafloor, shall be protected, if feasible and as appropriate, in such a manner as to allow commercial fisheries trawling gear to pass over the structure without snagging or otherwise damaging the structure or the fishing gear. Latitude and longitude coordinates of these structures, along with water depths, shall be submitted to the DMMOFO. The coordinates of such structures will be determined by the lessee utilizing state-of-the-art navigation systems with accuracy of at least " 50 feet (15.25 meters) at 200 miles (322 kilometers).

(b) Pipelines. All pipelines, unless buried, including gathering lines, shall have a smooth-surface design. In the event that an irregular pipe surface is unavoidable due to the need for valves, anodes or other structures, it shall, be protected in such a manner as to allow trawling gear to pass over the object without snagging or otherwise damaging the structure or the fishing gear.

Sale 68 Stipulation No. 9

(1) No producing well may be drilled where the well bore in the producing intervals is closer to the seaward boundary of the State of California based on analysis of pertinent site-specific data, except that in no event shall the agreed distance be further than 750 feet from the seaward boundary of the State. In the absence of an agreed distance, no well shall be drilled closer than 500 feet from the seaward boundary of the State.

(2) The constraint in paragraph (1) shall not apply:

(a) If oil or gas pools or fields underlying both the outer Continental Shelf and lands subject to the jurisdiction of California are included in a production unit entered into by the relevant lessees and approved by the lessors, or in a production unit entered into by the Federal lessee and the State of California when it is carried, nonoperating owner.

(b) If, in the absence of a production unit as described in (a) above, the State of California permits production from State lands from a point closer than 750 feet from the Federal-State boundary. In the event that such production from State lands does occur, the Federal lessee shall be allowed to produce from offset wells equally close to the boundary in the area of Federal jurisdiction.

Sale RS-2 Stipulation No. 1

If the DMMOFO has reason to believe that a site, structure, or object of historical or archaeological significance, hereinafter referred to as a “cultural resource,” may exist in the lease area, and gives the lessee written notice that the lessor is invoking the provisions of this stipulation, the lessee shall upon receipt of such notice comply with the following requirements:

Prior to any drilling activity or the construction or placement of any structure for exploration or development on the lease, including but not limited to, well drilling and pipeline and platform placement, hereinafter in this stipulation referred to as “operation,” the lessee shall conduct remote sensing surveys to determine the potential existence of any cultural resource that may be affected by such operations. All data produced by such remote sensing surveys as well as other pertinent natural and cultural environmental data shall be examined by a qualified marine survey archaeologist to determine if indications are present suggesting the existence of a cultural resource that may be adversely affected by any lease operation. A report of this survey and assessment prepared by the marine survey archaeologist shall be submitted by

the lessee to the DMMOFO and the Manager for review.

If such cultural resource indicators are present the lessee shall: (1) locate the site of such operation so as not to adversely affect the identified location; or (2) establish, to the satisfaction of the DMMOFO, on the basis of further archaeological investigation conducted by a qualified marine survey archaeologist or underwater archaeologist using such survey equipment and techniques as deemed necessary by the DMMOFO, either that such operation shall not adversely affect the location identified or that the potential cultural resource suggested by the occurrence of the indicators does not exist.

A report of this investigation prepared by the marine survey archaeologist or underwater archaeologist shall be submitted to the DMMOFO and the Manager for their review. Should the DMMOFO determine that the existence of a cultural resource which may be adversely affected by such operation is sufficiently established to warrant protection, the lessee shall take no action that may result in an adverse effect on such cultural resource until the DMMOFO has given directions as to its preservation.

The lessee agrees that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the DMMOFO and make every reasonable effort to preserve and protect the cultural resource from damage until the DMMOFO has given directions as to its preservation.

Sale RS-2 Stipulation No. 2

(a) If the DMMOFO has reason to believe that biological populations or habitats exist and require protection, he shall give the lessee notice that the lessor is invoking the provisions of this stipulation and the lessee shall comply with the following requirements. Prior to any drilling activity or the construction or placement of any structure for exploration or development on lease areas including, but not limited to, well drilling and pipeline and platform placement, hereinafter referred to as “operation,” the lessee shall conduct site-specific surveys as approved by the DMMOFO and in accordance with prescribed biological survey requirements to determine the existence of any special biological resource including, but not limited to:

(1) Very unusual, rare, or uncommon ecosystems or ecotones.

(2) A species of limited regional distribution that may be adversely affected by any lease operations.

If the results of such surveys suggest the existence of a special biological resource that may be adversely affected by any lease operation, the lessee shall:

(1) relocate the site of such operation so as not to

adversely affect the resources identified; or (2) establish to the satisfaction of the DMMOFO, on the basis of the site-specific survey, either that such operation will not have a significant adverse effect upon the resource identified or that a special biological resource does not exist. The DMMOFO will review all data submitted and determine, in writing, whether a special biological resource exists and whether it may be significantly affected by lessee's operations. The lessee may take no action until the DMMOFO has given the lessee written directions on how to proceed.

(b) The lessee agrees that if any area of biological significance should be discovered during the conduct of any operations on the leased area, he shall report immediately such findings to the DMMOFO, and make every reasonable effort to preserve and protect the biological resource from damage until the DMMOFO has given the lessee directions with respect to its protection.

Sale RS-2 Stipulation No. 3b

Exploratory drilling operations, emplacement of structures (platforms) or seafloor wellheads for production or storage of oil and gas, and the emplacement of pipelines will not be allowed within the potentially unstable portions of this lease block unless or until the lessee has demonstrated to the DMMOFO's satisfaction that exploratory drilling operations, structures (platforms), casing, wellheads and pipelines can be safely designed to protect the environment at the proposed location. This may necessitate that all exploration for and development of oil and gas be performed from locations outside of the area of submarine canyons or channels, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for unstable bottom conditions. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas is allowed, all such unstable areas must be mapped. The DMMOFO may also require soil testing before exploration and production operations are allowed.

Sale RS-2 Stipulation No. 4

Whether or not compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any person or persons or to any property of any person or persons who are agents, employees or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee

see in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors, or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the Western Space and Missile Center (WSMC), Vandenberg AFB, Lompoc, California; The Pacific Missile Test Center (PMTTC), Pt. Mugu, California; and the Fleet Area Control and Surveillance Facility (FACSFAC), San Diego, California.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of their officers, agents, or employees and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitees, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander of Western Space and Missile Center (WSMC), Vandenberg AFB, Lompoc, California; The Pacific Missile Test Center (PMTTC), Pt. Mugu, California; and the Fleet Area Control and Surveillance Facility (FACSFAC), San Diego, California, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, his agents, employees, invitees, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

The lessee agrees that prior to operating or causing to be operated on its behalf boat or aircraft traffic

into individual, designated warning areas, the lessee shall coordinate and comply with instructions from the Commander of Western Space and Missile Center (WSMC), Vandenberg AFB, Lompoc, California; The Pacific Missile Test Center (PMTTC), Pt. Mugu, California; and the Fleet Area Control and Surveillance Facility (FACSFAC), San Diego, California, or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating in the warning area at all times.

Sale RS-2 Stipulation No. 5

The lessee, recognizing that mineral exploration and exploitation and recovery operations of the leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel, and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances), will come into effect upon the order of the DMMOFO, after consultation with the Commander of Western Space and Missile Center (WSMC), Vandenberg AFB, Lompoc, California; The Pacific Missile Test Center (PMTTC), Pt. Mugu, California; and the Fleet Area Control and Surveillance Facility (FACSFAC), San Diego, California, or other appropriate military agency, higher authority, when national security interests necessitate such action. It is understood that any temporary suspension of operations for national security may not exceed seventy-two hours; however, any such suspension may be extended by order of the DMMOFO. During such periods equipment may remain in place.

Sale RS-2 Stipulation No. 6

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipelines is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the intergovernmental planning program for assessment

and management of transportation of Outer Continental Shelf oil and gas with the participation of Federal, State, and local government and the industry.

(b) Following the development of sufficient pipeline capacity, no crude oil production will be transported by surface vessel from offshore production sites, except in the case of emergency. Determinations as to emergency conditions and appropriate responses to these conditions will be made by the DMMOFO.

(c) Where the three criteria set forth in the first sentence of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act of 1978 (33 U.S.C., 1221 et seq.).

Sale RS-2 Stipulation No. 7

(a) Wells. Subsea well-heads and temporary abandonments, or suspended operations that leave protrusions above the seafloor, shall be protected, if feasible and as appropriate, in such a manner as to allow commercial fisheries trawling gear to pass over the structure without snagging or otherwise damaging the structure or the fishing gear. Latitude and longitude coordinates of these structures, along with water depths, shall be submitted to the DMMOFO. The coordinates of such structures will be determined by the lessee utilizing state-of-the-art navigation systems with accuracy of at least " 50 feet (15.25 meters) at 200 miles (322 kilometers).

(b) Pipelines. All pipelines, unless buried, including gathering lines, shall have a smooth-surface design. In the event that an irregular pipe surface is unavoidable due to the need for valves, anodes or other structures, it shall, as appropriate, be protected in such a manner as to allow trawling gear to pass over the object without snagging or otherwise damaging the structure or the fishing gear.

Sale RS-2 Stipulation No. 8

The lessee shall include in his exploration and development plans, submitted under 30 CFR 250.34, a proposed fisheries training program for review and approval by the DMMOFO. The training program shall be for the personnel involved in vessel operations (related to offshore exploration and development and production operations), and platform and shore based supervisors. The purpose of the training program shall be to familiarize persons working on the project of the value of commercial fishing industry, the methods of offshore fishing operations, the potential conflicts between fishing operations and offshore oil and gas activities, the locations of marine mammal and bird rookery sites in the area, the seasonal abundance and sen-

sitivities of these animals to disturbance, and the Federal laws that have been established to protect endangered species from harassment and injury. The program shall be formulated and implemented by qualified instructors.

Sale RS-2 Stipulation No. 9

(a) The royalty rate on production from this lease is subject to consideration for reduction under the same authority that applies to all other oil and gas leases on the Outer Continental Shelf (30 CFR 250.21). The Director, Minerals Management Service, may grant a reduction for only one year at a time and reduction of royalty rates will not be approved unless production has been underway for one year or more.

(b) Although the royalty rate specified in Sec.6(a) of this lease or as subsequently modified in accordance with applicable regulations and stipulations is applicable to all production under this lease, not more than 16 2/3 percent of the production from the lease area may be taken as royalty in amount, except as provided in sec. 15(d); the royalty on any portion of the production from the lease in excess of 16 2/3 percent may only be taken in value of the production from the lease area.

Sale 80 Stipulation No. 1 - Protection of Biological Resources

(a) If the Regional Manager (RM) has reason to believe that biological populations or habitats exist and require protection, the RM shall give the lessee notice that the lessor is invoking the provisions of this stipulation and the lessee shall comply with the following requirements. Prior to any drilling activity or the construction or placement of any structure for exploration or development on lease areas including, but not limited to, well drilling and pipeline and platform placement, hereinafter referred to as "operation," the lessee shall conduct site-specific surveys as approved by the RM and in accordance with prescribed biological survey requirements to determine the existence of any special biological resource including, but not limited to:

- (1) Very unusual, rare, or uncommon ecosystems or ecotones.
- (2) A species of limited regional distribution that may be adversely affected by any lease operation.

If the results of such surveys suggest the existence of a special biological resource that may be adversely affected by any lease operation, the lessee shall: (1) relocate the site of such operation so as not to adversely affect the resources identified; (2) modify

operations in such a way as not to adversely affect the significant biological populations or habitats deserving protection; or (3) establish to the satisfaction of the RM on the basis of the site-specific survey, either that such operation will not have a significant adverse effect upon the resource identified or that a special biological resource does not exist. The RM will review all data submitted and determine, in writing, whether a special biological resource exists and whether it may be significantly affected by lessee's operations. The lessee may take no action until the RM has given the lessee written directions on how to proceed.

(b) The lessee agrees that, if any area of biological significance should be discovered during the conduct of any operations on the leased area, the lessee shall report immediately such findings to the RM, and make every reasonable effort to preserve and protect the biological resources from damage until the RM has given the lessee directions with respect to its protection.

Sale 80 Stipulation No. 2 - Protection of Cultural Resources

(a) "Cultural Resource" means any site, structure, or object of historical or archaeological significance. "Operations" means any drilling, mining, or construction or placement of any structure for exploration, development, or production of the lease.

(b) If the Regional Manager (RM) believes a cultural resource may exist in the lease area, the RM will notify the lessee in writing. The lessee shall then comply with subparagraphs 1) through (3).

- (1) Prior to commencing any operations, the lessee shall prepare a report, as specified by the RM, to determine the potential existence of any cultural resource that may be affected by such operations. The report, prepared by an archaeologist and geophysicist, shall be based on an assessment of data from remote sensing surveys and other pertinent cultural and environmental information. The lessee shall submit this report to the RM for review.
- (2) If the evidence suggests that a cultural resource may be present, the lessee shall either:
 - (i) Locate the site of such operation so as not to adversely affect the area where the cultural resource may be; or
 - (ii) Establish, to the satisfaction of the RM that a cultural resource does not exist or will not be adversely affected by operations. This shall be done by further archaeological investigation, conducted by

an archaeologist and a geophysicist, using survey equipment and techniques deemed necessary by the RM. A report of the investigation shall be submitted to the RM for review.

- (3) If the RM determines that a cultural resource is likely to present on the lease and may be adversely affected by such operation, the RM will notify the lessee immediately. The lessee shall take no action that may adversely effect the cultural resource until the RM has told the lessee how to protect it.

(c) If the lessee discovers any cultural resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the RM. The lessee shall make every reasonable effort to preserve the cultural resource until the RM has told the lessee how to protect it.

Sale 80 Stipulation No. 3 - Operational Control, Electromagnetic Emissions, And Evacuation

(a) The lessee agrees that, prior to operating or causing to be operated on its behalf boat or aircraft traffic into individual designated warning areas, the lessee shall coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC), the Commander, Pacific Missile Test Center (PMTTC), and the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), or other appropriate military agency. Such coordination and instruction will provide for positive control of boats and aircraft operating in the warning area at all times.

(b) The lessee agrees to control its own electromagnetic emissions and those of his agents, employees, invitees, independent contractors or subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander WSMC, Commander PMTTC, and the Commander FACSFAC, or other appropriate military agency, to the degree necessary to prevent damage to or unacceptable interference with Department of Defense flight, testing or operations activities conducted within individual, designated warning areas. Necessary monitoring, control, and coordination with the lessee, its agents, employees, invitees, independent contractors or subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area: provided, however, that control of such electromagnetic emissions shall permit at least one continuous channel of communication between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

(c) The lessee, recognizing that mineral exploration and exploitation and recovery operations of the

leased areas of submerged lands can impede tactical military operations, hereby recognizes and agrees that the United States reserves and has the right to temporarily suspend operations of the lessee under this lease in the interests of national security requirements. Such temporary suspension of operations, including the evacuation of personnel and appropriate sheltering of personnel not evacuated (appropriate shelter shall mean the protection of all lessee personnel for the entire duration of any Department of Defense activity from flying or falling objects or substances) will come into effect upon the order of the Regional Manager (RM) after consultation with the Commander WSMC, Vandenberg AFB, Lompoc, California, or other appropriate military agency, higher authority, when national security interests necessitate such action. It is understood that any temporary suspension of operations for national security may not exceed 72 hours; however, any such suspension may be extended by order of the RM. During such periods equipment may remain in place.

Sale 80 Stipulation No. 4 - Hold Harmless

Whether or not compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property which occur in, on, or above the Outer Continental Shelf, to any person or persons or to any property of any person or persons who are agents, employees or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Western Space and Missile Center, Pacific Missile Test Center, or other appropriate military agency.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with

the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of their officers, agents, or employees and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

Sale 80 Stipulation No. 5 - Transportation Of Hydrocarbon Products

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipelines is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the Pacific Regional Technical Working Group with the participation of Federal, State, and local government and the industry.

(b) Following the development of sufficient pipeline capacity, no crude oil production will be transported by surface vessel from offshore production sites, except in the case of emergency. Determinations as to emergency conditions and appropriate responses to these conditions will be made by the Regional Manager.

(c) Where the three criteria set forth in the first sentence of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act of 1972 (33 U.S.C., 1221 et seq.).

Sale 80 Stipulation No. 6 - Wells And Pipelines

(a) Wells. Subsea well-heads and temporary abandonments, or suspended operations that leave protrusions above the seafloor, shall be protected, if, feasible, in such a manner as to allow commercial trawl gear to pass over the structure without snagging or otherwise damaging the structure or the fishing gear. Latitude and longitude coordinates of these structures, along with water depths, shall be submitted to the Regional Manager. The coordinates of such structures will be determined by the lessee utilizing state-of-the-art navigation systems with accuracy of at least " 50 feet at 200 miles.

(b) Pipelines. All pipelines, unless buried, including gathering lines, shall have a smooth-surface design. In the event that an irregular pipe surface is unavoidable due to the need of valves, anodes or other structures, those irregular surfaces shall be protected in such a manner as to allow trawl gear to pass over the object without snagging or otherwise damaging the structure or the fishing gear.

Sale 80 Stipulation No. 7 - Fisheries And Wildlife Training Program

The lessee shall include in its exploration and development plans, submitted under 30 CFR 250.34, a proposed fisheries and wildlife training program for review and approval by the Regional Manager. The training program shall be for all personnel involved in exploration, development, and production operations, and for platform and shorebased supervisors. The purpose of the training program shall be to familiarize persons working on the project of the value of the commercial fishing industry, the methods of offshore fishing operations, the potential conflicts between fishing operations and offshore oil and gas activities, the locations of marine mammal and bird rookery sites in the area, the locations of gray whale and other endangered whale migration routes in the area, the seasonal abundance and sensitivities of these animals to disturbance, and the Federal laws that have been established to protect endangered and threatened species from harassment or injury. Additionally, the lessee shall include in the training program required above, information on the behavior of gray whales migration and how to avoid conflicts with this migration. The program shall be formulated and implemented by qualified instructors.

Stipulation No. 8 - Hazardous Waste

Prior to any drilling activity or the construction or placement of any structure for exploration or development on the lease, including but not limited to well drilling and pipeline and platform placement, hereinafter in this stipulation referred to as "operation", the lessee shall investigate the potential existence of any radioactive waste, munitions, or toxic chemical waste on the lease. This investigation shall consist of examination of data acquired in the course of the shallow geologic hazard survey as conducted in accordance with the current Notice to Lessees issued by the Regional Manager (RM) and examination of the dump site records. This survey shall be over an acceptable grid and shall employ a magnetometer, water depth recorder, and dual side scan sonar or other equipment as determined necessary by the RM. If the results of the survey indicate the presence of such dumped materials, further investigation as to their nature may

be required. A report of this investigation shall be included in the shallow geologic hazards survey report.

If the presence of dumped material is established, the lessee shall: (1) locate the site of the operation so as not to disturb the material ; (2) conduct the operation in a manner that minimally disturbs the ocean floor (e.g., dynamically positioned drilling vessel); or (3) establish to the satisfaction of the RM, on the basis of further investigation, that disturbance of the material would not result in any adverse effects on the human or marine environments.

Stipulation No. 9 - Protection Of Important Biological Resources

(a) The lessee shall be required to maintain state-of-the-art oil spill containment and cleanup equipment (in accordance with the requirements of the previously agreed upon U.S. Coast Guard (USCG) Notice No. 5740) onsite and in the vicinity of exploratory drilling and development and production operations. In addition, suitable means of deployment and personnel trained in deployment and use of this equipment must be available. Such deployment for exploration, development, and production operations shall have the capability of immediate initiation of oil spill containment and cleanup.

(b) In the case of spills larger than can be contained by equipment on exploration vessels or production platforms, the lessee shall maintain state-of-the-art equipment on the vessels which, based on the proximity to the Channel Islands National Marine Sanctuary, are capable of responding to a request for assistance and being on the scene within 2 to 4 hours of the request if local conditions permit. The lessee shall install on exploration vessels and production platforms real-time monitoring capability to assist the USCG in acquiring meteorological and oceanographic data necessary to make accurate predictions of the trajectory of oil spills. This information shall support oil spill containment and cleanup operations. When a spill greater than 1 barrel occurs, the lessee shall notify the California Office of Emergency Services within 24 hours of such a spill.

(c) Development and production operations will be required to include the capability to automatically detect the loss of oil and gas at any time.

Stipulation No. 10 - Testing Of Oil Spill Containment Equipment

The lessee shall conduct semi-annual full-scale drills at the request of the lessor for platforms and

operator-controlled contracted cleanup vessels for deploying equipment in open water to test the equipment and the contingency plan. These drills must involve all primary equipment identified in the oil spill contingency plans as satisfying Outer Continental Shelf Operating Order No. 7. At least two of these drills shall include the primary equipment controlled and operated by the appropriate cooperative. These drills will be unannounced and held under realistic environmental conditions in which deployment and operations can be accomplished without endangering safety of personnel. Representatives of the U.S. Coast Guard, Minerals Management Service, and California Coastal Commission may be present as observers. The lessor's inspectors will frequently inspect oil and gas facilities where oil spill containment and cleanup equipment are maintained in order to assure readiness.

Stipulation No. 11 - Onshore Oil Processing

Any initial processing of oil will be conducted at an onshore facility, if feasible, subject to the granting of necessary permits by local authorities within a reasonable period of time as provided for in State of California law. If after review by local and State authorities these permits cannot be acquired, then the Regional Manager shall determine, in cooperation and participation with the State, what further action needs to be taken in regard to the lessee's development and production plan. Exceptions to the initial onshore processing include standard oil/gas/water separation processes and necessary treatment of oil prior to being pumped from the platform into a pipeline to shore, if pipeline transport is determined practicable.

Stipulation No. 12 - Protection Of Commercial Fisheries

(a) The lessee, operator(s), subcontractor(s), and all personnel involved in exploration, development, and production operations shall endeavor to minimize conflicts between the oil and gas industry and the commercial fishing industry.

Prior to submitting a plan of exploration or development to the lessor, appropriate oil and gas personnel shall contact potentially affected commercial fishermen or their representatives to discuss potential conflicts with the siting, timing, and methods proposed. Through this consultation the lessee shall assure that, whenever feasible, exploratory and development activities are compatible with seasonal fishing operations and will not result in permanently barring commercial fishing from important fishing grounds.

A discussion of the resolutions reached during this consultation process and a discussion of any unresolved conflicts shall be included in the Plan of Exploration or Development/ Production. The lessee shall

send a copy of the Plan of Exploration or Development/ Production to the fisheries liaison office and the marine extension office at the same time they are submitted to the lessor to allow concurrent review and comment as part of the lessor's plan approval process.

In accordance with 30 CFR 250.34-1(b)(1), copies of such plans are sent to appropriate State agencies, such as the California State Lands Commission, California Department of Fish and Game, and the California Coastal Commission.

(b) In particular, the lessee shall show in the Plan of Exploration or Development/Production crew and supply boat operation routes which will be used to minimize impacts to commercial fishing, marine mammals, and endangered and threatened species. Conflicts foreseen in the planning stages or that develop later shall be resolved whenever feasible and as quickly as possible.

(c) The lessee also shall include in the Plan of Development/ Production analyses of the effects of its operations on the allocation and use of local dock space by fishing boats and crew and supply boats. These analyses shall include present (baseline) uses, predicted oil and gas uses which increase the level of demand, and an assessment of individual and cumulative impacts. Conflicts foreseen in the planning stages or that develop later shall be resolved whenever feasible and as quickly as possible.

(d) The lessee shall be required to employ jack-up drilling rigs for drilling exploratory wells in primary commercial fishing trawl grounds as determined by the Regional Manager (RM) when water depths are 275 feet or less. The RM may approve other drilling vessels when geological or bottom conditions prohibit the use of jack-ups. When considering the use of other drilling vessels, the RM will consult with the California Department of Fish and Game to determine the effects of the vessels on commercial fishing.

(e) All activities associated with exploration and development operations shall be conducted to avoid the creation of obstacles to commercial fishing operations. If the RM has reason to believe that the site has not been adequately cleared, additional surveys shall be required to detect the location of any obstacles to commercial fishing.

Stipulation No. 13 - Protection Of Marine Biota

All drilling muds discharged from exploration and development and production operations must contain only those components approved by the U. S. Environmental Protection Agency in accordance with National Pollutant Discharge Elimination System permits issued for this lease.

When drilling fluid discharges are proposed within 1000 meters of Areas of Special Biological Sig-

nificance, a National Marine Sanctuary, or other sensitive areas as determined by the Regional Manager, the lessee shall include the results of a drilling fluids dispersion model for anticipated discharges in a Plan of Exploration or Development/Production.

Stipulation No. 14 - Disposal Of Drilling Discharges

The Regional Manager (RM) may require the lessee to modify muds and cutting discharge operations or transport the material to disposal sites approved by the U.S. Environmental Protection Agency (EPA). After consultation with the EPA, the RM shall determine the method of disposal based upon review of the data obtained from the surveys and studies established pursuant to Stipulation No. 1 and from other relevant sources of information.

Stipulation No. 15 - Suspension Of Operations

The Director shall suspend or temporarily prohibit production or any other operation or activity pursuant to this lease if such suspension or cessation of operations or activities is necessary to complete operations or activities described in a development and production plan approved by the Regional Manager pursuant to 30 CFR part 250.34.

Stipulation No. 16 - Protection Of Mackerel Fishery In San -Pedro Bay

(a) The lessee shall be required to employ jack-up drilling rigs for drilling exploratory wells as determined by the Regional Manager (RM) when water depths are 275 feet or less. The RM may approve other drilling vessels when geological or bottom conditions prohibit the use of jack-ups. When considering the use of other drilling vessels, the RM will consult with the California Department of Fish and Game to determine the effects of the vessels on commercial fishing.

(b) Lessees shall not employ pendant buoys on drilling vessels or shall place pendant buoys at a depth sufficient to avoid conflict with the mackerel fishery on these blocks. Anchor patterns will be designed to minimize displacement area.

Stipulation No. 17 - Protection Of Air Quality

Lessees shall comply with the following requirements until the Minerals Management Service completes rulemaking procedures concerning air quality regulations applicable to oil and gas operations on the Outer Continental Shelf off California. Any revisions to the current air quality rules will be applied to all exploratory and development/production operations on leases issued as a result of this sale.

(a) For drilling vessels used in exploration activities, the lessee shall apply control technologies for NO_x identified by the Regional Manager (RM) or apply other control measures that result in equivalent emissions limitations. The lessee shall use only those pollution control technologies which can be approved by the U.S. Coast Guard (USCG), the American Bureau of Shipping (ABS), and/or other agencies as appropriate.

(b) The lessee shall provide the RM with the schedule and location of proposed exploration activities at least 2 months in advance of the activities.

(c) For all plans of development/ production, the lessee shall provide, in a manner specified by the RM, an evaluation of the impacts of emissions of NO_x and VOC on onshore concentrations of NO₂ and O₃.

(d) For development/ production facilities and for oil transport vessels while attached to the facility, the lessee shall apply control technologies for NO_x and VOC identified by the RM, or apply other control measures that result in equivalent emission limitations. The lessee shall use only those pollution control technologies which can be approved by the USCG, the ABS, and/or other agencies as appropriate.

(e) The lessee shall install best available control technology; approved by the RM and by the USCG, the ABS, and/or other agencies, as appropriate, to reduce VOC emissions resulting from the transfer of oil from storage facilities to a transport vessel.

Appendix 1.5 Information Addressing Issues Raised by the California Coastal Commission in a Letter to MMS.

The following issues were discussed in a letter, dated August 5, 1999, from the California Coastal Commission to MMS. The Commission's primary concern was that "changed circumstances and new information should be considered in evaluating environmental impacts of the proposed new exploration [delineation] activities." These issues, raised by the Commission, and MMS's responses, are summarized below along with a reference in the Draft EIS (DEIS) sections where additional detail may be found.

Issue	Responses to the Issue and DEIS Reference
<p>Issue 1. Proposed activities affect the sea otter population.</p>	<ul style="list-style-type: none"> • Operator submittals (Project Descriptions) recognized that sea otters have extended their range, that MMS will need to update endangered species consultations, and that facilities and techniques for sea otter capture, handling, cleaning, and rehabilitation have improved. In addition, the operators will address this issue in the revisions to their plans. • Sea otters already coexist with limited OCS oil and gas production activities in the Santa Maria Basin. Studies of recent sea otter movements indicate that the otter range has expanded into the Santa Barbara Channel and coexist with OCS oil and gas production there, as well. • The primary potential impact to sea otters from OCS activities is from accidental oil spills. Hypothetical development resulting from delineation drilling activities in the undeveloped leases north of Point Conception is likely to result in a small incremental increase in the probability that an oil spill will occur. • Potential impacts to sea otters from the proposed activities will be assessed during the Endangered Species Section 7 consultations with the FWS. Given the probable expansion of the southern sea otter range into the Santa Barbara Channel, this consultation will likely involve the proposed activities on all of the undeveloped leases. • This DEIS addresses potential impacts to the sea otter population in sections 5.2.8, 5.2.8.2, and 6.2.8.

Issue	Responses to the Issue and DEIS Reference
<p>Issue 2. Possible effects on the Monterey Bay National Marine Sanctuary, which was not a sanctuary at the time plans were originally reviewed.</p>	<ul style="list-style-type: none"> • The southern boundary of the Sanctuary is approximately 45 miles north of the active lease area. • Operator-submitted Project Descriptions discuss the Sanctuary and the operators will address this issue in revisions to their plans. The distance from each undeveloped unit or lease to the Sanctuary waters is given below. • Cavern Point Unit – over 120 miles • Gato Canyon Unit – over 100 miles • Sword Unit – over 80 miles • Bonito Unit – over 65 miles • Rocky Point Unit – approximately 77 miles • Santa Maria Unit – over 40 miles • Purisima Point Unit – over 40 miles • Lease OCS P 409 – over 40 miles • Point Sal Unit – over 40 miles • Lion Rock Unit – over 40 miles • Some potential oil spill threat may exist during certain times of the year since winds and currents along the central California coast make it possible for oil from a spill in the Santa Maria Basin to be carried northward into Sanctuary waters. The risk to the Sanctuary is reduced due to the weathering of the oil that would occur during the time it takes for the oil to travel to the Sanctuary. • This DEIS addresses potential impacts to the Monterey Bay National Marine Sanctuary in sections 5.2.11 and 6.2.11.
<p>Issue 3. Changes in State and local air quality regulations and their implementation affect future exploration or development.</p>	<ul style="list-style-type: none"> • Operators recognized the change in the authority and the role of the local air pollution control districts and acknowledge that they will apply to either the Ventura or Santa Barbara County Air Pollution Control Districts. • As a result of a 1990 amendment to the Clean Air Act, all existing and future OCS sources will be permitted by the local air agencies and must be in full compliance with local air quality rules and regulations. • Under <i>New Source Review</i> provisions contained within the local air regulations, all new or modified projects must result in a "net air quality benefit." This requires the applicant to provide emission offsets in greater levels than emissions expected for the project. • This DEIS addresses potential impacts to air quality in sections 5.2.1, 5.2.1.2, and 6.2.1.

Appendix 1.5 Information Addressing Issues Raised by the California Coastal Commission in a Letter to MMS (continued).

Issue	Responses to the Issue and DEIS Reference
<p>Issue 4. Changes in water quality regulations and anticipated further changes in those regulations.</p>	<ul style="list-style-type: none"> • MMS and the operators recognize the need for a new General permit. • The General permit has been finalized, incorporating public comment, and the CCC issued a Consistency Certification with conditions. EPA is currently working with CCC to meet the conditions. EPA plans to publish the permit in final form in the Federal Register sometime in the summer of 2001. The new General permit will replace a 17-year old General permit, two Individual permits that have existed, unchanged, since 1977, and six Individual permits, all issued between 1993 and 1995. • This DEIS addresses potential impacts to water quality in sections 5.2.2, 5.2.2.2, and 6.2.2.
<p>Issue 5. New information concerning the impacts of drill muds and cuttings on hard bottom habitat.</p>	<ul style="list-style-type: none"> • New information on impacts of drilling muds and cuttings comes, primarily, from the California Monitoring Program (CaMP) studies, conducted near Point Arguello between 1984 and 1994. • CaMP results indicated that biological changes were identified as far away as 1,000 m; impacts were from smothering, not toxicity, of the drilling muds. • Shallow hazards information collected in the 1970's and 1980's indicate the presence of hard bottom areas near some proposed delineation well sites. • In 1991, the Hard Bottom process was established to identify, avoid, and/or mitigate impacts to hard bottom habitats. If potential hard bottom is identified within 1,000 m of a wellsite, the operator either develops an avoidance plan or a biological data collection and mitigation plan. • MMS, along with other agencies, fishermen, and area experts, are working with the operators in developing plans to avoid or survey and mitigate impacts to hard bottom habitats. • New sea floor survey information will likely be required, including high-resolution side scan sonar, which will clearly depict locations of hard bottom. • If avoidance of potential hard bottom habitat is not possible, given existing or new information, a biological survey will be needed to identify hard bottom habitat. • This DEIS addresses potential impacts to hard bottom habitats in sections 5.2.4, 5.2.4.2, and 6.2.4.
<p>Issue 6. New information concerning the effects of undersea noise on marine mammals and other marine life.</p>	<ul style="list-style-type: none"> • Operators recognize the changes in available information concerning the effects of noise on marine mammals and covered these issues in their Project Descriptions. • Drilling rigs and seismic surveys can generate noise levels that may have an effect on marine mammals. • MMS, in conjunction with various State, Federal, and local agencies, the geophysical and oil industry, and environmental groups, agreed on a set of guidelines for mitigation of potential impacts to marine mammals from high-energy seismic surveys (HESS). No high-energy seismic surveys are currently proposed for the undeveloped leases. • This DEIS addresses potential impacts to marine mammals from noise in sections 5.2.8, 5.2.8.2, and 6.2.8.

Issue	Responses to the Issue and DEIS Reference
<p>Issue 7. Changes in technology since review of earlier plans.</p>	<ul style="list-style-type: none"> • The use of new technology is required to be addressed in the revised EP's via MMS's operating regulations. Operators will need to comply with changes in the regulations, including compliance with any revised standards. • Generally, operators identified advances in geological and geophysical data acquisition and processing, and improvements in extended-reach drilling capability. • Advances in technology including computers and automation can be seen in various areas. These advances may change activities and associated impacts in several ways: • New technology may allow the operator to change the fundamental activity being proposed (e.g., extended-reach drilling from an existing facility rather than drilling from a MODU or the installation of a new platform); • New technology can reduce the risk associated with a given activity (e.g., improved equipment such as blowout preventers); • New and existing mitigation may be more effective (e.g., improved oil skimming and response capability); • Exploration and delineation of a reservoir can be completed with fewer wells; • New technology may decrease the MODU's time-on-location. • Where appropriate, new technology is implicitly included in the DEIS. For example, discussions in Chapters 2 and 3 describe the Proposed Action and the equipment necessary. Also, as noted above, oil-spill clean up capability has improved and that is implicitly included, where appropriate, in Chapters 5 and 6.
<p>Issue 8. Changes in operators, and their compliance with environmental protections required under current Federal, State, and local regulations, since the submittal of the original EP's.</p>	<ul style="list-style-type: none"> • New operators have acquired all the units since the original EP's were submitted. • In the early 1990's, offshore properties in the Pacific Region began to shift ownership from the major companies, which had originally held the resource rights and often constructed offshore production and onshore processing facilities, to small and medium-size companies. • MMS strictly holds all new operators to all laws and regulations pertaining to offshore oil and gas operations. • By law, all companies must meet the same requirements to become operators. • MMS sees that all operators demonstrate financial responsibility and requires addition bonding, if needed. • This issue is not addressed in the DEIS
<p>Issue 9. Cumulative impacts of the exploration and development of the 36 leases.</p>	<ul style="list-style-type: none"> • Chapter 5 contains cumulative discussions for each of the resources, associated with the Proposed Action, as required by NEPA, for the years 2002 through 2006. • Chapter 6 contains an expanded cumulative discussion for each of the resources, that also includes the potential for cumulative impacts from development of the 36 undeveloped leases for the years 2002 through 2030.