EXPLORATION PLAN
BEAUFORT SEA, ALASKA
OCS LEASE SALE 87 AREA

COVERING OCS LEASES :

Y 0359	Y 0750	Y 0792	Y 0804
0285	0786	0800	0805
0734	0787	0802	0806
0745	0791	0803	0818

EXXON COMPANY, U.S.A.
A DIVISION OF EXXON CORPORATION
P.O. BOX 4279
HOUSTON, TEXAS 77210-4279

MAY 1985

VOLUME 1

EXXON COMPANY, U.S.A.
POST OFFICE BOX 2180 • HOUSTON, TEXAS 77001

EXPLORATION DEPARTMENT
ALASKA/PACIFIC DIVISION

May 6, 1985

Coastal Zone Management
Consistency Certification

Mr. Rodney A. Smith
Regional Supervisor, Field Operations
P. O. Box 101159
Anchorage, Alaska 99510

Dear Mr. Smith:

Exxon hereby certifies the proposed activities described in detail in its Diapir Field, OCS Sale 87 Area Exploration Plan comply with Alaska's approved Coastal Management Program, and will be conducted in a manner consistent with such program. Also, a detailed state consistency evaluation is presented in Section 1.F of the Plan.

Sincerely,

W. R. Harnack

WJT/slw

COPY

EXPLORATION PLAN

DIAPIR FIELD

WESTERN SALE 87 AREA

BEAUFORT SEA, ALASKA

OCS-Y 0285, 0359, 0734, 0745, 0750
0786, 0787, 0791, 0792, 0800, 0802
0803, 0804, 0805, 0806, and 0818.

EXXON COMPANY, U.S.A.

A Division of Exxon Corporation

P. O. Box 4279

Houston, Texas 77210-4279

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VOLUME 1

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FIGURES AND TABLES

I. EXPLORATION PLAN

Introduction

Pursuant to 30 CFR 250.34, Exxon Corporation submits this Exploration Plan for federal leases in the western Beaufort Sea from Dease Inlet to Harrison Bay.

Within the designated area, Exxon Corporation acquired thirteen oil and gas leases at OCS Sale No. 87, with ten year lease terms beginning October 1, 1984. These leases supplemented Exxon's inventory of seven OCS Sale 71 leases in the area. In addition, Exxon acquired an interest in three leases with Sohio and others, which are included here for a total of sixteen new leases submitted for coverage under this Exploration Plan. Figure 1 presents the geographical location of the sixteen new leases in relation to the seven older leases which are covered under a separate Sale 71 Exploration Plan approved in 1983.

Because proposed exploration activities on the new leases essentially duplicate those described in the approved Sale 71 Plan, this Plan has been prepared in a condensed format, referencing the approved plan as provided in 30 CFR 250.34. This eliminates unnecessary paperwork; it also highlights only new information and/or summarizes appropriate information from the previously approved Plan to maintain continuity and clarity. This approach has been discussed with and agreed upon by appropriate Federal and State regulatory personnel.

Data from extensive geological and geophysical surveys in the lease area, along with sub-surface geologic data obtained from the wells drilled (1) in the area, (2) in the National Petroleum Reserve-Alaska (NPR-A) Oliktok Point area to the south, and (3) in the Prudhoe Bay area to the east, provide evidence that these leases may be sites of potential hydrocarbon accumulations. Exxon proposes to evaluate this possibility according to the procedures outlined in this Exploration Plan.

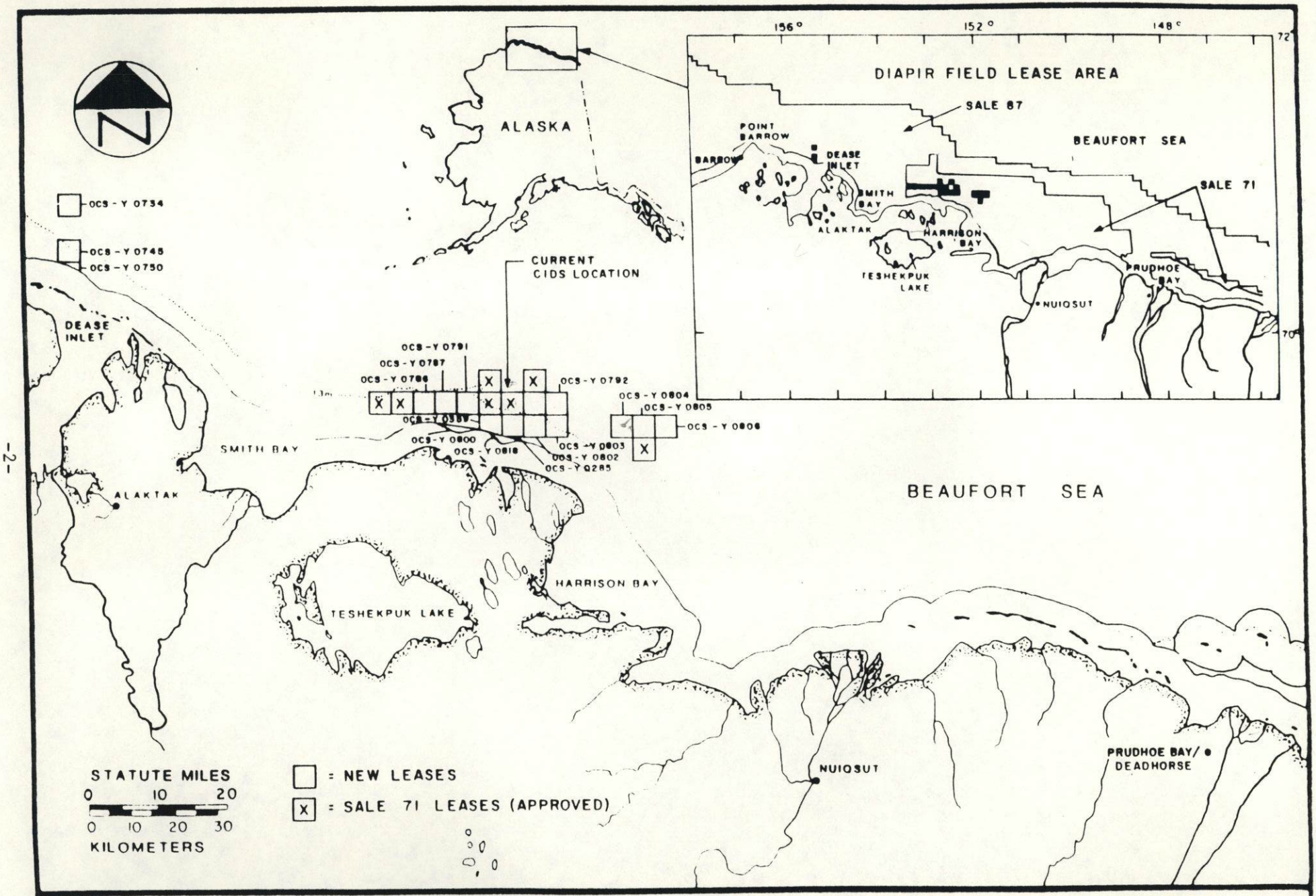


FIGURE 1 . GEOGRAPHIC LOCATION OF THE 16 NEW LEASE BLOCKS RELATIVE TO EXXON'S SALE 71 LEASE BLOCKS WITHIN THE DIAPIR FIELD AREA OF THE BEAUFORT SEA (ADAPTED FROM: CSA, 1983; USDOI, MMS, 1984).

Exxon plans to use a Concrete Island Drilling System (CIDS) to perform appropriate exploratory drilling. As an alternative, a fill (gravel) island or pad could be used. If the fill methods were used, material could be obtained from an abandoned gravel island, Regional Corporation lands within the present boundaries of the NPR-A, existing deposits at the Colville River near Nuiqsut, presently active Alaska State approved gravel mines in the Prudhoe area, or from other areas. Use of other technologies such as a cone structure, an ice island or an ice strengthened drillship, though conceivable, are not likely in the forseeable future, and are not included under this plan. If such technologies are ever contemplated, they would be incorporated into a Supplement to this Plan, and submitted for state and federal review and approval.

Minimum activity under this proposal would be the drilling of one well from a single drillsite. Maximum drilling activity under this Plan could be as many as twenty-seven wells. Drilling and testing time per well is estimated to be about 100 days.

I. A. Schedule For The Prompt And Efficient Exploration Of Potential Accumulations Of Hydrocarbons.

Operational flexibility is considered necessary to schedule exploratory drilling so that plans may be adjusted as new data are obtained. Each subsequent exploratory well is largely dependent on geologic information obtained from the preceding well(s). Initial proposed well locations, designed as straight holes and positioned according to Exxon's analysis of current geophysical and geological information, are presented in Figures 2, 3 and 4, and tabulated in Table 1.

1. The initial well to be drilled under this plan has not yet been selected, awaiting the results of site clearance surveys scheduled for February and March, 1985. Two possibilities include proposed locations 25 and 26 as described in Table 1 and Figure 3, either of which could be drilled with CIDS starting in November 1985. Final selection will be made after thorough analysis of relevant data for inclusion with the initial Application for Permit to Drill (APD).

2. The location and sequence of subsequent wells will depend greatly upon the results obtained from previous drilling. It is likely that two or more wells might be drilled from the same CIDS surface location because presence of sea ice restricts moving the CIDS except during the warmer months. Similarly, two or more wells could be drilled from a gravel island, if used. Nevertheless, the maximum number of wells drilled under this Plan is not expected to exceed 27 in order to facilitate geological evaluation of the subject leases.

3. Decisions of whether and when to drill a subsequent well(s) will be made within a reasonable period of time following the evaluation of geologic data provided by the most recent well drilled. Such future operations will be further dependent upon the availability of appropriate drilling equipment and drilling season limitations.

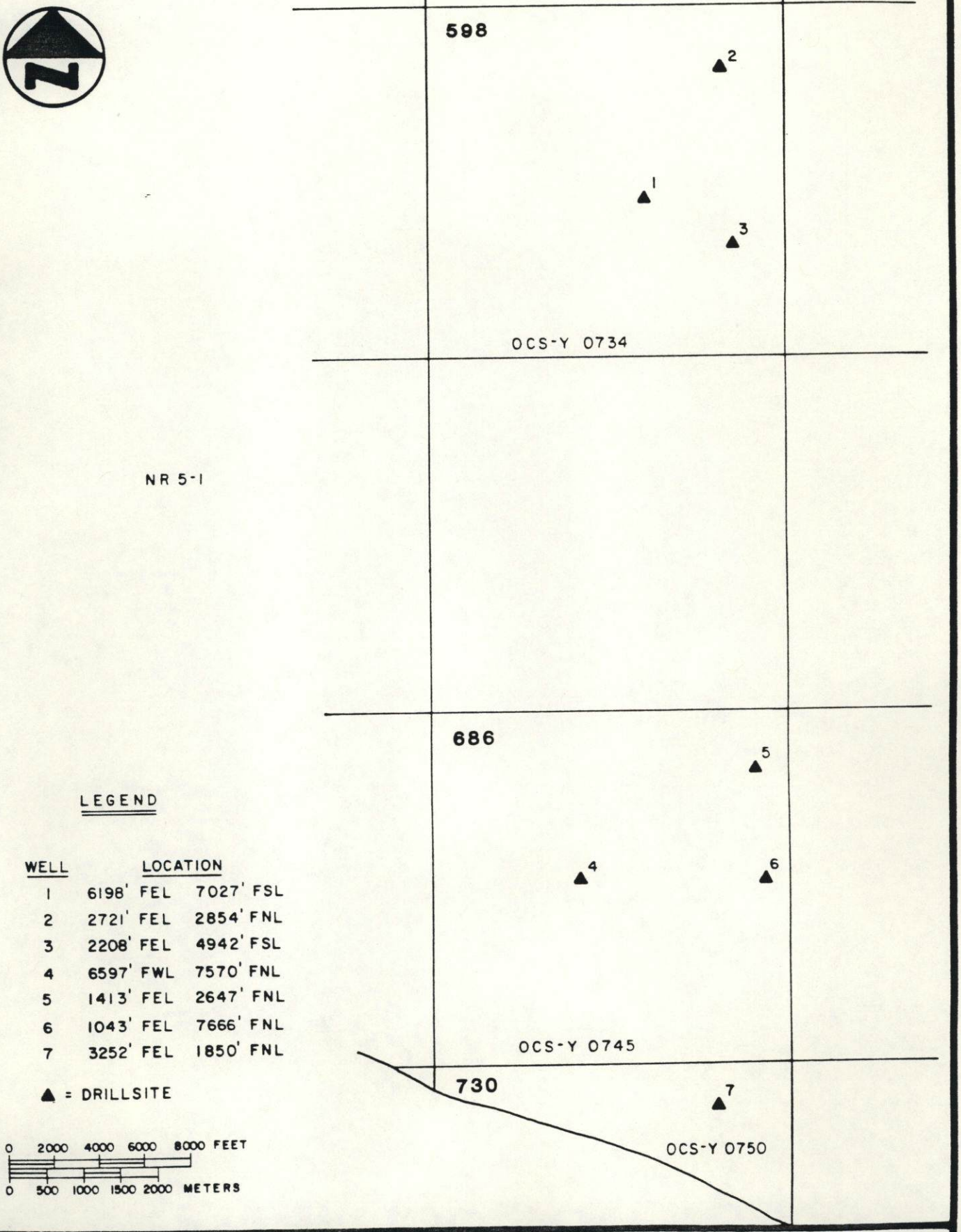
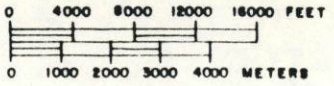


FIGURE 2. LOCATION OF THE PROPOSED DRILLSITES IN BEAUFORT SEA, DIAPIR FIELD AREA BLOCKS 598, 686, AND 730.

LEGEND

WELL	LOCATION	WELL	LOCATION
8	4239' FWL 5621' FSL	14	2838' FEL 10779' FNL
9	1139' FEL 5428' FSL	15	1962' FWL 3265' FNL
10	3901' FWL 3237' FSL	16	4439' FWL 3937' FSL
11	5032' FEL 6268' FNL	17	3103' FWL 5342' FSL
12	4696' FWL 3177' FSL	18	5319' FWL 5072' FNL
13	5148' FEL 3423' FNL	25	893' FEL 4362' FNL
		26	393' FEL 5856' FNL
▲ = DRILLSITE		27	5182' FWL 7479' FNL



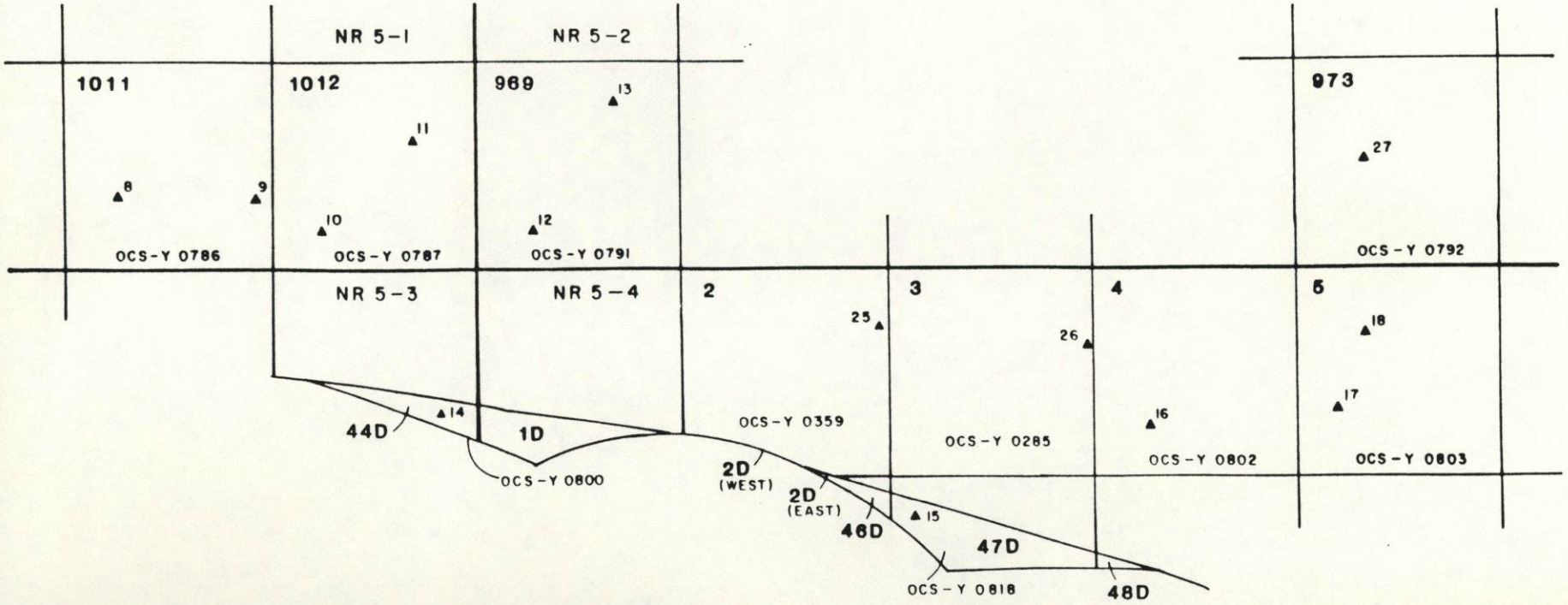
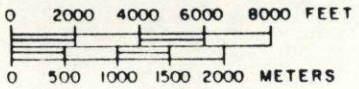


FIGURE 3. LOCATION OF THE PROPOSED DRILLSITES IN BEAUFORT SEA, DIAPIR FIELD AREA BLOCKS 2, 3, 4, 5, 44D, 47D, 969, 973, 1011, AND 1012.

LEGEND

WELL	LOCATION			
19	1705'	FWL	2183'	FSL
20	6952'	FWL	6007'	FSL
21	2406'	FEL	1168'	FNL
22	2376'	FWL	1350'	FSL
23	3455'	FEL	7628	FNL
24	2214'	FWL	7875	FSL

▲ = DRILLSITE



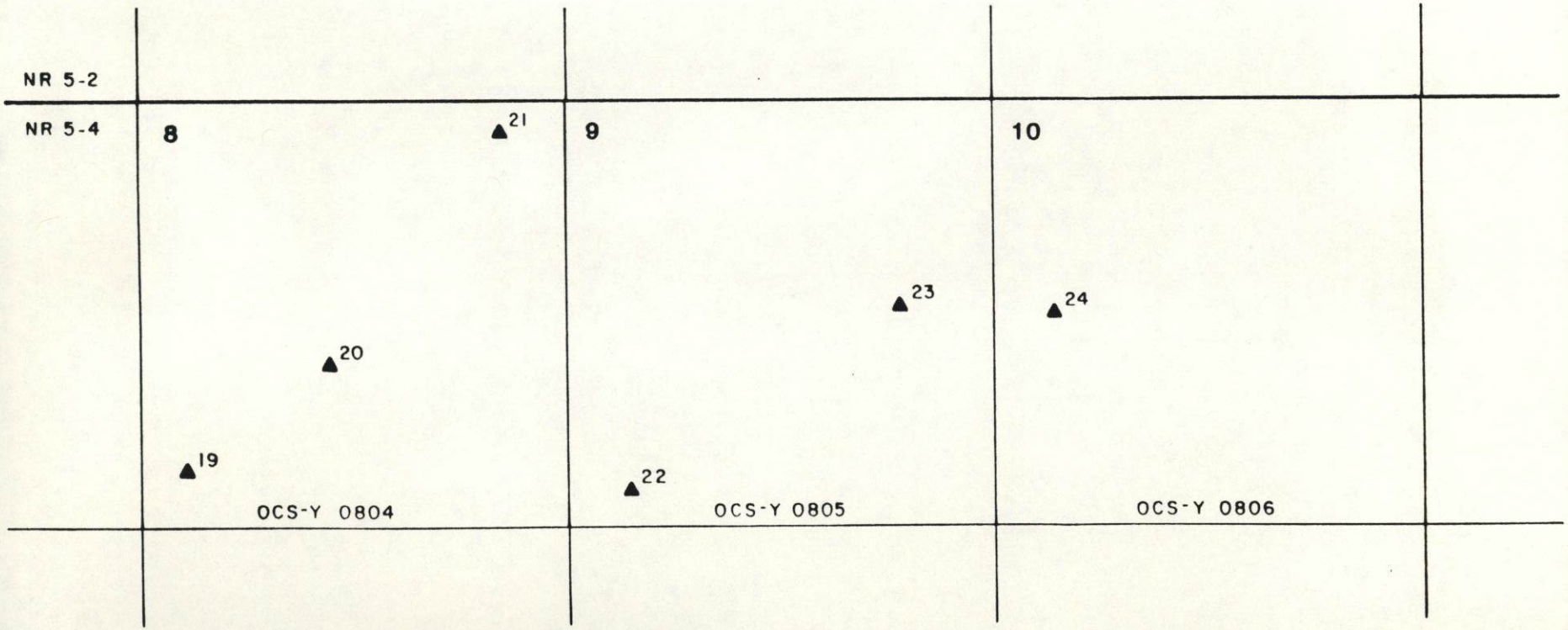


FIGURE 4. LOCATION OF THE PROPOSED DRILLSITES IN BEAUFORT SEA, DIAPIR FIELD AREA BLOCKS 8, 9, AND 10.

TABLE 1
PROPOSED INITIAL WELL LOCATIONS
DIAPIR FIELD AREA
BEAUFORT SEA, ALASKA

Well	NR5-Zone	Block	Lease	Water Depth	Well Depth	Surface Location					
						Line Calls		UTM-5 X	UTM-5 Y	Degrees Latitude	Degrees Longitude
1	1	598	0734	57'	7400'	6198'FEL	7027'FSL	1,350,755'	25,991,227'	71.38667°	-155.47889°
2	1	598	0734	61'	7950'	2721'FEL	2854'FNL	1,354,232'	25,997,094'	71.40287°	-155.45112°
3	1	598	0734	56'	8600'	2208'FWL	4942'FSL	1,354,745'	25,989,142'	71.38130°	-155.44409°
4	1	686	0745	41'	6600'	6597'FWL	7570'FNL	1,347,802'	25,960,882'	71.30330°	-155.49337°
5	1	686	0745	48'	8200'	1413'FEL	2647'FNL	1,355,540'	25,965,805'	71.31759°	-155.42918°
6	1	686	0745	42'	7400'	1043'FEL	7666'FNL	1,355,910'	25,960,786'	71.30394°	-155.42432°
7	1	730	0750	36'	7000'	3252'FEL	1850'FNL	1,353,701'	25,950,854'	71.27658°	-155.43971°
8	1	1011	0786	38'	8400'	4239'FWL	5621'FSL	1,613,160'	25,848,089'	71.01139°	-153.22873°
9	1	1011	0786	40'	9700'	1139'FEL	5428'FSL	1,623,530'	25,847,896'	71.01095°	-153.14171°
10	1	1012	0787	38'	9000'	3901'FWL	3237'FSL	1,628,570'	25,845,705'	71.00499°	-153.09938°
11	1	1012	0787	44'	9900'	5032'FEL	6268'FNL	1,635,385'	25,851,948'	71.02208°	-153.04222°
12	2	969	0791	42'	9300'	4696'FWL	3177'FSL	1,645,113'	25,845,645'	71.00485°	-152.96058°
13	2	969	0791	48'	9600'	5148'FEL	3423'FNL	1,651,017'	25,854,793'	71.02983°	-152.91094°
14	3	44D	0800	27'	9900'	2838'FEL	10,779'FNL	1,637,579'	25,831,689'	70.96672°	-153.02376°
15	4	47D	0818	25'	9300'	1962'FWL	3265'FNL	1,673,875'	25,823,455'	70.94400°	-152.72013°
16	4	4	0802	35'	9300'	4439'FWL	3937'FSL	1,692,100'	25,830,657'	70.96341°	-152.56727°
17	4	5	0803	40'	8500'	3103'FWL	5342'FSL	1,706,512'	25,832,062'	70.96693°	-152.44651°
18	4	5	0803	46'	8200'	5319'FWL	5072'FNL	1,708,728'	25,837,396'	70.98145°	-152.42753°
19	4	8	0804	48'	8000'	1705'FWL	2183'FSL	1,752,357'	25,828,902'	70.95689°	-152.06322°
20	4	8	0804	50'	7600'	6952'FWL	6007'FSL	1,757,605'	25,832,727'	70.96696°	-152.01863°
21	4	8	0804	60'	7900'	2406'FEL	1168'FNL	1,763,995'	25,841,300'	70.99011°	-151.96390°
22	4	9	0805	54'	7700'	2376'FWL	1350'FSL	1,768,777'	25,828,070'	70.95374°	-151.92579°
23	4	9	0805	53'	7850'	3455'FEL	7628'FNL	1,778,694'	25,834,840'	70.97172°	-151.84174°
24	4	10	0806	53'	7700'	2214'FWL	7875'FSL	1,784,363'	25,834,595'	70.97074°	-151.79429°
25	4	2	0359	37'	9300'	893'FEL	4362'FNL	1,671,019'	25,838,105'	70.99571°	-152.74352°
26	4	3	0285	38'	9300'	393'FEL	5856'FNL	1,687,268'	25,836,612'	70.97976°	-152.60741°
27	2	973	0792	53'	8300'	5182'FWL	7479'FNL	1,708,590'	25,850,736'	71.01790°	-152.42764°

Other information which may bear upon the decision to drill additional wells will be obtained from wells drilled in adjacent areas and from possible additional seismic control programs.

4. Drilling and other downhole activities can commence after the end of the fall bowhead whale migration - generally about November 1 each year. Drilling and other downhole activity, on the far western leases (OCS-Y 0734, 0745, and 0750, Figure 2) must also cease during the spring whale migration, generally April 15 through June 15, contingent upon the presence of whales in these lease areas. After drilling and testing are completed, the CIDS must incur considerable standby time since it normally cannot be moved until after breakup. Ordinarily, the CIDS would be moved during the August/September open water season. However, earlier relocation of the vessel is possible during late winter or spring (from late May) by using ice breakers to break the sea ice and to manage floes along the moving route. This latter approach might conceivably be used to reduce drilling vessel standby time, and also allow year-round drilling except during restricted periods.

5. Drilling schedules must retain flexibility for revision as necessary to efficiently evaluate the commercial potential of the leases.

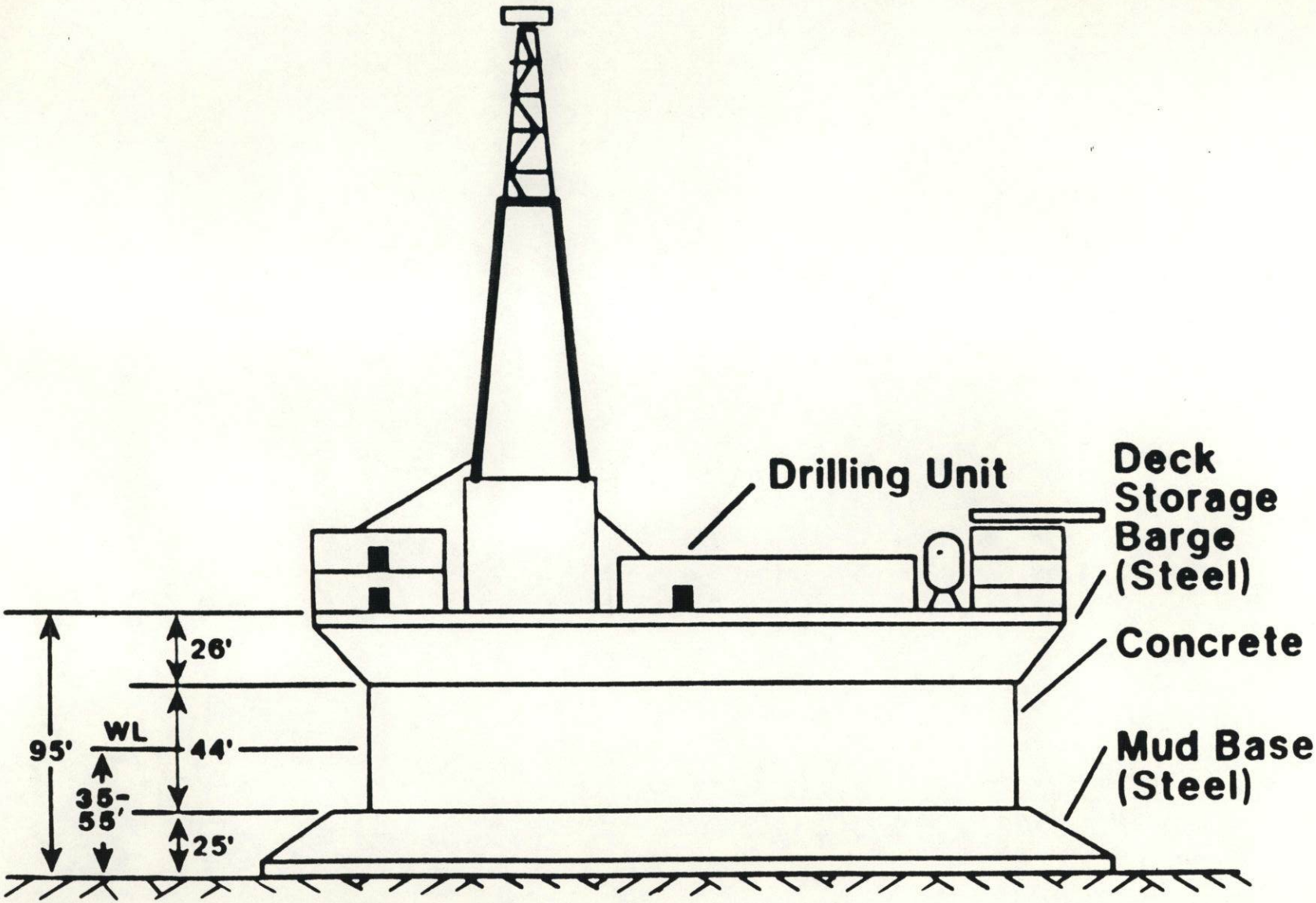


FIGURE 5. CONCRETE ISLAND DRILLING SYSTEM (CIDS).

I. B. Description of Drilling Operations

1. Drill Site

Drilling operations under this Plan propose CIDS as the prime option. CIDS is now a tested and proven drilling vessel superbly fitted to environmental and drilling conditions encountered in the Western Beaufort. However, if for any reason, CIDS were unavailable or unsuitable for drilling at a particular site, a gravel island could be emplaced as described in the Sale 71 Exploration Plan. The most likely options, such as in the cases of a site with unstable bottom conditions or excessive water depth, would be to move the CIDS to a better site, or to build a suitable base pad by depositing a few feet of gravel fill at the site.

If needed, gravel could be secured from an appropriate site (see Introduction) and transported by barge or ice road, depending upon the time of year. As an example about 96,000 cubic yards of material would be required to build a pad 400 x 415 x 3 feet. This is only about 2 percent of the estimated 1,200,000 cubic yards necessary for constructing a gravel island as described in the Sale 71 Plan. Although Fill emplacement remains an option, positioning CIDS at a suitable site without supplemental fill is the preferred and most likely scenario under this Plan.

2. Drilling Vessel

The CIDS, named Glomar Beaufort Sea I, is a submersible mobile offshore drilling unit specifically designed for water depths of 35-55 feet in the Beaufort Sea, and is the first vessel of its type to be used in Alaska. The vessel was constructed, transported, and first installed on location in 1984 on Exxon's Sale 71 lease OCS-Y 0280, where it was used successfully to drill two wells beginning in November 1984. As shown in Figure 5, the CIDS is constructed in three sections; a steel mud base with a "footprint" of 295 x 312 feet,

on which is placed a reinforced concrete 'brick' section. The brick is overlain by the top section which is made up of two steel barges positioned side by side to form the 291 x 274 feet deck. This large deck area provides adequate room for the installation of a modified arctic land drilling rig and a multi-story camp facility. Onboard storage capacity for up to six months of drilling operations is provided. Resupply, depending upon the season and material to be moved, may be by helicopter, Rolligon, air cushion vehicle, barge, or other similar equipment.

The CIDS is designed as a stand alone gravity type structure to withstand Beaufort sea ice movements without additional ice resisting structure(s). As insurance, however, CIDS is equipped with three water monitor nozzles, each with a capacity of 10,000 gallons per minute. These have been used to induce a buildup of grounded ice on the seaward side of the vessel as a protective barrier to absorb sea ice forces and to minimize pressure exerted against the vessel hull. An extensive onboard monitoring system is provided to measure any settling, and ice forces on the vessel. A separate monitoring system to measure sea ice pressures against the grounded ice barrier will also be installed. Continued use of the ice barrier for winter drilling is anticipated for the foreseeable future, at least until sufficient real time data have been collected to verify beyond question whether or not the barrier is superfluous.

The Beaufort Sea during August and September is generally ice free except for scattered floes. A CIDS relocation at this time would require two service boats, one of which may be classed as an ice breaker. After ballast water is discharged and CIDS is refloated, one boat would be utilized to tow CIDS. The other boat will be used for the management of ice floes that might be encountered.

Before refloating CIDS, it will probably be necessary to clear surrounding ice formed during the winter between CIDS and the

I. B. 3. Drilling Equipment

The drilling rig installed on CIDS is the Parker Drilling Company Rig No. 217. This is a typical arctic land rig and is designed and built to withstand and remain operational in the extreme adverse arctic conditions found in the Beaufort Sea. Any substitute rig will be similarly equipped. A detailed description of a drilling rig and its associated drilling and safety equipment and procedures is provided in the approved Sale 71 Exploration Plan.

I. B. 4. Fire Fighting and First Aid Equipment

Equipment lists are included in the Sale 71 Plan. Fire fighting equipment for CIDS meets or exceeds U. S. Coast Guard requirements. A full time Emergency Medical Technician (EMT) who oversees a well-equipped infirmary, is assigned onboard CIDS.

I. B. 5. Environmental Orientation Program

An Environmental Orientation Program is being prepared for industry by SOHIO, to meet the requirements of lease stipulation No. 2. The program, scheduled for completion and MMS approval this summer well before drilling begins, will be provided annually to Exxon drilling and support personnel, agents, contractors and subcontractors, as well as supervisory and managerial personnel involved with Sale 87 lease activities, as specified in the stipulation. The program is designed to inform personnel of the environmental, social and cultural concerns, especially as these concerns may relate to their jobs and activities in the area.

protective ice barrier. Only a narrow opening around CIDS would be necessary and this could be accomplished by trenching, flooding with ballast water, or a combination of the two.

At the new location, four anchors will be temporarily set to hold the CIDS in position during ballasting operations. When the CIDS is fully ballasted and emplaced on the sea floor, the anchors will be removed as they are no longer required.

By utilizing ice breakers, CIDS could be moved sooner, beginning as early as about May 20. For such a CIDS move, three ice breaking vessels would probably be required. At this time, the sea ice in the Beaufort will likely average 5.5 - 6.5 feet thick.

Upon arrival, the ice breaking vessels would first proceed to break the sea ice along the tow route to a width of several hundred feet. When this had been accomplished, ballast water from the CIDS would then be discharged to refloat the vessel. One ice breaker would then be used to tow the CIDS and the other two would be used to manage the broken ice along the moving route. Upon arrival at the new site, the CIDS would be emplaced as described above.

Pollution prevention receives priority second only to safety of personnel and is assured through awareness and training of personnel, good housekeeping, maintaining adequate prevention and clean-up equipment at the site and at the supply base, and reliable communication and supply facilities. Equipment and procedures are discussed in the approved Sale 71 Exploration Plan, and further detailed in the approved Oil Spill Contingency Plan. An EPA National Pollutant Discharge Elimination System (NPDES) Permit No. AKG 284000 is in place to regulate all discharges. All operations will be conducted in accordance with this and all other permits, regulations and stipulations.

I. C. 1. Geophysical and Site Clearance Operations

Geophysical operations are discussed in the Sale 71 Exploration Plan but summarized here for reader convenience. Common Depth Point (CDP) Surveys have been conducted in the area and results have indicated the existence of hydrocarbon traps. Additional CDP surveys that may be conducted to enhance data coverage would employ a non-dynamite energy source.

Velocity surveys are anticipated for each well drilled. Site clearance surveys are planned for each potential drilling location before actual drilling to evaluate site suitability for CIDS, absence of shallow drilling hazards, and presence of sensitive biological populations or habitats. High resolution geophysical surveys, precision bathymetric surveys, soil boring programs and diver observations will be conducted as necessary for these purposes.

I. D. Proprietary Data

This section is composed of information considered proprietary by the lessee. These data include structural and stratigraphic interpretations based on available geophysical and geologic data, a description of potentially productive intervals, interpreted seismic sections, and other information pertinent to the evaluation of the petroleum potential of the area.

This information has been bound separately, as Volume 2 and marked: "Exxon Proprietary for MMS Use Only". This information supplements similar information previously submitted with the Sale 71 Exploration Plan.

I. E. Other

The remaining sections of Exxon's approved Plan (listed below) for Sale 71 leases apply also to exploration activities conducted on the Sale 87 leases and are therefore incorporated by reference under this Plan.

The approved Lease Sale 71 Oil Spill Contingency Plan and the Environmental Report have been updated in a format intended to focus on new or additional information, and are submitted as separate documents along with this Exploration Plan.

TABLE 2

Additional Sections of Exxon's Approved Sale 71 Exploration Plan Incorporated By Reference Under This Exploration Plan

Section	Description
E.	Safety Meetings, Training Procedures, and Drills
F.	Proposed Mud Program
G.	Proposed Sampling Program
H.	Geological and Environmental Information
II.	Contingency Plans
1)	Scope and Objective of Plan
2)	Pollution Control Plan
3)	Critical Operations and Curtailment Plan
4)	Oil Spill Containment and Cleanup Plan and Emergency Situation Contingencies
5)	Uncontrolled Blowout (Relief Well) Plan
6)	Emergency Island Evacuation Plan
7)	H_2S Contingency Plan

CONSISTENCY EVALUATION AND CERTIFICATION
FOR
BEAUFORT SEA, DIAPIR FIELD AREA
OCS LEASE SALE NOS. 71 AND 87
EXPLORATION PLAN COVERING
OCS-Y 0285, OCS-Y 0359, OCS-Y 0734,
OCS-Y 0745, OCS-Y 0750, OCS-Y 0786,
OCS-Y 0787, OCS-Y 0791, OCS-Y 0792,
OCS-Y 0800, OCS-Y 0802, OCS-Y 0803,
OCS-Y 0804, OCS-Y 0805, OCS-Y 0806,
AND OCS-Y 0818

ALASKA COASTAL MANAGEMENT PROGRAM

Prepared by

Exxon Company, U.S.A.
A division of Exxon Corporation
April 1985

A. Introduction

Exxon Company, U.S.A. (a division of Exxon Corporation), (Exxon), has submitted to the Minerals Management Service (MMS) the Exploration Plan for Outer Continental Shelf (OCS) Sale 71 leases OCS-Y 0285 and OCS-Y 0359, and OCS Sale 87 leases OCS-Y 0734, OCS-Y 0745, OCS-Y 0750, OCS-Y 0786, OCS-Y 0787, OCS-Y 0791, OCS-Y 0792, OCS-Y 0800, OCS-Y 0802, OCS-Y 0803, OCS-Y 0804, OCS-Y 0805, OCS-Y 0806, and OCS-Y 0818 (hereinafter referred to as the "Exploration Plan") and the Environmental Report prepared in connection with that Exploration Plan (hereinafter referred to as the "Environmental Report"). This evaluation has been prepared in accordance with Section 307 (c)(3) of the Coastal Zone Management Act (16 U.S.C. § 1456 (c)(3)) and the National Oceanic and Atmospheric Administration (NOAA) regulations in 15 C.F.R. Part 930 for the purpose of evaluating whether the federally licensed and permitted activities described in detail and/or incorporated by reference in the Exploration Plan will be conducted in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Management Program (ACMP).

Although detailed information supporting this consistency evaluation is included in the Exploration Plan and the Environmental Report, those documents have been supplemented in this evaluation, where appropriate, by (1) a brief assessment relating the probable coastal zone effects, if any, of the proposed activities to the relevant provisions of the ACMP and (2) a brief set of findings establishing that the proposed activities are consistent with those provisions of the ACMP. This evaluation will focus on the potential coastal effects resulting from the exploration activities described in the Exploration Plan. Should recoverable quantities of oil and/or natural gas be discovered on the lease blocks covered by the Exploration Plan, additional plans, environmental reports, and consistency evaluations will be provided at the appropriate time, as required.

B. Background Information

A Final Environmental Impact Statement (FEIS) covering the proposed OCS oil and gas Lease Sale 71 was published in May 1982. This document examined the environmental impacts associated with various alternative courses of action with regard to OCS oil and gas leasing in the Beaufort Sea, Diapir Field area. The proposed alternative set forth in the FEIS was that 372 blocks be scheduled for sale in September 1982. The 372 blocks recommended for OCS Lease Sale 71 included leases OCS-Y 0285 and OCS-Y 0359 covered by the Exploration Plan, which were acquired by Sohio Alaska Petroleum Company, Mobil Oil Corporation and BP Alaska Exploration Inc. at OCS Lease Sale 71 which was held on October 13, 1982. Subsequent to the lease sale, Exxon acquired an interest in these two leases from BP Alaska.

A FEIS covering the proposed OCS Lease Sale 87 was published in March 1984. The proposed alternative set forth in the FEIS was that 3,193 blocks be scheduled for sale in June 1984. The 3,193 blocks recommended for OCS Lease Sale 87 included the remaining 14 leases covered by the Exploration Plan. Exxon, acting solely or bidding jointly with Elf Aquitaine, acquired leases on 13 of the blocks at OCS Lease Sale 87 which was held on August 22, 1984. Subsequent to the sale, Exxon acquired an interest in the fourteenth lease (OCS-Y 0792) from BP Alaska Exploration Inc., which had acquired the lease with Sohio Alaska Petroleum Company and Phillips Petroleum Company. Exxon will be designated as Operator for all activities proposed in the Exploration Plan.

C. The Exploration Plan -- Proposed Activities

The Exploration Plan discusses Exxon's intent to explore and evaluate the hydrocarbon potential of the leases covered by the Exploration Plan by the drilling of up to 27 exploratory wells. The drilling rig(s) to be utilized to explore the area covered by the Exploration Plan will be typical of those currently under contract to Exxon, such as Parker Drilling Company's Rig No. 217. Drilling will be commenced either from a mobile offshore drilling unit or from artificial island sites constructed of ice or fill material transported from abandoned artificial islands or from onshore locations.

The coastal effects associated with the activities described in the Exploration Plan will be minimal since the majority of activity will be conducted on federal OCS areas beyond the Alaska territorial waters covered by the ACMP, and will not significantly affect land use or water use in the Alaska coastal zone. Exploratory activities will be conducted in accordance with MMS regulations as contained in 30 C.F.R. Part 250, OCS Orders, all applicable Notices to Lessees and Information to Lessees. All required permits or licenses (e.g., a National Pollution Discharge Elimination System (NPDES) permit and a U.S. Corps of Engineers Section 10 permit) will be obtained, and activities will be conducted in compliance with such permits and licenses.

D. The Alaska Coastal Management Program

The ACMP was approved by the NOAA on July 8, 1979. The program consists of:

1. The 1977 Alaska Coastal Management Act (Alaska Statutes Title 46 Chapter 40, as amended) and the narrative contained in State of Alaska Coastal Management Program and Final Environmental Impact Statement, dated April 18, 1979.

2. District Coastal Management Programs approved by the Alaska Coastal Policy Council pursuant to AS 46.40.070 and by the Department of Commerce under 16 U.S.C. § 1455. The North Slope Borough (NSB) is currently in the process of finalizing a district plan to cover the area that may be relevant to the activities described in the Exploration Plan. However, the district plan has not yet received final approval for that area.

3. Regulations issued pursuant to AS 46.40.040 setting forth guidelines and standards for the coastal resource districts and state agencies (6 AAC Chapter 80 and 6 AAC Chapter 85).

4. The Alaska statutes, regulations, and procedures pertaining to the protection of air, land, and water quality that are incorporated into the ACMP by the regulation (6 AAC 80.140). These include:

a. The statutes in AS Title 46 and, in particular, AS 46.03.50 through AS 46.03.120 (water pollution control), AS 46.03.140 through AS 46.03.230 (air pollution control), and AS 46.04.010 through AS 46.04.120 (oil pollution control).

b. The regulations and procedures issued pursuant to these statutes, as found in 18 AAC Chapters 50, 70, and 75.

E. Consistency of the Activities Proposed in the Exploration Plan with the ACMP

As previously discussed, since the majority of activities covered under the Exploration Plan will be conducted on federal OCS areas beyond the Alaska territorial waters covered by the ACMP, the effects on land and water uses in the Alaska coastal zone associated with the activities proposed in the Exploration Plan will be minimal.

Much of the ACMP deals with guidance for the development of District Coastal Management Programs. A district plan, once approved, may provide some of the standards and requirements for activities affecting the coastal zone of Alaska. Although the North Slope Borough Coastal Management Program has not yet received approval, the ACMP does discuss the goals and objectives to be utilized by districts in the preparation of district plans. Thus, in addition to the mandatory elements of the ACMP, the activities proposed in the Exploration Plan will be evaluated in reference to those goals and objectives.

1. AS 46.40.020 -- Objectives of the ACMP

Assessment: Pursuant to AS 46.40.020, the ACMP is required to be consistent with eight general objectives. Those objectives are as follows:

a. The use, management, restoration, and enhancement of the overall quality of the coastal environment (AS 46.40.020 (1));

b. The development of industrial or commercial enterprises that are consistent with the social, cultural, historic, economic, and environmental interests of the people of the state (AS 46.40.020 (2));

c. The orderly, balanced utilization and protection of the resources of the coastal areas consistent with sound conservation and sustained-yield principles (AS 46.40.020 (3));

d. The management of coastal land and water uses in such a manner that, generally, those uses which are economically or physically dependent on a coastal location are given higher priority when compared to uses which do not economically or physically require a coastal location (AS 46.40.020 (4));

e. The protection and management of significant historic, cultural, natural, and aesthetic values and natural systems or processes within the coastal areas (AS 46.40.020 (5));

f. The prevention of damage to or degradation of land and water reserved for their natural values as a result of inconsistent land or water uses adjacent to that land (AS 46.40.020 (6));

g. The recognition of the need for a continuing supply of energy to meet the requirements of the state and the contribution of a share of the state's resources to meet national energy needs (AS 46.40.020 (7)); and

h. The full and fair evaluation of all demands on the land and water in the coastal areas (AS 46.40.020 (8)).

Although the eight criteria set forth in AS 46.40.020 are intended to provide guidance to the Alaska Coastal Policy Council in applying the ACMP and any revisions thereto, those objectives also provide assistance in evaluating the consistency of the activities proposed in the Exploration Plan.

The ultimate goal of the Exploration Plan, the prompt and efficient exploration of the hydrocarbon resource potential in the federal OCS offshore Alaska, promotes the objective of AS 46.40.020 (7), which requires the ACMP to recognize the need for a continuing supply of energy to meet the requirements of the state and the nation. Although the proposed exploratory drilling activities will occur outside of the Alaska coastal zone, some onshore resources will be utilized to support the offshore activities. The utilization of limited onshore coastal resources for support operations to achieve state and national energy needs ensures that the proposed activities are consistent with the objectives set forth in 46.40.020 (3) and (8).

The Exploration Plan and the Environmental Report discuss the fact that the activities proposed in the Exploration Plan will place few additional demands on onshore coastal resources. Support facilities for the proposed activities located in Prudhoe Bay/Deadhorse will in all probability not be materially affected by the proposed activities. Manning requirements for those facilities are not expected to increase significantly, if at all. If artificial island drilling sites are constructed in order to drill the proposed wells covered by the Exploration Plan, island fill material may come from abandoned artificial islands or existing onshore sand and gravel sites. In the event that new sand and gravel sites are utilized, such sites will be subject to applicable federal, state, and local permitting requirements. The minimal utilization of onshore coastal resources from existing facility locations, where economically possible, for a purpose of high priority both for the state of Alaska and the nation is an indication that the proposed activities are consistent with objectives set forth in AS 46.40.020 (3) and (8).

The proposed activities are consistent with the objective of AS 46.40.020 (4), which provides that, generally, uses that are economically and physically dependent on a coastal location be given a high priority. The exploration of the potential hydrocarbon resources underlying the OCS leases covered by the Exploration Plan can only be accomplished by offshore drilling operations. The coastal uses identified in the Exploration Plan and discussed in the Environmental Report are uses supporting the priority use of offshore oil and gas exploration. Those onshore uses are economically and physically dependent on the coastal location. Further, as described in the Exploration Plan and the Environmental Report, in most instances the planned onshore uses will not materially change the present facilities or significantly increase the manning requirements of those facilities.

The activities proposed in the Exploration Plan are not expected to have any significantly negative impact on the social, cultural, historic, economic, or environmental interests of the people of the state of Alaska. As further insurance that the proposed activities will be conducted in a manner consistent with the objectives of AS 46.40.020 (2) and (5), an Environmental and Sociocultural Training Program will be provided for all personnel involved in exploration activities. The program will be designed to inform each person working in Alaska under the Exploration Plan of the specific types of environmental, social, and cultural concerns related to the individual's job. The program will employ methods to ensure that personnel are informed of cultural, archaeological, geological, and biological resources.

AS 46.40.020 (6) identifies an objective of preventing damage and degradation to coastal land and water. The possibility of damage to the land and water as a result of an oil spill associated with the exploratory activities covered by the Exploration Plan is minimal. The Exploration Plan and the Environmental Report reference the blowout prevention equipment that will be utilized in connection with the proposed activities and which will significantly reduce the possibility of an oil blowout causing environmental damage. The Exploration Plan also incorporates the contingency plan in effect for the OCS lease areas covered by the Exploration Plan. To further minimize the possibility of an environmentally damaging oil spill, exploratory drilling and other downhole activities below a predetermined depth are prohibited during broken-ice conditions by lease stipulations unless Exxon can demonstrate the theoretical and physical capability to detect, contain, clean up, and dispose of spilled oil in broken-ice conditions.

The proposed activities are not expected to have a significant effect on the overall quality of the coastal environment (AS 46.40.020 (1)). Offshore activities will be subject to lease stipulations, MMS regulations, OCS Orders, Notices to Lessees, and Information to Lessees requirements to ensure environmentally safe operations, and such operations will be conducted utilizing the best available technology and operating procedures.

Finding: The proposed activities in the Exploration Plan will be conducted in a manner that is consistent with the objectives set forth in AS 46.40.020. The ultimate goal of the proposed activities is the prompt and efficient exploration of sixteen federal OCS leases. The activities will be conducted in an environmentally safe manner that will minimize the possibility of adverse effects on the coastal zone of Alaska. The operations will be conducted in compliance with the requirements of applicable lease stipulations, federal regulations, and operating requirements, and any applicable state and local requirements.

2. 6 AAC 80.010 through 6 AAC 80.900

6 AAC Chapter 80 contains standards to be applied by districts and state agencies in carrying out their responsibilities under the ACMP. Although no district plan is currently in effect for the NSB area, 6 AAC Chapter 80 provides some guidance for determining the consistency of the activities proposed in the Exploration Plan.

The following sections contain guidelines relevant to the activities proposed in the Exploration Plan:

-- 6 AAC 80.040 (Coastal Development)
-- 6 AAC 80.050 (Geophysical Hazard Areas)
-- 6 AAC 80.060 (Recreation)
-- 6 AAC 80.070 (Energy Facilities)
-- 6 AAC 80.080 (Transportation and Utilities)
-- 6 AAC 80.110 (Mining and Mineral Processing)
-- 6 AAC 80.120 (Subsistence)
-- 6 AAC 80.130 (Habitats)
-- 6 AAC 80.140 (Air, Land, Water)
-- 6 AAC 80.150 (Historic, Prehistoric, and Archaeological Resources)

a. 6 AAC 80.040 (Coastal Development)

Assessment: This section restates, in part, the objectives set forth in AS 46.40.020 (4). Pursuant to this regulation, water-dependent uses and activities are to be given first priority, with water-related uses and activities given second priority. The next priority is given to uses that are neither water dependent nor water related, but for which there is no feasible and prudent inland alternative.

The onshore coastal uses contemplated by the Exploration Plan involve primarily utilizing support facilities in the Prudhoe Bay/Deadhorse area, and possibly obtaining sand and gravel resources for island fill material, and constructing and utilizing ice road transportation systems. The onshore uses will primarily utilize existing use locations that will minimize the increased competition between uses sought to be addressed by 6 AAC 80.040. The onshore uses under the Exploration Plan are in a very real sense economically and physically linked to the coastal areas, and they support the state and national priority of offshore energy exploration and development.

The proposed activities are not expected to require additional support facility construction in the Prudhoe Bay/Deadhorse area, and manning requirements for those facilities are not anticipated to increase significantly.

If sand and gravel materials are utilized, those resources may be obtained from existing gravel mines, deposits near the Colville River, or Regional Corporation Lands within the present boundaries of the NPR-A. In each instance, the extraction of such resources will be obtained consistent with appropriate federal, state, or local permit requirements.

Supplies will normally be transported to the drill sites from the Prudhoe Bay/Deadhorse area. Gravel from extraction areas will be transported, if necessary, over temporary ice roads constructed especially for the purpose. Employees will be transported to the drill sites by helicopter during normal operations. No effect on local transportation systems is anticipated.

Finding: The onshore coastal uses contemplated by the Exploration Plan will support offshore oil and gas development and thus warrant priority treatment under 6 AAC 80.040. The uses to a great extent will utilize, but not significantly increase demand upon, present onshore facilities. Other uses, such as ice roads, will be temporary in nature and have minimal effect on other competing uses.

b. 6 AAC 80.050 (Geophysical Hazard Areas)

Assessment: This section provides that districts and state agencies shall identify known geophysical hazard areas. Development in geophysical hazard areas may not be approved until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.

No onshore activities under the Exploration Plan are known to be planned for any geophysical hazard areas. If activities are subsequently planned in such areas, any required state agency approvals will be obtained prior to the commencement of such operations.

Finding: The activities proposed in the Exploration Plan are consistent with the requirements of 6 AAC 80.050, since no activities are planned in known geophysical hazard areas.

c. 6 AAC 80.060 (Recreation)

Assessment: This section provides that those areas that receive significant use by persons engaging in recreation pursuit, are a major tourist destination or have the potential for high quality recreational use because of physical, biological, or cultural features shall be designated by the districts as recreational use areas. Districts and state agencies are also to give high priority to maintaining and increasing public access to coastal water.

No pleasure boating, sport fishing, or other recreational uses are known to occur in the areas in which the activities proposed in the Exploration Plan will be conducted.

Finding: Neither recreational use nor public access to coastal waters will be adversely impacted by the conduct of activities proposed in the Exploration Plan.

d. 6 AAC 80.070 (Energy Facilities)

Assessment: This section provides that sites suitable for the development of major energy facilities must be identified to the extent feasible and prudent by districts and the state in cooperation with districts.

No major energy facilities are planned in Alaska's coastal zone by Exxon pursuant to the proposed activities described in the Exploration Plan.

Finding: The activities proposed in the Exploration Plan are consistent with the requirements of 6 AAC 80.070, since no major energy facilities are planned by Exxon pursuant to the Exploration Plan.

e. 6 AAC 80.080 (Transportation and Utilities)

Assessment: This section provides that transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

Under the Exploration Plan, terrain-adapted vehicles will normally not require ice roads. However, the Exploration Plan provides for the construction of ice roads outside of the shoreline, but such ice roads, if used, will be temporary and will minimally affect the coastal zone. Helicopter flights will be utilized for personnel and some supplies during the drilling operation for each well.

Finding: Although ice roads may be constructed outside of the shoreline, those ice roads will have minimal effect on the coastal zone. Inland routes would be less economical and would possibly provide additional unnecessary coastal zone impacts. Thus, the transportation proposals contained in the Exploration Plan are consistent with the intent of 6 AAC 80.080, which is to minimize negative impacts on the Alaska beaches and shorelines.

f. 6 AAC 80.110 (Mining and Mineral Processing)

Assessment: This section provides that mining and mineral processing in the coastal areas must be regulated and conducted so as to be compatible with the standards contained in 6 AAC Chapter 80. Sand and gravel may be extracted from coastal areas where there is no feasible and prudent alternative to coastal extraction that will meet the public need for sand and gravel.

The potential sand and gravel requirements of the Exploration Plan will be obtained from existing fill material locations, the area near the Colville River, and/or Regional Corporation lands within the present boundaries of the NPR-A.

Any sand and gravel obtained for use in connection with the proposed activities under the Exploration Plan will be conducted consistent with appropriate requirements that the state of Alaska might impose pursuant to 6 AAC 80.110.

Finding: The activities proposed in the Exploration Plan will be conducted in a manner consistent with the requirements of 6 AAC 80.110.

g. 6 AAC 80.120 (Subsistence)

Assessment: This section provides that districts and state agencies will recognize and assure opportunities for subsistence usage of coastal areas and resources.

The Environmental Report discusses the potential effects of the proposed activities on subsistence activities. The Environmental Report concludes that subsistence activities of residents of the Villages of Nuiqsut and Barrow can occur in the area of the lease tracts. The bowhead whale is a primary subsistence resource in Barrow, whereas the primary subsistence resources for Nuiqsut residents are marine fishes and terrestrial mammals and birds. The presence of exploratory drilling islands and exploratory operations should present only minimal obstacles to the overall pursuit of subsistence activities.

Some mammal species may temporarily avoid certain areas due to noise and human presence. Potential impacts to the bowhead whale may be minimized by the imposition of the seasonal drilling restrictions contained in the Lease Stipulations.

Oil spills have the potential to temporarily impact subsistence resources. The probability of a major spill is extremely low, however, and mitigating measures are set forth in the contingency plan incorporated, by reference, in to the Exploration Plan. Any impact will be a function of the size of the spill, time of year, and other environmental considerations.

Onshore fill material removal will occur in winter so that drilling island construction should not affect caribou calving or migrating bird species. Fill materials can be taken from areas that do not affect subsistence fisheries. Although some denning polar bears may be temporarily displaced from the area of onshore roads, this should not significantly impact polar bear populations.

Findings: The Activities proposed in the Exploration Plan may have some effect on subsistence activities in the Alaska coastal zone. Those effects, however, will be minor and temporary and do not present a conflict with the requirements of 6 AAC 80.120.

h. 6 AAC 80.130 (Habitats)

Assessment: This section requires that habitats in the coastal areas be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat that contribute to its capacity to support living resources. Uses and activities in the coastal areas that will not conform to the standards of 6 AAC 80.130 may be permitted if (1) there is a significant public need for the proposed use or activity, (2) there is no prudent alternative to meet the public need for the proposed use or activity, and (3) all feasible and prudent steps to maximize conformance with the standards contained in 6 AAC 80.130 are taken.

The exploration activities will comply with the various lease stipulations and federal regulations that limit the chances of an adverse impact on the habitats set forth in 6 AAC 80.130. Lease Stipulations, which are included as part of each lease covered by the Exploration Plan, provide that if biological populations or habitats are identified which require additional protection, Exxon will be required to conduct additional environmental surveys

and may be required to relocate or modify operations. Additionally, the Exploration Plan incorporates, by reference, a contingency plan to be utilized in order to further minimize the chances of environmental damage to coastal areas or habitats.

Finding: The activities proposed in the Exploration Plan will be conducted subject to requirements and operational procedures consistent with 6 AAC 80.130.

i. 6 AAC 80.140 (Air, Land, and Water)

By reference, 6 AAC 80.140 incorporates into the ACMP Alaska's water pollution control, air pollution control, and oil pollution control statutes and regulations.

Those provisions are applicable to state onshore areas and areas within the territorial waters of the state of Alaska.

The proposed activities, insofar as they occur within the jurisdiction of the state of Alaska, will be conducted in compliance with the applicable water, air, and oil pollution control statutes and regulations.

As far as onshore facilities are concerned, no additional facilities have been identified at the present time. For the most part, existing facilities and resource locations will be utilized in connection with operations under the Exploration Plan.

Finding: The activities proposed in the Exploration Plan are consistent with the requirements of 6 AAC 80.140. Operations under the Exploration Plan will comply with state of Alaska water, air, and oil pollution standards as appropriate.

j. 6 AAC 80.150 (Historic, Prehistoric, and Archaeological Resources)

Assessment: This section provides that districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory.

Activities under the Exploration Plan are not known to conflict with any areas of historic, prehistoric, or archaeological value identified by the state. Operations will be conducted in compliance with 6 AAC 80.150. In addition, the OCS Sale 87 leases contain a stipulation providing for the protection of any cultural resources believed to be present by the Regional Supervisor, Field Operations, or discovered by the lessee.

Finding: The activities proposed in the Exploration Plan are consistent with the requirements of 6 AAC 80.150, since no activities are known to conflict with historic, prehistoric, or archaeological areas identified by the state.

F. **Additional Considerations**

The proposed activities described in the Exploration Plan will be subject to a variety of continuing factors which indicate that the proposed activities will be pursued in an environmentally safe manner, including the following lease stipulations:

1. OCS Sale No. 71 Leases

a. Stipulation No. 3. An environmental training program will be required in all exploration and development plans submitted for the leases. The environmental training program must be designed in order to inform personnel of the environmental, social, and cultural concerns involved in their jobs.

b. Stipulation No. 4. This stipulation requires the utilization of pipelines if three conditions are met: (1) pipeline rights-of-way can be determined and obtained; (2) laying pipelines is technologically feasible and environmentally preferable; and (3) pipelines can be laid without net social loss, as determined by the lessor. The lessor may require that pipelines be placed in certain designated management areas. If a pipeline is installed, crude oil production will be transported to shore by surface vessels only in emergencies.

NOTE: This stipulation does not apply to Exploration Plans.

c. Stipulation No. 5. This stipulation reads as follows:

> Exploratory drilling and testing and other downhole exploratory activities will be prohibited during the fall bowhead whale migration period, generally from September 1 through October 31, unless the DMMOFO[1] determines that continued operations are necessary to prevent a loss of well control or to ensure human safety. This stipulation will remain in effect until termination or modification by the Department of the Interior after conferring with the state of Alaska and consultation with the National Marine Fisheries Service.

d. Stipulation No. 6. This stipulation reads as follows:

> Exploratory drilling and other downhole activities above a predetermined threshold depth will be allowed year-round (subject to the limitations of Stipulation 5).

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1 Regional Deputy Minerals Manager, Offshore Field Operations of the MMS.

> Exploratory drilling and other downhole activities below a predetermined threshold depth,[2] with the exception of testing through casing, are prohibited in broken ice conditions, unless the lessee demonstrates to the DMMOFO, with the concurrence of the state of Alaska, the theoretical and physical capability to detect, contain, clean-up and dispose of spilled oil in broken ice conditions.

e. Stipulation No. 7. The following activities are prohibited by this stipulation:

(1) Discharges of produced waters into open or ice-covered marine waters of less than 10 meters in depth. Discharges of produced waters in water depths greater than 10 meters may be approved by the Environmental Protection Agency (EPA) on a case-by-case basis.

(2) Discharges of oil-based or oil-contaminated drilling muds and/or cuttings into the marine environment.

(3) Under-ice discharges of drilling muds and cuttings, except where direct disposal is impracticable.

(4) Stockpiling muds over winter at the drill sites for purposes of open water disposal, expect in very limited situations.

The following requirements are also set forth in this stipulation:

(1) Discharges of non oil-contaminated drilling muds and/or cuttings during winter exploratory operations shall be to above-ice locations and avoid areas of sea ice cracking or major stress fracturing.

(2) Predilution requirements for under-ice discharges shall be, at a minimum, ten parts sea water to one part drilling fluid.

f. Stipulation No. 8. This stipulation states that "if biological populations or habitats which may require additional protection are identified by the DMMOFO on any tracts in the leasing area, the DMMOFO may require the lessee to conduct environmental surveys."

Depending on the results of a the environmental studies, the DMMOFO may require relocation or modification of lessee operations.

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2 The threshold depth is a point above which major accumulations of hydrocarbons are not likely. This depth will be determined on a case-by-case basis by the DMMOFO after a review of all pertinent geological and geophysical data.

2. OCS Sale 87 Leases

a. Stipulation No. 1 - Protection of Cultural Resources

This stipulation requires the lessee to immediately report to the Regional Supervisor, Field Operations (RSFO) concerning any cultural resources discovered on the leased area and to make every reasonable effort to protect the resource. The stipulation further states that if the RSFO believes a cultural resource may exist in the leased area and notifies the lessee in writing of this belief, the lessee must have an archeologist and a geophysicist prepare a report to determine the potential existence of such a cultural resource based on an assessment of data from remote sensing surveys, and pertinent cultural and environmental information. The stipulation goes on to state if the evidence suggests the presence of a cultural resource, the lessee will either (1) locate the operation so as not to affect the cultural resource, (2) satisfy the RSFO that there is no cultural resource or that it will not be adversely affected.

b. Stipulation No. 2 - Orientation Program

This stipulation requires a lessee to include in its plan of exploration or development a proposed orientation program designed to inform its personnel working on the project, including contractors and subcontractors, of specific types of environmental, social, and cultural concerns which relate to the adjacent area. The program must ensure that the personnel involved are informed about the archeological, geological, and biological resources of the area and are aware of the importance of avoidance and nonharassment of wildlife resources. The program must also increase the sensitivity and understanding of personnel to community values, customs, and lifestyles. Finally, the program must be attended yearly by all onsite, supervisory and management personnel, including contractors, etc., involved in lease activities.

c. Stipulation No. 3 - Protection of Biological Resources

If the RSFO, identifies any biological populations or habitats requiring additional protection, and so notifies the lessee in writing, the lessee will be required to conduct environmental surveys to determine the extent and composition of such populations or habitats. If these populations or habitats require additional protection, the RSFO may require the lessee to: (1) relocate the site of the operation, (2) satisfy the RSFO that either the population/habitat does not exist or that the operation will not significantly affect it, (3) limit the period of operations so as not to adversely affect the biological resource, or (4) otherwise modify the operation so as not to adversely affect significant biological populations or habitats. The lessee is also required to immediately report to the RSFO the discovery of any area of biological significance in the lease area and must make every reasonable effort to preserve and protect any such area of biological significance until the RSFO has given the lessee directions on how to protect such resources.

d. Stipulation No. 4 - Protection of Bowhead Whales

This stipulation reads in part as follows:

> Exploratory drilling, testing, and other downhole exploratory activities, will be prohibited during the spring bowhead whale migration period generally from April 15 through June 15 in the western blocks. Exploratory drilling, testing, and other downhole exploratory activities will be prohibited during the fall migration period generally from August 1 through October 31 in the eastern blocks and generally from September 1 through October 31 in the western blocks. The precise dates will be set each season by the Regional Supervisor, Field Operations (RSFO) based on available information concerning the presence of bowhead whales in the area. The RSFO may determine that continued operations are necessary to prevent a loss of well control or to ensure human safety. This stipulation will remain in effect until termination of modification by the Department of the Interior, after conferring with the state of Alaska, the North Slope Borough, and in consultation with the National Marine Fisheries Service.

e. Stipulation No. 5 - Transportation of Hydrocarbon Products

This stipulation requires the utilization of pipelines if three conditions are met: (1) pipeline rights-of-way can be determined and obtained, (2) laying pipelines is technologically feasible and environmentally preferable, and (3) pipelines can be laid without net social loss, as determined by the lessor. The lessor may require that pipelines be placed in certain designated management areas. If a pipeline is installed, crude oil production will be transported to shore by surface vessels only in emergencies.

NOTE: This stipulation does not apply to Exploration Plans.

f. Stipulation No. 6 - Oil Spill Cleanup Capability

The stipulation provides that exploratory drilling and other downhole activities below a predetermined threshold depth, with the exception of testing through casing, are prohibited in broken ice conditions unless the lessee demonstrates the theoretical and physical capability to detect, contain, clean up, and dispose of spilled oil in broken ice.

g. Stipulation No. 7 - Discharge of Produced Water, Drilling Muds, and Cuttings

This stipulation provides that discharges of "produced water" in open or ice covered marine waters of less than 10 meters in depth are prohibited. The discharge of drilling muds and cuttings are not limited other than by the conditions of NPDES permits issued by the EPA.

In addition to the restrictions and requirements contained in the lease stipulations, operations will be conducted subject to the MMS regulations contained in 30 C.F.R. Part 250 governing oil and gas operations, OCS Orders, applicable Notices to Lessees, and Information to Lessees.

Discharges from the drilling operations will be made in compliance with an NPDES permit issued by the EPA. Studies evaluating the effects of drilling muds and cuttings discharged in connection with exploratory drilling operations have confirmed that such discharges are rapidly dispersed and diluted. No significant or continuing adverse effects to the continued viability of marine biota are anticipated as a result of the proposed activities in the Exploration Plan, and any such discharges are not expected to have an effect on land use or water use in the Alaska coastal zone.

G. Consistency Certification

Based on the analysis set forth above, as supplemented by the discussion of environmental effects set forth in the Environmental Report, Exxon hereby certifies that the proposed activities described in detail in the Exploration Plan comply with the approved ACMP and will be conducted in a manner consistent with such program.

WAD:mc

EXPLORATION PLAN
BEAUFORT SEA, ALASKA
OCS LEASE SALE 87 AREA

COVERING OCS LEASES :

Y 0359	Y 0750	Y 0792	Y 0804
0285	0786	0800	0805
0734	0787	0802	0806
0745	0791	0803	0818

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MAY 1985

VOLUME 2

EXPLORATION PLAN

DIAPIR FIELD AREA

BEAUFORT SEA, ALASKA

OCS-P 0285, 0359, 0734, 0745, 0750
0786, 0787, 0791, 0792, 0800, 0802
0803, 0804, 0805, 0806, AND 0818.

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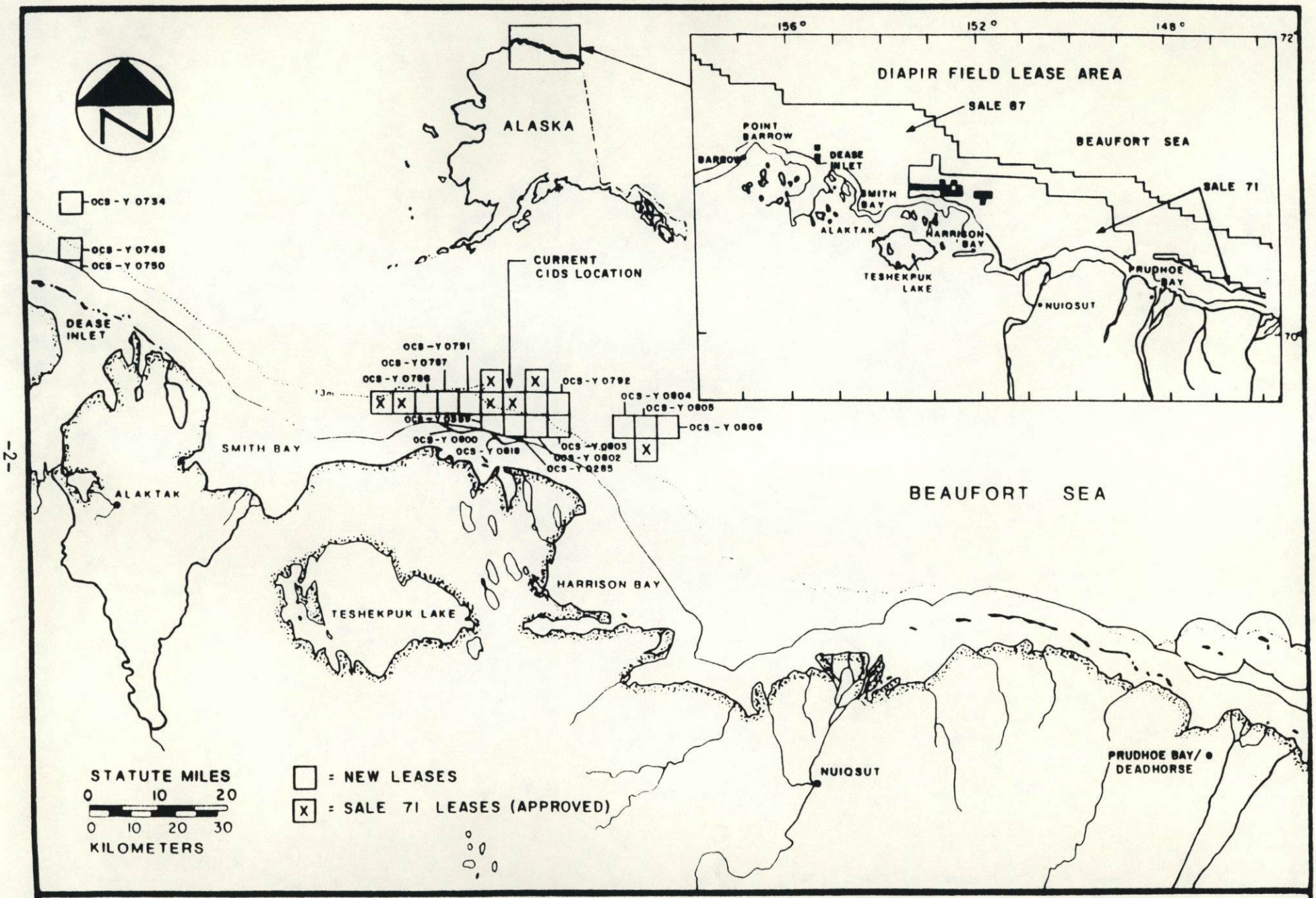


GEOGRAPHIC LOCATION OF THE 16 NEW LEASE BLOCKS RELATIVE TO EXXON'S SALE 71 LEASE BLOCKS WITHIN THE DIAPIR FIELD AREA OF THE BEAUFORT SEA (ADAPTED FROM: CSA, 1983; USDOI, MMS, 1984).

I. D. PROPRIETARY DATA AND INFORMATION

This section is composed of information considered proprietary by the lessee. These data include structural and stratigraphic interpretations based on available geophysical and geologic data, a description of potentially productive intervals, and other information pertinent to the evaluation of the petroleum potential of the area. Section 3 of the accompanying Environmental Report contains additional discussion of area geology, as does Section H of the Sale 71 Exploration Plan.

This information has been bound separately as Volume 2 and has been marked: "Exxon Proprietary, for M.M.S. Use Only."

Figure 1 is a depth structure map depicting Exxon's structural interpretation of the objective sections within the subject OCS lease blocks. Figures 2, 3, and 4 present geological cross sections through the leases.

Potential reservoirs and traps occur as subcrop plays of the Permo-Triassic and Pennsylvanian-Mississippian sections beneath a regional late Mesozoic unconformity and within interbedded Tertiary sand/shale progradational basin fill sequences which overlie that surface.

Interpreted seismic section through proposed well locations will be prepared for submission with the Diapir APD's. These, plus high resolution seismic data in the Shallow Hazards Report(s), will further identify the geologic structures, as will subsequent drilling in this frontier area.

ATTACHMENT
EXPLORATORY PLAN

EXXON OCS-0258,0359,0734,0745,
0750,0786,0787,0791,0792,0800,
0802,0803,0804,0805,0806,0818

FIGURE NO. 1
WESTERN BEAUFORT LEASES

EXXON CORPORATION
OCS SALE 87

NR 5-1 BLOCKS 598, 686, 730, 1011, 1012
NR 5-2 BLOCKS 969, 937
NR 5-3 BLOCKS 44D/1/2
NR 5-4 BLOCKS 2D/46-48, 2, 3, 4, 5, 8, 9, 10

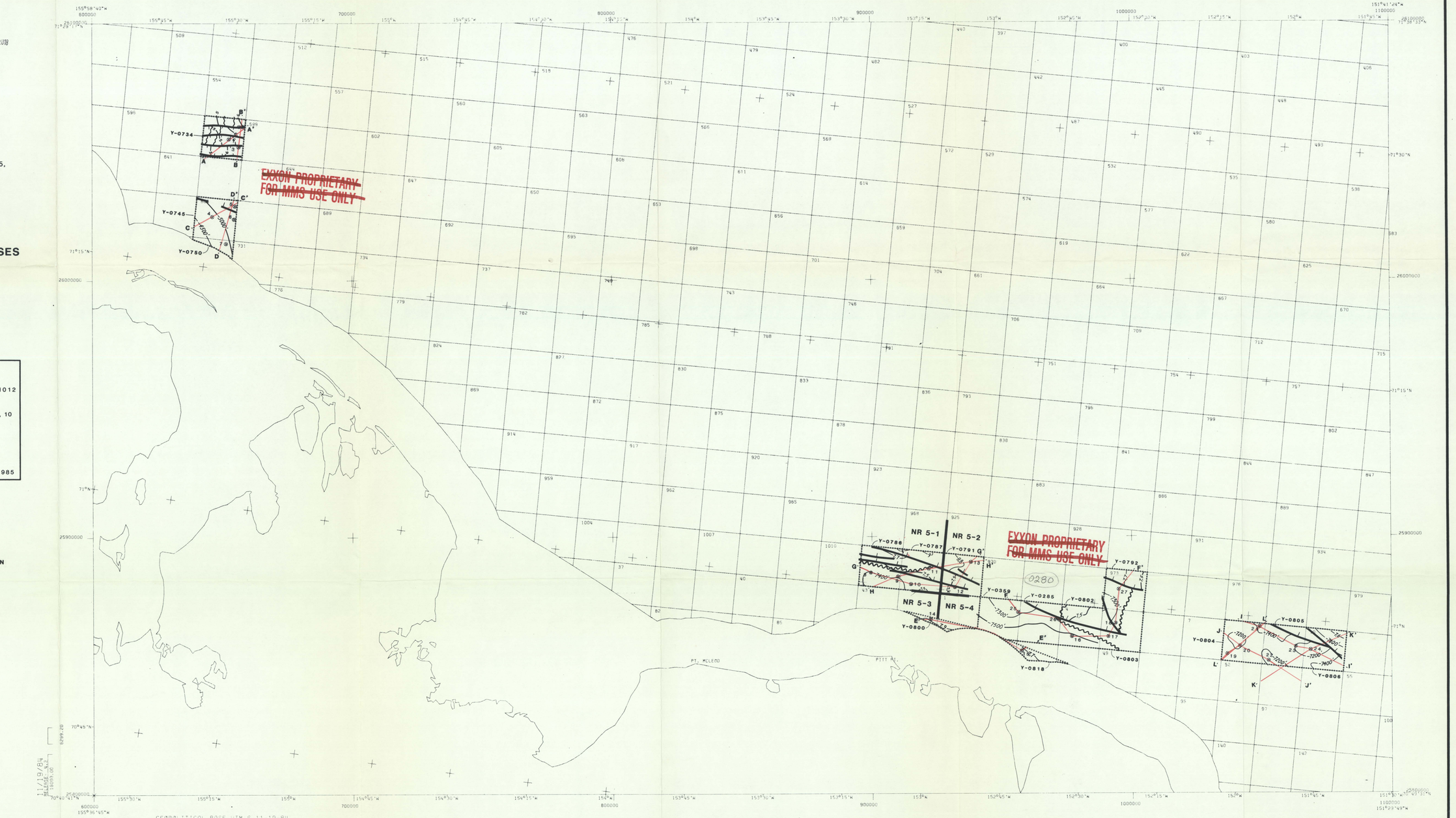
DEPTH STRUCTURE MAP
TOP PERMO-TRIASSIC

SCALE 1"=16,000' MARCH, 1985

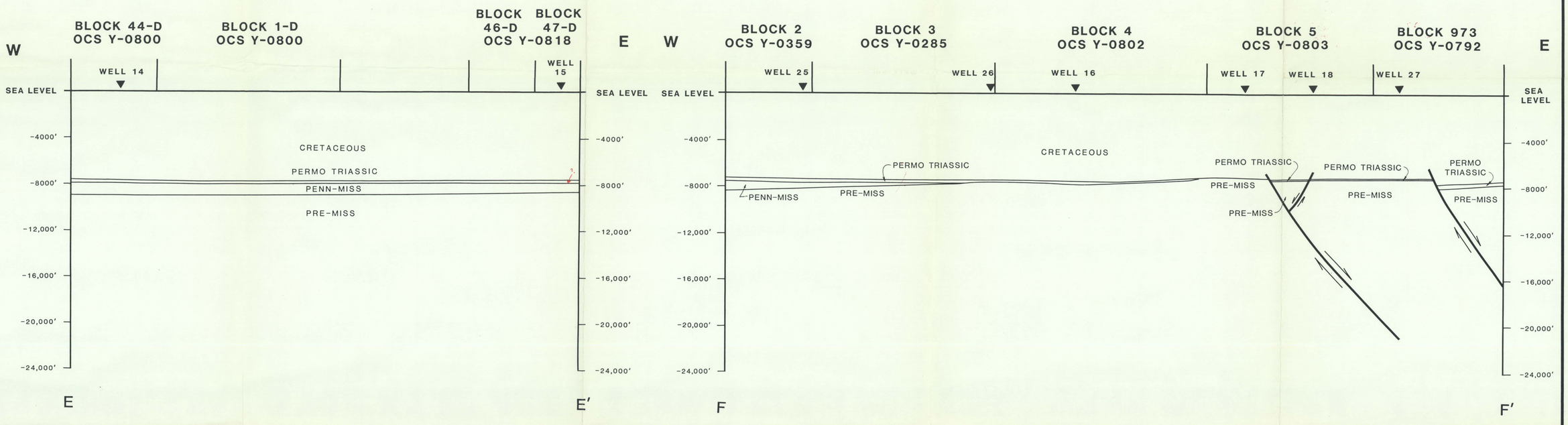
LEGEND

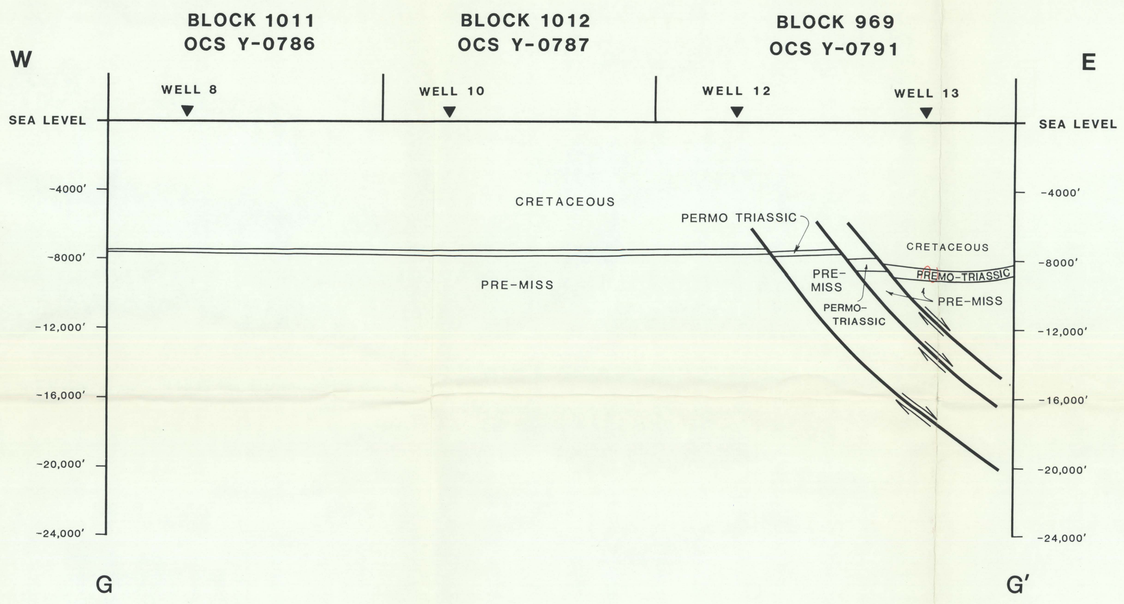
⊗7 PROPOSED WELL LOCATION

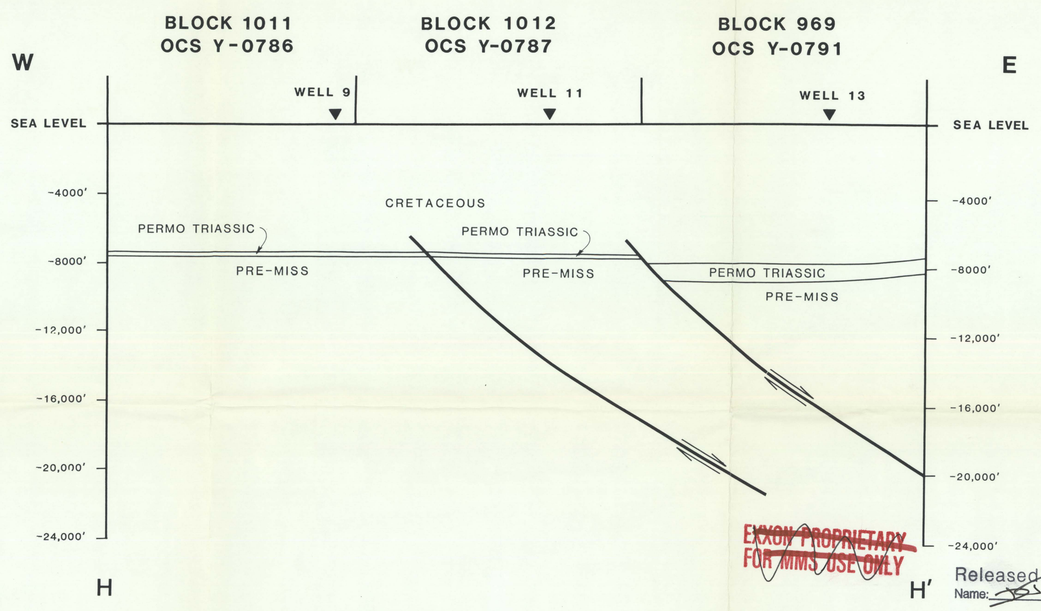
A——A' LOCATION OF GEOLOGIC CROSS-SECTION



ATTACHMENT
EXPLORATORY PLAN







PERMO-TRI = PERMO-TRIASSIC
PENN-MISS = PENNSYLVANIAN-MISSISSIPPIAN
PRE-MISS = PRE-MISSISSIPPIAN

FIGURE 3

EXXON CORPORATION

DIAPIR BASIN

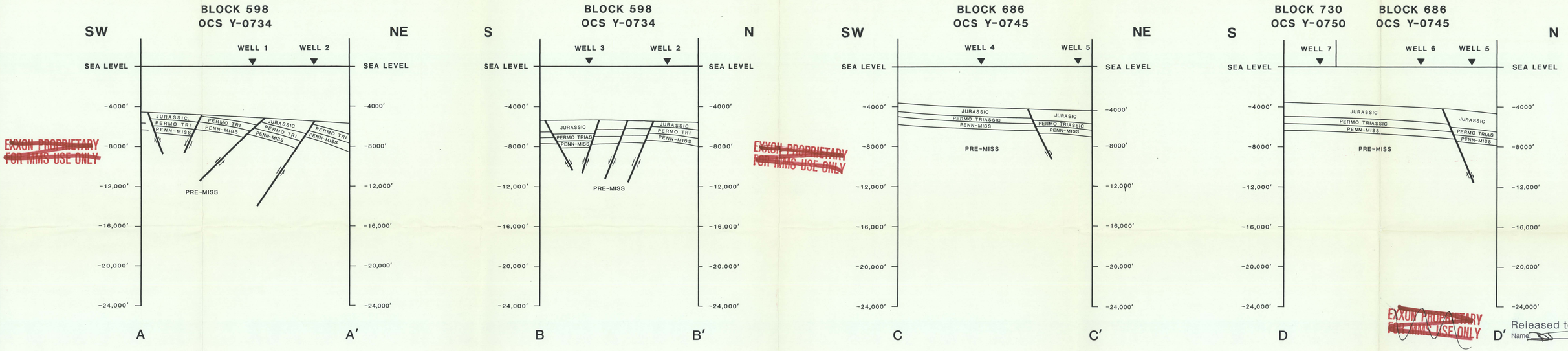
OFFSHORE ALASKA

STRUCTURE CROSS SECTION

E-E', F-F', G-G', H-H'

SCALE: 1"=4000' 1985

ATTACHMENT
EXPLORATORY PLAN



PERMO-TRI = PERMO-TRIASSIC
PENN-MISS = PENNSYLVANIAN-MISSISSIPPIAN
PRE-MISS = PRE-MISSISSIPPIAN

FIGURE 2

EXXON CORPORATION

DIAPIR BASIN

OFFSHORE ALASKA

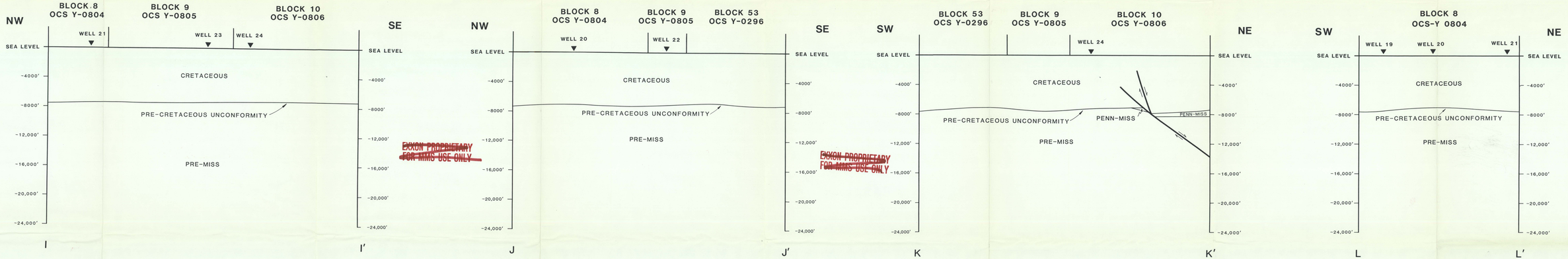
STRUCTURE CROSS SECTIONS

A-A', B-B', C-C', D-D'

SCALE: 1"=4000'

1985

ATTACHMENT
EXPLORATORY PLAN



EXXON PROPRIETARY FOR MMS USE ONLY

EXXON PROPRIETARY FOR MMS USE ONLY

PENN-MISS = PENNSYLVANIAN-MISSISSIPPIAN
PRE-MISS = PRE-MISSISSIPPIAN

FIGURE 4

EXXON CORPORATION

DIAPIR BASIN

OFFSHORE ALASKA

STRUCTURE CROSS SECTIONS

I-I', J-J', K-K', L-L'

SCALE: 1"=4000' 1985

EXXON PROPRIETARY FOR MMS USE ONLY