UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
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AN OILSPILL RISK ANALYSIS FOR THE CENTRAL CALIFORNIA OUTER CONTINENTAL SHELF LEASE OFFERING (OCTOBER 1983)

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Introduction

The Federal Government has proposed to offer Outer Continental Shelf (OCS) lands off the Central California coast for oil and gas leasing. This report examines what could happen if leases are issued and oil is found, and attempts to compare relative risks of future leasing with risks of existing leases and transportation of imported oil in the study area.

Oilspills are a major concern associated with offshore oil production. An important fact that stands out when one attempts to evaluate the significance of accidental oilspills is that the problem is fundamentally probabilistic. Uncertainty exists about the amount of oil that will be produced from the leases and the number and size of spills that might occur during the life of production, as well as the wind and current conditions that would exist at the time of a spill occurrence and give movement and direction to the oil slick. Although some of the uncertainty reflects incomplete and imperfect data, considerable uncertainty is simply inherent in the problem of describing future events over which complete control cannot be exercised. Since it cannot be predicted with certainty that a probabilistic event such as an oilspill will occur, only the likelihood of occurrence can be quantified. The range of possible effects that may accompany a decision related to oil and gas production must be considered. In attempting to maintain perspective on the problem, one must associate each potential effect with a quantitative estimate of its probability of occurrence.

This report summarizes results of an oilspill-risk analysis conducted for the proposed Central California Lease Offering (October 1983). The study had the objective of determining relative risks associated with oil and gas production in different regions of the proposed lease area. The study was undertaken for consideration in the draft Environmental Impact Statement (EIS), which is prepared for the area by the Minerals Management Service (MMS), formerly the Bureau of Land Management (BLM), and to aid in the final selection of tracts to be offered for sale. A description of the oilspill trajectory analysis model used in this analysis can be found in previous papers (Lanfear and others, 1979; Smith and others, 1982; Lanfear and Samuels, 1981). The analysis was conducted in three parts corresponding to different aspects of the overall problem. The first part dealt with the probability of oilspill occurrence, and the second dealt with the trajectories of oilspills from potential launch points to various targets. Results of the first two parts of the analysis were then combined to give estimates of the overall oilspill risk associated with oil and gas production in the lease area.

Summary of the Proposed Action

The proposed action is to offer for lease 306 tracts on the Outer Continental Shelf off the California coast. The study area for this analysis includes all of these tracts and extends from latitude 32° N. to 46° N., and from longitude 117° W. to 130° W. (figure 1). The study area also includes existing leases in the Southern California Bight and the Santa Maria Basin.

For purposes of this analysis, the leasing area was divided into the 17 proposed leasing areas shown numbered in figure 2. The 23 existing lease tract groups in the study area are shown in figure 3.

If oil is discovered and the area is developed for production, there are a number of ways in which oil may be transported to shore. Proposed and existing transportation routes are shown in figures 4 and 4a. The following hypothetical transportation scheme is proposed for the purpose of impact assessment:

Anticipated Transportation Routes - The oil from the northern part of the Santa Maria Basin (P2, P8, P14, P15) will be brought ashore by subsea pipelines at Arroyo Grande, near Santa Maria, and then transported by onshore pipeline to Gaviota.* The oil from the southern part of the basin (all other launch areas) will be brought ashore by subsea pipelines to Pt. Conception, where it will then be transported via onshore pipeline to Gaviota. At Gaviota the oil from the Santa Maria Basin will be collected, and 50% will be transported by onshore pipeline to Los Angeles/Long Beach area refineries, 25% will be tankered north to San Francisco Bay area refineries, and the remaining 25% will be tankered to Gulf of Mexico (Galveston) refineries via the Panama Canal.

It must be understood that these transportation schemes are merely "best guesses" at what may happen. In the final analysis, many factors that are presently unknown or little known, must be considered. These factors include, in addition to environmental, state, and local concerns, the questions of: will oil actually be discovered; how much oil will be found; where within the basin will it be found; what will be the nature (chemical properties) of the discovered oil (dictating where it can be refined and how transported); what will be the cost of oil on the world market at the time of discovery (determining how much, if any is economically recoverable); what will be the relative transportation costs of oil at the time of discovery, production, and during the life of the newly discovered fields; and how will industry technology change, and subsequently economics, during the life of the fields. These are important questions that cannot be presently answered, but will ultimately determine the extent of development and the specific transportation schemes used.

*It should be noted that Gaviota is one of several Santa Barbara terminal sites under consideration by industry; its use for analytical purposes in the EIS does not imply an MMS decision on the site.

The transportation routes shown in figure 4a are also used to move oil from existing leases to shore, and for importing crude oil to San Francisco and Los Angeles refineries.

Environmental Resources

The locations of 11 categories of environmental resources (or targets, as they are designated in this paper) were digitized in the same coordinate system, or base map, as that used in trajectory simulations. Targets were selected by MMS analysts in the Pacific Regional OCS office, who are preparing the EIS. Maps showing the digitized targets are shown in appendix A, figures A-1 to A-5. The monthly sensitivities of these targets were also recorded so that, for example, a target such as migrating birds could be contacted by simulated oilspills only when the birds would be in the area. In this analysis, all targets are considered to be vulnerable year round and are listed below:

North Sea Otter Range
South Sea Otter Range
Combined Sea Otter Range
Northern Channel Islands
Southern Channel Islands
Combined Channel Islands
Point Reyes Marine Sanctuary
Point Reyes Wilderness Area
Farallon Islands
Least Tern Range
Begg Rock

Because the trajectory model simulates an oilspill as a point, most targets have been given an areal extent slightly greater than they actually occupy. For example, some shoreline targets extend a short distance offshore; this allows the model to simulate a spill that approaches land, makes partial contact, withdraws, and continues on its way.

To provide a more detailed analysis for land or land-based targets, the model includes a feature that allows subdividing the coastline into land segments. Figure 5 shows the coastline, from the Oregon-Washington state line to the Mexican border, divided into 65 segments of approximately equal lengths.

Estimated Quantity of Oil Resources

Benefits and risks (as well as many environmental impacts) are functions of the volume of oil and are not independent of each other. Greater risks are associated with greater volumes of oil and greater economic benefits. If benefits are evaluated by assuming production of a specific amount of oil, then the corresponding risks should be stated in a conditional form such as, "the risks are ..., given that the volume is ...". If benefits

are evaluated for a number of discrete volumes, then risks should likewise be calculated for the same volumes. Any statements about the likelihood of the presence of a particular volume of oil apply equally well to the likelihood of the corresponding benefits and risks.

The estimated oil resources used for oilspill risk calculations in this report correspond to those used by MMS in preparing the draft EIS for the lease sale. If oil is present in the proposed area, a conditional mean resource of 0.97 billion barrels is estimated (Bird, 1983). This volume is an estimate of the total undiscovered recoverable oil, given that hydrocarbons are indeed present, and excluding state waters, previously leased tracts (from Sale 53), and other areas excluded from the proposed call area. The "most likely" volume estimate used in this analysis is the percentage of the conditional mean expected to be leased and developed as a result of the proposed lease offering. This estimate is 0.29 billion barrels, (30% of the conditional mean).

The conditional mean resource estimates for existing leased tracts are: 163 million barrels of oil for the Santa Maria Basin (Sale 53, including RS-2) and 285 million barrels of resources and 861 million barrels of reserves for Southern California leases (Parrish, 1982).

We cannot overemphasize that these estimates are based on the assumption that oil is present. If it is not present (then, obviously), no oilspill risks exist from the proposed lease offering. The remainder of this analysis is designed to answer the question, "What are the risks <u>if oil is found</u>?"

In addition to the crude oil estimated to be produced over the 25-year expected life of the proposed leases, MMS estimates that 7.6 billion barrels of crude oil will be imported into the region by tankers from outside sources (including 6.1 billion barrels from Alaska).

Probability of Oilspills Occurring

The probability of oilspills occurring (given that oil is present) is based on the assumption that spills occur independently of each other as a Poisson process and with a rate derived from past OCS experience and dependent upon the volume of oil produced and transported. All types of accidental spills of 1,000 barrels or larger were considered in this analysis, including not only well blowouts, but also other accidents on platforms, transportation of oil to shore, and, in some cases, further transportation from an intermediate terminus to refineries. These types of accidents were classified as either platform, pipeline, or tanker spills. By including all of these risks, the risks of the proposed OCS leasing can be compared to those of other alternatives.

Lanfear and Amstutz (1982) examined oilspill occurrence rates applicable to the U.S. OCS. Basing their results upon new, more recent, and more complete data bases than were available for earlier OSTA models, they recommended updated spill rates for pipeline spills and some significant changes in the spill rates for platforms and tankers. This analysis uses the new spill rates for all accident categories.

Spill rates for OCS platforms are based on the record for the U.S. OCS (Gulf of Mexico, and California) from 1964 through 1980, in which 5 spills of 10,000 barrels or larger are noted, along with 7 spills of 1,000 to 10,000 barrels in size. Nakassis (1982) conducted a statistical analysis of the record, 1964-1979, and concluded that the platform spill rate did not remain constant since 1964, but had decreased significantly. Using this trend analysis and updating for the 1980 data, the spill rate for platform spills of 1,000 barrels or larger is 1.0 spills per billion barrels produced; and the spill rate for platform spills of 10,000 barrels or larger is 0.44 spills per billion barrels produced. The rate for spills 1,000 to 10,000 barrels in size can be found by subtraction, (0.56 spills per billion barrels produced).

As with platform spills, the spill rate for pipelines is based on the record for the U.S. OCS from 1964 through 1980. Two spills of 10,000 barrels or larger are in the data base, along with 6 spills of 1,000 to 10,000 barrels in size. No trend in the pipeline spill rate is evident. The spill rate for pipeline spills of 1,000 barrels or larger is 1.6 spills per billion barrels transported, and the rate for spills of 10,000 barrels or larger is 0.67 spills per billion barrels transported.

For tanker spill rates, previous OSTA models for California (Samuels and Lanfear, 1980, Samuels and others, 1981) used data for years prior to 1973. Using a new data base (The Futures Group, and World Information Systems, 1982) covering the years 1974 through 1980, Lanfear and Amstutz (1982) concluded that the tanker spill rate (expressed as spills per billion barrels transported) since 1974 was only about a third of that found prior to 1973. Thus, this oilspill analysis uses a significantly lower tanker spill rate than the earlier models. From 1974 through 1980, the data base contains records of 57 tanker spills of crude oil of 10,000 barrels or larger and another 57 spills of 1,000 to 10,000 barrels. During this period, approximately 88 billion barrels of oil were transported. Therefore, the spill rate for tanker spills of 1,000 barrels or larger is 1.3 spills per billion barrels transported; and the rate for spills of 10,000 barrels or larger is 0.65 spills per billion barrels transported.

In summary, the spill rates, expressed as number of spills per billion barrels produced or transported, used in this report are:

	≥1,000 bbl	≥10,000 bbl	1,000-10,000 bbl
Platforms	1.0	0.44	0.56
Pipelines	1.6	0.67	0.93
Tankers	1.3	0.65	0.65

Oilspill occurrence estimates for spills greater than 1,000 barrels and from 1,000 to 10,000 barrels (Table 1), and greater than 10,000 barrels (Table 1a) were calculated for production and transportation of oil over the 25-year expected production life of proposed leases. Similar estimates were also calculated for production and transportation of oil from existing leases and for transportation of oil imported from other areas by tanker. The assumption was made that only one-half of the spills from tanker transportation of imported oil would occur within the study area and that the other half of the spills would occur outside the study area. Tables 1 and 1a show the "expected number" (or mean number) of spills estimated to occur in the study area over the expected production life of the lease area.

Oilspill Trajectory Simulations

The trajectory simulation portion of the model consists of a large number of hypothetical oilspill trajectories that collectively represent both the general trend and the variability of winds and currents and that can be described in statistical terms. Representations of the seasonal surface-water velocity fields were provided by Dynalysis of Princeton, Princeton, N.J., using their characteristic tracing model (Kantha and others, 1982). Basically, this model utilizes the geostrophic approximation to the governing equations of fluid motion in rotating coordinates.

Short-term patterns in wind variability were characterized by seasonal probability matrices for successive 3-hour velocity transitions. A first-order Markov process with 41 wind velocity states (eight compass directions by five wind speed classes, and a calm condition) was assumed. The elements of this matrix are the probabilities, expressed as percent chance, that a particular wind velocity will be succeeded by another wind velocity in the next time step in a given season. If the present state of the wind is given, then the next wind state is derived by random sampling according to the percentages given in the appropriate row of the matrix. Seasonal wind transition matrices were calculated from the U.S. Weather Service records from environmental buoy number 46002 (located at latitude 42.5° N., longitude 130° W); Monterey (station number 23245); Vandenberg (station number 93214); San Nicholas Island (station number 93116);

and San Diego (station number 93112), California. The study area was divided into zones so that a simulated oilspill would, depending upon its location, be directed according to the matrix of the appropriate wind station.

Five hundred hypothetical oilspill trajectories were simulated in Monte Carlo fashion for each of the four seasons from each of the 17 proposed leasing areas shown in figure 2 (P1-P17); from each of the 23 existing lease tract groups shown in figure 3 (E1-E23); and from each of 48 locations along the transportation network (L1-L13 and T1-T35, figures 4, 4a). Each potential spill source was represented as either a single point, a straight-line with the potential spill sources uniformly distributed along the line (for example, a transportation route), or as an area (for example, the potential spill sources uniformly distributed within the area). Surface transport of the oil slick for each spill was simulated as a series of straight-line displacements of a point under the joint influence of winds and currents in 3-hour increments. The assumptions used are as follows: (1) the effects of wind and currents act independently; (2) only a fraction of the velocity of the wind, as a result of surface shear stress, is imparted to the body of oil; and (3) the direction of oilspill motion induced by the wind is at some angle to the direction of the wind (a result of the combined effects of Ekman, Langmuir, and Stokes drifts). The seasonal wind transition probability matrix was randomly sampled each 3-hour period for a new wind speed and direction, and the current velocity was updated as the spill changed location or the simulated month changed. The wind drift factor was taken to be 0.035 with a variable drift angle ranging from 0 to 25° clockwise. The drift angle was computed as a function of wind speed according to the formula in Samuels and others (1982); (the drift angle is inversely related to wind speed). As the simulated oilspill was moved, any contacts with one or more targets were recorded. Spill movement continued until the spill hit land, moved off the map, or aged more than 30 days.

The trajectories simulated by the model represent only hypothetical pathways of oil slicks and do not involve any direct consideration of cleanup, dispersion, or weathering processes which could determine the quantity or quality of oil that might eventually come in contact with targets. An implicit analysis of weathering and decay can be considered by noting the age of simulated oilspills when they contact targets. For this analysis, three time periods were selected: 3, 10, and 30 days, to represent implicit measures of oil weathering, as well as matters relating to containment and cleanup.

When calculating probabilities from Monte Carlo trials it is desirable to estimate the error associated with this technique. The standard deviation, s, for a particular binomial probability, p, is calculated as follows:

$$s = \mathrm{SQRT}(p(1-p)/N)$$

where N = number of trials. The shape of this distribution approximates the normal curve. Table 2 shows, for the 90-percent confidence level of this distribution, values of s as a function of p and N. For practical purposes, the Monte Carlo error is insignificant when N = 2,000, as in this analysis.

The probability that, if an oilspill occurs at a certain location, or launch point, it will contact a specific target within a given time-of-travel (under the circumstances described above) is termed a conditional probability, because it is conditioned on oilspill occurrence. Each entry in tables 3, 4, and 5 represents the probability (expressed as percent chance) that, if a spill occurs at certain launch point, it will contact a particular target within 3, 10, or 30 days, respectively. Tables 6, 7, and 8 present similar probabilities for land segments. (These conditional probabilities allow for the possibility that the targets may not be vulnerable to oilspills for the entire year; a target that is vulnerable for only 1 month, for example, could have a conditional probability no higher than about 1/12. However, in this analysis all targets are vulnerable year-round.)

The conditional probabilities shown in Tables 3 through 8 represent the combined results of seasonal trajectories, as previously described. Conditional probabilities calculated from trajectories simulated in each season are presented in appendix B. Thus, Tables B-1 through B-4 are each based on 500 simulations per launch point, and if combined give the year-round conditional probabilities shown in Table 5 (which are based on 2,000 simulations per launch point). Appendix B presents such results for proposed launch areas P1-P17 for 30-day contacts to targets and land segments. For land segments, combining Tables B5 through B8 gives the year-round probabilities shown in Table 8.

Combined Analysis of Oilspill Occurrence and Oilspill Trajectory Simulations

In calculating the combined or "overall" probabilities of both spill occurrence and contact, the following steps are taken:

(1) For a set of nt targets and nl launch points, the conditional probabilities can be represented in a matrix form. Let [C] be an nt x nl matrix, where each element $c(i,j)$ is the probability that an oilspill will hit target i, given that a spill occurs at launch point j. Note that launch points can represent potential spill starting points from production areas or transportation routes.

(2) Spill occurrence can be represented by another matrix [S]. With nl launch points and ns production sites; the dimensions of [S] are nl x ns. Let each element $s(j,k)$ be the expected number of spills occurring at launch point j due to production of a unit volume of oil at site k. These spills can result from either production or transportation. The $s(j,k)$ can be determined as functions of the volume of oil (spills per billion barrels). Each column of [S] corresponds to one production site and one transportation route. If alternative and mutually exclusive transportation routes are considered for the same production site, they can be represented by additional columns of [S], effectively increasing ns.

(3) Define matrix [U] as:

$$[U] = [C] \times [S].$$

Matrix [U], which has dimensions nt x ns, is termed the unit risk matrix because each element u(i,k) corresponds to the expected number of spills occurring and contacting target i due to the production of a unit volume of oil at site k.

(4) With [U], it is a relatively simple matter to find the expected contacts to each target, given a set of oil volumes at each site. Let [V] be a vector of dimension ns, where each element v(k) corresponds to the volume of oil expected to be found at production site k. Then, if [L] is a vector of dimension nt, where each element l(i) corresponds to the expected number of contacts to target i:

$$[L] = [U] \times [V].$$

Thus, estimates of the expected number of oilspills that will occur and contact targets (or land segments) can be calculated. (Note that as a statistical parameter, expected number can assume a fractional value, even though fractions of oilspills have no physical meaning.)

Using Bayesian techniques, Devanney and Stewart (1974) showed that the probability of n oilspill contacts can be described by a negative binomial distribution. Smith and others (1982), however, noted that when actual exposure is much less than historical exposure, as is the case for most oilspill risk analyses, the negative binomial distribution can be approximated by a Poisson distribution. The Poisson distribution has a significant advantage in calculations because it is defined by only one parameter, the expected number of spills. The matrix [L] thus contains all the information needed to use the Poisson distribution: if P(n,i) is the probability of exactly n contacts to target i, then:

$$P(n,i) = [l(i)^n * \exp(-l(i))]/n!$$

A critical difference exists between the conditional probabilities calculated in the previous section and the overall probabilities calculated in this section. Conditional probabilities depend only on the winds and currents in the study area -- elements over which the decisionmaker has no control. Overall probabilities, on the other hand, will depend not only on the physical conditions, but also on the course of action chosen by the decisionmaker; that is, choosing to sell or not to sell the lease tracts. The overall probabilities for this analysis are presented in the following tables:

Tables 9 and 10 compare the probabilities of one or more oilspills (greater than 1,000 barrels) and the expected numbers (means) of such oilspills occurring and contacting targets and land segments within periods of 3, 10, and 30 days over the expected production life of the lease area, based on the most likely volume scenario previously discussed (0.29 billion barrels). For each time period the tables present an analysis of: (1) the proposed action; (2) existing leases and tankering of imported oil over the

assumed production life of 25 years; and (3) a cumulative analysis of all three factors. It is useful to compare the probabilities of spills occurring and contacting targets over the expected production life of the proposed lease area with the risks from existing leases and tanker transportation of imported oil. In this way the relative effect of adding proposed tracts to the study area may be examined.

Tables 11 and 12 are arranged in a similar fashion, but present overall probabilities based on the conditional mean volume scenario (0.97 billion barrels).

Conclusions

This analysis characterizes the oilspill risks involved in the leasing of proposed areas off the California coast. Assuming a most likely volume scenario in which 0.29 billion barrels of oil are estimated to be present and produced, the estimated probability that one or more oilspills of 1,000 barrels or larger will occur and contact land within 30 days travel time is 34 percent. This probability is increased to 73 percent for the conditional mean volume scenario, in which 0.97 billion barrels are estimated to be produced over a 25-year assumed production life. However, the estimated mean number of spills occurring and contacting land from existing leases and existing tanker transportation of imported crude oil is 9.9; as opposed to 0.4 for the proposed action's most likely volume scenario, and 1.3 for the conditional mean volume scenario.

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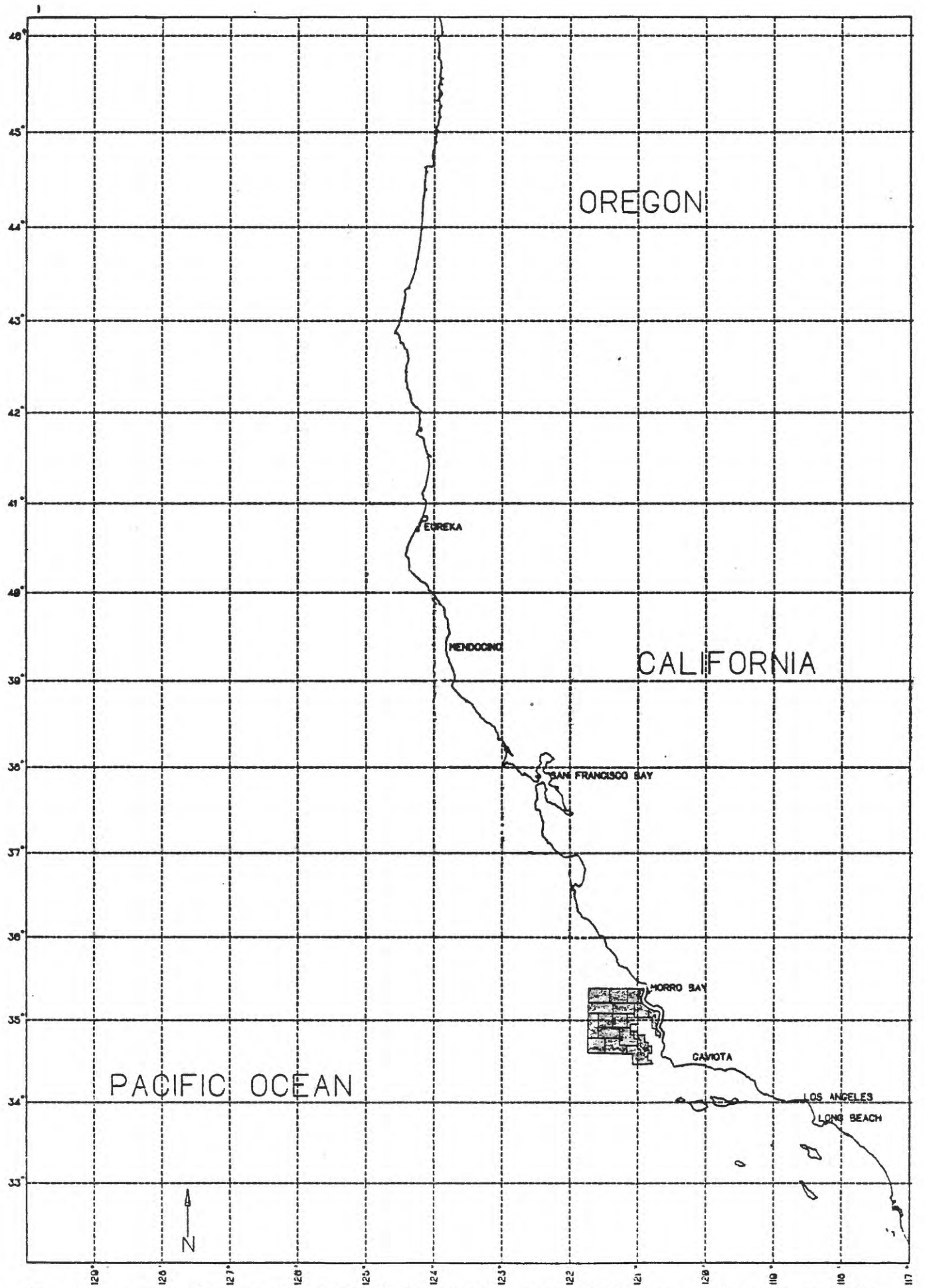

Figure 1.--Map showing the Central California Lease Offering study area and the proposed leasing areas.

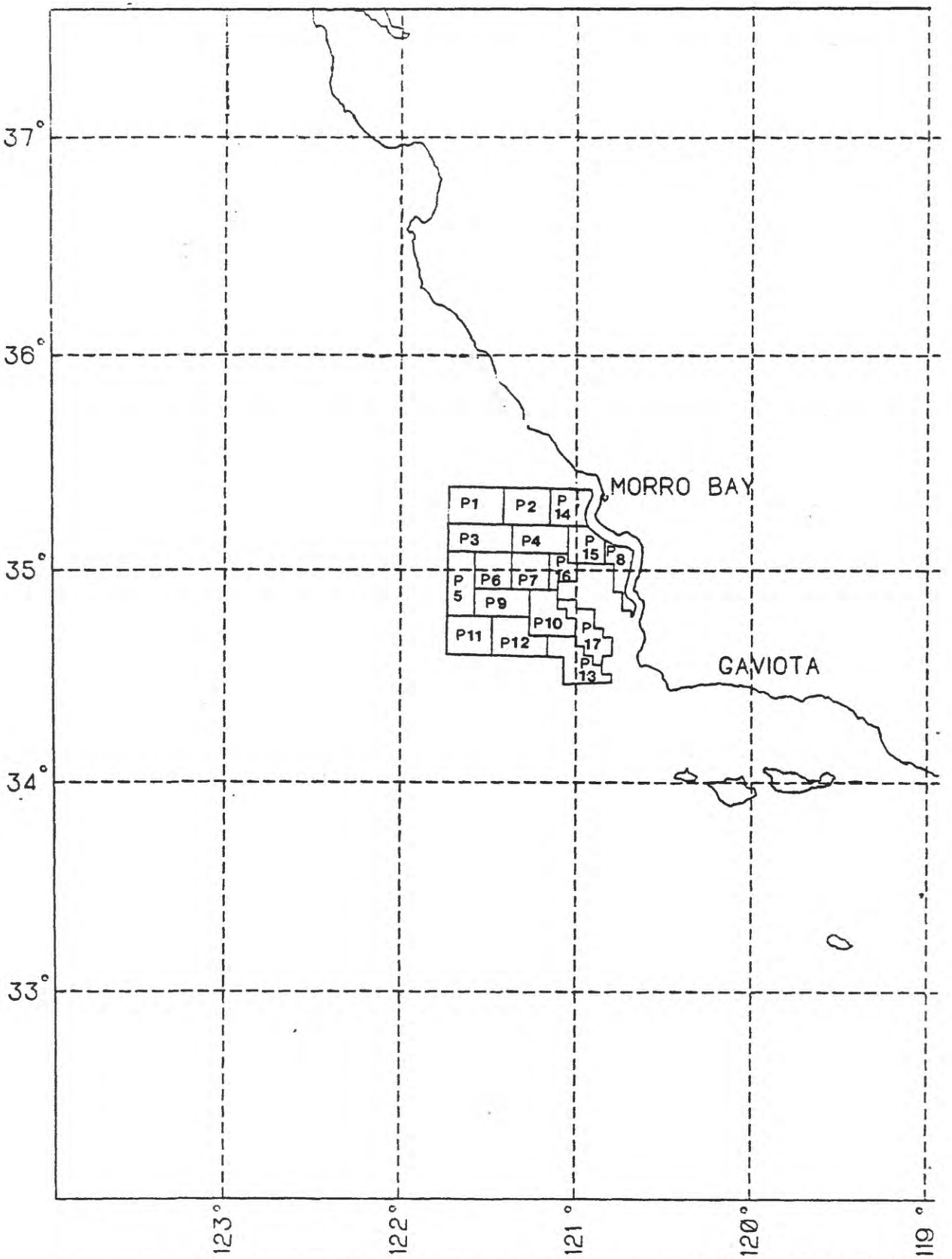

Figure 2.--Map showing the proposed leasing areas (numbered P1-P17) for the Central California Lease Offering.

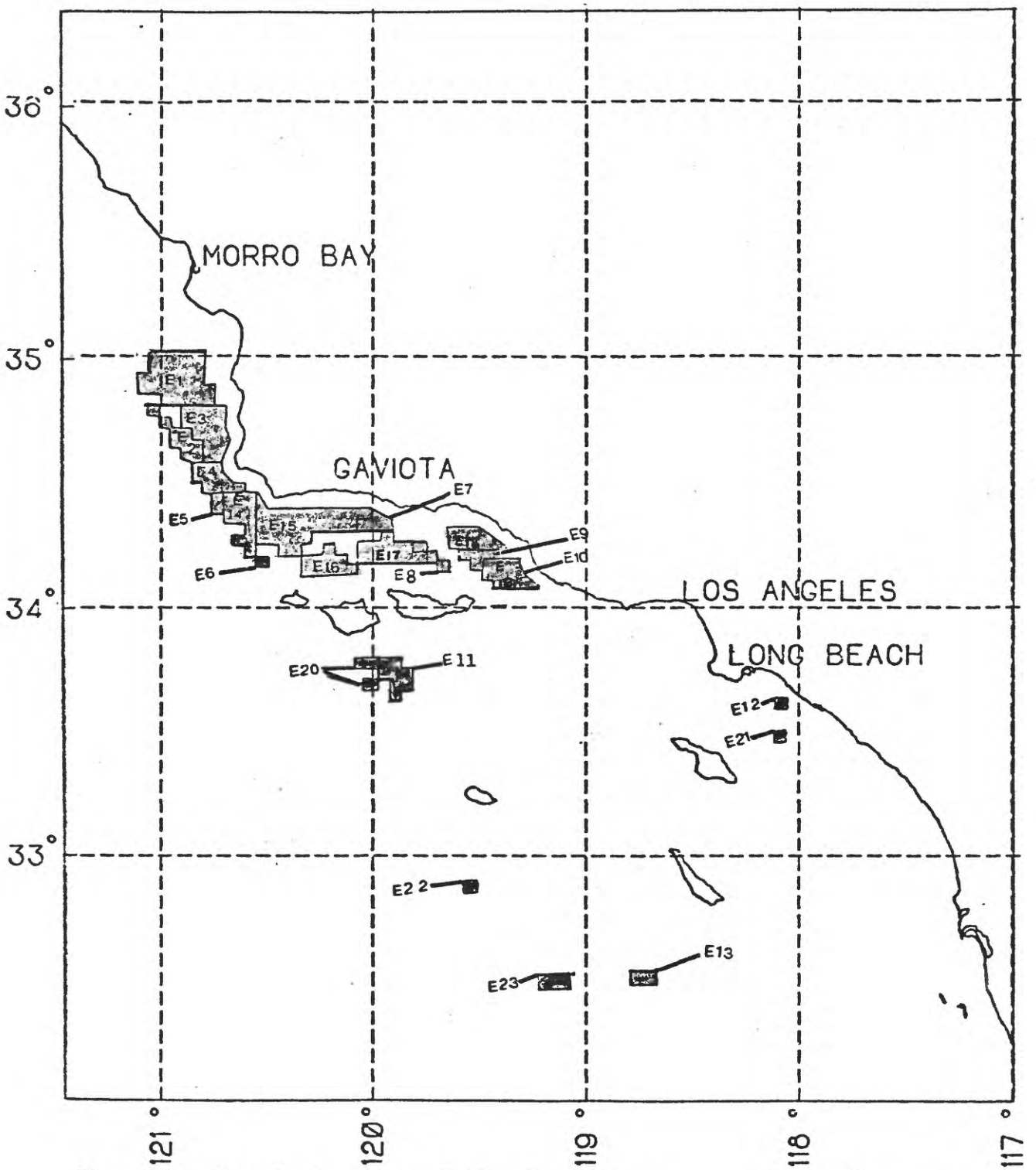

Figure 3.--Map showing the existing lease tract groups (E1-E23) in the study area.

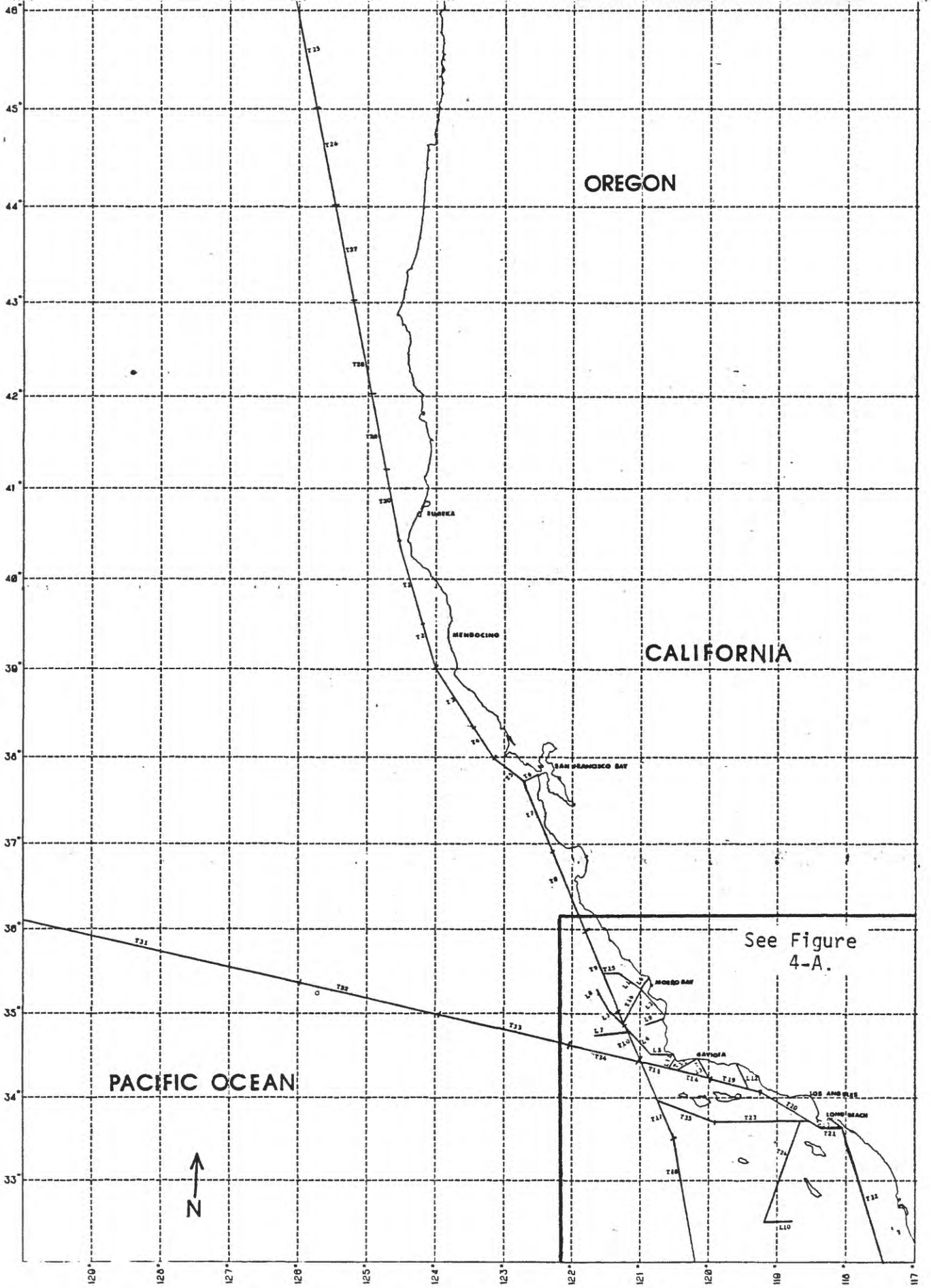

Figure 4.--Map showing the transportation route segments; L1-L13 represent pipelines, T1-T35 represent tanker routes.

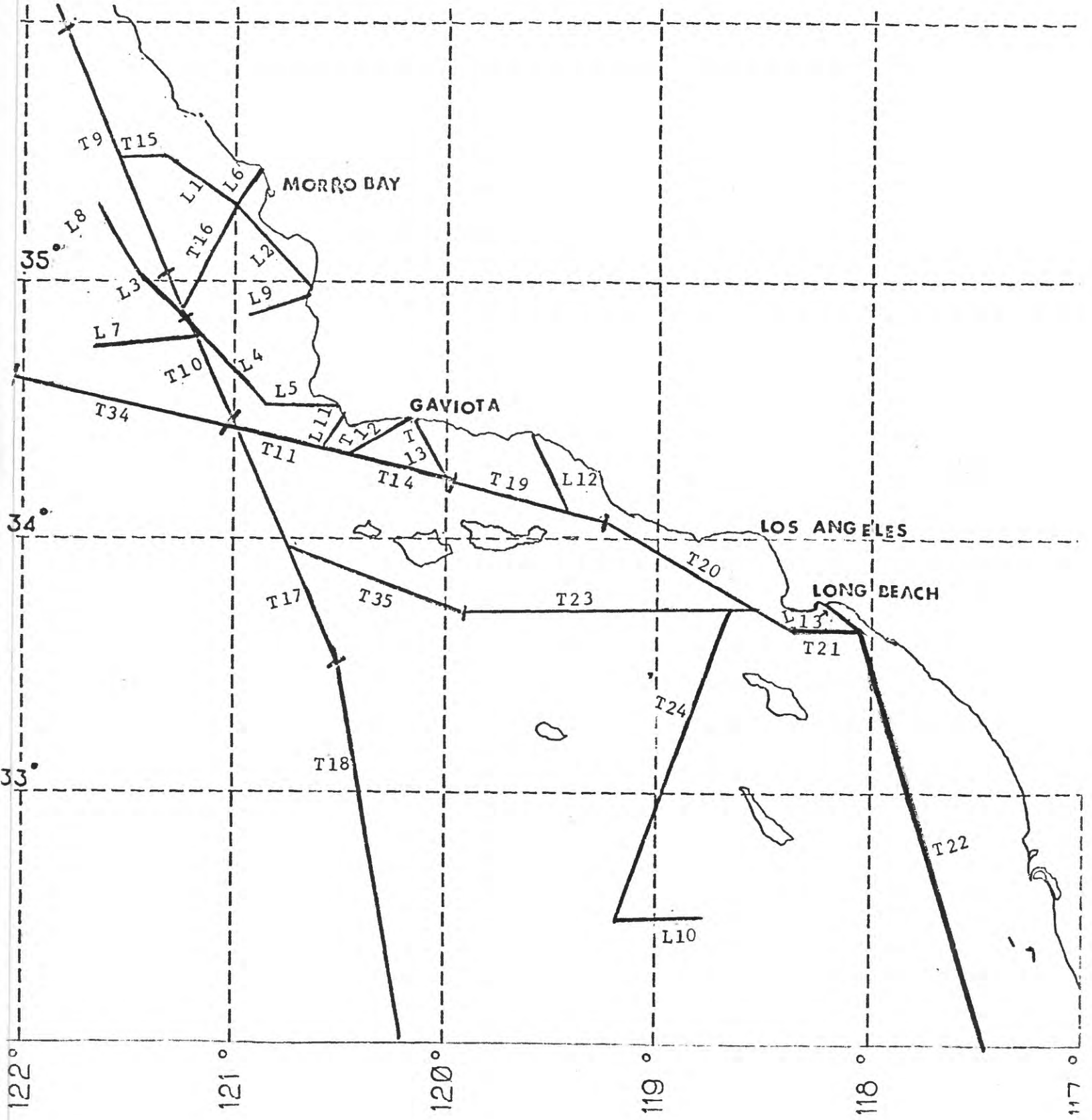

Figure 4a.--Enlargement of subset of Figure 4, showing numbered transportation segments.

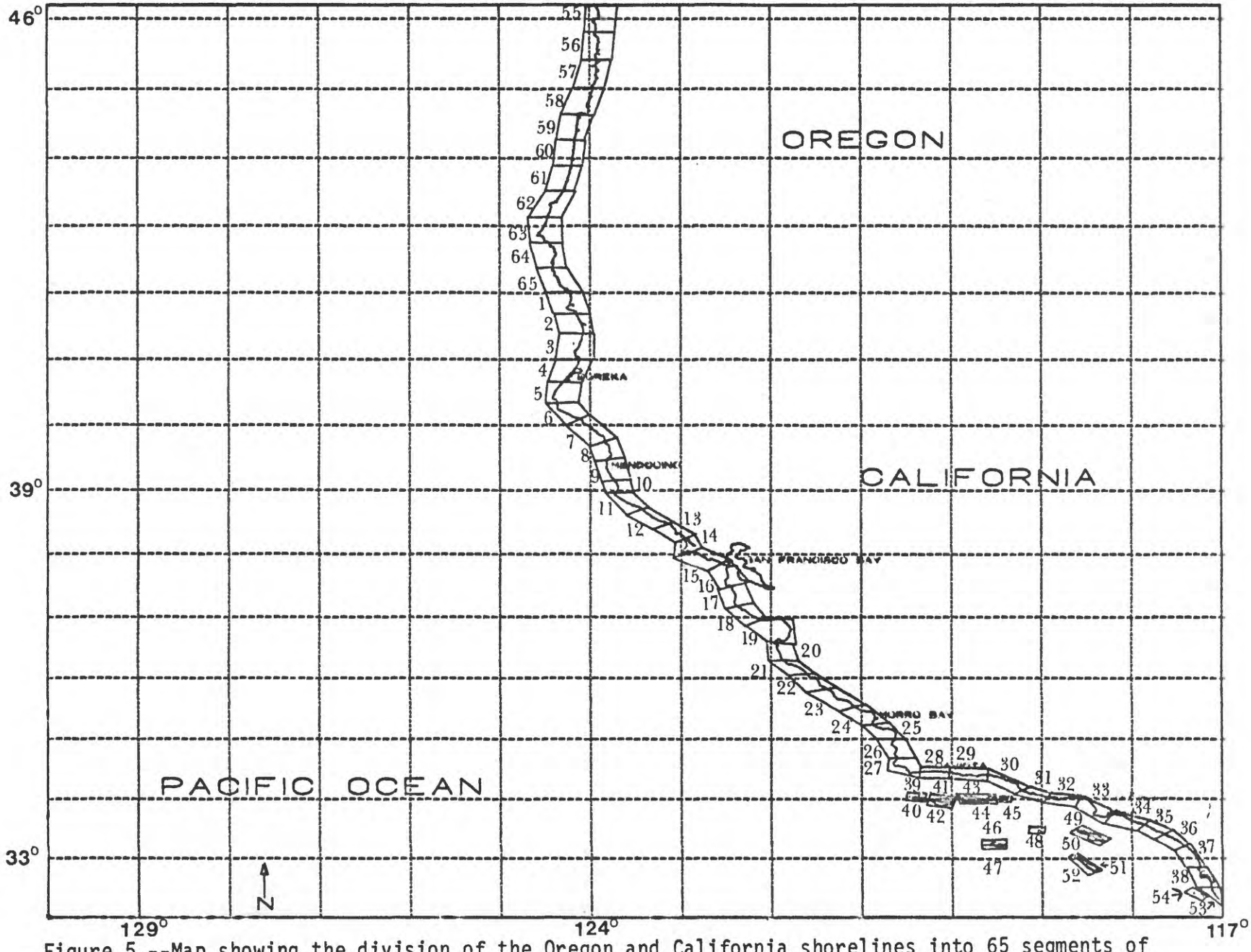

Figure 5.--Map showing the division of the Oregon and California shorelines into 65 segments of approximately equal lengths.

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Table 1. -- Oilspill probability estimates for spills greater than 1,000, and from 1,000 to 10,000 barrels resulting over the expected production life of the proposed leases, from existing Federal leases, and from existing oil transportation in the study area.

	Assumed Amount of oil (Bbbls)	Expected no. of spills from platforms		Expected no. of spills from transportation		Total no. of spills		Prob. of one or more spills (platforms)		Prob. of one or more spills (transportation)		Prob. of one or more spills (Total)	
		≥1,000	1-10,000	≥1,000	1-10,000	≥1,000	1-10,000	≥1,000	1-10,000	≥1,000	1-10,000	≥1,000	1-10,000
Proposed Action (most likely scenario)	0.29	0.29	0.16	0.61	0.34	0.90	0.50	0.25	0.15	0.46	0.29	0.59	0.39
(cond. mean scenario)	0.97	0.97	0.54	2.03	1.13	3.00	1.67	0.62	0.42	0.87	0.68	0.95	0.81
Existing Leases	1.31	1.31	0.73	2.10	1.22	3.41	1.95	0.73	0.52	0.88	0.71	0.97	0.86
Tanker Transportation of crude oil imports	7.63	-	-	4.96	2.52	4.96	2.52	-	-	0.99	0.92	0.99	0.92
(from Alaska)	6.12	-	-	3.98	2.02	3.98	2.02	-	-	0.98	0.87	0.98	0.87
(from foreign sources)	1.51	-	-	0.98	0.50	0.98	0.50	-	-	0.62	0.39	0.62	0.39

Table 1a. -- Oilspill probability estimates for spills greater than 10,000 barrels resulting over the expected production life of the proposed leases, from existing leases, and from existing oil transportation in the study area.

	Assumed Amount of oil (Bbbls)	Expected no. of spills from platforms ≥10,000	Expected no. of spills from transportation ≥10,000	Total no. of spills ≥10,000	Prob. of one or more spills (platforms) ≥10,000	Prob. of one or more spills (transportation) ≥10,000	Prob. of one or more spills (Total) ≥10,000
Proposed Action (most likely scenario)	0.29	0.13	0.27	0.40	0.12	0.24	0.33
(cond. mean scenario)	0.97	0.43	0.89	1.32	0.35	0.59	0.73
Existing Leases	1.31	0.58	0.88	1.46	0.44	0.59	0.77
Tanker Transportation of crude oil imports	7.63	-	2.52	2.52	-	0.92	0.92
(from Alaska)	6.12	-	2.02	2.02	-	0.87	0.87
(from foreign sources)	1.51	-	0.50	0.50	-	0.39	0.39

Table 2.--Monte Carlo error as a function of the number of trials and the estimated probability.

PROBABILITY	NUMBER OF TRIALS 50	100	200	500	1000	2000
0.05	0.05	0.04	0.03	0.02	0.01	0.01
0.10	0.07	0.05	0.04	0.02	0.02	0.01
0.15	0.08	0.06	0.04	0.03	0.02	0.01
0.20	0.09	0.07	0.05	0.03	0.02	0.01
0.25	0.10	0.07	0.05	0.03	0.02	0.02
0.30	0.11	0.08	0.05	0.03	0.02	0.02
0.35	0.11	0.08	0.06	0.04	0.02	0.02
0.40	0.11	0.08	0.06	0.04	0.03	0.02
0.45	0.12	0.08	0.06	0.04	0.03	0.02
0.50	0.12	0.08	0.06	0.04	0.03	0.02

Level of significance = 90 percent.

Table 3. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
Land	n	n	n	n	n	n	n	45	n	n	n	n	n	11	11	n	n
N. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	4	1	n	n
S. Sea Otter Range	n	n	n	n	n	n	n	46	n	n	n	n	n	14	21	n	n
Sea Otter Range	n	n	n	n	n	n	n	46	n	n	n	n	n	16	22	n	n
N. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	n	31	n	n	n	n	n	n	1	n	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																							
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	L1	L2
Land	2	n	3	3	2	42	45	49	53	47	6	60	n	11	27	45	39	55	50	2	11	n	n	4	65
N. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2
S. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	73
Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	74
N. Channel Is.	n	n	n	4	19	91	10	44	34	51	5	n	n	49	11	86	36	25	69	2	n	n	n	n	n
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	n	4	19	91	10	46	33	49	5	n	n	50	11	85	36	24	61	2	n	n	n	n	n
Pt. Reyes Nar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	4	n	n	n	n	n	n	n	n	21	n	62	n	n	n	n	n	n	6	n	6	n	n	n	73
Jeffy Rock	n	n	n	n	n	n	n	n	n	n	10	n	n	n	n	n	n	n	n	7	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
Land	n	n	11	65	n	n	9	n	16	58	87	26	n	n	2	32	67	42	16	n	n	3	31	30	18
N. Sea Otter Range	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	n	n	n	n	n
S. Sea Otter Range	n	n	n	79	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Otter Range	n	n	n	80	n	n	1	n	n	n	n	n	n	n	n	n	n	n	11	n	n	n	n	n	n
N. Channel Is.	n	n	8	n	n	n	n	n	24	36	n	n	n	n	n	n	n	n	n	n	n	28	9	19	41
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	8	n	n	n	n	n	24	34	n	n	n	n	n	n	n	n	n	n	n	28	9	19	41
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	22	**	72	23	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	71	**	**	23	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	19	n	n	n	**	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																				
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
Land	n	2	n	n	49	27	70	8	11	14	n	n	2	10	14	37	n	n	n	n	2
N. Sea Otter Range	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Sea Otter Range	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Otter Range	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
N. Channel Is.	n	n	4	n	86	17	n	n	1	n	n	n	n	n	n	n	n	n	n	n	33
S. Channel Is.	n	n	n	n	n	2	n	n	13	9	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	4	n	88	16	n	n	12	3	n	n	n	n	n	n	n	n	n	n	37
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	1	8	53	8	n	n	n	n	n	n	n	n	n	n	n	n	n
Hegg Rock	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	2

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
Land	n	2	n	1	n	n	1	53	n	8	n	2	28	18	27	6	19
N. Sea Otter Range	n	1	n	1	n	n	n	2	n	n	n	n	n	8	3	n	n
S. Sea Otter Range	n	3	n	1	n	n	n	48	n	n	n	n	n	21	28	1	n
Sea Otter Range	1	4	n	2	n	n	n	49	n	n	n	n	n	27	30	1	n
N. Channel Is.	n	n	n	n	n	1	5	1	6	29	n	15	47	n	n	5	33
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	n	n	n	1	5	1	7	29	n	16	47	n	n	5	33
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	n	32	n	n	n	n	n	1	9	3	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																								
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	L1	L2
Land	18	19	23	37	45	67	91	92	93	84	32	75	1	53	77	79	89	93	89	23	37	n	n	13	69
N. Sea Otter Range	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	3
S. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	16	75
Sea Otter Range	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	21	75
N. Channel Is.	7	34	29	50	63	93	35	50	44	55	7	n	n	74	52	91	47	40	71	2	n	n	n	n	n
S. Channel Is.	n	n	n	n	n	n	n	n	n	10	n	1	n	n	n	n	n	n	5	n	n	n	n	n	n
Channel Islands	7	34	29	50	64	93	35	51	44	54	7	1	n	74	52	91	47	40	64	2	n	n	n	n	n
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	11	n	n	n	n	n	n	n	n	22	n	64	n	n	n	n	n	n	7	n	11	n	n	n	23
Begg Rock	n	n	n	n	n	n	n	n	n	n	26	n	n	n	n	n	n	n	n	20	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
Land	1	20	48	70	1	n	26	n	60	94	91	84	27	5	25	67	88	70	46	2	9	42	76	88	77
N. Sea Otter Range	n	n	n	4	n	n	1	n	n	n	n	n	n	n	n	n	n	n	19	3	n	n	n	n	n
S. Sea Otter Range	n	n	n	81	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n
Sea Otter Range	n	n	n	83	n	n	3	n	n	n	n	n	n	n	n	n	n	n	19	4	n	n	n	n	n
N. Channel Is.	7	39	54	n	9	n	7	n	63	50	n	n	n	n	n	n	n	n	n	n	29	61	51	42	70
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	7	39	54	n	10	n	7	n	63	48	n	n	n	n	n	n	n	n	n	n	29	62	51	42	70
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	1	42	**	72	28	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	4	76	**	**	29	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	25	n	n	n	**	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hegg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																			
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
Land	7	6	2	n	92	70	81	29	39	32	3	17	33	49	65	76	n	n	n	1	11
N. Sea Otter Range	2	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Sea Otter Range	3	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Otter Range	10	7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
N. Channel Is.	n	4	12	n	88	20	n	n	5	n	n	n	n	n	n	n	n	n	n	7	34
S. Channel Is.	n	n	n	n	2	14	1	n	22	10	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	4	13	n	89	28	1	n	24	5	n	n	n	n	n	n	n	n	n	8	38
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	1	n	n	2	14	55	10	3	1	n	n	n	n	n	n	n	n	n	n	n
Vegg Rock	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	8

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
Land	20	23	18	33	3	23	39	69	16	39	2	10	39	36	46	43	46
N. Sea Otter Range	1	3	n	2	n	n	n	2	n	n	n	n	n	11	5	1	n
S. Sea Otter Range	2	6	1	2	n	n	n	48	n	n	n	n	n	25	28	1	n
Sea Otter Range	3	8	1	4	n	n	1	49	n	n	n	n	n	33	31	2	n
N. Channel Is.	33	22	32	34	9	41	45	19	33	49	4	27	51	12	20	35	50
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	33	22	34	34	11	42	45	19	35	50	5	30	52	12	20	36	50
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	1	n	1	n	n	n	32	n	n	n	n	n	4	10	4	n
Begg Rock	1	n	1	n	1	1	1	n	2	1	n	1	1	n	n	n	1

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																							
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	L1	L2
Land	46	45	47	53	57	69	98	99	99	95	45	91	8	57	91	83	96	99	96	32	72	1	1	29	79
N. Sea Otter Range	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	4
S. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	19	75
Sea Otter Range	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	27	76
N. Channel Is.	31	50	42	56	67	93	39	52	46	56	7	n	n	76	55	92	50	42	71	2	n	n	n	12	12
S. Channel Is.	n	n	n	n	n	n	n	n	n	12	2	1	n	n	n	n	n	n	6	1	1	n	n	n	n
Channel Islands	31	50	43	56	68	93	39	53	46	55	9	1	n	76	55	92	50	42	65	3	n	n	n	12	12
Pt. Reyes Nar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	11	n	n	n	n	n	n	n	n	22	n	65	n	n	n	n	n	n	7	n	12	n	n	1	23
Begg Rock	n	1	1	n	n	n	n	n	n	n	29	n	n	n	n	n	n	n	n	23	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
Land	33	43	59	76	12	25	46	4	70	**	97	98	93	46	57	77	98	81	63	21	32	48	90	96	86
N. Sea Otter Range	n	n	1	5	n	n	2	n	n	n	n	n	n	n	n	n	n	n	26	6	n	n	n	n	n
S. Sea Otter Range	n	n	n	82	n	n	2	n	n	n	n	n	n	n	n	n	n	n	5	8	n	n	n	n	n
Sea Otter Range	n	n	1	84	n	1	3	n	n	n	n	n	n	n	n	n	n	n	30	12	n	n	n	n	n
N. Channel Is.	47	51	58	7	26	40	26	n	65	50	n	n	n	n	n	n	n	n	n	18	48	63	54	44	74
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	48	52	59	7	27	41	27	n	65	49	n	n	n	n	n	n	n	n	n	19	49	64	54	45	74
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	5	46	**	72	32	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	1	21	78	**	**	32	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	26	n	n	n	**	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pegu Rock	1	1	n	n	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																			
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
Land	17	39	4	n	97	85	93	56	59	45	38	65	78	87	93	95	n	n	n	4	18
N. Sea Otter Range	4	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Sea Otter Range	12	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Otter Range	15	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
N. Channel Is.	13	33	12	n	88	21	n	n	6	n	n	n	n	n	n	n	n	n	n	8	34
S. Channel Is.	n	n	n	n	2	16	1	n	24	11	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	13	33	14	n	89	39	1	n	27	6	n	n	n	n	n	n	n	n	n	10	38
Pt. Reyes Mar. Sanct	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	2	n	n	2	15	55	12	3	2	n	n	n	n	n	n	n	n	n	n	n
Hegg Rock	n	n	1	n	n	1	n	n	9	1	n	n	n	n	n	n	n	n	n	n	10

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 6. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 3 days.

Land Segment	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
23	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n
24	n	n	n	n	n	n	n	1	n	n	n	n	n	7	2	n	n
25	n	n	n	n	n	n	n	37	n	n	n	n	n	1	8	n	n
26	n	n	n	n	n	n	n	8	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 3 days.

Land Segment	Hypothetical Spill Location																							
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	L1	L2
23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	9
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	54
26	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
27	n	n	3	3	n	n	n	n	n	n	n	n	n	n	10	1	n	n	n	n	n	n	n	n	n
28	n	n	n	n	n	n	19	n	n	n	n	n	n	n	13	n	5	n	n	n	n	n	n	n	n
29	n	n	n	n	n	n	24	28	20	5	n	n	n	n	2	n	21	26	10	n	n	n	n	n	n
30	n	n	n	n	n	n	n	1	23	27	n	n	n	n	n	n	n	22	14	n	n	n	n	n	n
31	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
33	n	n	n	n	n	n	n	n	n	n	n	13	n	n	n	n	n	n	n	n	1	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	n	47	n	n	n	n	n	n	n	n	4	n	n	n	n
39	n	n	n	n	2	41	n	n	n	n	n	n	n	10	1	6	n	n	n	n	n	n	n	n	n
40	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	35	1	n	n	n	n	n	n	n	n
43	n	n	n	n	n	n	2	19	6	6	n	n	n	n	n	3	12	4	10	n	n	n	n	n	n
45	n	n	n	n	n	n	n	n	4	7	n	n	n	n	n	n	n	2	13	n	n	n	n	n	n
46	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	2	n	n	n	n	n
49	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 6. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 3 days.

Land Segment	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
4	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	15	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	19	5	2	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	36	4	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	27	2	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	18	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	16	7	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n
23	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	n	n	n	62	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	10	n	n	n	n	n	13	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	4
28	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	18	20	2
29	n	n	n	n	n	n	n	n	n	22	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n
30	n	n	n	n	n	n	n	n	n	21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	n	n	n	n	n	n	n	n	n	n	19	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	68	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	n	n	1	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	1
41	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	6
43	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n	n	n	n	n	n	n	n	n	4	3
45	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 6. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 3 days.

Land Segment	Hypothetical Spill Location																				
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	10	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	13	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n
24	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
28	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	n	n	n	n	12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
32	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	n	n	n	n	n	11	35	n	1	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	35	7	n	n	n	n	n	n	n	n	n	n	n	n	n
43	n	n	n	n	23	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	n	n	n	n	7	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	1
48	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n
49	n	n	n	n	n	2	n	n	3	3	n	n	n	n	n	n	n	n	n	n	n
50	n	n	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n
62	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n
63	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n	n	n	n	n	n	n
64	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n
65	n	n	n	n	n	n	n	n	n	n	n	n	n	3	4	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 10 days.

Land Segment	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
22	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n
23	n	1	n	n	n	n	n	1	n	n	n	n	n	2	1	n	n
24	n	1	n	n	n	n	n	2	n	n	n	n	n	11	4	n	n
25	n	n	n	n	n	n	n	41	n	n	n	n	n	4	17	1	n
26	n	n	n	n	n	n	n	10	n	n	n	n	n	n	4	2	n
27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	3
39	n	n	n	n	n	n	n	n	n	6	n	1	22	n	n	1	14
40	n	n	n	n	n	n	n	n	n	2	n	1	4	n	n	n	2
41	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 10 days.

Land Segment	Hypothetical Spill Location																								
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	L1	L2
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	2
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	10
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	56
26	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
27	8	2	10	3	n	n	2	n	n	n	n	n	n	n	13	6	4	n	n	n	n	n	n	n	n
28	n	n	n	n	n	n	28	6	1	n	n	n	n	n	16	1	15	1	n	n	n	n	n	n	n
29	n	n	n	n	n	n	30	36	25	17	n	n	n	n	13	3	31	31	22	n	n	n	n	n	n
30	n	n	n	n	n	n	n	10	29	32	n	n	n	n	n	n	2	26	25	n	n	n	n	n	n
31	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
33	n	n	n	n	n	n	n	n	n	n	n	14	n	n	n	n	n	n	n	n	4	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	n	52	n	n	n	n	n	n	n	n	8	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	3	n	n	n	n
39	1	15	11	19	31	57	n	n	n	n	n	n	n	37	6	13	1	n	n	n	n	n	n	n	n
40	n	1	1	1	n	3	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n
41	n	1	2	13	14	7	5	4	1	n	n	n	n	13	17	48	8	1	n	n	n	n	n	n	n
43	n	n	n	n	n	n	24	36	21	15	n	n	n	n	12	6	28	20	18	n	n	n	n	n	n
44	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	n	n	n	n	n	n	n	n	10	12	n	n	n	n	n	n	n	8	16	n	n	n	n	n	n
46	n	n	n	n	n	n	n	n	n	n	31	n	n	n	n	n	n	n	n	22	n	n	n	n	n
47	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	1	n	n	n	n	n
48	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
49	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	18	n	n	n	n
52	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 10 days.

Land Segment	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
3	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	14	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	31	2	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	29	5	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	4	5	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	14	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	5	3	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	1	7	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	14	36	16	6	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	29	39	9	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	33	7	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	23	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	25	19	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	24	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
23	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n
24	n	n	n	66	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	11	n	n	n	6	n	15	n	n	n	n	n	n	n	n	n	n	n	n	1	14	5	12
28	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	19	28	5
29	n	n	n	n	n	n	n	n	n	29	n	n	n	n	n	n	n	n	n	n	n	n	9	23	10
30	n	n	n	n	n	n	n	n	n	29	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	n	n	n	n	n	n	n	n	n	n	19	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	69	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	n	17	20	n	n	n	1	n	20	n	n	n	n	n	n	n	n	n	n	n	7	27	7	2	9
40	n	2	1	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	2	3	n	n	n
41	n	n	16	n	n	n	n	n	23	n	n	n	n	n	n	n	n	n	n	n	n	11	18	7	27
43	n	n	n	n	n	n	n	n	1	19	n	n	n	n	n	n	n	n	n	n	n	n	8	22	12
45	n	n	n	n	n	n	n	n	n	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 10 days.

Land Segment	Hyoothetical Spill Location																			
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
1	n	n	n	n	n	n	n	n	n	n	n	n	n	6	14	1	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	1	8	4	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	1	16	22	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	21	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	20	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n
23	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	3	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
28	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	n	n	n	n	24	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	n	n	n	n	16	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
32	n	n	n	n	n	6	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n
33	n	n	n	n	n	23	36	1	7	3	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	1	38	9	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	3	3	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n
39	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
40	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	n	n	n	n	31	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	n	n	n	n	n	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
45	n	n	n	n	7	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	n	n	n	n	n	n	n	n	7	1	n	n	n	n	n	n	n	n	n	n	10
47	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	1
48	n	n	n	n	1	3	n	n	6	2	n	n	n	n	n	n	n	n	n	n	n
49	n	n	n	n	n	11	3	3	7	5	n	n	n	n	n	n	n	n	n	n	n
50	n	n	n	n	n	2	n	n	2	3	n	n	n	n	n	n	n	n	n	n	n
51	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n
52	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n
53	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n
54	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n	n
56	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n
57	n	n	n	n	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n
58	n	n	n	n	n	n	n	n	n	n	1	4	2	n	n	n	n	n	n	n	n
59	n	n	n	n	n	n	n	n	n	n	n	6	4	n	n	n	n	n	n	n	n
60	n	n	n	n	n	n	n	n	n	n	n	2	3	n	n	n	n	n	n	n	n
61	n	n	n	n	n	n	n	n	n	n	n	1	4	n	n	n	n	n	n	n	n
62	n	n	n	n	n	n	n	n	n	n	n	n	8	3	n	n	n	n	n	n	n
63	n	n	n	n	n	n	n	n	n	n	n	n	8	10	1	n	n	n	n	n	n
64	n	n	n	n	n	n	n	n	n	n	n	n	2	12	2	n	n	n	n	n	n
65	n	n	n	n	n	n	n	n	n	n	n	n	1	15	13	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 8. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 30 days.

Land Segment	Hypothetical Spill Location																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
22	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n
23	n	1	n	n	n	n	n	1	n	n	n	n	n	3	1	n	n
24	1	3	n	1	n	n	n	2	n	n	n	n	n	13	4	n	n
25	n	n	n	n	n	n	n	41	n	n	n	n	n	6	17	1	n
26	n	1	n	1	n	n	n	10	n	n	n	n	n	2	5	3	n
27	n	2	n	4	n	n	2	n	n	1	n	n	n	2	2	9	4
39	13	11	12	18	1	16	25	12	10	28	n	5	29	5	11	20	28
40	3	1	4	2	n	4	3	2	3	4	n	2	5	1	2	2	2
41	1	1	1	4	n	1	6	1	1	4	n	n	3	1	1	6	10
46	1	n	n	n	1	1	1	n	1	1	1	2	1	n	n	1	1
47	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 9. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 30 days.

Land Segment	Hypothetical Spill Location																								
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	F16	E17	E18	E19	E20	E21	E22	E23	L1	L2
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	2
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	10
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	56
26	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
27	11	2	10	3	n	n	3	1	n	n	n	n	n	n	13	7	5	1	n	n	n	n	n	2	n
28	n	n	n	n	n	n	28	6	2	1	n	n	n	n	17	1	16	1	1	n	n	n	n	n	n
29	n	n	n	1	1	n	30	36	25	17	n	n	n	1	16	3	31	31	22	n	n	n	n	n	n
30	n	n	n	n	n	n	n	10	29	32	n	n	n	n	1	n	2	26	26	n	n	n	n	n	n
31	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
33	n	n	n	n	n	n	n	n	n	n	n	14	n	n	n	n	n	n	n	n	4	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	n	52	n	n	n	n	n	n	n	n	10	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	14	n	n	n	n	n	n	n	n	13	n	n	n	n
36	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	3	n	n	n	n
37	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	2	n	n	n	n
38	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n
39	18	30	22	23	33	58	4	2	1	1	n	n	n	38	10	16	4	1	n	n	n	n	n	6	7
40	1	1	1	1	1	3	n	n	n	n	n	n	n	2	1	1	n	n	n	n	n	n	n	1	1
41	5	10	12	22	16	7	7	6	3	2	n	n	n	15	19	49	10	3	2	n	n	n	n	1	1
43	n	n	n	1	1	n	25	37	21	16	n	n	n	1	14	6	29	21	19	n	n	n	n	n	n
44	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n	n	n
45	n	n	n	n	n	n	n	n	10	12	n	n	n	n	n	n	n	8	16	n	n	n	n	n	n
46	1	1	1	n	n	n	n	n	n	1	39	n	n	n	n	n	n	n	1	29	n	n	n	n	n
47	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	2	n	n	n	n	n
48	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n
49	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	22	n	n	n	n
50	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n
51	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n
52	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n
53	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	2	n	n	n	n
54	n	n	n	n	n	n	n	n	n	n	n	2	3	n	n	n	n	n	n	n	8	n	1	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table P. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 30 days.

Land Segment	Hypothetical Spill Location																							
	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
3	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	17	4	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	36	15	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	34	29	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	4	15	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	25	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	2	30	12	2	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	1	15	19	1	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	1	25	43	26	11	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	29	39	9	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	33	7	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	23	1	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	30	23	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	28	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n
23	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	5	n	n	n	n	n
24	n	n	n	67	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	4	n	n	n	n	n
25	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	11	n	n	n	7	n	15	n	n	n	n	n	n	n	n	n	n	n	1	1	14	6	12
28	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	19	28	5
29	n	n	2	n	n	n	n	n	2	29	n	n	n	n	n	n	n	n	n	n	n	1	13	23	12
30	n	n	n	n	n	n	n	n	n	29	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n
33	n	n	n	n	n	n	n	n	n	n	19	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	69	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	25	33	22	4	8	17	14	n	23	1	n	n	n	n	n	n	n	n	n	9	24	29	10	6	14
40	4	4	1	1	2	4	1	n	2	n	n	n	n	n	n	n	n	n	n	1	4	3	1	n	1
41	3	4	21	n	n	2	3	n	26	2	n	n	n	n	n	n	n	n	n	n	2	12	21	8	28
43	n	n	1	n	n	n	n	n	2	20	n	n	n	n	n	n	n	n	n	n	n	1	11	23	12
45	n	n	n	n	n	n	n	n	n	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	1	1	n	n	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n
49	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
53	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
54	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment within 30 days.

Land Segment	Hypothetical Spill Location																				
	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35
1	n	n	n	n	n	n	n	n	n	n	n	1	4	10	16	2	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	2	4	10	5	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	1	3	8	22	24	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	1	4	6	10	21	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	2	4	6	22	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	1	2	3	10	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	1	3	6	9	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
22	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
23	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	6	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	5	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
28	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	n	n	n	n	24	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	n	n	n	n	16	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
32	n	n	n	n	n	7	n	n	2	1	n	n	n	n	n	n	n	n	n	n	n
33	n	n	n	n	n	24	36	1	8	4	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	1	38	11	1	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	1	10	8	n	1	n	n	n	n	n	n	n	n	n	n	n
36	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	n	n	n	1	n	5	1	1	n	n	n	n	n	n	n	n	n	n	n
39	5	18	1	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
40	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
41	n	5	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	n	n	n	n	31	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	n	n	n	n	n	2	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
45	n	n	n	n	7	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	n	n	2	n	n	3	n	n	14	1	n	n	n	n	n	n	n	n	n	1	15
47	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n	n	2
48	n	n	n	n	1	4	n	n	7	2	n	n	n	n	n	n	n	n	n	n	n
49	n	n	n	n	n	12	4	6	7	5	n	n	n	n	n	n	n	n	n	n	n
50	n	n	n	n	n	3	n	1	2	3	n	n	n	n	n	n	n	n	n	n	n
51	n	n	n	n	n	1	n	n	1	3	n	n	n	n	n	n	n	n	n	n	n
52	n	n	n	n	n	1	n	n	3	5	n	n	n	n	n	n	n	n	n	n	n
53	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n
54	n	n	n	n	n	1	1	12	1	2	n	n	n	n	n	n	n	n	n	n	n
55	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n
56	n	n	n	n	n	n	n	n	n	n	4	3	1	n	n	n	n	n	n	n	n
57	n	n	n	n	n	n	n	n	n	n	4	5	2	n	n	n	n	n	n	n	n
58	n	n	n	n	n	n	n	n	n	n	8	10	4	n	n	n	n	n	n	n	n
59	n	n	n	n	n	n	n	n	n	n	6	13	6	1	n	n	n	n	n	n	n
60	n	n	n	n	n	n	n	n	n	n	4	7	5	n	n	n	n	n	n	n	n
61	n	n	n	n	n	n	n	n	n	n	3	5	5	n	n	n	n	n	n	n	n
62	n	n	n	n	n	n	n	n	n	n	2	6	10	3	n	n	n	n	n	n	n
63	n	n	n	n	n	n	n	n	n	n	3	5	14	11	1	n	n	n	n	n	n
64	n	n	n	n	n	n	n	n	n	n	1	3	6	14	3	n	n	n	n	n	n
65	n	n	n	n	n	n	n	n	n	n	1	3	6	20	15	n	n	n	n	n	n

Notes: ** = Greater than 22.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 9. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease area, most likely volume scenario.

Target	Within 3 days						Within 10 days						Within 30 days					
	PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	12	0.1	97	3.4	97	3.6	23	0.3	**	7.5	**	7.8	34	0.4	**	9.9	**	10.3
N. Sea Otter Range	1	0.0	5	0.1	6	0.1	2	0.0	11	0.1	13	0.1	3	0.0	16	0.2	18	0.2
S. Sea Otter Range	10	0.1	n	0.0	10	0.1	11	0.1	1	0.0	12	0.1	11	0.1	7	0.1	17	0.2
Sea Otter Range	10	0.1	6	0.1	15	0.2	12	0.1	12	0.1	22	0.3	13	0.1	20	0.2	30	0.4
N. Channel Is.	2	0.0	79	1.6	80	1.6	15	0.2	93	2.7	94	2.9	26	0.3	95	3.0	96	3.3
S. Channel Is.	n	0.0	4	0.0	4	0.0	n	0.0	14	0.2	14	0.2	n	0.0	16	0.2	16	0.2
Channel Islands	2	0.0	79	1.6	80	1.6	16	0.2	94	2.8	95	3.0	26	0.3	96	3.1	97	3.4
Pt. Reyes Mar. Sanct	1	0.0	77	1.5	77	1.5	1	0.0	79	1.5	79	1.5	1	0.0	79	1.6	80	1.6
Pt. Reyes Wild. Area	1	0.0	87	2.0	87	2.0	1	0.0	87	2.1	88	2.1	1	0.0	88	2.1	88	2.2
Farallon Islands	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	3	0.0	3	0.0
Least Tern Range	4	0.0	25	0.3	28	0.3	4	0.0	30	0.4	32	0.4	4	0.0	30	0.4	33	0.4
Begg Rock	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0	n	0.0	7	0.1	8	0.1

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 10. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments over the expected production life of the lease area, most likely volume scenario.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	1	0.0	1	0.0	n	0.0	8	0.1	8	0.1	n	0.0	13	0.1	13	0.1
2	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	n	0.0	8	0.1	8	0.1
3	n	0.0	5	0.0	5	0.0	n	0.0	14	0.2	14	0.2	n	0.0	21	0.2	21	0.2
4	n	0.0	4	0.0	4	0.0	n	0.0	10	0.1	10	0.1	n	0.0	16	0.2	16	0.2
5	n	0.0	8	0.1	8	0.1	n	0.0	13	0.1	13	0.1	n	0.0	19	0.2	19	0.2
6	n	0.0	6	0.1	6	0.1	n	0.0	14	0.2	14	0.2	n	0.0	21	0.2	21	0.2
7	n	0.0	1	0.0	1	0.0	n	0.0	13	0.1	13	0.1	n	0.0	24	0.3	24	0.3
8	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	5	0.1	5	0.1
9	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	6	0.1	6	0.1
12	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	12	0.1	12	0.1
13	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	9	0.1	9	0.1
14	n	0.0	11	0.1	11	0.1	n	0.0	31	0.4	31	0.4	n	0.0	45	0.6	45	0.6
15	n	0.0	46	0.6	46	0.6	n	0.0	52	0.7	52	0.7	n	0.0	52	0.7	52	0.7
16	n	0.0	36	0.4	36	0.4	n	0.0	44	0.6	44	0.6	n	0.0	44	0.6	44	0.6
17	n	0.0	8	0.1	8	0.1	n	0.0	10	0.1	11	0.1	n	0.0	11	0.1	11	0.1
18	n	0.0	11	0.1	11	0.1	1	0.0	20	0.2	20	0.2	1	0.0	23	0.3	24	0.3
19	n	0.0	3	0.0	3	0.0	1	0.0	12	0.1	12	0.1	1	0.0	14	0.1	14	0.2
20	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0	2	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0
23	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	1	0.0	5	0.1	6	0.1
24	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0	2	0.0	3	0.0	5	0.0
25	7	0.1	n	0.0	7	0.1	7	0.1	n	0.0	7	0.1	7	0.1	n	0.0	8	0.1
26	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0	3	0.0	n	0.0	3	0.0	3	0.0
27	1	0.0	14	0.1	15	0.2	1	0.0	23	0.3	24	0.3	2	0.0	24	0.3	25	0.3
28	n	0.0	19	0.2	19	0.2	n	0.0	26	0.3	26	0.3	n	0.0	27	0.3	27	0.3
29	n	0.0	23	0.3	23	0.3	n	0.0	44	0.6	44	0.6	1	0.0	46	0.6	47	0.6
30	n	0.0	14	0.2	14	0.2	n	0.0	25	0.3	25	0.3	n	0.0	25	0.3	26	0.3
31	n	0.0	2	0.0	2	0.0	n	0.0	3	0.0	3	0.0	n	0.0	3	0.0	3	0.0
32	n	0.0	2	0.0	2	0.0	n	0.0	5	0.0	5	0.0	n	0.0	5	0.0	5	0.1
33	n	0.0	16	0.2	16	0.2	n	0.0	24	0.3	24	0.3	n	0.0	24	0.3	25	0.3

Continued on next page

Table 10. (Continued) -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments over the expected production life of the lease area, most likely volume scenario.

34	n	0.0	12	0.1	13	0.1	n	0.0	14	0.1	14	0.2	n	0.0	14	0.2	14	0.2				
35	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0				
36	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
38	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
39	n	0.0	5	0.1	5	0.1	6	0.1	33	0.4	37	0.5	14	0.1	48	0.6	55	0.8				
40	n	0.0	n	0.0	n	0.0	1	0.0	3	0.0	4	0.0	2	0.0	6	0.1	8	0.1				
41	n	0.0	7	0.1	7	0.1	2	0.0	39	0.5	40	0.5	4	0.0	45	0.6	47	0.6				
42	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
43	n	0.0	20	0.2	21	0.2	n	0.0	42	0.6	43	0.6	1	0.0	44	0.6	45	0.6				
44	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0	2	0.0				
45	n	0.0	10	0.1	10	0.1	n	0.0	14	0.1	14	0.1	n	0.0	14	0.1	14	0.1				
46	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	1	0.0	10	0.1	11	0.1				
47	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
48	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0	n	0.0	5	0.0	5	0.0				
49	n	0.0	2	0.0	2	0.0	n	0.0	9	0.1	10	0.1	n	0.0	10	0.1	10	0.1				
50	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	2	0.0	2	0.0				
51	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
52	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0				
54	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0				
55	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0				
56	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0				
57	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	6	0.1	6	0.1				
58	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	11	0.1	11	0.1				
59	n	0.0	n	0.0	n	0.0	n	0.0	5	0.0	5	0.0	n	0.0	12	0.1	12	0.1				
60	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	8	0.1	8	0.1				
61	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	6	0.1	6	0.1				
62	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	n	0.0	10	0.1	10	0.1				
63	n	0.0	2	0.0	2	0.0	n	0.0	9	0.1	9	0.1	n	0.0	15	0.2	15	0.2				
64	n	0.0	1	0.0	1	0.0	n	0.0	7	0.1	7	0.1	n	0.0	12	0.1	12	0.1				
65	n	0.0	3	0.0	3	0.0	n	0.0	12	0.1	12	0.1	n	0.0	18	0.2	18	0.2				

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 11. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the lease area, conditional mean volume scenario.

Target	Within 3 days						Within 10 days						Within 30 days					
	PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	26	0.3	97	3.4	98	3.7	53	0.7	**	7.5	**	8.2	73	1.3	**	9.9	**	11.2
N. Sea Otter Range	1	0.0	5	0.1	7	0.1	3	0.0	11	0.1	14	0.2	5	0.1	16	0.2	20	0.2
S. Sea Otter Range	18	0.2	n	0.0	18	0.2	20	0.2	1	0.0	20	0.2	21	0.2	7	0.1	26	0.3
Sea Otter Range	19	0.2	6	0.1	23	0.3	22	0.2	12	0.1	31	0.4	24	0.3	20	0.2	39	0.5
N. Channel Is.	7	0.1	79	1.6	81	1.7	45	0.6	93	2.7	96	3.3	66	1.1	95	3.0	98	4.1
S. Channel Is.	n	0.0	4	0.0	4	0.0	1	0.0	14	0.2	14	0.2	1	0.0	16	0.2	17	0.2
Channel Islands	7	0.1	79	1.6	81	1.7	46	0.6	94	2.8	97	3.4	66	1.1	96	3.1	99	4.2
Pt. Reyes Mar. Sanct	2	0.0	77	1.5	78	1.5	3	0.0	79	1.5	79	1.6	3	0.0	79	1.6	80	1.6
Pt. Reyes Wild. Area	3	0.0	87	2.0	87	2.0	3	0.0	87	2.1	88	2.1	3	0.0	88	2.1	89	2.2
Farallon Islands	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	3	0.0	3	0.0
Least Tern Range	9	0.1	25	0.3	32	0.4	10	0.1	30	0.4	37	0.5	10	0.1	30	0.4	38	0.5
Begg Rock	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0	2	0.0	7	0.1	9	0.1

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 12. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments over the expected production life of the lease area, conditional mean volume scenario.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT		PROPOSED		EXISTING AND IMPORTS		PROPOSED EXISTING & IMPORT	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	1	0.0	1	0.0	n	0.0	8	0.1	8	0.1	n	0.0	13	0.1	13	0.1
2	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	n	0.0	8	0.1	8	0.1
3	n	0.0	5	0.0	5	0.0	n	0.0	14	0.2	14	0.2	n	0.0	21	0.2	21	0.2
4	n	0.0	4	0.0	4	0.0	n	0.0	10	0.1	10	0.1	n	0.0	16	0.2	16	0.2
5	n	0.0	8	0.1	8	0.1	n	0.0	13	0.1	13	0.1	n	0.0	19	0.2	19	0.2
6	n	0.0	6	0.1	6	0.1	n	0.0	14	0.2	14	0.2	n	0.0	21	0.2	21	0.2
7	n	0.0	1	0.0	1	0.0	n	0.0	13	0.1	13	0.1	n	0.0	24	0.3	24	0.3
8	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	5	0.1	5	0.1
9	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	6	0.1	6	0.1
12	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	12	0.1	12	0.1
13	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	9	0.1	9	0.1
14	n	0.0	11	0.1	12	0.1	1	0.0	31	0.4	31	0.4	1	0.0	45	0.6	45	0.6
15	1	0.0	46	0.6	46	0.6	1	0.0	52	0.7	52	0.7	1	0.0	52	0.7	52	0.7
16	n	0.0	36	0.4	36	0.4	1	0.0	44	0.6	44	0.6	1	0.0	44	0.6	44	0.6
17	1	0.0	8	0.1	9	0.1	1	0.0	10	0.1	12	0.1	2	0.0	11	0.1	12	0.1
18	2	0.0	11	0.1	12	0.1	3	0.0	20	0.2	22	0.2	4	0.0	23	0.3	26	0.3
19	n	0.0	3	0.0	4	0.0	2	0.0	12	0.1	13	0.1	2	0.0	14	0.1	16	0.2
20	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0	2	0.0
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0
23	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	2	0.0	5	0.1	7	0.1
24	2	0.0	n	0.0	2	0.0	3	0.0	n	0.0	4	0.0	4	0.0	3	0.0	7	0.1
25	13	0.1	n	0.0	13	0.1	14	0.1	n	0.0	14	0.1	14	0.2	n	0.0	14	0.2
26	1	0.0	1	0.0	2	0.0	2	0.0	2	0.0	4	0.0	2	0.0	3	0.0	5	0.1
27	4	0.0	14	0.1	17	0.2	5	0.0	23	0.3	26	0.3	6	0.1	24	0.3	29	0.3
28	1	0.0	19	0.2	19	0.2	1	0.0	26	0.3	26	0.3	1	0.0	27	0.3	27	0.3
29	n	0.0	23	0.3	23	0.3	1	0.0	44	0.6	45	0.6	2	0.0	46	0.6	48	0.6
30	n	0.0	14	0.2	14	0.2	n	0.0	25	0.3	25	0.3	1	0.0	25	0.3	26	0.3
31	n	0.0	2	0.0	2	0.0	n	0.0	3	0.0	3	0.0	n	0.0	3	0.0	3	0.0
32	n	0.0	2	0.0	2	0.0	n	0.0	5	0.0	5	0.0	n	0.0	5	0.0	5	0.1
33	1	0.0	16	0.2	16	0.2	1	0.0	24	0.3	25	0.3	1	0.0	24	0.3	25	0.3
34	1	0.0	12	0.1	13	0.1	1	0.0	14	0.1	15	0.2	1	0.0	14	0.2	15	0.2
35	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	4	0.0	5	0.0
36	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
37	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
38	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
39	n	0.0	5	0.1	5	0.1	19	0.2	33	0.4	46	0.6	40	0.5	48	0.6	69	1.2
40	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	6	0.1	7	0.1	6	0.1	12	0.1
41	n	0.0	7	0.1	7	0.1	7	0.1	39	0.5	43	0.6	13	0.1	45	0.6	52	0.7
42	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
43	1	0.0	20	0.2	21	0.2	2	0.0	42	0.6	43	0.6	2	0.0	44	0.6	45	0.6
44	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0	2	0.0
45	n	0.0	10	0.1	10	0.1	n	0.0	14	0.1	14	0.1	n	0.0	14	0.1	14	0.2
46	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	2	0.0	10	0.1	12	0.1
47	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0
48	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0	n	0.0	5	0.0	5	0.1

Continued on next page

Table 12. (Continued) -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments over the expected production life of the lease area, conditional mean volume scenario.

49	n	0.0	2	0.0	2	0.0	1	0.0	9	0.1	10	0.1	1	0.0	10	0.1	11	0.1
50	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	2	0.0	3	0.0
51	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
52	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0
53	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
54	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0
55	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0
56	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	4	0.0	4	0.0
57	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	6	0.1	6	0.1
58	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	3	0.0	n	0.0	11	0.1	11	0.1
59	n	0.0	n	0.0	n	0.0	n	0.0	5	0.0	5	0.0	n	0.0	12	0.1	12	0.1
60	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	8	0.1	8	0.1
61	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	2	0.0	n	0.0	6	0.1	6	0.1
62	n	0.0	1	0.0	1	0.0	n	0.0	5	0.1	5	0.1	n	0.0	10	0.1	10	0.1
63	n	0.0	2	0.0	2	0.0	n	0.0	9	0.1	9	0.1	n	0.0	15	0.2	15	0.2
64	n	0.0	1	0.0	1	0.0	n	0.0	7	0.1	7	0.1	n	0.0	12	0.1	12	0.1
65	n	0.0	3	0.0	3	0.0	n	0.0	12	0.1	12	0.1	n	0.0	18	0.2	18	0.2

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Appendix A

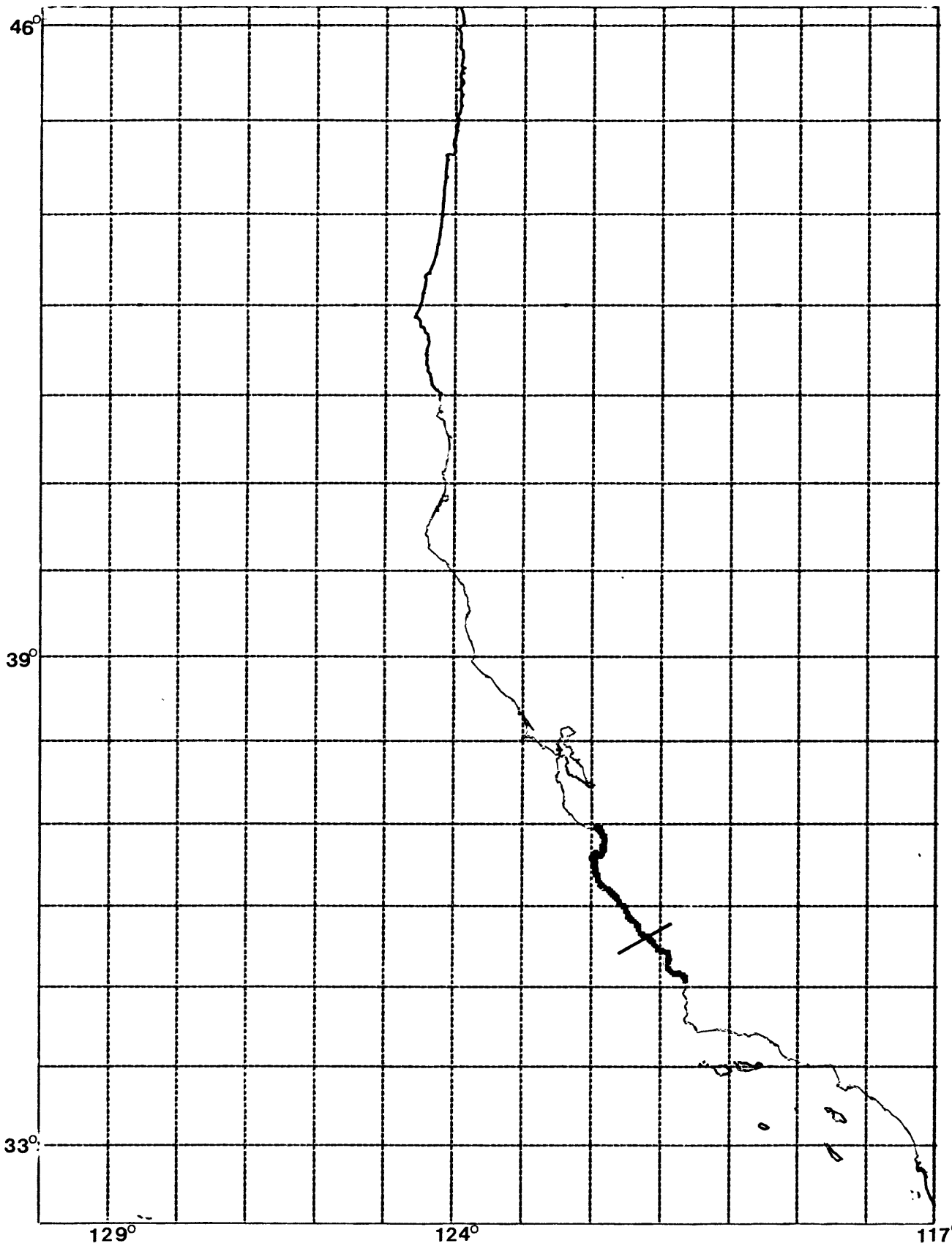

Figure A-1.--Map showing the locations of northern and southern sea otter ranges: crosshatching indicates areal extent. The target "combined sea otter range" is represented by both areas combined.

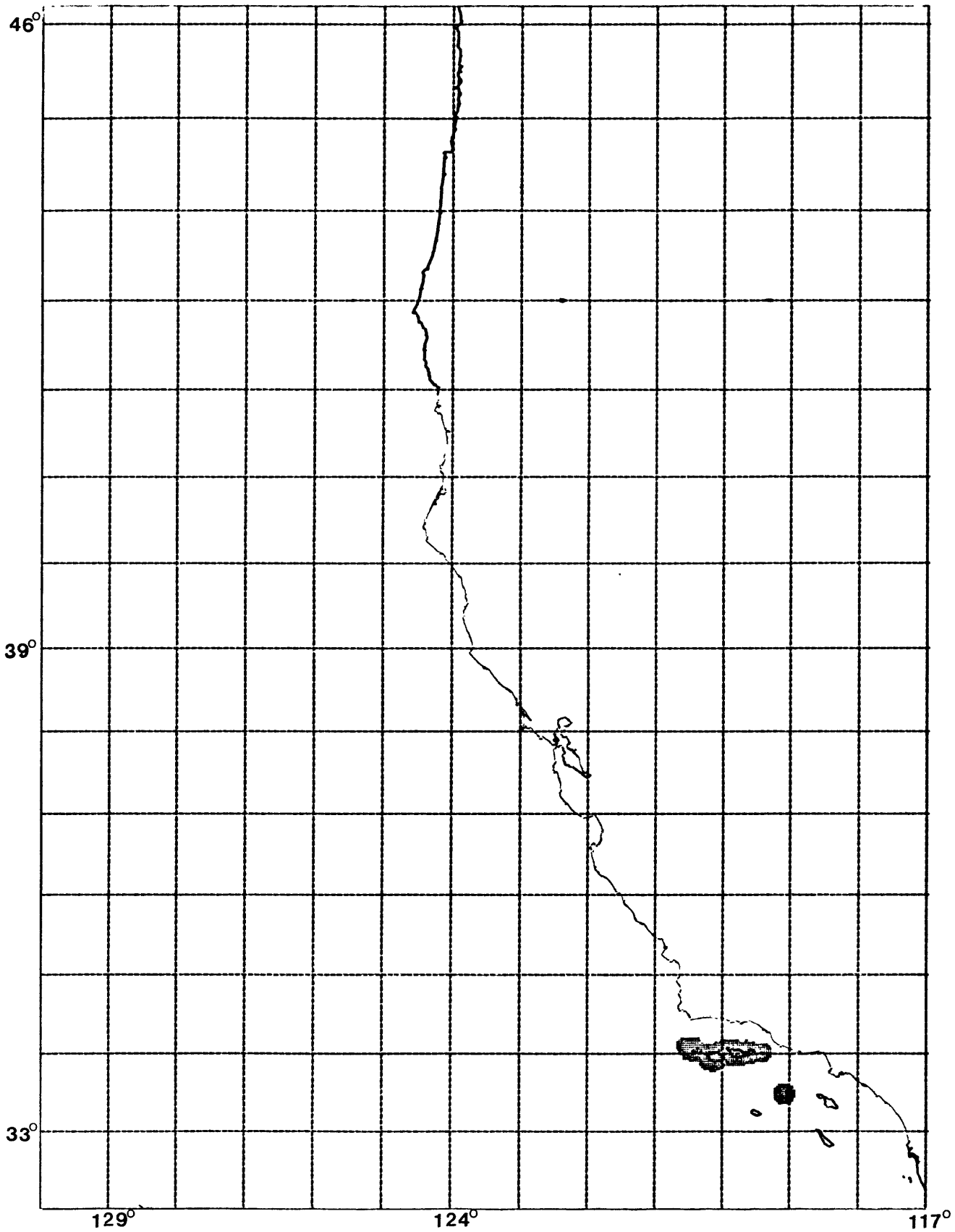

Figure A-2.--Map showing the locations of northern and southern Channel Islands: crosshatching indicates areal extent. The target "Channel Islands" is represented by both areas combined.

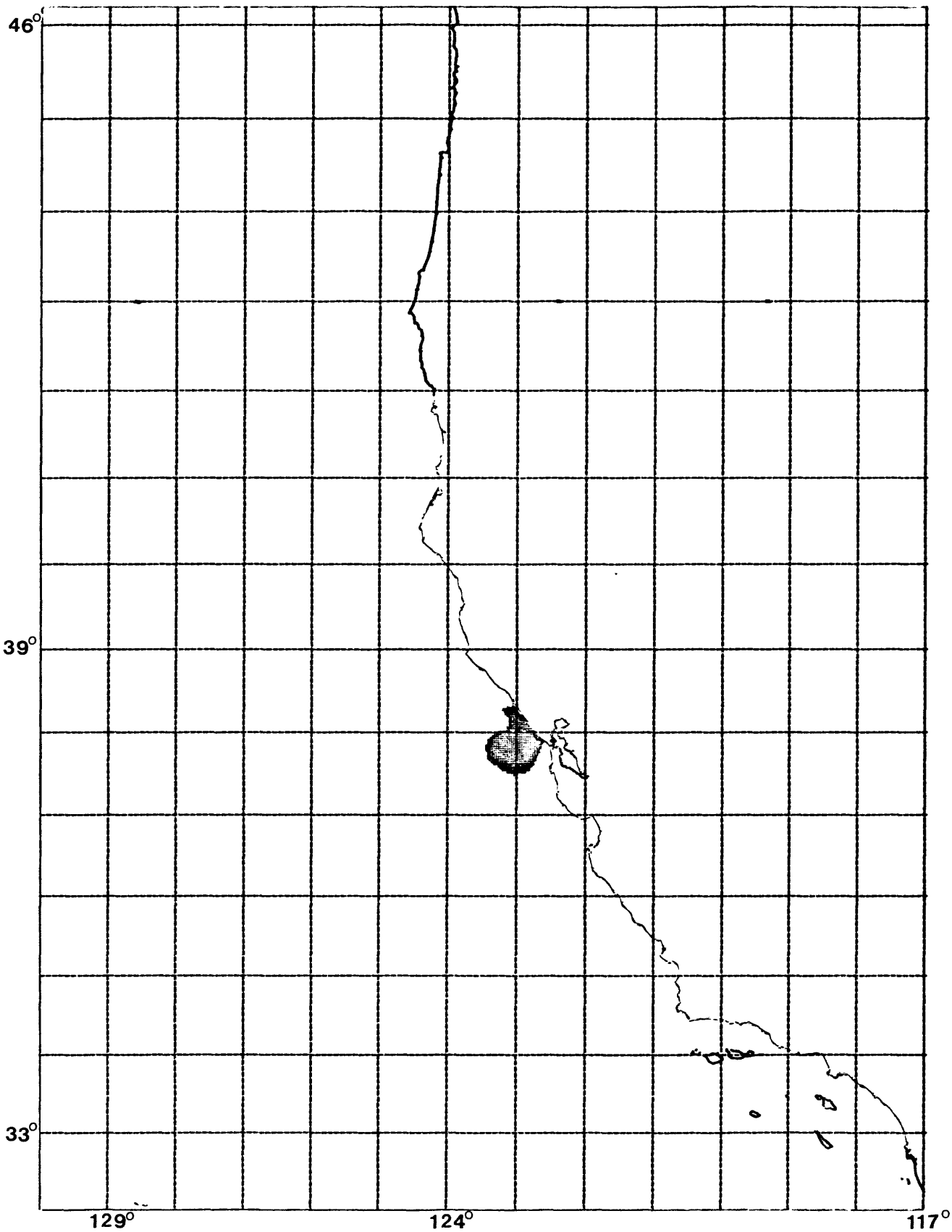

Figure A-3.--Map showing the location of Point Reyes Marine Sanctuary: crosshatching indicates areal extent.

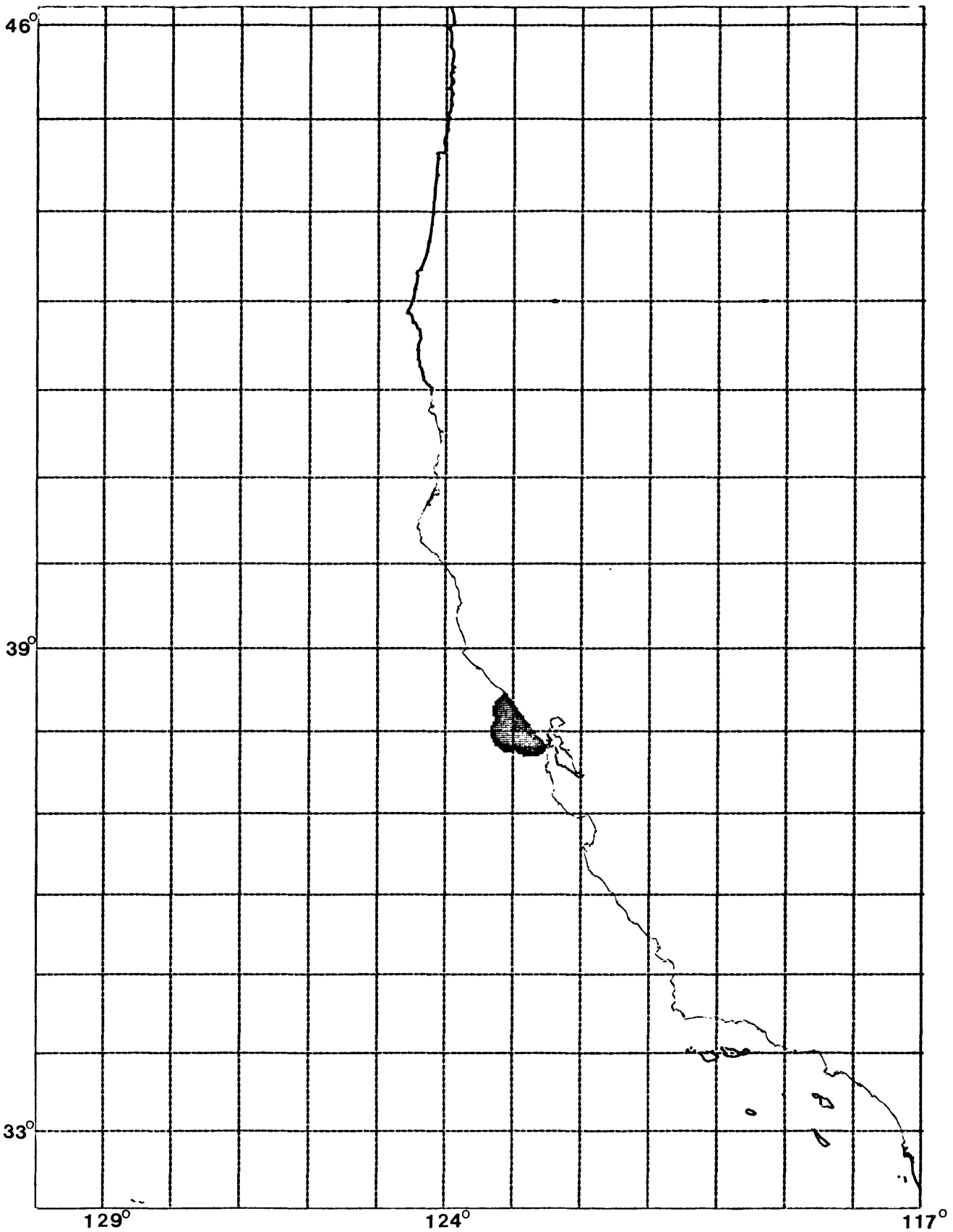

Figure A-4.--Map showing the location of Point Reyes Wilderness Area: crosshatching indicates areal extent.

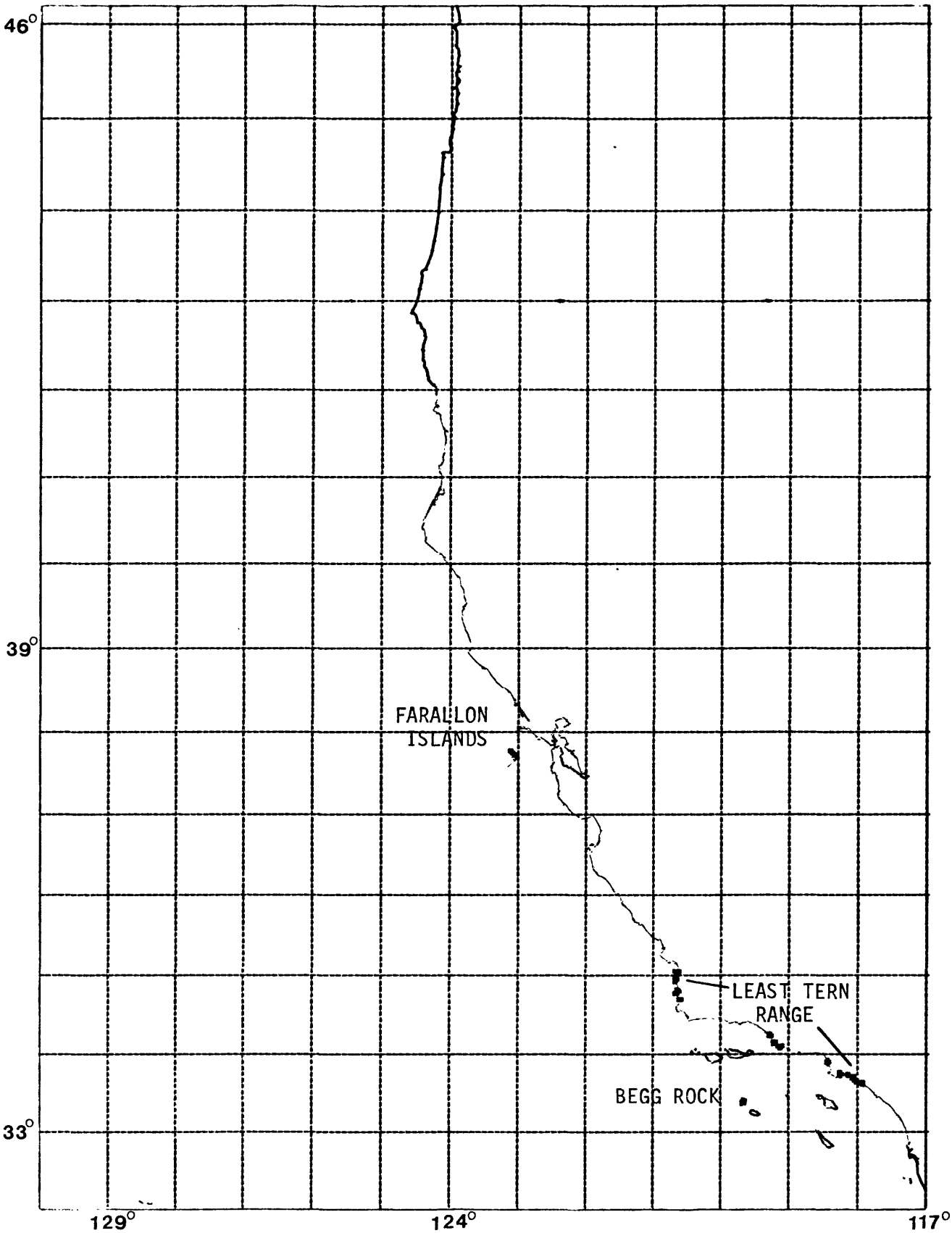

Figure A-5.--Map showing the locations of three targets: crosshatching indicates areal extent.

Appendix B

Table B-1. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Winter season, will contact a certain target within 30 days.

Target	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
N. Sea Otter Range	1	4	n	3	n	n	n	7	n	n	n	n	n	22	9	n	1
S. Sea Otter Range	n	1	n	n	n	n	n	50	n	n	n	n	n	15	13	n	n
Sea Otter Range	1	5	n	3	n	n	n	53	n	n	n	n	n	31	20	n	1
N. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Mar. Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	n	16	n	n	n	n	n	n	n	n	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

NOTE: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-2. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Spring season, will contact a certain target within 30 days.

Target	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
N. Sea Otter Range	n	4	n	2	n	n	n	2	n	n	n	n	n	19	9	1	n
S. Sea Otter Range	n	n	n	n	n	n	n	75	n	n	n	n	n	8	29	n	n
Sea Otter Range	n	4	n	2	n	n	n	76	n	n	n	n	n	25	36	1	n
N. Channel Is.	n	n	1	n	n	1	n	n	1	1	n	1	4	n	n	n	2
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	n	n	1	n	n	1	1	n	2	2	n	2	5	n	n	n	2
Pt. Reyes Mar. Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	n	18	n	n	n	n	n	n	n	n	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-3. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Summer season, will contact a certain target within 30 days.

Target	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
N. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Sea Otter Range	n	1	n	1	n	n	n	45	n	n	n	n	n	50	55	2	n
Sea Otter Range	n	1	n	2	n	n	n	45	n	n	n	n	n	50	56	2	n
N. Channel Is.	73	39	73	60	14	91	87	4	72	96	3	55	99	9	8	47	92
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	74	40	76	60	18	92	87	4	75	97	4	60	**	9	8	48	92
Pt. Reyes Mar. Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	3	n	5	n	n	1	76	n	n	n	n	n	14	40	15	n
Begg Rock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

NOTE: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-4. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Autumn season, will contact a certain target within 30 days.

Target	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
N. Sea Otter Range	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
S. Sea Otter Range	8	21	2	5	n	n	n	20	n	n	n	n	n	25	12	1	n
Sea Otter Range	8	21	2	5	n	n	n	20	n	n	n	n	n	25	12	1	n
N. Channel Is.	56	48	54	73	19	70	91	73	57	98	12	51	99	38	70	92	**
S. Channel Is.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Channel Islands	57	48	56	73	23	73	91	73	62	99	14	56	**	38	70	92	**
Pt. Reyes Mar. Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pt. Reyes Wild. Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Farallon Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Least Tern Range	n	n	n	n	n	n	n	18	n	n	n	n	n	n	n	n	n
Begg Rock	2	n	2	n	2	3	2	n	4	3	1	4	3	n	n	1	2

NOTE: ** = Greater than 99.5 percent; n < 0.5 percent.

Table B-5. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Winter season, will contact a certain land segment within 30 days.

Land Segment	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
18	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n
23	n	n	n	n	n	n	n	1	n	n	n	n	n	7	2	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n
25	n	n	n	n	n	n	n	34	n	n	n	n	n	n	n	n	n

NOTES: n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table B-6. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Spring season, will contact a certain land segment within 30 days.

Land Segment	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
22	n	n	n	n	n	n	n	n	n	n	n	n	n	4	2	n	n
23	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n
24	n	n	n	n	n	n	n	4	n	n	n	n	n	3	10	n	n
25	n	n	n	n	n	n	n	67	n	n	n	n	n	n	9	n	n

NOTES: n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table B-7. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Summer season, will contact a certain land segment within 30 days.

Land Segment	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
24	n	n	n	n	n	n	n	n	n	n	n	n	n	27	2	n	n
25	n	1	n	1	n	n	n	58	n	n	n	n	n	23	60	2	n
26	n	2	n	4	n	n	1	39	n	n	n	n	n	8	21	13	n
27	n	8	n	16	n	n	7	n	n	2	n	n	n	7	7	36	13
39	29	19	28	33	1	40	55	2	24	61	n	9	60	4	2	23	56
40	5	n	6	1	n	7	2	n	5	4	n	4	7	n	n	1	n
41	n	2	1	9	n	1	12	n	n	7	n	n	1	2	2	13	26

NOTES: n = less than 0.5 percent.
Rows with all values less than 0.5 percent are no shown.

Tables B-8. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location, in the Autumn season, will contact a certain land segment within 30 days.

Land Segment	HYPOTHETICAL SPILL LOCATION																
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
23	n	3	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n
24	5	12	n	3	n	n	n	1	n	n	n	n	n	16	1	n	n
25	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
29	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n
39	26	25	23	42	3	26	49	46	18	54	1	11	58	18	41	57	59
40	3	3	4	4	1	6	7	5	4	7	1	3	6	3	5	5	5
41	1	2	2	7	n	2	9	3	2	8	n	1	9	2	3	8	11
46	2	n	2	n	2	2	3	1	5	4	1	6	2	n	n	2	3
47	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n

NOTES: n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.