EIS
D
W102

NZ6125

PB89-867436

Citations from the
NTIS Bibliographic Database

Oil Spills: Biological Effects
(Jun 81 - Jul 89)

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
NTIS.

TITLE LIST

PAGE	TITLE
1.	POPULATION MODEL FOR ALASKA PENINSULA SEA OTTERS.
1.	RESEARCH ACTIVITIES RELATED TO OIL POLLUTION INCIDENTS.
1.	EFFECTS OF OIL SPILLS ON VEGETATION.
2.	PETROLEUM ON THE SHORE. DECOMPOSITION AND EFFECTS ON DECOMPOSING CHAINS.
2.	EXAMINATIONS WITH THE AIM TO PROPOSE BIOLOGICAL MEASURES FOR RESTORATION OF OIL POLLUTED TIDAL FLATS. FINAL REPORT.
2.	PETROLEUM FATE AND CLEANUP AGENT TOXICOLOGY: AN ANNOTATED BIBLIOGRAPHY.
2.	PROCEEDINGS OF THE ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING (8TH) HELD IN NEW ORLEANS LOUISIANA ON DECEMBER 1-3 1987.
3.	NATURAL WEAR OF OIL ON ROCKY SHORES.
3.	RISK ANALYSIS MODEL FOR MARINE MAMMALS AND SEABIRDS: A SOUTHERN CALIFORNIA BIGHT SCENARIO.
3.	SYNTHESIS OF EFFECTS OF OIL ON MARINE MAMMALS.
4.	GULF OF MEXICO SALES 118 AND 122: CENTRAL AND WESTERN PLANNING AREAS.
4.	GULF OF ALASKA/COOK INLET SALE 88 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1
4.	GULF OF ALASKA/COOK INLET SALE 88 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 2. APPENDICES
4.	UNTERSUCHUNGEN MIT DEM ZIEL DES VORSCHLAGS BIOLOGISCHER MASSNAHMEN BEI OELVERSCHMUTZUNGEN DER WATTOBERFLAECHE. SCHLUSSBERICHT. (EXAMINATIONS WITH THE A TO PROPOSE BIOLOGICAL MEASURES FOR RESTORATION OF OIL POLLUTED TIDAL FLATS. FINA REPORT).
5.	BEAUFORT SEA: INFORMATION UPDATE
5.	INSTALLATION RESTORATION PROGRAM RECORDS SEARCH FOR AIR FORCE PLANT 42 CALIFORNI
5.	INSTALLATION RESTORATION PROGRAM PHASE 1. RECORDS SEARCH. AIR FORCE PLANT NUMBER 36 OHIO.
5.	INSTALLATION RESTORATION PROGRAM RECORDS SEARCH FOR AIR FORCE PLANT 85 OHIO.
6.	INSTALLATION RESTORATION PROGRAM TOXICOLOGY GUIDE. VOLUME 2.
6.	INSTALLATION RESTORATION PROGRAM TOXICOLOGY GUIDE. VOLUME 3.
6.	GROUNDWATER CONTAMINATION FROM REFINERY OPERATIONS: FINAL REPORT.
7.	PROCEEDINGS OF THE ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING (6TH) HELD AT NEW ORLEANS LOUISIANA ON OCTOBER 22-24 1985.
7.	PROCEEDINGS OF THE ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING (7TH) HELD AT NEW ORLEANS LOUISIANA ON NOVEMBER 4-6 1986.
7.	PHYSIOLOGICAL RESPONSES OF MARINE ORGANISMS TO ENVIRONMENTAL STRESSES.
8.	EINFLUSS UND AUSWIRKUNGEN VON ROHOEL DISPERGATOREN UND CHEMISCH DISPERGIERTEM OE AUF DAS OEKOSYSTEM WATTENMEER: CHEMISCHE ANALYSEN. (FATE AND EFFECTS OF CRUDE OI DISPERSANTS AND CHEMICALLY DISPERSED OIL IN A WADDEN SEA ECOSYSTEM: CHEMICAL ANALYSES).
8.	FEDERAL DECISIONS AND INDUSTRY PARTICIPATION: THE CASE OF OFFSHORE OIL LEASING.
8.	DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 113/115/116 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION

8. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 113/115/116 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION

9. RECOLONISERING OF OIL POLLUTED BEACHES.

9. BEAUFORT SEA SALE 97 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1

9. BEAUFORT SEA SALE 97 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 2

9. BOWHEAD WHALE 'BALAENA MYSTICETUS' BIBLIOGRAPHY.

10. DISTURBANCE AND RECOVERY OF ARCTIC ALASKAN TUNDRA TERRAIN. A REVIEW OF RECENT INVESTIGATIONS.

10. LONG TERM EFFECTS OF OIL ON MARINE BENTHIC COMMUNITIES IN ENCLOSURES.

10. NEW HAMPSHIRE COASTAL PROGRAM OCEAN AND HARBOR SEGMENT AND FINAL ENVIRONMENTAL IMPACT STATEMENT.

11. OIL SHORE AT SVALBARD. DECAY OF OIL AND EFFECTS ON THE DECOMPOSITION CHAIN IN SEAWEED WALLS.

11. PROCEEDINGS OF A SYNTHESIS MEETING: THE DIAPIR FIELD ENVIRONMENT AND POSSIBLE CONSEQUENCES OF PLANNED OFFSHORE OIL AND GAS DEVELOPMENT CHENA HOT SPRINGS ALASKA 25-28 JANUARY 1983

11. SHORE CLEANING AND TREATMENT OF OIL CONTAINING WASTE.

12. EROSION DEPOSITION FAULTING AND INSTABILITY OF SELF SEDIMENTS: EASTERN GULF OF ALASKA. SECTION 3. THE TAXONOMY ECOLOGY AND ZOOGEOGRAPHY OF THE HOLOCENE AND PLEISTOCENE OSTRACODE FAUNA OF THE GULF OF ALASKA.

12. OUTER CONTINENTAL SHELF ENVIRONMENTAL ASSESSMENT PROGRAM. FINAL REPORTS OF PRINCIPAL INVESTIGATORS. VOLUME 51.

12. DEPOSITING OIL CONTAINING SEAWEED IN BIOLOGICALLY ACTIVE DEPOSITS.

12. CONSEQUENCE ANALYSIS OIL/SEA BIRDS FOR MOERE I AND TROMS II. GENERAL PART: OIL SPREADING AND DECOMPOSITION AND DAMAGE TO SEABIRDS.

13. ATLANTIC OUTER CONTINENTAL SHELF STUDIES RESULTS: 1973-1985. NARRATIVE SUMMARY

13. OFFSHORE ENVIRONMENTAL STUDIES PROGRAM: FINAL REPORTS PUBLICATIONS AND PRESENTATIONS.

13. MARINE GAS OIL IN ARCTIC SHORELINE SEDIMENTS

13. ACTIVITY-DIRECTED FRACTIONATION OF PETROLEUM SAMPLES

14. FINAL ENVIRONMENTAL IMPACT STATEMEN PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NORTH ALEUTIAN BASIN SALE 92. VOLUME 1

14. FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NORTH ALEUTIAN BASIN SALE 92. VOLUME 2

14. FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE ST. GEORGE BASIN SALE 89. VOLUME 1

14. FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE ST. GEORGE BASIN SALE 89. VOLUME 2

15. DIAPIR FIELD LEASE OFFERING JUNE 1984. VOLUME 2. APPENDICES.

15. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 110 AND 112 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION

15. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 110 AND 112 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION

15. ANALYSIS OF THE NORWAY OIL SPILL EMERGENCY PREPAREDNESS- UNCERTAINTY DAMAGE REDUCTION BENEFIT. MAIN REPORT.

15. COMPUTATIONAL MODEL FOR THE ASSESSMENT OF OIL SPILL DAMAGES.

16. SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY - YEAR 2. VOLUME 4. FINAL REPORT 3.

16. ANNUAL ALASKA OCS (OUTER CONTINENTAL SHELF) REGION INFORMATION TRANSFER MEETING (1ST) BERING SEA REGION MAY 29-31 1985.

16. OCS (OUTER CONTINENTAL SHELF) OIL AND GAS - AN ENVIRONMENTAL ASSESSMENT. VOLUME 5 POTENTIAL BIOLOGICAL EFFECTS OF HYPOTHETICAL OIL DISCHARGES IN THE ATLANTIC COAST AND GULF OF ALASKA.

16. RESEARCH ON DYNAMICS OF TUNDRA ECOSYSTEMS AND THEIR POTENTIAL RESPONSE TO ENERGY DEVELOPMENT. ANNUAL REPORT 1980.

17. AMOCO CADIZ OIL SPILL FIVE YEARS AFTER.

17. DAMAGE ASSESSMENT: ENVIRONMENTAL IMPACT OF OIL FROM BLOWOUTS.

17. SOURCES FATES AND EFFECTS OF AROMATIC HYDROCARBONS IN THE ALASKAN MARINE ENVIRONMENT WITH RECOMMENDATIONS FOR MONITORING STRATEGIES

17. EFFECTS OF GASOLINE M15 METHANOL AND ETHANOL ON PLANTS SOIL AND WATERORGANISMS. A SUMMARY.

18. GROUNDING OF EIRA AT KVARKEN. REPORT ON THE PULLING OUT OF OIL-DAMAGE GROUP.

18. UNDERWATER BLOWOUT CONTROL.

18. FINAL ENVIRONMENTAL IMPACT STATEMENT: PROPOSED OUTER CONTINENTAL SHELF OIL AND GA LEASE SALE NORTON SOUND

18. LIVING MARINE RESOURCES OF THE HOPE BASIN: A RESOURCE ASSESSMENT FOR THE HOPE BASIN OIL AND GAS LEASE SALE NUMBER 86.

19. EXPERIMENTAL OIL RELEASE ON HALTENBANKEN 1982. DRIFTING AND SPREADING OF OIL.

19. OIL POLLUTION AT SPITSBERGEN. ECOLOGICAL STUDIES OF COMMON SHORE TYPES.

19. UTILIZATION OF SATELLITE REMOTE SENSING FOR THE MONITORING OF OIL POLLUTION AND MARINE ECOSYSTEMS IN INDONESIA. A TROPICAL EARTH RESOURCES SATELLITE PROGRAM (TERS) CASE STUDY IMPLEMENTED FOR THE NLR DELFT.

19. STRATEGIES FOR THE ASSESSMENT OF THE BIOLOGICAL IMPACTS OF LARGE COASTAL OIL SPILLS - EUROPEAN COASTS

20. DIESEL OIL SPILL IN A MODEL ECOSYSTEM - SEAWATER CONCENTRATION AND BIOACCUMULATIO IN TWO MUSSEL SPECIES (MYTILUS EDULIS AND MACOMA BALTICA).

20. LONG-TERM EFFECTS OF OFFSHORE OIL AND GAS DEVELOPMENT: AN ASSESSMENT AND A RESEARCH STRATEGY.

20. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 3. EFFECTS OF CONTAMINANTS.

21. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 6. TRANSPORT.

21. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. FINAL REPORTS OF PRINCIPAL INVESTIGATORS. VOLUME 18. BIOLOGICAL STUDIES.

21. OIL IN THE SEA: INPUTS FATES AND EFFECTS.

21. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 4. EFFECTS OF CONTAMINANTS.

21. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 5. TRANSPORT.

22. POTENTIAL EFFECTS OF OIL SPILLS AND OTHER CHEMICAL POLLUTANTS ON MARINE MAMMALS OCCURRING IN ALASKAN WATERS

22. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 45. VOLUME 1.

22. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 44.

22. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 41.

22. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 41.

23. FINAL ENVIRONMENTAL STATEMENT FOR PROPOSED OIL AND GAS GENERAL LEASE SALE 36. VOLUME 2.

23. FINAL ENVIRONMENTAL STATEMENT FOR PROPOSED OIL AND GAS GENERAL LEASE SALE 36. VOLUME 3.

23. SUPPLEMENT TO ENVIRONMENTAL STATEMENT (MAFLA) FOR OIL AND GAS LEASE SALE 32.

23. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS GENERAL LEASE SALE 24.

23. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 24.

23. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS GENERAL LEASE SALE 38. VOLUME 1.

24. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 51. VOLUME 1.

24. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 37. VOLUME 1.

24. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 37. VOLUME 2.

24. STRATEGIC PETROLEUM RESERVE ANNUAL ENVIRONMENTAL MONITORING REPORT JANUARY-DECEMBER 1984.

24. STATISTICAL DETERMINATION ANALYSIS FOR THE STRATEGIES IN NORWEGIAN OIL POLLUTION CONTAINMENT. AN ANALYSIS OF THE TKN PROJECT'S RISK MODEL.

25. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF: FINAL REPORTS OF PRINCIPAL INVESTIGATORS VOLUME 21.

25. DRAFT-ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 104 AND 105 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION

25. GREAT LAKES--NATURE'S OWN ENVIRONMENTAL LABORATORY

25. EFFECTS OF PETROLEUM HYDROCARBONS ON ALASKAN AQUATIC ORGANISMS: A COMPREHENSIVE REVIEW OF ALL OIL-EFFECTS RESEARCH ON ALASKAN FISH AND INVERTEBRATES CONDUCTED BY THE AUKE BAY LABORATORY 1970-81.

25. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 94 92 AND 102. GULF OF MEXICO OCS REGION.

26. HEALTH AND ENVIRONMENTAL ASPECTS OF OIL SHALE TECHNOLOGY: STATUS REPORT.

26. DISPOSING OF OILY DEBRIS. POLLUTION ASPECTS AND POSSIBILITIES FOR BIOLOGICAL DEGRADATION.

26. DRAFT ENVIRONMENTAL IMPACT STATEMENT: PROPOSED 1985 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NO. 90 OFFSHORE THE SOUTH ATLANTIC STATES.

27. FINAL ENVIRONMENTAL IMPACT STATEMENT RED DOG MINE PROJECT NORTHWEST ALASKA. VOLUM 2. APPENDICES.

27. NATIONAL MARINE POLLUTION PROGRAM: CATALOG OF FEDERAL PROJECTS.

27. AREA-WIDE ENVIRONMENTAL ASSESSMENT: EXPLORATION AND PRODUCTION ACTIVITIES FOUR-MILE ZONE OF THE EAST AND WEST FLOWER GARDEN BANKS.

27. MARINE OIL POLLUTION: FEDERAL PROGRAM REVIEW. ENVIRONMENTAL IMPACT OF OFFSHORE OI AND GAS DEVELOPMENT. TECHNOLOGY FOR OIL AND HAZARDOUS MATERIALS.

27. NAVARIN BASIN LEASING OFFERING. FINAL ENVIRONMENT IMPACT STATEMENT NOVEMBER 1983.

28. SEASONAL ABUNDANCE AND HABITAT-USE PATTERNS OF COASTAL BIRD POPULATIONS ON PADRE AND MUSTANG ISLAND BARRIER BEACHES (FOLLOWING THE IXTOC I OIL SPILL)

28. METHOD FOR RANKING BIOLOGICAL HABITATS IN OIL SPILL RESPONSE PLANNING AND IMPACT ASSESSMENT

28. DRAFT ENVIRONMENTAL IMPACT STATEMENT: PROPOSED OIL AND GAS LEASE SALES 94 98 AND 102 (GULF OF MEXICO REGION).

28. STRATEGIC PETROLEUM RESERVE ANNUAL ENVIRONMENTAL MONITORING REPORT 1983.

29. SEABIRD-OIL SPILL BEHAVIOR STUDY. VOLUME 1. EXECUTIVE SUMMARY.

29. SEABIRD-OIL SPILL BEHAVIOR STUDY. VOLUME 2. TECHNICAL REPORT.

29. SEABIRD-OIL SPILL BEHAVIOR. VOLUME 3. APPENDICES.

29. ENVIRONMENTAL IMPACT REPORT FOR THE INLAND DOMES GROUP OF STRATEGIC PETROLEUM RESERVE SITES (SOUTHWESTERN MISSISSIPPI AND NORTHERN LOUISIANA). PRELIMINARY DRAFT.

30. EFFECTS OF OIL ON TUNDRA PONDS AND STREAMS. FINAL REPORT OCTOBER 1 1978-SEPTEMBER 30 1980.

30. CALIFORNIA COMMERCIAL/SPORT FISH AND SHELLFISH OIL TOXICITY STUDY. VOLUME 1. EXECUTIVE SUMMARY.

31. STRATEGIC PETROLEUM RESERVE. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR KLEAR MINE.

31. ST. GEORGE BASIN. FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT.

31. GENETIC ENGINEERING AND THE DEVELOPMENT OF NEW POLLUTION CONTROL TECHNOLOGIES.

31. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OCS OIL AND GAS LEASE OFFERINGS CENTRAL GULF OF MEXICO APRIL 1984 AND WESTERN GULF OF MEXICO JULY 1984

31. ANALYSIS OF PETROLEUM HYDROCARBONS IN INTERTIDAL ORGANISMS EXPOSED TO EKOFISK CRUDE OIL.

32. OIL SPILL COMBAT: DAMAGE ASSESSMENT USING MULTIATTRIBUTE UTILITY ANALYSIS.

32. DIAPIR FIELD LEASE OFFERING JUNE 1984.

32. CENTRAL AND NORTHERN CALIFORNIA COASTAL MARINE HABITATS: OIL RESIDENCE AND BIOLOGICAL SENSITIVITY INDICES.

33. CENTRAL AND NORTHERN CALIFORNIA COASTAL MARINE HABITATS: OIL RESIDENCE AND BIOLOGICAL SENSITIVITY INDICES - EXECUTIVE SUMMARY.

33. LOSS OF THE TANKER 'SEFIR' AT OELAND IN THE SPRING OF 1981. REPORT FROM THE IVL (SWEDISH WATER AND AIR POLLUTION RESEARCH LABORATORY) GROUP OF OIL DAMAGE.

33. GROUNDING OF 'JOSE MARTI' AT DALAROE 1982-01-07. REPORT FROM THE IVL (SWEDISH WATER AND AIR POLLUTION RESEARCH LABORATORY) GROUP OF OIL DAMAGE.

33. PROCEEDINGS OF THE GULF OF MEXICO INFORMATION TRANSFER MEETING (3RD) HELD AT NEW ORLEANS LOUISIANA ON AUGUST 24-26 1982.

34. SOUTHWEST FLORIDA SHELF ECOSYSTEM STUDY - YEAR 2 MODIFICATION HYDROGRAPHY. VOLUME 1.

34. INVESTIGATION OF THE CHARACTER OF AND THE CONSTITUENTS OF SLICKS ON WATER SURFACE NEAR POWER PLANTS ON CHESAPEAKE BAY.

34. MARINE ECOYSYSTEM MODELING - PROCEEDINGS FROM A WORKSHOP HELD APRIL 6-8 1982 FREDERICK MARYLAND

34. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OCS (OUTER CONTINENTAL SHELF) OIL AND GAS LEASE OFFERINGS CENTRAL GULF OF MEXICO APRIL 1984 AND WESTERN GULF OF MEXICO JULY 1984

35. FINAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) OIL AND GAS SALES 72 74 AND 79. VOLUME 1

35. FINAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) OIL AND GAS SALES 72 74 AND 79. VOLUME 2

35. DAMAGE ASSESSMENT OF OIL SPILLS.

35. RESURVEY OF ROCKY SHORE TRANSECTS IN THE REGION OF SULLOM VOE SHETLAND.

35. AQUATIC-PATHWAYS MODEL TO PREDICT THE FATE OF PHENOLIC COMPOUNDS.

36. EFFECTS OF THE WATER SOLUBLE FRACTIONS OF OIL FROM THE TANKER SEFIR ON THE MYSIDE NEONMYSIS INTEGER.

36. POTENTIAL DAMAGE OF OIL WASTES IN COASTAL ESTUARY SEDIMENTS

36. IMPACT OF OIL IN THE TROPICAL MARINE ENVIRONMENT.

37. ASSESSMENT OF PAST PRESENT AND FUTURE RISKS OF OIL SPILLS IN AND NEAR THE PRESENT SEA OTTER RANGE IN CALIFORNIA.

37. EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF CRUDE OIL ON TWO FRESHWATER LAKE ECOSYSTEMS

37. OIL PERSISTENCE IN TUNDRA AND ITS IMPACT ON THE BELOW-GROUND ECOSYSTEM. FINAL REPORT.

37. BIOLOGICAL EFFECTS OF THREE DIFFERENT SHORELINE CLEANUP METHODS.

38. CHARACTERIZATION AND ANALYSIS OF OIL-CONTAMINATED SOIL SAMPLES FROM THE FORT LEWI COAL-LIQUEFACTION PILOT PLANT. FINAL REPORT.

38. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR KLEER MINE. STRATEGIC PETROLEUM RESERVE.

39. PACIFIC NORTHWEST LABORATORY ANNUAL REPORT FOR 1981 TO THE DOE OFFICE OF THE ASSISTANT SECRETARY FOR ENVIRONMENTAL PROTECTION SAFETY AND EMERGENCY PREPAREDNESS. PART 5. ENVIRONMENTAL AND OCCUPATIONAL PROTECTION ASSESSMENT AND ENGINEERING.

39. EFFECTS OF CHRONICAL OIL POLLUTION OUTSIDE A REFINERY IN THE NORTHERN BALTIC.

39. ECOLOGICAL RESEARCH DIVISION MARINE RESEARCH PROGRAM.

39. ECOLOGICAL STUDY OF THE 'AMOCO CADIZ' OIL SPILL.

39. PERSISTANCE OF METULA OIL IN THE STRAIT OF MAGELLAN SIX AND ONE-HALF YEARS AFTER THE INCIDENT.

40. PROCEEDINGS: SECOND ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING.

40. PROPOSED FIVE-YEAR OCS OIL AND GAS LEASE-SALE SCHEDULE: FINAL SUPPLEMENT TO THE FINAL ENVIRONMENTAL STATEMENT JANUARY 1982-DECEMBER 1986. VOLUME 1 OF 2.

40. ANNUAL TECHNICAL PROGRESS REPORT.

40. EFFECT OF OIL ON TUNDRA PONDS AND STREAMS. ANNUAL TECHNICAL PROGRESS REPORT.

41. BEACHED BIRD CARCASSES AS A MEANS OF EVALUATING NATURAL AND HUMAN-CAUSED SEABIRD MORTALITY. FINAL REPORT.

41. TYPES OF POTENTIAL EFFECTS OF OFFSHORE OIL AND GAS DEVELOPMENT ON MARINE MAMMALS AND ENDANGERED SPECIES OF THE NORTHERN BERING SEA AND ARCTIC OCEAN.

41. ECOLOGICAL MONITORING OF AQUEOUS EFFLUENTS FROM PETROLEUM REFINERIES

41. DRAFT REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS OIL AND GAS SALES 72 74 AND 79.

42. PETROLEUM CONTAMINATION: QUANTIFICATION AND PASSIVE TAGGING IN ORGANISMS AND SEDIMENTS.

42. PROCEEDINGS OF THE BI-STATE CONFERENCE ON THE CHESAPEAKE BAY APRIL 27-29 1977. CR PUBLICATION NO. 61.

42. INVESTIGATION OF OIL DISPERSANTS.

42. BIOLOGICAL IMPACT AND EFFECTS ON FISHERIES OF OIL SPILL IN BAHRAIN AUGUST - SEPTEMBER 1980.

42. IMPACT OF OIL POLLUTION OF THE SEAS AND ENVIRONMENTAL ASPECTS OF THE CLEAN-UP OF OIL SPILLS.

43. STATISTICAL DATABASE MANAGEMENT FOR ECOSYSTEM-EFFECTS ANALYSIS.

43. NATURAL WEATHERING OF OIL IN MARINE SEDIMENTS: TISSUE CONTAMINATION AND GROWTH OF THE CLAM PROTOTHACA STAMINEA.

43. IXTOC OIL SPILL ASSESSMENT: APPENDICES (SECTION 9).

44. IXTOC OIL SPILL ASSESSMENT: FINAL REPORT (SECTIONS 1-8)

44. IXTOC OIL SPILL ASSESSMENT: EXECUTIVE SUMMARY.

44. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF: FINAL REPORTS OF PRINCIPAL INVESTIGATORS VOLUME 16. BIOLOGICAL STUDIES

44. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF: FINAL REPORTS OF PRINCIPAL INVESTIGATORS VOLUME 12. BIOLOGICAL STUDIES

44. A REPORT TO THE SHETLAND OIL TERMINAL ENVIRONMENTAL ADVISORY GROUP ON THE BEACHED BIRD SURVEY SCHEME IN SHETLAND MARCH 1979 TO FEBRUARY 1980

45. A REPORT TO SOTEAG ON NUMBERS OF TYSTIES (CEPPHUS GRYLLE) IN THE AREA OF THE YELL SOUND ISLANDS AUGUST 1979

45. THE BARGE OCEAN 250 GASOLINE SPILL

45. REMEDIAL MEASURES PLAN FOR A SPILL OF SOLVENT REFINED COAL LIQUID AT THE SRC PILO PLANT FT. LEWIS WASHINGTON. FINAL REPORT.

45. PROCEEDINGS: ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING (2ND) HELD IN NEW ORLEANS LOUISIANA 1980.

46. EVALUATION OF EXISTING MARINE INTERTIDAL AND SHALLOW SUBTIDAL BIOLOGIC DATA

46. PROPOSED GULF OF MEXICO OCS OIL AND GAS SALES 67 AND 69.

46. IN SITU MONITORING OF THE EFFECTS OF WATER QUALITY ON BENTHIC DETRITAL DECOMPOSITION.

46. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR IRONTON MINE.

47. HEALTH AND ENVIRONMENTAL EFFECTS OF OIL AND GAS TECHNOLOGIES: RESEARCH NEEDS.

47. PROCEEDINGS OF A SYMPOSIUM ON PRELIMINARY RESULTS FROM THE SEPTEMBER 1979 RESEARCHER/PIERCE IXTOC-I CRUISE HELD AT KEY BISCAYNE FLORIDA ON JUNE 9-10 1980.

47. PROPOSED 1979 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE 58A WESTERN AND CENTRAL GULF OF MEXICO: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

47. PROPOSED 1979 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE 58 WESTERN AND CENTRAL GULF OF MEXICO: DRAFT ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

48. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE SOUTH ATLANTIC OCS SALE NO. 43: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 2: APPENDICES.

48. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE SOUTH ATLANTIC OCS SALE NO. 43: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

48. PROPOSED 1979 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE 58 WESTERN AND CENTRAL GULF OF MEXICO: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

48. PROPOSED 1979 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE 58 WESTERN AND CENTRAL GULF OF MEXICO: ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

48. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE OFFSHORE WESTERN AND CENTRAL GULF OF MEXICO OCS SALE NO. 51: DRAFT ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

48. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE OFFSHORE EASTERN GUL OF MEXICO OCS SALE NO. 65: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

49. PROPOSED 1973 OUTER CONTINENTAL SHELF EAST TEXAS GENERAL OIL AND GAS LEASE SALE OCS SALE NO. 26: DRAFT ENVIRONMENTAL STATEMENT.

49. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE OFFSHORE EASTERN GUL OF MEXICO OCS SALE NO. 65: DRAFT ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

49. PROPOSED 1976 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO OCS SALE NO. 44: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

49. OCS OIL AND GAS PROPOSED 1981 SALES A66 AND 66: FINAL ENVIRONMENTAL IMPACT STATEMENT

49. PROPOSED OCS OIL AND GAS SALES 67 AND 69: DRAFT ENVIRONMENTAL IMPACT STATEMENT.

49. PROPOSED 1976 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE GULF OF MEXICO. OCS SALE NO. 41: DRAFT ENVIRONMENTAL STATEMENT. VOLUME 1.

50. PROPOSED 1977 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO. OCS SALE NO. 47: FINAL ENVIRONMETAL IMPACT STATEMENT. VOLUME 1.

50. PROPOSED 1981 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NO. 56: DRAFT ENVIRONMENTAL IMPACT STATEMENT.

50. PROPOSED 1981 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NO. 56: FINAL ENVIRONMENTAL IMPACT STATEMENT.

50. PROPOSED 1977 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO. OCS SALE 45: DRAFT ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1.

50. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO. OCS SALE 45: FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1.

50. PROPOSED 1973 OUTER CONTINENTAL SHELF EAST TEXAS GENERAL OIL AND GAS LEASE SALE OCS SALE NO. 26: FINAL ENVIRONMENTAL STATEMENT.

51. PROPOSED 1977 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE SOUTH ATLANTIC OCS SALE NO. 43: DRAFT ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

51. OCS OIL AND GAS PROPOSED 1981 SALES A66 AND 66: DRAFT ENVIRONMENTAL IMPACT STATEMENT

51. PROPOSED 1974 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE TEXAS OCS SALE NO. 34: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 3.

51. PROPOSED 1974 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE TEXAS OCS SALE NO. 34: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 2.

51. PROPOSED 1974 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE TEXAS OCS SALE NO. 34: FINAL ENVIRONMENTAL IMPACT STATEMENT VOLUME 1.

51. PROPOSED 1976 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE GULF OF MEXICO. OCS SALE NO. 41: DRAFT ENVIRONMENTAL STATEMENT. VOLUME 2.

52. PROPOSED 1977 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO. OCS SALE NO. 47: DRAFT ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1.

52. ASSESSMENT OF TREATED VS UNTREATED OIL SPILLS. FINAL REPORT.

52. GULF OF MEXICO INFORMATION TRANSFER MEETING PROCEEDINGS HELD AT NEW ORLEANS LOUISIANA ON MAY 12-13 1980.

52. ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF NORTHEAST GULF OF ALASK INTERIM SYNTHESIS REPORT.

53. STRATEGIC PETROLEUM RESERVE WEST HACKBERRY OIL STORAGE CAVERN FIRE AND SPILL OF SEPTEMBER 21 1978: AN ENVIRONMENTAL ASSESSMENT. FINAL REPORT.

53. LONG TERM EFFECTS OF THE BARGE FLORIDA OIL SPILL.

53. CONTENTS AND LONG TIME EFFECTS IN THE LITTORAL ZONE AFTER AN OIL SPILL. A TWO YEA STUDY OF THE TSESIS OIL SPILL.

CITATIONS

POPULATION MODEL FOR ALASKA PENINSULA SEA OTTERS. - PB89-168793/XAB

Eberhardt, L. L. Siniff, D. B.

CORPORATE AUTHOR(S)- Minnesota Univ., Minneapolis. JOURNAL VOL.- u8914 DESCRIP NOTE- Final rept. REPORT DATE- 31 Dec 88 PAGINATION- 106p CONT. NO.- DI-14-12-0001-30033 MNTR. AGNCY.- MMS 88-0091 NTIS Prices- PC A06/MF A01 SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0123-5023-8

The study was conducted to provide a basis for assessing risks of oil spills to sea otter populations along the Alaska Peninsula. The principal efforts were devoted to analyzing the available data on population dynamics. Curves characterizing survivorship and reproduction for sea otters were devised and fitted to several data sets. A detailed review was conducted of methods of assessing population dynamics data, and several new techniques (e.g., bootstrapping) were applied to available data. A simplified model for use with Alaska Peninsula sea otter populations was devised and implemented in a 'spreadsheet' format. Various aspects of model development and data on population size in Alaska Peninsula areas were reviewed.

RESEARCH ACTIVITIES RELATED TO OIL POLLUTION INCIDENTS. - DE88754855/XAB

CORPORATE AUTHOR(S)- International Council for the Exploration of the Sea, Copenhage (Denmark). JOURNAL VOL.- u8908 n1300 REPORT DATE- Jul 81 PAGINATION- 51p REPORT NO.- ICES-CRR-107 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A04/MF A01 NDN- 033-0121-5755-4

This report is based on the proceedings of an ad hoc Working Group of ICES, which wa set up to consider what scientific studies can and should be initiated in relation t spills of oil at sea. The output of the Working Group was discussed by the Marine Environmental Quality Committee (MEQC) and by the Advisory Committee on Marine Pollution (ACMP), and, in producing this report, comments of these Committees as wel as comments from appropriate experts in member countries have been taken into account. While the central matters discussed are those concerned with the sort of scientific program designed to provide information on the effects of spills, the report also ranges over both pre- and post-spill situations. The need for and value of maps of environmental characteristics and resources is emphasized, and the problems discussed. In the area of physical data, the spreading of oil on the sea an its subsequent weathering are considered and the use of models of physical parameter referred to. The contribution from geological expertise is also considered. The various techniques and the available equipment for collecting samples of water, sediments and organisms for study in relation to an oil spill are presented and evaluated. In the field of chemistry, analytical methods are reviewed, problems of interpretation examined, and the need for adequate intercalibration emphasized. Biological effects of oil on all the main components of the ecosystem are separately dealt with, and proposals made for the optimum study program. In view of the importance of microbiological processes, a separate section is devoted to sampling methods in the field. 78 refs. (ERA citation 13:056115)

EFFECTS OF OIL SPILLS ON VEGETATION. - DE88754901/XAB

Klokk, T.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8908 n1300 REPORT DATE- Dec 87 PAGINATION- 19p REPORT NO.- STF-21A87114, CONF-8702157-1 AVAIL. NOTE- U.S. Sales Only. Portions o this document are illegible in microfiche products. NTIS Prices- PC A03/MF A01 SUPL INFO- IN NORWEGIAN.CONFERENCE ON PETROLEUM AND ENVIRONMENT, TRONDHEIM, NORWAY, 17 FEB 1987. NDN- 033-0121-5712-8

The report deals with ecological impact studies of oil spills. The various affecting factors from huge accidental oil spills and experimental oil spills on the sea are given for various shore-line areas. The effects on the terrestrial environment such as salt marsh communities and various tundra biotopes are presented. 3 drawings, 3 tables. 28 references. (ERA citation 13:057617)

PETROLEUM ON THE SHORE. DECOMPOSITION AND EFFECTS ON DECOMPOSING CHAINS. - DE88754904/XAB

Sveum, P.
CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8908 n1300 REPORT DATE- Dec 87 PAGINATION- 12p REPORT NO.- STF-21A87118, CONF-8702157-2 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A03/MF A01 SUPL INFO- IN NORWEGIAN. CONFERENCE ON PETROLEUM AND ENVIRONMENT, TRONDHEIM, NORWAY, 17 FEB 1987. NDN- 033-0121-5710-4

The report deals with the environmental effects and decomposition of oil spills on shoreline areas, and focuses on the conditions of decomposing chains in marine sediments. As a part of the ecological processes, the effects from the microbial processes in the various habitats and the mineralization of petroleum on the basis o self-cleaning and fertilization, are discussed. 1 drawing, 22 references. (ERA citation 13:056120)

EXAMINATIONS WITH THE AIM TO PROPOSE BIOLOGICAL MEASURES FOR RESTORATION OF OIL POLLUTE TIDAL FLATS. FINAL REPORT. - DE88770406/XAB

Hoepner, T.

CORPORATE AUTHOR(S)- Oldenburg Univ. (Germany, F.R.). Inst. fuer Chemie und Biologie des Meeres. JOURNAL VOL.- u8907 n1300 REPORT DATE- 15 Dec 87 PAGINATION- 156p REPORT NO.- NP-8770406 AVAIL. NOTE- U.S. Sales Only. Paper copy only, cop does not permit microfiche production. NTIS Prices- PC A08 SUPL INFO- IN GERMAN. NDN- 033-0121-2573-5

Biochemical aspects of hydrocarbon biodegradation in aerobic ard anaerobic intertida sediments are discussed with respect to application. In laboratory experiments using standardized and inoculated mud and sandy sediments, the aerobic degradation rate of hexadecane, cetyl alcohol, palmitic acid and naphthaline was measured as well as the anaerobic denitrifying degradation of cetyl alcohol, palmitic acid and naphthol. As expected, no anaerobic hexadecane degradation was observed while an oxygen dependent denitrifying napthaline degradation could not be excluded. The degradation was dependent on nutrients. During degradation nutrients are fixed with the consequences of a decrease of degradation rate. Unialgal and axenic cultures of diatoms did not degrade hydrocarbons with a rate of ecological interest. A counting method for oil degrading bacteria has been developed based on oil removement by tetrachlorocarbon followed by cell-counting in a counting chamber. From the results, which include field and oil-accident experiences, recommendations are drawn for restoration procedures of polluted intertidal flats by provision with oxygen and nutrients. (orig.) With 49 refs., 4 tabs., 48 figs. (ERA citation 13:054994)

PETROLEUM FATE AND CLEANUP AGENT TOXICOLOGY: AN ANNOTATED BIBLIOGRAPHY. - PB89-134589/XAB

Tjeerdema, R. S. Croston, G. E. Swall, L. M. Martin, M.

CORPORATE AUTHOR(S)- California Univ., Santa Cruz. Inst. of Marine Sciences. JOURNAL VOL.- u8907 DESCRIP. NOTE- Rept. for 1967-88 REPORT DATE- Dec 88 PAGINATION- 121p REPORT NO.- USCSIMS-881 NTIS Prices- PC A06/MF A01 SUPL INFO- PREPARED IN COOPERATION WITH CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OH., BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA., AND CAMBRIDGE SCIENTIFIC ABSTRACTS, BETHESDA, MD. SPONSORED BY CALIFORNIA STATE DEPT. OF FISH AND GAME, SACRAMENTO. NDN- 033-0121-1782-9

California State Senate Bill 686 allocated funds for examination of the toxic effect of oil spill cleanup agents on indigenous wildlife and marine species. The annotated bibliography, representing one objective of the bill, presents available literature on the environmental fate of petroleum and on all aspects of cleanup agent toxicology. Along with listing abstracts, when available, it also contains an extensive index to facilitate searches in specific subject areas.

PROCEEDINGS OF THE ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING (8TH) HELD IN NEW ORLEANS LOUISIANA ON DECEMBER 1-3 1987. - PB89-131718/XAB

CORPORATE AUTHOR(S)- Geo-Marine, Inc., Plano, TX. JOURNAL VOL.- u8906 REPORT DATE- 1988 PAGINATION- 462p CONT. NO.- DI-14-12-0001-30305 MNTR. AGNCY.- MM 88/0035 NTIS Prices- PC A20/MF A01 SUPL INFO- SEE ALSO PB88-195912. SPONSORED BY MINERALS MANAGEMENT SERVICE, NEW ORLEANS, LA. GULF OF MEXICO OCS REGIONAL OFFICE. NDN- 033-0120-9396-5

The Gulf of Mexico Information Transfer Program has three goals: (1) to provide a forum for 'scoping' topics relative to environmental assessment or offshore oil and gas activities; (2) to present the accomplishments of the MMS Gulf of Mexico Environmental Studies Program and other MMS research programs or study projects; and (3) to foster exchange of information of regional interest among scientists,

agencies, regionally-important industries, and academia. The study summarizes the December 1987 Eighth Annual Gulf of Mexico Information Transfer Meeting. Twelve presentations included the following topics: social and economic effects of the recent decline in OCS activity on Gulf Coast communities; information developments and solutions to marine debris in the Gulf of Mexico; benthic ecology and long-term environmental monitoring; deepwater development and platform inspections; wetlands loss; northern Gulf of Mexico Continental Slope Program; Southwest Florida Shelf ecosystems studies; marine turtles and mammals and OCS structure removals--operation al and biological perspectives and studies; Gulf Coast socio-cultural studies; marin minerals resources in the Gulf of Mexico; and current prehistoric archaeological research in the coastal regions of Florida.

NATURAL WEAR OF OIL ON ROCKY SHORES. - DE88754456/XAB

Jonsson, A. Broman, D.

CORPORATE AUTHOR(S)- Styrelsen foer Teknisk Utveckling, Stockholm (Sweden). JOURNAL VOL.- u8905 n1300 REPORT DATE- Apr 87 PAGINATION- 34p REPORT NO.- STU-86-5093, SNV-3305 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A03/MF A01 SUPL INFO- IN SWEDISH. NDN- 033-0120-7386-3

One year of erosional processes on oil on four different rocky shores in the norther archipelago of Stockholm has been studied. All the shores face north-east, are differently exposed to waves and drift ice and their slope is either flat or steep. Spots of heavy fuel oil (No 5) were painted at different levels above the water's edge. After twelve months of wearing, the two highly exposed rocks were practically clean from oil between the water line and the five metre level. Significant wearing was noticeable up to the half-meter level on the low exposed ard flat sloping rock. The rock with a steep slope were clean from oil only at the water's edge. Due to the high cost of substantial shore-cleaning operations, the National Swedish Board of Rescue and Fire Services recommended that no major efforts to clean up all the oil should be made on shores that are not ecologically or socio-economically important. Results from this study prove that natural erosional processes can be sufficient to remove oil from certain levels on rocky shores in a relatively short time (less than a year). Recommendations are presented on this basis, on which levels above the water's edge that can be excluded from major shore-cleaning operations, even on rock that are ecologically or socio-economically important. (ERA citation 13:050652)

RISK ANALYSIS MODEL FOR MARINE MAMMALS AND SEABIRDS: A SOUTHERN CALIFORNIA BIGHT SCENARIO. - PB89-126684/XAB

Ford, R. G.

CORPORATE AUTHOR(S)- Ecological Consulting, San Diego, CA. JOURNAL VOL.- u8905 DESCRIP. NOTE- Final rept. REPORT DATE- May 85 PAGINATION- 264p CONT. NO.- DI-14-12-0001-30224 MNTR. AGNCY.- MMS 85/0104 NTIS Prices- PC A12/MF A01 SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, LOS ANGELES, CA. PACIFIC OCS REGION. NDN- 033-0120-6802-8

The objective of the study was to model the risks to selected species of marine mammal and seabird populations in the Southern California Bight from oil spills during OCS oil and gas development and operations. Risk analysis is a procedure designed to investigate the possible negative effects of projects and activities. Th conventional approach to analyzing oil and gas reserves is through the use of the MM Oil Spill Risk Analysis Model (OSRAM). OSRAM was developed to aid in estimating the environmental hazards of developing oil resources in OCS lease areas. Two other computer models were used in these analyses. They are: (2) the short term oil response model, STORM and (3) the oil spill population response model, OSPREY. In th report, a methodology for describing the range of consequences which oil spills migh have on Southern California Bight seabird and marine mammal populations and the likelihood of those effects were developed. Two general categories of spill consequences were examined: (1) the immediate mortality to a population caused by a spill from a given source, and (2) the long term marine mammal and seabird populations effects of the projected Southern California Bight OCS development.

SYNTHESIS OF EFFECTS OF OIL ON MARINE MAMMALS. - PB89-117451/XAB

Geraci, J. R. St, D. J.

CORPORATE AUTHOR(S)- Battelle Memorial Inst., Ventura, CA. JOURNAL VOL.- u8904 DESCRIP. NOTE- Final rept. 1986-88 REPORT DATE- Sep 88 PAGINATION- 304p CONT. NO.- DI-14-12-0001-30293 MNTR. AGNCY.- OCS/MMS 88/0049 NTIS Prices- PC A14/MF A01 SUPL INFO- PREPARED IN COOPERATION WITH ONTARIO VETERINARY COLL., GUELPH. DEPT. OF PATHOLOGY. SPONSORED BY MINERALS MANAGEMENT SERVICE, VIENNA, VA. ATLANTIC OCS REGION. NDN- 033-0120-4641-0

The report completes the synthesis of existing information on the effects of oil,

dispersed oil, oil dispersants, and oil cleaning agents on marine mammals which migrate through or inhabit U.S. Outer Continental Shelf (OCS) planning areas. The report will be used to produce a manuscript for use in OCS decisionmaking and serve as a general reference document for parties interested in marine mammals and oil effects research. A literature search on foreign and non-foreign literature, was conducted on topics pertaining to the natural history and oil, oil dispersant, and oil cleaning agents effects to marine mammals.

GULF OF MEXICO SALES 118 AND 122: CENTRAL AND WESTERN PLANNING AREAS. - PB89-114185/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8903 DESCRIP. NOTE- Environmental impact statement (Final). REPORT DATE- Aug 88 PAGINATION- 500p REPORT NO.- MMSGM-880044, OCSEISEAMMS-880044 NTIS Prices- PC A21/MF A01 SUPL INFO- SEE ALS PB84-102805. ERRATA SHEET INSERTED. NDN- 033-0120-1627-2

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issues and areas of concern, and the major differences of holding the lease sale.

GULF OF ALASKA/COOK INLET SALE 88 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1 - PB88-251012/XAB

Swanton, N. Tracy, K. V.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8824 REPORT DATE- Jul 84 PAGINATION- 565p REPORT NO.- MMSAKEIS-84003-Vol-1 NTIS Prices- PC A24/MF A01 SUPL INFO- SEE ALSO VOLUME 2, PB88-251020. NDN- 033-0119-2361-9

The report describes the leasing proposal which consists of 10.40 million hectares (approximately 25 million acres) of outer continental shelf (OCS) lands. The 4,796 blocks are located in the Gulf of Alaska/Cook Inlet Planning Areas in waters that ar from 5 to 241 kilometers (3 to 150 miles) offshore. All blocks offered pose some degree of pollution risk to the environment. The risk is related to adverse effects on the environment and other resource uses which may result from accidental or chronic oil spills. Socioeconomic effects from onshore development could have state, regional, and/or local implications. For instance, if oil were discovered and produced, oil spills would be statistically probable, there would be some disturbanc to fishery and wildlife values, and some onshore development could occur in undeveloped and/or wilderness areas.

GULF OF ALASKA/COOK INLET SALE 88 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 2. APPENDICES - PB88-251020/XAB

Swanton, N. Tracy, K. V.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8824 REPORT DATE- Jul 84 PAGINATION- 193p REPORT NO.- MMSAKEIS-84004-VOL-2 NTIS Prices- PC A09/MF A01 SUPL INFO- SEE ALSO VOLUME 1, PB88-251012.PORTIONS OF THIS DOCUMENT ARE NOT FULLY LEGIBLE. NDN- 033-0119-2360-7

The Environmental impact statement EIS analyzes a proposed oil and gas lease sale in the Gulf of Alaska/Cook Inlet, alternatives to the proposal. The proposal consists o 4,796 blocks located in the Gulf of Alaska/Cook Inlet Planning Areas in waters that are from about 5 to 241 kilometers offshore. The potential effects of the leasing proposal are based in part on the assumption that the mean-resource estimates of 120 million barrels of oil in the Cook Inlet/Shelikof Strait and 530 million barrels of oil in the Gulf of Alaska Planning Areas would be discovered and produced. The study describes the effects on endangered species; communities, economy and schedule of development.

UNTERSUCHUNGEN MIT DEM ZIEL DES VORSCHLAGS BIOLOGISCHER MASSNAHMEN BEI OELVERSCHMUTZUNG EN DER WATTOBERFLAECHE. SCHLUSSBERICHT. (EXAMINATIONS WITH THE AIM TO PROPOSE BIOLOGICA MEASURES FOR RESTORATION OF OIL POLLUTED TIDAL FLATS. FINAL REPORT). - TIB/B88-81918/XA

Hoepner, T.

CORPORATE AUTHOR(S)- Oldenburg Univ. (Germany, F.R.). Inst. fuer Chemie und Biologie des Meeres. JOURNAL VOL.- u8824 v8815 REPORT DATE- 15 Dec 87 PAGINATION- 157p CONT. NO.- BMFT 01 ZV 85070 NTIS Prices- PC E14 SUPL INFO- IN GERMAN,WITH 49 REFS., 4 TABS., 48 FIGS. NDN- 033-0119-2005-9

Biochemical aspects of hydrocarbon biodegradation in aerobic and anaerobic intertida sediments are discussed with respect to application. In laboratory experiments using

standardized and inoculated mud and sandy sediments, the aerobic degradation rate of hexadecane, cetyl alcohol, palmitic acid and naphthaline was measured as well as the anaerobic denitrifying degradation of cetyl alcohol, palmitic acid and naphthol. As expected, no anaerobic hexadecane degradation was observed while an oxygen dependent denitrifying napthaline degradation could not be excluded. The degradation was dependent on nutrients. During degradation nutrients are fixed with the consequences of a decrease of degradation rate. Unialgal and axenic cultures of diatoms did not degrade hydrocarbons with a rate of ecological interest. A counting method for oil degrading bacteria has been developed based on oil removement by tetrachlorocarbon followed by cell-counting in a counting chamber. From the results, which include field and oil-accident experiences, recommendations are drawn for restoration procedures of polluted intertidal flats by provision with oxygen and nutrients. (orig.). (Copyright (c) 1988 by FIZ. Citation no. 88:081918.)

BEAUFORT SEA: INFORMATION UPDATE - PB88-208616/XAB

Becker, P. R.

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8818 REPORT DATE- Apr 88 PAGINATION- 97p NTIS Prices- PC A05/MF A01 SUPL INFO- SEE ALSO PB87-195145. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0117-7262-9

The report is based on a multi-disciplinary meeting held March 6-7, 1985, as part of preparations for the Beaufort Sea Sale 97. The chapters are based on presentations given: The causeway effect: Modification of nearshore thermal regime resulting from causeways; Summertime sea ice intrusions in the Chukchi Sea; The deepwater limit of ice gouging on the Beaufort Sea shelf; Distribution, abundance, migration, harvest, and stock identity of Belukha Whales in the Beaufort Sea; Ringed seals in the Beaufort Sea; Beaufort Sea socioeconomics; The Baffin Island Oil Spill, (BIOS) Project.

INSTALLATION RESTORATION PROGRAM RECORDS SEARCH FOR AIR FORCE PLANT 42 CALIFORNIA. - AD-A190 941/5/XAB

CORPORATE AUTHOR(S)- CH2M Hill, Inc., Gainesville, FL. JOURNAL VOL.- u8815 DESCRIP. NOTE- Final rept. REPORT DATE- Oct 83 PAGINATION- 235p GRANT NO.- F08637-80-G-0010-5003 MNTR. AGNCY.- FESC/DEV 42-IRP-002 NTIS Prices- PC A11/MF A01 NDN- 033-0117-0683-9

This report provides the Installation Restoration Program (IRP) Phase I-Records Search for Air Force Plant 42, Palmdale, California. This is a report of a study conducted to identify past potentially hazardous material disposal sites. Interviews and document searches were conducted to determine sites that were potentially contaminated.

INSTALLATION RESTORATION PROGRAM PHASE 1. RECORDS SEARCH. AIR FORCE PLANT NUMBER 36 OHIO. - AD-A191 020/7/XAB

CORPORATE AUTHOR(S)- Engineering-Science, Inc., Atlanta, GA. JOURNAL VOL.- u8815 DESCRIP. NOTE- Final rept. REPORT DATE- Jul 85 PAGINATION- 132p GRANT NO.- F08637-83-G-0005 MNTR. AGNCY.- FESC/DEV 36-IRP-001 NTIS Prices- PC A07/MF A01 SUPL INFO- SEE ALSO AD-A191 021. NDN- 033-0117-0605-0

This report provides the Installation Restoration Program (IRP) Phase I-Records Search for Air Force Plant 36, Evendale, Ohio. This is a report of a study conducted to identify past potentially hazardous material disposal sites. Interviews and document searches were conducted to determine sites that were potentially contaminated.

INSTALLATION RESTORATION PROGRAM RECORDS SEARCH FOR AIR FORCE PLANT 85 OHIO. - AD-A191 021/5/XAB

CORPORATE AUTHOR(S)- CH2M Hill, Inc., Gainesville, FL. JOURNAL VOL.- u8815 DESCRIP. NOTE- Final rept. REPORT DATE- Feb 84 PAGINATION- 147p GRANT NO.- F08637-80-G-0010-5004 MNTR. AGNCY.- FESC/DEV 85-IRP-001 NTIS Prices- PC A07/MF A01 SUPL INFO- SEE ALSO AD-A191 020. NDN- 033-0117-0604-9

This report provides the Installation Restoration Program (IRP) Phase I-Records Search for Air Force Plant 85, Columbus, Ohio. This is a report of a study conducted to identify past potentially hazardous material disposal sites. Interviews and document searches were conducted to determine sites that were potentially contaminated.

It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issues and areas of concern, and the major differences of holding this lease sale.

RECOLONISERING OF OIL POLLUTED BEACHES. - DE87753357/XAB

Notini, M.

CORPORATE AUTHOR(S)- Swedish Environmental Research Inst., Stockholm. JOURNAL VOL.- u8804 n1200 REPORT DATE- May 86 PAGINATION- 39p REPORT NO.- IVL-B-823 STU-82-4253 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A03/MF A01 SUPL INFO- IN SWEDISH. NDN- 033-0113-9557-3

Marine organisms sensitive to long term effects of oil spills (1-10 years) have been studied. Organisms with limited mobility and low reproduction rate have been identified as a rich group. Shells living in shallow waters are members of this group. A technique for enhanced recovery of organisms after an oil accident have bee tested in plot scale in this project. Organisms have been successfully reimplanted with help from algae fetched from unpolluted areas (Bok). With 11 refs. (ERA citatio 12:047154)

BEAUFORT SEA SALE 97 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1 - PB88-118625/XAB

Roberts, R.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8804 REPORT DATE- Jun 87 PAGINATION- 485p REPORT NO.- MMSAKEIS-87001, OCSEISEAMMS-87-0069-VOL-1 NTIS Prices- PC A21/MF A01 SUPL INFO- SEE ALSO VOLUME 2, PB88-118633, AND PB87-165114. NDN- 033-0113-8130-6

The Environmental Impact Statement (EIS) analyzes a proposed oil and gas lease sale in the Beaufort Sea, alternatives to the proposal, major issues determined through the scoping process, and potential mitigating measures. The proposal consists of 3,516 blocks, located in the Beaufort Sea Planning Area in waters that are from abou 5 to 260 kilometers offshore. The mean economically recoverable resources unleased i the area are estimated to be 650 million barrels of oil with a marginal probability of 0.69 for hydrocarbons.

BEAUFORT SEA SALE 97 ALASKA OUTER CONTINENTAL SHELF FINAL ENVIRONMENTAL IMPACT STATEMENT. VOLUME 2 - PB88-118633/XAB

Roberts, R.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8804 REPORT DATE- Jun 87 PAGINATION- 323p REPORT NO.- MMSAKEIS-87002, OCSEISEAMMS-87-0069-VOL-2 NTIS Prices- PC A14/MF A01 SUPL INFO- SEE VOLUME 1, PB88-118625.PORTIONS OF THIS DOCUMENT ARE NOT FULLY LEGIBLE. NDN- 033-0113-8129-0

The Environmental Impact Statement (EIS) analyzes a proposed oil and gas lease sale in the Beaufort Sea, alternatives to the proposal, major issues determined through the scoping process, and potential mitigating measures. The proposal consists of 3,516 blocks, located in the Beaufort Sea Planning Area in waters that are from abou 5 to 260 kilometers offshore. The mean economically recoverable resources unleased i the area are estimated to be 650 million barrels of oil with a marginal probability of 0.69 for hydrocarbons.

BOWHEAD WHALE 'BALAENA MYSTICETUS' BIBLIOGRAPHY. - PB88-120688/XAB

Setzler-Hamilton, E. M. Oliver, G. W.

CORPORATE AUTHOR(S)- Maryland Univ. Eastern Shore, Princess Anne. Coastal Ecology Research Lab. JOURNAL VOL.- u8804 DESCRIP. NOTE- Final rept. REPORT DATE- Jan 87 PAGINATION- 345p CONT. NO.- DI-14-12-0001-30208 MNTR. AGNCY.- OCS/MM 86/0059 NTIS Prices- PC A15/MF A01 SUPL INFO- SPONSORED BY MARINE SYSTEMS, INC., JUNEAU, AK. PREPARED IN COOPERATION WITH MARYLAND UNIV., SOLOMONS. CHESAPEAKE BIOLOGICAL LAB., AND MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0113-8023-5

The report categorizes the research literature on bowhead whales according to major research topics, issues of concern to Outer Continental Shelf oil and gas development, and geographic areas. The report has an extensive cross index.

DISTURBANCE AND RECOVERY OF ARCTIC ALASKAN TUNDRA TERRAIN. A REVIEW OF RECENT INVESTIGATIONS. - AD-A184 442/2/XAB
Walker, D. A. Cate, D. Brown, J. Racine, C.

CORPORATE AUTHOR(S)- Cold Regions Research and Engineering Lab., Hanover, NH.
JOURNAL VOL.- u8724 DESCRIP. NOTE- Rept. for 1976-83 REPORT DATE- Jul 87
PAGINATION- 72p REPORT NO.- CRREL-87-11 NTIS Prices- PC A04/MF A01 NDN-033-0112-8055-1

This report summarizes over a decade of CRREL-managed research regarding disturbance and recovery in northern Alaska. Themes emphasized include: 1) Most anthropogenic disturbances have natural analogs, which can provide much inexpensive information that can be related to modern disturbances and their rates of recovery. 2) Most single-event disturbances will heal and develop a functioning ecosystem within a human life span, but a return to the original ecosystem can rarely be expected for major impacts. 3) The concept of recovery must be based on consistent terminology that recognizes the distinction between ecosystem resistance (the ability to withstand impact) and resilience (the ability to return to the previous undisturbed state) and also the distinction between complete recovery (a return to the original ecosystem) and functional recovery (the development of a functional ecosystem different from the original). In permafrost regions with massive ground ice, recover of the vegetation is limited by alterations to the permafrost regime.

LONG TERM EFFECTS OF OIL ON MARINE BENTHIC COMMUNITIES IN ENCLOSURES. - DE87752501/XAB

Bakke, T.

CORPORATE AUTHOR(S)- Norsk Inst. for Vannforskning, Oslo. JOURNAL VOL.- u8724 n1200 REPORT DATE- 7 Jan 85 PAGINATION- 250p REPORT NO.- NIVA-O-82007 AVAIL. NOTE- U.S. Sales Only. Paper copy only, copy does not permit microfiche production. NTIS Prices- PC A11 NDN- 033-0112-6237-8

The report presents results obtained during 1982-1984 in the subproject under the main research programme. It deals with research fields such as hydrocarbon content i water and organisms (4 species), littoral community structure, effects of diesel on algae, particularly the growth, oil pollution effects on sea organisms and marine habitat conditions as such. The water analysis are performed mainly by fluorescence analysis and gas chromatography. The community studies are made in 4 basins and give a brief survey of present species. In the oil pollution studies community structure on granite chips in 4 basins compared to a sheltered locality are made and concern mainly coverage and growth. Population dynamics, genetics and the energy balance of and sublethal cellular and molecular effects on littorina littorea in an oil pollute environment are studied as well as the population genetics of and sublethal biological, cellular and molecular effects on mytibus edulus. Genetic and demographi variations of balanus balanoides in such environment are recorded. Studies with experimental enrichment sedimentation of the soft bottom mesocosm at the experimenta station are carried out. They focus mainly on meiofauna structure and the importance of meiofauna/macrofauna interactions are emphasized. Finally a study comparing the above mesocosm and the mesocosm from other fields samples were made. Most of the results presented are preliminary. 91 references, 115 drawings, 59 tables, 3 photos. (ERA citation 12:036420)

NEW HAMPSHIRE COASTAL PROGRAM OCEAN AND HARBOR SEGMENT AND FINAL ENVIRONMENTAL IMPACT STATEMENT. - PB87-228219/XAB

CORPORATE AUTHOR(S)- National Oceanic and Atmospheric Administration, Washington, DC Office of Coastal Zone Management. JOURNAL VOL.- u8724 REPORT DATE- Apr 82
PAGINATION- 264p REPORT NO.- OCRM-87-2 NTIS Prices- PC A12/MF A01 SUPL INFO PREPARED IN COOPERATION WITH NEW HAMPSHIRE OFFICE OF STATE PLANNING, CONCORD.
NDN- 033-0112-5340-7

The State of New Hampshire has submitted the Ocean and Harbor Segment of its Coastal Program to the Office of Coastal Zone Management for approval. Approval would allow program administrative grants to be awarded to the state, and would require that federal actions be consistent with the program. The document includes a copy of the program, which is a comprehensive management program for coastal land and water use activities. It consists of numerous policies on diverse management issues which are administered under existing state laws and is the culmination of several years of program development. The effect of these policies is to condition, restrict or prohibit various uses in parts of the coastal zone while enccuraging development and other uses in other parts.

IL SHORE AT SVALBARD. DECAY OF OIL AND EFFECTS ON THE DECOMPOSITION CHAIN IN SEAWEED ALLS. - DE87752012/XAB

Sveum, P. Sendstad, E.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8722 n200 REPORT DATE- 11 Jan 85 PAGINATION- 36p REPORT NO.- STF-21A85007 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A03/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0111-9972-3

Seaweed walls on Svalbard were artificially polluted with Statfjord crude oil, with 50:50 water/oil emulsion and decayed. It was experimented with 2 types of seaweed walls one with oxidizing and the other with reducing conditions. The references were without added oil and given a minimum treatment with organic absorption agent in order to avoid leaking and pollution of higher animal life. The oil affected density and the microbial composition. Also the microfauna such as works get reduced density due to oil pollution and some of the species are eliminated. The fraction of worms digesting bacteria increases when the seaweed wall is polluted by oil. The total decrease in the microfauna density concurs with an increase in inactive microbial biomass. Total biological activity measured as liberated carbon dioxide show only little change after oil pollution but the amount of oxidized show a definite increase. The oil composition clearly changes both under reducing and oxidizing conditions. The alterations during reducing conditions indicate that conditions in the seaweed walls at Svalbard are more heterogenous than under warmer conditions. It seems therefore to be better conditons for biological decomposition of oil in seawee walls at Svalbard than along the Norwegian coast. 21 tables, 23 drawings. (ERA citation 12:030087)

OCEEDINGS OF A SYNTHESIS MEETING: THE DIAPIR FIELD ENVIRONMENT AND POSSIBLE NSEQUENCES OF PLANNED OFFSHORE OIL AND GAS DEVELOPMENT CHENA HOT SPRINGS ALASKA 25-28 NUARY 1983 - PB87-209938/XAB

NTIS: #31/80.00
NERAC:

Becker, P. R.

CORPORATE AUTHOR(S)- National Ocear Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8721 REPORT DATE- May 87 PAGINATION- 293p MNTR. AGNCY.- OCS/MMS 85/0092 NTIS Prices- PC A13/MF A01 SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0111-6780-1

The report is a result of the fourth Beaufort Sea synthesis meeting, which was held at Chena Hot Springs, Alaska, January 25-28, 1983. The first two days of the meeting consisted of disciplinary workshops on the following subjects; Pollution transport; Biological resources; Physical hazards; Oil spill cleanup.

ORE CLEANING AND TREATMENT OF OIL CONTAINING WASTE. - DE87751694/XAB

Halmoe, G. Danielsen, A. Denstad, J. Klokk, T. Sendstad, E.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8720 n1200 REPORT DATE- 24 Jan 85 PAGINATION- 38p REPORT NO.- STF-21A85015 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A03/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0111-4280-4

The various processes of cleaning shores of oil spills are studied - both natural an various measures man can use to facilitate the processes. Biodegradation may be aide by fertilizer. The biological damage the oil may do to the shores depend on the type of oil, amount and how long it stays, season, the composition of the biological community and the selfcleaning ability of the shores. Plant life will be more disturbed in the growth season than in winter while beach invertebrates are influenced the most during winter due to reduced freezing tolerance induced by oil spills. Biological damage due to cleaning method seem to depend more on what season it is carried out in than the actual method. Methods particularily suitable for the Norwegian rocky shores are mentioned as well as destruction of gathered oil by burning and composting. The various development and improvement paths for existing methods are mentioned. 2 drawings. (ERA citation 12:024534)

EROSION DEPOSITION FAULTING AND INSTABILITY OF SELF SEDIMENTS: EASTERN GULF OF ALASKA. SECTION 3. THE TAXONOMY ECOLOGY AND ZOOGEOGRAPHY OF THE HOLOCENE AND PLEISTOCENE OSTRACODE FAUNA OF THE GULF OF ALASKA. - PB87-195012/XAB

Brouwers, E. M. Molnia, B. F.

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8719 DESCRIP. NOTE- Final rept. REPORT DATE- Mar 82 PAGINATION- 577p AVAIL. NOTE- Included in Outer Continental Shelf Environmental Assessment Program. Final Reports of Principal Investigators, v47 p57-638 Nov 86. NTIS Prices- (Order as PB87-194973, PC A99/MF A01) SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0111-0438-4

The primary goal of the study has been to provide pertinent information on the age, environment, and sediment transport of continental shelf sediments of the northeast Gulf of Alaska based on the ostracode assemblages. In addition, these studies provid information tabulating the ostracode species present as well as associated faunal an floral elements. These data on the patterns of distribution and abundance of benthic organisms provide a baseline prior to the development of oil and gas leases on the continental shelf of the Gulf of Alaska.

OUTER CONTINENTAL SHELF ENVIRONMENTAL ASSESSMENT PROGRAM. FINAL REPORTS OF PRINCIPAL INVESTIGATORS. VOLUME 51. - PB87-198867/XAB

NTIS $67/16

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8719 REPORT DATE- Dec 86 PAGINATION- 787p MNTR. AGNCY.- OCS/MMS 86/0113 NTIS Prices- PC A99/MF E04 SUPL INFO- SEE ALSO PB87-195951 AND PB87-198875 THROUGH PB87-198925. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0111-0356-2

Research to determine the accumulation of organic constituents and heavy metals from petroleum-impacted sediments by marine detritivores of the Alaskan outer continental shelf; Suspended particulate matter distribution, transport, and physical characteristics in the north Aleutian Shelf and St. George Basin lease areas; The production and dispersion of dissolved methane in southeastern Bering Sea; Oil spill vulnerability, coastal morphology, and sedimentation of outer Kenai Peninsula and Montague Island; Circulation and water masses in the Gulf of Alaska; Coastal oceanography of the northeastern Gulf of Alaska.

DEPOSITING OIL CONTAINING SEAWEED IN BIOLOGICALLY ACTIVE DEPOSITS. - DE87751695/XAB

Sveum, P.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8718 n1200 REPORT DATE- Jun 85 PAGINATION- 12p REPORT NO.- STF-21A85062 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A02/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0110-8207-8

Biological active deposits of oil containing seaweed was made after the Deifovos was wrecked in spring 1981. The deposits were anaerobic in the beginning, later aerobic. After three years all the alkanes had disappeared. No oil uptake is registered in th grass, Festuca rubra, cultivated in oil contaminated seaweed material. 2 tables, 1 drawing. (ERA citation 12:024536)

CONSEQUENCE ANALYSIS OIL/SEA BIRDS FOR MOERE I AND TROMS II. GENERAL PART: OIL SPREADIN AND DECOMPOSITION AND DAMAGE TO SEABIRDS. - DE87751700/XAB

Sandvik, J.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8718 n1200 REPORT DATE- 31 Jan 85 PAGINATION- 25p REPORT NO.- STF-21A85023 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A02/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0110-8202-9

The report gives a general account of what may be expected to happen to oil from an uncontrolled blowout at sea. The effects of oil on sea birds, both external and internal damages, are described. In what situations and what species of sea birds ar most vulnerable are discussed. Some damage reducing measures are commented on. 2 tables, 8 drawings, 27 references. (ERA citation 12:024535)

LANTIC OUTER CONTINENTAL SHELF STUDIES RESULTS: 1973-1985. NARRATIVE SUMMARY - 87-195905/XAB

Fritz, A. T.
CORPORATE AUTHOR(S)- Minerals Management Service, Vienna, VA. Atlantic OCS Region.
JOURNAL VOL.- u8718 REPORT DATE- 1986 PAGINATION- 31p REPORT NO.- OCSMMS-860080 NTIS Prices- PC A03/MF A01 SUPL INFO- SEE ALSO PB87-195954.
NDN- 033-0110-7389-2

The Minerals Management Service Offshore Environmental Studies Program was initiated in 1973 by the Secretary of the Interior to conduct studies needed to predict, assess, and manage impacts on the human, marine and coastal environments of the Oute Continental Shelf (OCS) and nearshore areas which may be affected by oil and gas activities. The document summarizes the principal results of studies in the Atlantic OCS Region. Descriptions of studies results are divided into the following major types: physical processes, biologic, endangered species, and socioeconomic. Results of each major type of study are further divided chronologically by planning area: North Atlantic, Mid-Atlantic, and South Atlantic.

FSHORE ENVIRONMENTAL STUDIES PROGRAM: FINAL REPORTS PUBLICATIONS AND PRESENTATIONS. - 87-195954/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Vienna, VA. Atlantic OCS Region.
JOURNAL VOL.- u8718 DESCRIP. NOTE- Summary rept. REPORT DATE- 1985 PAGINATION- 71p REPORT NO.- OCSMMS-850112 NTIS Prices- PC A04/MF A01 SUPL INFO- SEE ALSO PB87-194635. NDN- 033-0110-7386-7

The document is a summary of final reports, publications, and presentations resultin from the Atlantic Outer Continental Shelf (OCS) Region Studies Program. Final report are a result of contracts with the private sector and academia or of agreements and memoranda of understanding with other federal agencies. Publications include federal agency technical reports and papers published in scientific journals. Presentations include scientific and less formal meetings where results of Studies funded by the Bureau of Land Management or the Minerals Management Service were discussed.

RINE GAS OIL IN ARCTIC SHORELINE SEDIMENTS - PB87-205134/XAB

Sveum, P.

CORPORATE AUTHOR(S)- Selskapet for Industriell og Teknisk Forskning, Trondheim (Norway). JOURNAL VOL.- u8718 REPORT DATE- 9 Dec 86 PAGINATION- 52p
REPORT NO.- STF21-A86105 NTIS Prices- PC E04/MF E04 NDN- 033-0110-7023-4

88000 litres of marine gas oil was accidentally spilled from the storage tanks in Ny-Alesund, Spitsbergen. The oil contaminated shoreline was treated with the oil soluble fertilizer INIPOL. Both the oil biodegradation, microbial development and physical removal of the oil have been studied. The total level of oil contamination has decreased about 90% during less than one year.

IVITY-DIRECTED FRACTIONATION OF PETROLEUM SAMPLES - PB87-192035/XAB

Warner, J. S. Margard, W. L. Anderson, J. W.

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div.
JOURNAL VOL.- u8717 REPORT DATE- Oct 79 PAGINATION- 62p AVAIL. NOTE- Included in Outer Continental Shelf Environmental Assessment Program. Final Reports of Principal Investigators, v40 p437-503 Jun 86. NTIS Prices- (Order as PB87-191946, PC A20/MF A01) SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0110-4568-9

A fractionation and bioassay scheme was developed that can be applied to oil samples to assess the potential biological hazards of the various components that remain after an oil spill. The fractionation procedure involves solvent partitioning betwee heptane and acetonitrile, gel permeation chromatography using Bio-Beads S-X8, and silica gel chromatograpy. The first two steps are effective in removing intractable components that otherwise interfere with bioassay studies. Two in vitro bioassay tests and an in vivo test were studied to assess toxicity and mutagenicity of oil fractions. These were (1) the Ames bacterial mutagenicity test, (2) a mammalian-cell toxicity test, and (3) a mysids roxicity test. All three tests can be run using no more than a total of 30 mg of material.

FINAL ENVIRONMENTAL IMPACT STATEMEN PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NORTH ALEUTIAN BASIN SALE 92. VOLUME 1 - PB87-192829/XAB

Boyd, T. H. Yankus, G.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8717 REPORT DATE- Sep 85
PAGINATION- 565p REPORT NO.- MMSAKEIS-85003 NTIS Prices- PC A24/MF A01 SUPL
INFO- SEE ALSO VOLUME 2, PB87-192837, AND PB84-209428. NDN- 033-0110-4511-2

The EIS analyzes a proposed oil and gas lease sale in the North Aleutian Basin, alternatives to the proposal, major issues determined through the scoping process, and potential mitigating measures. The proposal consists of 990 blocks (approx. 2.27 million hectares) to be offered for lease in the North Aleutian Basin. The potential effects of the proposal are based, in part, on the assumption that mean resource estimates of 364 MMbbls of oil and 2.62 TCF of gas would be discovered and produced in the North Aleutian Basin.

FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NORTH ALEUTIAN BASIN SALE 92. VOLUME 2 - PB87-192837/XAB

Boyd, T. H. Yankus, G.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8717 REPORT DATE- Sep 85
PAGINATION- 624p REPORT NO.- MMSAKEIS-85004 NTIS Prices- PC A99/MF A01 SUPL
INFO- SEE ALSO VOLUME 1, PB87-192829. NDN- 033-0110-4510-0

The EIS analyzes a proposed oil and gas lease sale in the North Aleutian Basin, alternatives to the proposal, major issues determined through the scoping process, and potential mitigatin measures. The report, volume II contains the review and analysis of comments and appendices.

FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE ST. GEORGE BASIN SALE 89. VOLUME 1 - PB87-192845/XAB

Hendrix, N. Boyd, T.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8717 REPORT DATE- Apr 85
PAGINATION- 581p REPORT NO.- MMSAKEIS-85001 NTIS Prices- PC A25/MF A01 SUPL
INFO- SEE ALSO VOLUME 2, PB87-192852, AND DE84-900206. NDN- 033-0110-4509-4

The Environmental Impact Statement (EIS) analyzes a proposed oil and gas lease sale in St. George Basin, alternatives to the proposal, major issues determined through the scoping process, and potential mitigating measures. The proposal consists of 12,529 blocks to be offered for lease in the St. George Basin. The potential effects of the proposal are based, in part, on the assumption that mean resource estimates o 1125 Mbbls of oil and 9200 BCF of gas would be discovered and produced in the St. George Basin. The marginal probability of a commercial discovery of hydrocarbons is 22 percent. For this amount of oil, 3 oil spills of 1,000 barrels or greater are projected statistically over the 25-year production life of the oil field.

FINAL ENVIRONMENTAL IMPACT STATEMENT PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE ST. GEORGE BASIN SALE 89. VOLUME 2 - PB87-192852/XAB

Hendrix, N. Boyd, T.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8717 REPORT DATE- Apr 85
PAGINATION- 231p REPORT NO.- MMSAKEIS-85002 NTIS Prices- PC A11/MF A01 SUPL
INFO- SEE ALSO VOLUME 1, PB87-192845. NDN- 033-0110-4508-2

The Environmental Impact Statement analyzes a proposed oil and gas lease sale in St. George Basin, alternatives to the proposal, major issues determined through the scoping process, and potential mitigating measures. The proposal consists of 12,529 blocks to be offered for lease in the St. George Basin. The potential effects of thi proposal are based, in part, on the assumption that mean resource estimates of 1125 Mbbls of oil and 9200 BCF of gas would be discovered and produced in the St. George Basin. For this amount of oil, 3 oil spills of 1,000 barrels or greater are projecte statistically over the 25-year production life of the oil field. The volume contains the appendices.

DIAPIR FIELD LEASE OFFERING JUNE 1984. VOLUME 2. APPENDICES. - PB87-193405/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8717 REPORT DATE- Mar 84 PAGINATION- 213p REPORT NO.- MMSAKEIS-8402, OCSMMS-84-0009 NTIS Prices- PC A10/MF A01 SUPL INFO- SEE ALSO DE83-910818. NDN- 033-0110-4478-8

The Final Environmental Impact Statement discusses a proposal for oil and gas leasin in the Beaufort and Chukchi Seas, alternatives to the proposal, major issues determined through the scoping process and through staff analysis, and potential mitigating measures. The proposal consists of 3,193 blocks (6,977,317 hectares) to b offered for lease 5 to 257 kilometers offshore in water depths of 2 to greater than 200 meters. The potential effects of the proposal are based in part on the assumptio that the mean economically recoverable resources in the area are estimated to be 3.0 billion barrels of oil and 7.75 trillion cubic feet of gas. It is estimated that up to seven oil spills of 1,000 barrels or greater may occur over the 40-year life of the oil field.

DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 110 AND 112 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION - PB87-118352/XAB

Reinhardt, J. L. Rouse, R. M. Reggio, V.

CORPORATE AUTHOR(S)- Minerals Management Service, New Orleans, LA. Gulf of Mexico OC Regional Office. JOURNAL VOL.- u8705 REPORT DATE- Apr 86 PAGINATION- 611p REPORT NO.- MMSGMES-87001, OCSEISMMS-860013 NTIS Prices- PC A99/MF A01 SUPL INFO- SEE ALSO PB85-199693, AND PB87-118360. NDN- 033-0107-4184-4

The Environmental Impact Statement is a description of the environmental aspects and impacts of oil and gas activities resulting from these lease sales for the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed actions, issues and areas of concern, and the major differences of holding these lease sales.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 110 AND 112 GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) REGION - PB87-118360/XAB

Reinhardt, J. L. Reggio, V. C. Gaudry, S. B.

CORPORATE AUTHOR(S)- Minerals Management Service, New Orleans, LA. Gulf of Mexico OC Regional Office. JOURNAL VOL.- u8705 REPORT DATE- Nov 86 PAGINATION- 635p REPORT NO.- MMSGMES-87002, OCSEISMMS-860087 NTIS Prices- PC A99/MF A01 SUPL INFO- SEE ALSO PB87-118352. NDN- 033-0107-4183-2

The Environmental Impact Statement is a description of the impacts of oil and gas activities resulting from these lease sales for the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed actions, issues and areas of concern, and the major differences of holding these lease sales.

ANALYSIS OF THE NORWAY OIL SPILL EMERGENCY PREPAREDNESS- UNCERTAINTY DAMAGE REDUCTION BENEFIT. MAIN REPORT. - DE86752122/XAB

Seip, K. L. Hustoft, A. G. Ibrekk, H. Brekke, K. A. Wenstorp, F.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8701 n1100 REPORT DATE- Apr 85 PAGINATION- 20p REPORT NO.- SI-R-830709-7 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A02/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0106-7158-1

An exposition is given of three projects, all treating different aspects of the Norwegian oil spill emergency preparedness: analysis of uncertainty, damage assessment, and the utilitarian value of the damage reducing efforts. The projects represent a further teatment of an earlier project called ''Total cost benefit analysis of the Norwegian oil spill emergency preparedness''. Jointly the results of the three projects can be used to make a cost benefit analysis of the alternative forms of preparedness. 11 references. (ERA citation 11:037476)

OMPUTATIONAL MODEL FOR THE ASSESSMENT OF OIL SPILL DAMAGES. - DE86752125/XAB

Seip, K. L. Heiberg, A. B. Brekke, K. A.

CORPORATE AUTHOR(S)- Senter for Industriforskning, Oslo (Norway). JOURNAL VOL.- u8701 n1100 REPORT DATE- Jun 85 PAGINATION- 129p REPORT NO.- SI-R-84325-1 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A07/MF A01 NDN- 033-0106-7156-8

A description is given of the method and the required data of a model for calculatin oil spill damages. Eleven damage attributes are defined: shorelength contaminated, shore restitution time, birds dead, restitution time for three groups of birds, open sea damages-two types, damages to recreation, economy and fisheries. The model has been applied in several cases of oil pollution assessments: in an examination of alternative models for the organization of oil spill combat in Norway, in the assessment of the damages coused b/ a blowout at Tromsoeflaket and in assessing a possible increase in oil spill preparedness for Svalbard. 56 references. (ERA citation 11:037475)

SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY - YEAR 2. VOLUME 4. FINAL REPORT 3. - PB86-245800/XAB

CORPORATE AUTHOR(S)- Woodward-Clyde Consultants, Walnut Creek, CA. JOURNAL VOL.- u0626 REPORT DATE- Jul 85 PAGINATION- 253p CONT. NO.- DI-14-12-0001-29144 MNTR. AGNCY.- MMS/GM 85/0063 AVAIL. NOTE- Also available in set of 7 reports PC E99, PB86-245768. NTIS Prices- PC A12/MF A01 SUPL INFO- SEE ALSO VOLUME 3, PB86-245792, AND VOLUME 5, PB86-245818. PREPARED IN COOPERATION WITH CONTINENTAL SHELF ASSOCIATES, INC., TEQUESTA, FL. SPONSORED BY MINERALS MANAGEMENT SERVICE, METAIRIE, LA. GULF OF MEXICO OCS REGIONAL OFFICE. NDN- 033-0106-4490-5

The report, summarizes findings on the physical environment and biota of this region and reviews potential OCS development impacts. It reviews oil and gas activities, possible pathways for ecological change and special regional concerns (e.g. biologically sensitive areas).

ANNUAL ALASKA OCS (OUTER CONTINENTAL SHELF) REGION INFORMATION TRANSFER MEETING (1ST) BERING SEA REGION MAY 29-31 1985. - PB86-212321/XAB

CORPORATE AUTHOR(S)- Johnson (Lawrence) and Associates, Inc., Washington, DC. JOURNAL VOL.- u8620 REPORT DATE- Oct 85 PAGINATION- 135p CONT. NO.- DI-14-12-0001-30195 MNTR. AGNCY.- OCS/MMS 85/0084 NTIS Prices- PC A07/MF A01 SUPL INFO- SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0105-2108-0

On May 29-31, 1985, the Alaska Outer Continental Shelf (OCS) Region of the Minerals Management Service (MMS) sponsored its first, annual public Information Transfer Meeting (ITM). The ITM focused on the results of recent studies and related topics and their particular implications for offshore oil and gas exploration and development in the Bering Sea Region. The meeting included presentations on oceanography and meteorology, industrial development, studies on interaction of OCS activities and marine resources, ecological and fisheries studies, resource utilization, lease sale conduct, and government responsibilities.

OCS (OUTER CONTINENTAL SHELF) OIL AND GAS - AN ENVIRONMENTAL ASSESSMENT. VOLUME 5. POTENTIAL BIOLOGICAL EFFECTS OF HYPOTHETICAL OIL DISCHARGES IN THE ATLANTIC COAST AND GULF OF ALASKA. - PB86-216389/XAB

CORPORATE AUTHOR(S)- Council on Environmental Quality, Washington, DC. JOURNAL VOL.- u8620 REPORT DATE- Apr 74 PAGINATION- 607p NTIS Prices- PC A99/MF A01 SUPL INFO- SEE ALSO PB86-216371. NDN- 033-0105-1853-5

The report is an analysis of the primary biological effects of potential oil discharges resulting from hypothetical oil production activity on the Atlantic/Alaskan OCS. The results are intended for input to the Council on Environmental Quality as part of the information base to decide: (1) whether or not to recommend OCS oil exploration/drilling in these areas; and (2) if yes, where. Although emphasis is placed on analysis of impacts and recovery from large-volume infrequent accidental oil spills, small volume continuous discharges of hydrocarbons are also considered. Effects of oil releases from offshore platforms and spills occurring at coastal terminals are assessed.

RESEARCH ON DYNAMICS OF TUNDRA ECOSYSTEMS AND THEIR POTENTIAL RESPONSE TO ENERGY DEVELOPMENT. ANNUAL REPORT 1980. - DE86008923/XAB

Miller, P. C.

CORPORATE AUTHOR(S)- San Diego State Univ., CA. Systems Ecology Research Group. JOURNAL VOL.- u8619 n0000 REPORT DATE- 1980 PAGINATION- 174p REPORT NO.- DOEEV01525-T5 CONT. NO.- AC03-77EV01525 AVAIL. NOTE- Portions of this document are illegible in microfiche products. NTIS Prices- PC A08/MF A01 NDN- 033-0105-0866-9

This report describes research designed to address the question: What are the ecological effects of impacts from the development and utilization of energy resources in the arctic. The research includes: the processes of heat exchange affecting soil and plant temperatures and plant development, the physiological controls of shoot growth and shoot population dynamics; physical-chemical limitation

to plant nutrient uptake and growth in organic soils compared to mineral soils; role of mycorrhizae in plant nutrient and carbon balance; late summer (August) mineralization rates, nutrient uptake, and root activity; factors affecting the senescence of the major plant species; nutrient losses with fire; species reestablishment from buried and immigrating seeds following disturbance; processes involved in off-road vehicle tracks, following compression and shear, which are responsible for increased carbon dioxide production in the compressed area; effects of oil on plant physiology and development; and direct controls on carbon and nutrient allocation.

MOCO CADIZ OIL SPILL FIVE YEARS AFTER. - DE86751068/XAB

Seip, K. L.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8614 n1100 REPORT DATE- Aug 84 PAGINATION- 45p REPORT NO.- SI-R-830708 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A03/MF A01 NDN- 033-0103-7959-6

In August 1983 the author made a visit to the coast of Brittany, France, the site of Amoco Cadiz oil spill. Pictorial observations were made of the oil contamination, floral and faunal recovery, including species succession, and on industrial activities which were impacted by the spill. The post spill conditions are compared to records of the spill damages in Brittany, and also to records of a spill on the Norwegian coast. 21 references. (ERA citation 11:015647)

AMAGE ASSESSMENT: ENVIRONMENTAL IMPACT OF OIL FROM BLOWOUTS. - DE86750230/XAB

Oestby, M. Fredrikson, G. Seip, H. M. Westergaard, R. H.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8613 n1100 REPORT DATE- Apr 83 PAGINATION- 102p REPORT NO.- SI-R-820804-2 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A06/MF A01 NDN- 033-0103-5296-7

There exist various alternatives to mechanical surface collections of oil after blowouts, e.g. underwater collection and the use of dispersants. The goal of the present work is to create a basis for deciding whether to pursue the research on underwater collection methods or not. A rough cost/benefit analysis comparing underwater collection with mechanical surface collection and the use of dispersants, is made. The response to a 500,000 tons oil spill at Tromsoeflaket and Statfjord is evaluated with respect to the damage reduction potential. Although the results are uncertain, it is concluded that an underwater collection device should promise an efficiency above 60% to be interesting. (ERA citation 11:012703)

)URCES FATES AND EFFECTS OF AROMATIC HYDROCARBONS IN THE ALASKAN MARINE ENVIRONMENT TH RECOMMENDATIONS FOR MONITORING STRATEGIES - PB86-168291/XAB

Anderson, J. W. Neff, J. M. Boehm, P. D.

CORPORATE AUTHOR(S)- Battelle Pacific Northwest Labs., Sequim, WA. Marine Research Lab. JOURNAL VOL.- u8612 REPORT DATE- Mar 86 PAGINATION- 230p MNTR. AGNCY.- EPA/600/3 86/018 NTIS Prices- PC A11/MF A01 SUPL INFO- SPONSORED BY CORVALLIS ENVIRONMENTAL RESEARCH LAB., OR. NDN- 033-0103-2063-2

Information about polycyclic aromatic hydrocarbons in the Alaskan marine environment is relatively sparse. About 300 references were reviewed to create an assessment of the current state of knowledge on sources, fates and effects of oil-derived polycyclic aromatic hydrocarbons in cold marine waters. The objective of the report is to critically review what is known about the sources, fates and effects of polycyclic aromatic hydrocarbons (PAH) in the Alaskan marine environment. The specific areas reviewed are (1) the natural and anthropogenic sources of aromatic hydrocarbons in the Alaskan marine environment, (2) the physical, chemical and biochemical fates of these compounds in marine ecosystems, and (3) the bioaccumulation and biological effects of aromatic hydrocarbons in marine organisms.

FECTS OF GASOLINE M15 METHANOL AND ETHANOL ON PLANTS SOIL AND WATERORGANISMS. A MMARY. - DE85752725/XAB

Laveskog, A. Fondelius, M. Lindblad, C. Jansson, H.

CORPORATE AUTHOR(S)- Statens Energiverk, Stockholm (Sweden). JOURNAL VOL.- u8608 n1100 REPORT DATE- Dec 83 PAGINATION- 108p REPORT NO.- STEV-BF-84-1 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A06/MF A01 SUPL INFO- IN SWEDISH.THREE APPENDICES INCLUDED. NDN- 033-0102-3281-0

A field study of the effects of the fuel was made on a meadow during summer
Follow-up studies were made during 1983. The toxic effects of methanol and e
the plants were much less severe than those from gasoline and M15. No seriou
disturbances were noted on the microbiological life in the soil. Studies of
spills in marine environment have been initiated. (ERA citation 11:001453)

GROUNDING OF EIRA AT KVARKEN. REPORT ON THE PULLING OUT OF OIL-DAMAGE GROUP. -
DE85752762/XAB

Notini, M. Lehtinen, K. -.

CORPORATE AUTHOR(S)- Swedish Environmental Research Inst., Stockholm. JOU
VOL.- u8608 n1100 REPORT DATE- Oct 84 PAGINATION- 32p REPORT NO.- I
AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in mic
products. NTIS Prices- PC A03/MF A01 SUPL INFO- IN SWEDISH. NDN-
033-0102-3246-9

The background to the accident and the actions during the first six days aft
oil spill are described. Damage to coastal regions was investigated and inju
seabirds were observed. Oil spill abatement and the use of oil retention boo
discussed. The low effect of dispersants due to the properties of the oil ar
impact of weather conditions are dealt with. (ERA citation 11:004876)

UNDERWATER BLOWOUT CONTROL. - DE85751405/XAB

Westergaard, R. H.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norw
JOURNAL VOL.- u8606 n1000 REPORT DATE- Oct 83 PAGINATION- 100p REP
SI-R-830616-1 AVAIL. NOTE- U.S. Sales Only. Portions of this document ar
illegible in microfiche products. NTIS Prices- PC A05/MF A01 NDN-
033-0101-7651-0

A method for evaluating underwater blowout control measures has been develo
the measures evaluated in this report are preventive measures, early stoppi
methods, subsea oil collection, well injection of dispersants and surface c
One of the conclusions drawn is that subsea collection is not recommended f
research. A newly proposed method for early stopping - the Annulus Kill met
recommended for research along with injection of dispersants and anti-emuls
chemicals via the wellhead or the blowout preventor. (ERA citation 10:04815

FINAL ENVIRONMENTAL IMPACT STATEMENT: PROPOSED OUTER CONTINENTAL SHELF OIL AND
SALE NORTON SOUND - PB86-121720/XAB

Yoesting, L. Emerson, R.

CORPORATE AUTHOR(S)- Bureau of Land Management, Anchorage, AK. Alaska Outer
Continental Shelf Office. JOURNAL VOL.- u8605 REPORT DATE- Feb 82
PAGINATION- 679p REPORT NO.- BLMYKES-820121792 NTIS Prices- PC A99/MF
SUPL INFO- ALSO PUB. AS MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA
CONTINENTAL SHELF OFFICE REPT. NO. MMS/AK/EIS-82/001.COLOR ILLUSTRATIONS RE
IN BLACK AND WHITE. PREPARED IN COOPERATION WITH MINERALS MANAGEMENT SERVI
ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0101-45

The Environmental Impact Statement (EIS) analyzes a proposed oil and gas l
in Norton Sound, alternatives to the proposal, major issues determined thr
scoping process, and potential mitigating measures. The environmental anal
focuses on oil and gas leasing involving a hypothetical transportation sce
has oil and gas being transported by ice-breaking oil and LNG tankers. The
effects are based on the assumption that a mean resource level of 480 mill
of oil and 2.01 tri[illegible] cubic feet of gas would be discovered and produce
proposed lease-sale area. Over the 20-year production life of the oil fiel
United States Geological Survey (USGS) estimates the possibility of up to
spills of 1,000 barrels or greater. Thereis a 14-percent chance that comme
quantities (assuming marketability) of oil and gas would be found and deve
86-percent chance of not finding oil and gas.

LIVING MARINE RESOURCES OF THE HOPE BASIN: A RESOURCE ASSESSMENT FOR THE HOPE
AND GAS LEASE SALE NUMBER 86. - PB86-128287/XAB

Morris, B. F.

CORPORATE AUTHOR(S)- National Marine Fisheries Service, Juneau, AK. Alask
JOURNAL VOL.- u8605 DESCRIP. NOTE- Technical memo REPORT DATE- Jun
PAGINATION- 180p REPORT NO.- NOAA-TM-NMFS-FAKR-4 NTIS Prices- PC A0
NDN- 033-0101-4169-5

An area of the outer continental shelf of the southeastern Chukchi Sea, t

A full evaluation of the effects caused by a spill, involving quantification of the extent of the impact and assessment of the rate of recovery of the environment, should be based on carefully planned studies with well-defined objectives and should draw on the experience of the few large oil spills which have occurred. The paper provides an overview of the strategies recommended for such studies. (Copyright (c) CONCAWE Den Haag, May 1985.)

DIESEL OIL SPILL IN A MODEL ECOSYSTEM - SEAWATER CONCENTRATION AND BIOACCUMULATION IN TWO MUSSEL SPECIES (MYTILUS EDULIS AND MACOMA BALTICA). - DE85752539/XAB

Mattsson, J. Notini, M.

CORPORATE AUTHOR(S)- Swedish Environmental Research Inst., Stockholm. JOURNAL VOL.- u8601 n1000 REPORT DATE- Oct 84 PAGINATION- 22p REPORT NO.- IVL-B-752 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A02/MF A01 SUPL INFO- IN SWEDISH. NDN- 033-0100-5504-3

In a 7.5 m exp 3 outdoor pool with a continuous flow of seawater and experimental spill was carried out. The pool contained the main constituents of the shallow hard bottom ecosystem of the Baltic, dominated by the bladder-wrack fucus vesiculosus, which provides shelter and food for several species of fish, crustaceans and molluscs. 3.0 l of diesel oil was poured on the surface of the pool after which oil concentrations in the outgoing seawater was measurd by continuous extraction. The total amount of extractable organics (IR) was 0.56 mg/l during the first day after the spill. Then the oil levels in the seawater decreased continuously and two months after the spill the concentration was only 0.004 mg/l. Parallel with the water analysis, bioaccumulation in the two mussel species Mytilus edulis and Macoma baltic was investigated. Mytilus edulis, a filter-feeder living close to the water surface, showed a rapid increase of oil levels. Seven days after the spill they reached maximum levels, 10.200 mu g/g dw. 25 days later their tissue burden had decreased to 3,400 mu g/g. Macoma baltica showed a successive increase of oil levels during the experiment. They reached maximum levels of 4,300 mu g/g dw when the bioaccumulation experiment was terminated 32 days after the spill. The difference between the two species was probably a consequency of their different living habits. Mytilus utilize the upper part of the pool system close to the oil slick, while Macoma was buried in the sediment, living on sedimentating material. (ERA citation 10:047280)

LONG-TERM EFFECTS OF OFFSHORE OIL AND GAS DEVELOPMENT: AN ASSESSMENT AND A RESEARCH STRATEGY. - PB86-104114/XAB

Boesch, D. F. Rabalais, N. N.

CORPORATE AUTHOR(S)- Louisiana Universities Marine Consortium, Chauvin. JOURNAL VOL.- u8601 DESCRIP. NOTE- Final rept. REPORT DATE- Jun 85 PAGINATION- 743p GRANT NO.- NA82RA-C-00128 NTIS Prices- PC A99/MF E04 SUPL INFO- SPONSORED BY NATIONAL MARINE POLLUTION PROGRAM OFFICE, ROCKVILLE, MD. NDN- 033-0100-4883-0

The book includes technical assessments regarding the environmental implications of Outer Continental Shelf oil and gas development in thirteen topical areas ranging from 'Petroleum Industry Operations: Present and Future' to 'A Review of Study Designs for the Detection of Long-term Environmental Effects of Offshore Activities. These technical assessments support an analysis which identifies the following futur research needs: Chronic effects from the persistence of medium and high molecular weight aromatic hydrocarbons and heterocyclics and their degradation products in sediments and cold environments; Residual damage from oil spills to biogenically structured communities such as coastal wetlands, reefs and vegetation beds; Effects of channelization for pipeline routing and navigation on wetlands; Effects of foulin by oil of birds, mammals, and turtles, especially in species in which a large percentage of the population aggregates at certain times; Effects on benthos of drilling discharges accumulated through field development; Effects of produced water discharges generated offshore but discharged into nearshore environments; Effects of noise and other physical disturbances on populations of birds, mammals and turtles; Reduction of fishery stocks due to mortality of eggs and larvae as a result of oil spills; Effects of man-made, usually gravel, islands and causeways in the Arctic on benthos and anadromous fish species.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 3. EFFECTS OF CONTAMINANTS. - PB85-244515/XAB

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8525 REPORT DATE- Mar 81 PAGINATION- 527p NTIS Prices- PC A23/MF A01 SUPL INFO- SEE ALSO VOLUME 4, PB85-244523. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN- 033-0099-9580-5

Volume 3 of the study is a single annual report which is: Multivariate Analysis of

Petroleum Weathering in the Marine Environment-SubArctic.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 6. TRANSPORT. - PB85-244549/XAB

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8525 REPORT DATE- Mar 81 PAGINATION- 497p NTIS Prices- PC A21/MF A01 SUPL INFO- SEE ALSO VOLUME 5, PB85-244531. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN-033-0099-9579-9

A compilation of 4 annual reports on the following subjects: Transport and behavior of oil spilled in and under sea ice, the North Aleutian Shelf Transport Experiment; Microbial Processes related to transport in the North Aleution Shelf and St. George Lease areas; and coastal oceanography of the northeast Gulf of Alaska.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. FINAL REPORTS OF PRINCIPAL INVESTIGATORS. VOLUME 18. BIOLOGICAL STUDIES. - PB85-247260/XAB

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8525 REPORT DATE- May 83 PAGINATION- 707p NTIS Prices- PC A99/MF E04 SUPL INFO- SEE ALSO PB82-185653. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN-033-0099-9530-1

A compilation of two final reports dealing with the evolution, pathobiology and breeding ecology of large gulls (Larus) in the Northeast Gulf of Alaska and effects of petroleum exposure on the breeding ecology of gulls and kittiwakes, and bird use of coastal habitats in Norton Sound.

OIL IN THE SEA: INPUTS FATES AND EFFECTS. - PB85-238079/XAB

CORPORATE AUTHOR(S)- National Research Council, Washington, DC. JOURNAL VOL.- u8524 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 85 PAGINATION- 621p REPORT NO.- ISBN-0-309-03479-5 CONT. NO.- DTCG23-80-C-20038, GRANT NO.- NA81AA-D-00076 NTIS Prices- PC A99/MF A01 SUPL INFO- SPONSORED BY ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC., AND DEPARTMENT OF THE INTERIOR, WASHINGTON, DC. LIBRARY OF CONGRESS CATALOG CARD NO. 85-60541. NDN- 033-0099-6953-3

The report updates a 1975 Research Council study of the sources, fates, and effects of petroleum in the marine environment. The National Research Council committee found 'no irrevocable damage to marine resources on a broad oceanic scale' as a result of oil pollution from either chronic, routine sources or from occasional major spills. It cautioned that further research is needed before an 'unequivocal assessment' of the environmental impact of oil pollution can be made, particularly as it applies to specific locations and conditions. The most important sources of oil pollution in the world's seas, the committee concluded, are municipal and industrial runoff, the cleaning of ship bilges, and other routine occurrences rather than offshore oil production or tanker accidents.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 4. EFFECTS OF CONTAMINANTS. - PB85-244523/XAB

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8524 REPORT DATE- Mar 81 PAGINATION- 677p NTIS Prices- PC A99/MF E04 SUPL INFO- SEE ALSO VOLUME 3, PB85-244515. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN-033-0099-6728-7

A compilation of 8 annual reports on the subjects of: assessment of potential interactions of microorganisms and pollutants, lethal and sublethal effects on selected species after acute and long-term exposure to oil, sublethal effects of petroleum hydrocarbons, Baffin Island oilspill experiment, chemistry component, effects of oil and dispersed oil on nearshore macrobenthos, microbial degradation of oil, and biodegradation of aromatic compounds by high-latitude phytoplankters.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. ANNUAL REPORTS OF PRINCIPAL INVESTIGATORS FOR THE YEAR ENDING MARCH 1981. VOLUME 5. TRANSPORT. - PB85-244531/XAB

CORPORATE AUTHOR(S)- National Ocean Service, Anchorage, AK. Ocean Assessments Div. JOURNAL VOL.- u8524 REPORT DATE- Mar 81 PAGINATION- 678p NTIS Prices- PC A99/MF E04 SUPL INFO- SEE ALSO VOLUME 4, PB85-244523. SPONSORED BY MINERALS MANAGEMENT SERVICE, ANCHORAGE, AK. ALASKA OUTER CONTINENTAL SHELF OFFICE. NDN-033-0099-6727-5

A compilation of 8 annual reports on the following subjects: the interaction of oil with sea ice in the Arctic Ocean, circulation processes in Bristol Bay using

dissolved methane as a tracer, modeling of tides and circulations of the Bering Sea, meteorology of the Alaskan arctic coast, nearshore hydrodynamics of the Beaufort and Chukchi seas; sources, transport pathways, depositional sites and dynamics of sediments in the lagoon and adjacent shallow marine region, northern Arctic Alaska; numerical trajectory modeling and associated field measurements in the Beaufort and Chukchi Sea nearshore areas, and fluid transport processes in the North Aleutian Shelf and St. George Basin.

POTENTIAL EFFECTS OF OIL SPILLS AND OTHER CHEMICAL POLLUTANTS ON MARINE MAMMALS OCCURRING IN ALASKAN WATERS - PB85-231496/XAB

Hansen, D. J.

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8523 REPORT DATE- 1985 PAGINATION- 28p REPORT NO.- MMSAKTE-85002, OCSMMS-850031 NTIS Prices- PC A03/MF A01 NDN- 033-0099-4319-2

The outer continental shelf report describes and assesses the potential effects of oil spills and other contaminants on marine mammals that occur in Alaskan waters, assuming that a spill or contamination occurs. The report focuses primarily on the potential direct and indirect effects of oil spills on marine mammals and addresses both short-term effects that may occur at the time of contact with oil, and long-ter effects that may occur long after contact with oil. The report also briefly reviews the literature on the potential effects of other contaminants such as heavy metals and organochlorines (DDT and PCB's) on marine mammals. The assessment concludes that sea otters, polar bears, fur seals, and very young seal pups could suffer serious or lethal effects if contact with oil occurred.

DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 45. VOLUME 1. PB85-223543/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Apr 77 PAGINATION- 240p REPORT NO.- MMSGMES-77003 NTIS Prices- PC A11/MF A01 NDN- 033-0099-1692-9

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico.

DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 44. - PB85-223550/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- May 76 PAGINATION- 310p REPORT NO.- MMSGMES-76001 NTIS Prices- PC A14/MF A01 NDN- 033-0099-1691-7

The Environmental Impact Statement is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 41. - PB85-223568/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Dec 76 PAGINATION- 531p REPORT NO.- MMSGMES-77001 NTIS Prices- PC A23/MF A01 SUPL INFO- SEE ALSO PB85-223576. NDN- 033-0099-1690-5

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 41. - PB85-223576/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Dec 76 PAGINATION- 495p REPORT NO.- MMSGMES-77002 NTIS Prices- PC A21/MF A01 SUPL INFO- SEE ALSO PB85-223568. NDN- 033-0099-1689-9

The Environmental Impact Statement is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issue and areas of concern, and the major differences of holding the lease sale.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 51. VOLUME 1. PB85-224199/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Jul 78 PAGINATION- 483p REPORT NO.- MMSGMES-78001 NTIS Prices- PC A21/MF A01 NDN- 033-0099-1611-5

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from these lease sales or the states bordering the Gulf of Mexico.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 37. VOLUME 1. PB85-224731/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Nov 74 PAGINATION- 451p REPORT NO.- MMSGMES-75001 NTIS Prices- PC A20/MF A01 SUPL INFO- SEE ALSO PB85-224749. NDN- 033-0099-1608-5

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting the lease sale or the states bordering the Gulf of Mexico.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALE 37. VOLUME 2. PB85-224749/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8522 REPORT DATE- Nov 74 PAGINATION- 303p REPORT NO.- MMSGMES-75002 NTIS Prices- PC A14/MF A01 SUPL INFO- SEE ALSO PB85-224731. NDN- 033-0099-1607-3

The EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from the lease sale or the states bordering the Gulf of Mexico.

STRATEGIC PETROLEUM RESERVE ANNUAL ENVIRONMENTAL MONITORING REPORT JANUARY-DECEMBER 1984. - DE85008140/XAB

CORPORATE AUTHOR(S)- Petroleum Operations and Support Services, Inc., New Orleans, LA. JOURNAL VOL.- u8520 n1000 REPORT DATE- 31 Mar 85 PAGINATION- 98p REPORT NO.- DOEPO10365-T1 CONT. NO.- AC96-82PO10365 NTIS Prices- PC A05/MF A01 SUPL INFO- PUBLICATION 124-84-AS-001. NDN- 033-0098-8538-6

The following sites were monitored: Bayou Choctow; Big Hill; Bryan Mound; St. James Terminal; Sulphur mines; Weeks Island; and West Hackberry. The environmental monitoring program at these sites provides a mechanism for assessing the impact of Strategic Petroleum Reserve (SPR) activity on the air, surface waste, and ground water. During 1984 air emissions were monitored through measurements and theoretical calculations. Volatile hydrocarbons arising from valves, pumps, tanks, tankers, and brine ponds are the predominant type of air emission from SPR facilities. The quantity of hydrocarbon emissions is generally dependent on the volume of oil throughput, with minimal emissions occurring during periods of static storage. Sulfu dioxide emissions occur during cavern fill at Weeks Island as a result of combustion of displaced gases. Dust emissions from site roads have been mitigated through eithe application of pavement or dust control agents. The surface waters of the Bayou Choctaw, Bryan Mound, Sulphur Mines, and West Hackberry SPR sites were sampled and monitored for general water quality by the respective site environmental and laboratory personnel. Surface water quality monitoring was not conducted at St. ame Terminal or Weeks Island because of the lack of potentially impacted surface waters on or near these two sites. Surface water quality monitoring at Big Hill will be initiated at the onset of site operations there. The following parameters were measured: pH value; solinity; temperature; total suspended solids; total dissolved; dissolved oxygen; biochemical oxygen demand; total organic carbon. (ERA citation 10:019895)

STATISTICAL DETERMINATION ANALYSIS FOR THE STRATEGIES IN NORWEGIAN OIL POLLUTION CONTAINMENT. AN ANALYSIS OF THE TKN PROJECT'S RISK MODEL. - DE85750434/XAB

Seim, G.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8520 n1000 REPORT DATE- Jan 83 PAGINATION- 114p REPORT NO.- SI-R-820226-1 AVAIL. NOTE- U.S. Sales Only. Portions of this document are illegible in microfiche products. NTIS Prices- PC A06/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0098-7733-0

Determination analysis is used for evaluating different types of states of coastal preparedness related to oil pollution containment. In this report a risk model is described. The model uncertainty related to uncertain model parameters is analysed. The uncertainty of various model results is estimated and how to determine

HEALTH AND ENVIRONMENTAL ASPECTS OF OIL SHALE TECHNOLOGY: STATUS REPORT. - DE85007359/XAB

Chappell, W. R.

CORPORATE AUTHOR(S)- Colorado Univ. at Denver. Center for Environmental Sciences. JOURNAL VOL.- u8513 n1000 REPOR DATE- 1982 PAGINATION- 104p REPORT NO.- DOEEV10298-5(4), CONF-821048-12 CONT. NO.- AC02-79EV10298 NTIS Prices- PC A06/MF A01 SUPL INFO- LIFE SCIENCES SYMPOSIUM ON SYNTHETIC FOSSIL FUEL TECHNOLOGIES, GATLINBURG, TN, USA. 24 OCT 1982. NDN- 033-0096-9428-3

The production of oil from shale presents a number of potential risks to human healt and the environment. These risks are associated with impacts on air and water quality, solid waste disposal, habitat disturbance and other effects of shale oil production. Research in the US, Estonia, and Scotland indicates that SO/sub x/ is perhaps the most important air pollutant and will require very high removal efficiencies. The high concentrations of organics and salts in the oils shale wastewaters present a considerable challenge in treating these waters. While the important constituents in leachates of raw and spent shales are fairly well known (TDS, F, B, Mo), the ultimate fate of these constituents is not understood. However, the materials under the spent shale piles will not be impermeable and it is likely that leachate will eventually reach ground and surface waters and result in significant increases in TDS and, perhaps, other constituents. While the crude shale oils and other materials are carcinogenic and present a risk of increased cancers, recent research results indicate that non-neoplastic pulmonary health effects (pneumoconiosis, bronchitis, and chronic airway obstruction) will be the most important occupational health concern. Ecological risks are very difficult to quantify, but adverse impacts on agriculture and wildlife will occur because of land disturbance and increased TDS in waters. Oil and wastewater spills will have adverse impacts on aquatic organisms and high levels of Mo in plants on the spent shale pile and in irrigation water (from leachates) could result in areas where forage contains Mo concentrations toxic to livestock. 138 references, 1 figure, 12 tables. (ERA citation 10:015743)

0

DISPOSING OF OILY DEBRIS. POLLUTION ASPECTS AND POSSIBILITIES FOR BIOLOGICAL DEGRADATION. - DE84750587/XAB

Halmoe, G.

CORPORATE AUTHOR(S)- Norges Tekniske Hoegskole, Trondheim. Selskapet for Industriell og Teknisk Forskning. JOURNAL VOL.- u8509 n0000 REPORT DATE- Oct 82 PAGINATION- 99p REPORT NO.- STF-21A82082 AVAIL. NOTE- U.S. Sales Only. Portion are illegible in microfiche products. NTIS Prices- PC A05/MF A01 SUPL INFO- IN NORWEGIAN. NDN- 033-0095-9073-8

Laboratory experiments modelling the disposal of oily debris from coast line cleanin are carried out. The direct disposal of such mass resulted in trickling water with a unacceptable oil content. Oily sand could be stabilized by adding pine bark. Oil seaweed was stabilized by unslaked line. The oil in the drains were removed by using these stabilizing methods. Large disposal of slowly decomposed seaweed resulted in effluents of organic matter and nitrogen corresponding to the amounts from an ordinary municipal rubbish dump. The access to air limited the oil degradation from the simulated disposals. Addition of water soluble fertilizer was not suitable as a nitrogen source. The mixing of oily waste with household waste had a certain stabilizing and favorable effect on the oil degradation. 26 figures, 34 tables.

DRAFT ENVIRONMENTAL IMPACT STATEMENT: PROPOSED 1985 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NO. 90 OFFSHORE THE SOUTH ATLANTIC STATES. - DE85900316/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Vienna, VA. Atlantic OCS Region. JOURNAL VOL.- u8509 n1000 REPORT DATE- Apr 84 PAGINATION- 640p REPORT NO.- OCSMMS-84-0007 AVAIL. NOTE- Portions are illegible in microfiche products. NTI Prices- PC A99/MF A01 NDN- 033-0095-7802-7

The proposed action is the offering of 7245 blocks (40.8 million acres; 16.5 million hectares) located from 12 to 210 statute miles offshore North Carolina, South Carolina, Georgia, and Florida for leasing in accordance with the Outer Continental Shelf Lands Act, as amended. The average water depths of the blocks range from 30 to 3900 m (98 to 12,796 feet). Sale No. 90 will be held in March 1985. Alternatives considered include a delay of the salt, canceling the sale (no action), and four deferral options. The deferral options include one to protect coastal and nearshore resources, one relating to blocks in the clearance zone for the NASA Kennedy Space Center and Eastern Space and Missile Center, one to protect the calico scallop and royal red shrimp fishing grounds, and one to protect the nominated Oculina National Marine Sanctuary. All blocks studied pose some degree of risk to the environment. Mitigating measures, which may reduce the risk, have been identified. 379 references 22 figures, 46 tables. (ERA citation 10:007421)

FINAL ENVIRONMENTAL IMPACT STATEMENT RED DOG MINE PROJECT NORTHWEST ALASKA. VOLUME 2. APPENDICES. - PB85-138675/XAB

CORPORATE AUTHOR(S)- Environmental Protection Agency, Seattle, WA. Region X. JOURNAL VOL.- u8506 REPORT DATE- Sep 84 PAGINATION- 334p REPORT NO.- EPA9109-84122B NTIS Prices- PC A15/MF A01 SUPL INFO- SEE ALSO PB85-138647. PREPARED IN COOPERATION WITH DEPARTMENT OF INTERIOR, WASHINGTON, DC. NDN- 033-0095-1672-1

Appendices to EPA 910/9-84-122a: Red Dog Mine Project Final Environmental Impact Statement are described in the report. Included in the study are: Reclamation plan; Spill prevention and control; Biological assessment; Permits; Cultural resources protection; and Coastal zone management.

NATIONAL MARINE POLLUTION PROGRAM: CATALOG OF FEDERAL PROJECTS. - PB85-139020/XAB

CORPORATE AUTHOR(S)- National Marine Pollution Program Office, Rockville, MD. JOURNAL VOL.- u8506 REPORT DATE- Jul 82 PAGINATION- 450p NTIS Prices- PC A19/MF A01 SUPL INFO- APPENDIX NO. 2 TO PB82-218462. SEE ALSO PB85-139004, AND PB85-139012. PREPARED IN COOPERATION WITH INTERAGENCY COMMITTEE ON OCEAN POLLUTION RESEARCH, DEVELOPMENT, AND MONITORING, WASHINGTON, DC. NDN- 033-0095-1647-2

The Catalog of Federal Projects, is a primary supporting document for the National Marine Pollution Program Plan FY 1981 - FY 1985. The Catalog presents summaries of about 1000 projects in nearly 100 programs funded by the eleven Federal departments and independent agencies involved in the National Marine Pollution Program. Projects included in the Catalog are limited to efforts that focus primarily on pollution problems in the oceans and Great Lakes.

REA-WIDE ENVIRONMENTAL ASSESSMENT: EXPLORATION AND PRODUCTION ACTIVITIES FOUR-MILE ZON F THE EAST AND WEST FLOWER GARDEN BANKS. - PB85-128601/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8505 DESCRIP. NOTE- Final rept. REPORT DATE Oct 84 PAGINATION- 139p REPORT NO.- OCSMMS-840053 NTIS Prices- PC A07/MF A0 SUPL INFO- PORTIONS OF THIS DOCUMENT ARE NOT FULLY LEGIBLE. NDN- 033-0094-9792-1

This Area-Wide Environmental Assessment is written for exploration, development, and production activity occurring within the four mile zone of the East and West Flower Garden Banks. This AEA will serve as a base document for oil and gas activity proposed within the environmental assessment area. The report describes the affected environments and the environmental consequence of hydrocarbon discharges to the offshore environment.

ARINE OIL POLLUTION: FEDERAL PROGRAM REVIEW. ENVIRONMENTAL IMPACT OF OFFSHORE OIL AND AS DEVELOPMENT. TECHNOLOGY FOR OIL AND HAZARDOUS MATERIALS. - PB85-138527/XAB

CORPORATE AUTHOR(S)- National Marine Pollution Program Office, Rockville, MD. JOURNAL VOL.- u8505 REPORT DATE- Apr 81 PAGINATION- 186p NTIS Prices- PC A09/MF A01 SUPL INFO- APPENDIX NO. 3 TO PB82-218462. PREPARED IN COOPERATION WITH INTERAGENCY COMMITTEE ON OCEAN POLLUTION RESEARCH, DEVELOPMENT, AND MONITORING, WASHINGTON, DC. NDN- 033-0094-9230-3

As part of its responsibility in assuring that the Federal marine pollution program is well coordinated and directed, the Interagency Committee on Ocean Pollution Research, Development, and Monitoring (COPRDM) organized a review to examine the elements of the Federal program that deal with petroleum pollution in the marine environment. Virtually all agencies that are concerned with marine pollution also ar concerned with oil and are conducting research in one or more oil related problem areas according to their individual agency mandates. The entire program had never been viewed as a whole. Consequently, this review was undertaken for the purpose of determining the overall relevance and adequacy of current program directions. This document is intended as a tool for sharpening the focus of the Federal program for petroleum related studies.

VARIN BASIN LEASING OFFERING. FINAL ENVIRONMENT IMPACT STATEMENT NOVEMBER 1983. - 84900768/XAB

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8502 n0900 REPORT DATE- Mar 84 PAGINATION- 749p REPORT NO.- NP-4900768 AVAIL. NOTE- Paper copy only, copy doe not permit microfiche production. NTIS Prices- PC A99 NDN- 033-0094-1938-7

This Final Environmental Impact Statement concerns the proposed oil and gas lease sale, Navarin Basin Lease Offering, scheduled for March 1984. The leasing proposal consists of a total of 11,953,310.05 hectares (29.5 million acres) of OCS lands. The 5296 blocks are located in Navarin Basin 90 to 401 kilometers (56 to 249 mi) west of the southeast cape of St. Matthew Island in waters that are from 70 to over 2800

meters (230 to 9186 ft) deep. All blocks offered pose some degree of pollution risk to the environment. The risk is related to adverse effects on the environment and other resource uses which may result from accidental or chronic oilspills. Socioeconomic effects from onshore development could have state, regional, and/or local implications. Several alternatives and mitigating measures may be applied whic would reduce the type, occurrence, and extent of adverse effects associated with thi proposal. Other measures have also been identified. In spite of mitigating measures, some produced, oilspills would be statistically probable, there would be some disturbance to fishery and wildlife values, and some onshore development could occur in undeveloped and/or wilderness areas. 340 references. (ERA citation 09:017315)

SEASONAL ABUNDANCE AND HABITAT-USE PATTERNS OF COASTAL BIRD POPULATIONS ON PADRE AND MUSTANG ISLAND BARRIER BEACHES (FOLLOWING THE IXTOC I OIL SPILL) - PB84-236876

Chapman, B. R.

CORPORATE AUTHOR(S)- Corpus Christi State Univ., TX. Dept. of Biology. JOURNAL VOL.- u8426 REPORT DATE- Feb 84 PAGINATION- 87p CONT. NO.- DI-14-16-0009-80 -062 MNTR. AGNCY.- FWS/OBS 83/31 NTIS Prices- PC A05/MF A01 SUPL INFO- LIBRARY OF CONGRESS CATALOG CARD NO. 84-601060. SPONSORED IN PART BY MINERALS MANAGEMENT SERVICE, WASHINGTON, DC. NDN- 033-0093-5425-3

The report assesses the impact of the Ixtoc I oil spill on coastal bird populations and provides baseline information about the distribution and seasonal abundance of the avian species that use south Texas beach and nearshore habitats. The report synthesizes all available data on waterbirds in the study area, including censuses made from October 1979 through June 1981. The section on results and discussion describes the annual, seasonal, and daily cycles of avian abundance, distribution, and diversity. The species profiles sections provide distribution, status, seasonal abundance, habitat-use patterns, and oil vulnerability information for 26 species.

METHOD FOR RANKING BIOLOGICAL HABITATS IN OIL SPILL RESPONSE PLANNING AND IMPACT ASSESSMENT - PB84-245612

Adams, J. K. Benkert, K. A. Keller, C. White, R.

CORPORATE AUTHOR(S)- National Coastal Ecosystems Team, Slidell, LA. JOURNAL VOL.- u8426 REPORT DATE- Aug 84 PAGINATION- 51p REPORT NO.- FWSOBS-8261 NTIS Prices- PC A04/MF A01 SUPL INFO- SPONSORED IN PART BY LOOP, INC., HARVEY, LA. LIBRARY OF CONGRESS CATALOG CARD NO. 84-601103. NDN- 033-0093-4917-8

The report describes a method that enables oil spill response planners to minimize the ecological impacts of oil spills by determining protection priorities for biological habitats. The objective of the method is to allow persons responding to a oil spill to quickly identify areas that should be protected first, second, and on t the extent that personnel and equipment are available. The first part of the report describes the rationale and general components of the method. The last part presents an application of the method to the Louisiana Offshore Oil Port (LOOP) spill respons planning area.

DRAFT ENVIRONMENTAL IMPACT STATEMENT: PROPOSED OIL AND GAS LEASE SALES 94 98 AND 102 (GULF OF MEXICO REGION). - PB84-226034

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8422 REPORT DATE- Aug 84 PAGINATION- 598p REPORT NO.- MMSGMES-84002 NTIS Prices- PC A25/MF A01 NDN- 033-0092-4396-0

This EIS is a description of the environmental aspects and impacts of oil and gas activities resulting from these lease sales or the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed actions, issues and areas of concern, and the major differences of holding these lease sales.

STRATEGIC PETROLEUM RESERVE ANNUAL ENVIRONMENTAL MONITORING REPORT 1983. - DE84011123

CORPORATE AUTHOR(S)- Petroleum Operations and Support Services, Inc., New Orleans, LA. JOURNAL VOL.- u8420 n0900 REPORT DATE- 31 Mar 84 PAGINATION- 53p REPORT NO.- DOENBM-4011123 AVAIL. NOTE- Portions are illegible in microfiche products. NTIS Prices- PC A04/MF A01 SUPL INFO- PUBLICATION 124-84-AS001. NDN- 033-0092-0548-0

Progress made in the monitoring and inspection program for the Strategic Petroleum Reserve during 1983 is reported. The following sites were monitored: Bayou Choctau, Bryan Mound, St. James Terminal, Sulfur Mines, Weeks Island and West Hackberry. Discussion is presented under the headings: air quality monitoring; oil spills and NPDES compliance; and water quality monitoring. The discussion on water quality monitoring is by far the most extensive. Surface waters from the sites previously mentioned were sampled and monitored for general water quality (except for St. James

Terminal where there is a lack of potentially impacted surface waters). The followin parameters were measured: pH value; salinity; total suspended particulates; temperature; dissolved oxygen; biochemical oxygen demand; oil and grease; and genera observations. 12 references, 6 figures. (ERA citation 09:027866)

EABIRD-OIL SPILL BEHAVIOR STUDY. VOLUME 1. EXECUTIVE SUMMARY. - PB84-179530

Varoujean, D. H. Baltz, D. M. Allen, B. Power, D. Schroeder, D. A.

CORPORATE AUTHOR(S)- Nero and Associates, Inc., Portland, OR. JOURNAL VOL.- u8416 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 83 PAGINATION- 21p CONT. NO.- DI-14-12-0001-29102 MNTR. AGNCY.- MMS-YN-TE 83-007 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB84-179522. NTIS Prices- PC A02/MF A01 SUPL INFO- SEE ALSO PB84-179548. NDN- 033-0090-9377-9

This volume contains a summary of findings of a two year (1980-1982) study on the behavior of seabirds encountering oil-contaminated water. An information survey, undertaken in the study, indicated that out of nearly 300 references to seabird/oil research only 12 articles addressed the topic of seabird behavior in the presence of oil. Available evidence does, however, indicate that seabirds avoid or try to avoid making contact with petroleum oil. Field observations and experiments conducted in the study areas of natural oil seeps in the Santa Barbara Channel California, revealed that: (1) abundance of seabirds in the study area was relatively low when compared to that in oil-free areas of the Channel; (2) the age and/or the residency status of Brown Pelicans (Pelecanus occidentalis), Western Gulls (Larus occidentalis and Heermann's Gulls (Larus heermanni) were related to the frequency of interaction of these birds with oil.

EABIRD-OIL SPILL BEHAVIOR STUDY. VOLUME 2. TECHNICAL REPORT. - PB84-179548

Varoujean, D. H. Baltz, D. M. Allen, B. Power, D. Schroeder, D. A.

CORPORATE AUTHOR(S)- Nero and Associates, Inc., Portland, OR. JOURNAL VOL.- u8416 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 83 PAGINATION- 71p CONT. NO.- DI-14-12-0001-29102 MNTR. AGNCY.- MMS-YN-TE 83-008 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB84-179522. NTIS Prices- PC A04/MF A01 SUPL INFO- SEE ALSO VOLUME 1, PB84-179530 AND VOLUME 3, PB84-179555. NDN- 033-0090-9376-7

This volume provides a technical discussion of a two year (1980-1982) study on the behavior of seabirds encountering oil-contaminated water. An information survey, undertaken in this study, indicated that out of nearly 300 references to seabird/oil research only 12 articles addressed the topic of seabird behavior in the presence of oil. Available evidence does, however, indicate that seabirds avoid or try to avoid making contract with petroleum oil. Field observations and experiments conducted in the study areas of natural oil seeps in the Santa Barbara Channel, California, revealed that (1) abundance of seabirds in the study area was relatively low when compared to that in oil-free areas of the Channel; (2) the age and/or the residency status of Brown Pelicans (Pelecanus occidentalis), Western Gulls (Larus occidentalis and Heerman's Gulls (Larus heermanni) were related to the frequency of interaction o these birds with oil.

ABIRD-OIL SPILL BEHAVIOR. VOLUME 3. APPENDICES. - PB84-179555

Varoujean, D. H. Baltz, D. M. Allen, B. Power, D. Schroeder, D. A.

CORPORATE AUTHOR(S)- Nero and Associates, Inc., Portland, OR. JOURNAL VOL.- u8416 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 83 PAGINATION- 296p CONT. NO.- DI-14-12-0001-29102 MNTR. AGNCY.- MMS-YN-TE 83-009 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB84-179522. NTIS Prices- PC A13/MF A01 SUPL INFO- SEE ALSO VOLUME 2, PB84-179548. NDN- 033-0090-9375-5

The appendices presented in this volume contain information gathered during a two year (1980-1982) study on the behavior of seabirds encountering oil-contaminated water. Appendix A is the annotated bibliography developed for the project. The remaining appendices contain the data base compiled during the study.

VIRONMENTAL IMPACT REPORT FOR THE INLAND DOMES GROUP OF STRATEGIC PETROLEUM RESERVE TES (SOUTHWESTERN MISSISSIPPI AND NORTHERN LOUISIANA). PRELIMINARY DRAFT. - DE8400730

CORPORATE AUTHOR(S)- Science Applications, Inc., Oak Ridge, TN. JOURNAL VOL.- u8415 n0900 REPORT DATE- 8 Sep 79 PAGINATION- 366p REPORT NO.- DOERA07192-T CONT. NO.- AC01-78RA07192 AVAIL. NOTE- Portions are illegible in microfiche products. NTIS Prices- PC A16/MF A01 NDN- 033-0090-7835-3

This document is a site-specific Environmental Impact Statement for three proposed candidate sites (Leedo, Bruinsburg, and Gilbert) which compose the inland domes grou of salt domes located in southwestern Mississippi and northern Louisiana. The proposed action is the storage of oil in one of the aforementioned inland domes with

alternatives of storage in Gulf Coast domes, inland mines, or offshore domes; floating storage; industrial petroleum reserve; or no action. Basic systems design for all sites includes the withdrawal of water from the Mississippi River during leaching and oil withdrawal, the disposal of brine in deep saline aquifers, and the offloading of oil from a proposed tanker terminal at Baton Rouge, Louisiana. Each of the candidate sites would have a maximum storage capacity of 250 million barrels. Ke issues included: (1) the release of hydrocarbon emissions at the Baton Rouge termina which may exceed current air quality standards, (2) the potential disturbance of two endangered species (the red-cockaded woodpecker and American alligator) which exist in the region, and (3) the possible contamination of aquifers due to lack of site-specific information on aquifer capacity. Significant impacts include the loss of bottomland forests (wetlands) along pipeline routes and excess noise levels from pile driving at the terminal. Potentially significant impacts have also been evaluated. These include accidents which could result in oil or brine spills or an onsite fire. Minor impacts would result in topographical modification of the site areas due to onsite fill, excavation, and surface grading; degradation of water quality due to increased sediment load caused by resuspension during dredging and by erosion; degradation of air quality due to fugitive dust, vehicle emissions and pain vapors; and impacts to the aquatic and terrestrial flora and fauna. 30 figures, 31 tables. (ERA citation 09:015948)

EFFECTS OF OIL ON TUNDRA PONDS AND STREAMS. FINAL REPORT OCTOBER 1 1978-SEPTEMBER 30 1980. - DE82018899

Hobbie, J. E.

CORPORATE AUTHOR(S)- Marine Biological Lab., Woods Hole, MA. Ecosystems Center. JOURNAL VOL.- u8412 n0700 REPORT DATE- May 82 PAGINATION- 13p REPORT NO.- DOEEV02939-2 CONT. NO.- AC02-76EV02989 NTIS Prices- PC AC2/MF A01 NDN-033-0089-9623-1

The effects of nutrient enrichment on an arctic tundra stream were studied in 1979 and 1980. The site was the Kuparuk River of the North Slope of Alaska. Concentration of phosphorus and nitrogen in the river were extremely low, and phosphorus was indicated as the most important limiting nutrient. An artificial stream was set up t observe the effects of added nutrients on periphyton biomass and photosynthesis. The phosphorus and phosphorus plus nitrogen enrichments showed significant increase in algal growth and production over the controls. Nitrogen alone gave no stimulus. The effects of petroleum hydrocarbons on the decomposition of plant litter was observed in an experimental setup simulating conditions in Toolik Lake, Alaska. Overall microbial activity and heterotrophic activity (exp 14 C acetate uptake) indicated n significant short term effect after oil addition. In longer experiments, the decomposition rate of lignin and cellulose components of Carex was observed by following exp 14 C labelled compounds. Various inhibitory and stimulatory responses were found. The studies on zooplankton and fish responses to crude oil were carried out in aquaria simulating Toolik Lake. Zooplankton with large surface to volume ratios (Daphnia) were observed to be most susceptible, while animals with large bodies were the least (Heterocope). After 2 days the oil had lost its lethal effect, but a 12 hour exposure was enough to reduce the population 95%. High doses of oil produced no mortality even on small arctic grayling. Respiration was reduced 40% after the exposure but recovery was total after 3 days. The long term recovery from an oil spill was monitored in several ponds near Barrow, Alaska. Almost total recovery of the normal biota took about 2 years. Exceptions to this were changes in species composition among planktonic algae observed for 6 years, and the elimination of varius zooplankton and aquatic insects for up to 7 years. (ERA citation 07:051807

CALIFORNIA COMMERCIAL/SPORT FISH AND SHELLFISH OIL TOXICITY STUDY. VOLUME 1. EXECUTIVE SUMMARY. - PB84-167212

Kanter, R. G. Wingert, R. C. Vick, W. H. Sowby, M. L. Foley, C. J.

CORPORATE AUTHOR(S)- MBC Applied Environmental Sciences, Inc., Costa Mesa, CA. JOURNAL VOL.- u8412 DESCRIP. NOTE- Final rept. REPORT DATE- Dec 83 PAGINATION- 35p CONT. NO.- DI-14-12-0001-29105 MNTR. AGNCY.- MMS-YN-TE 83-001-29105 NTIS Prices- PC A03/MF A01 SUPL INFO- SEE ALSO PB84-167220. PREPARED IN COOPERATION WITH SCIENCE APPLICATONS, INC., LA JOLLA, CA. NDN-033-0089-8433-2

The effect of oil on three species of California marine organisms, California Halibu (Paralichthys californicus), Northern Anchovy (Engraulis mordax), and California Mussel (Mytilus californianus) were investigated. Adult, larval, and egg life stages of each species were exposed to the water soluble fraction (WSF) of Santa Barbara crude oil in flow-through experiments lasting through the life stage or as long as 120 days. Embryos of all species accumulated hydrocarbons and showed reduced surviva with increasing test concentration. Larval halibut demonstrated bent notochords in high test concentration, reduced growth rate in all concentrations, and gill damage in adults in high concentration. Anchovy larvae and adults showed patterns similar t halibut with reduction in growth and head and jaw abnormalities.

STRATEGIC PETROLEUM RESERVE. FINAL ENVIRONMENTAL IMPACT STATEMENT FOR KLEAR MINE. - DE81029872

CORPORATE AUTHOR(S)- Federal Energy Administration, Washington, DC. JOURNAL VOL.- u8410 n0000 REPORT DATE- Sep 77 PAGINATION- 592p REPORT NO.- FEAS-77324 NTIS Prices- PC A25/MF A01 NDN- 033-0089-4553-3

No abstract available.

ST. GEORGE BASIN. FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT. - DE84900206

CORPORATE AUTHOR(S)- Minerals Management Service, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8409 n0900 REPORT DATE- 1983 PAGINATION- 177p REPORT NO.- NP-4900206 AVAIL. NOTE- Paper copy only, copy doe not permit microfiche production. NTIS Prices- PC A09 NDN- 033-0088-9640-6

This final supplemental environmental impact statement (EIS) discusses the effects o geophysical seismic activities and evaluates the risk of a very large oilspill (100,000 barrels or greater) on gray and right whales within the St. George Basin lease offering area. The environmental analysis focuses on oil and gas leasing activities on 96 tracts that received bids. Preliminary seismic activities (both dee and high-resolution) associated with the lease offering are not expected to adversel affect the gray and right whale population fitness in the Sale 70 area. The probable degree of regional impact is considered NEGLIGIBLE for right whales. Since almost th entire population of gray whales migrates through a portion of the Sale 70 area, the probable degree of regional impact could be MINOR. Significant population-wide direc effects from oilspills would be unlikely. The probable degree of regional impact on gray and right whales is considered NEGLIGIBLE. (ERA citation 09:006610)

GENETIC ENGINEERING AND THE DEVELOPMENT OF NEW POLLUTION CONTROL TECHNOLOGIES. - PB84-148972

Johnston, J. B. Robinson, S. G.

CORPORATE AUTHOR(S)- Illinois Univ. at Urbana-Champaign. Inst. for Environmental Studies. JOURNAL VOL.- u8409 DESCRIP. NOTE- Final rept. REPORT DATE- Jan 84 PAGINATION- 143p GRANT NO.- EPA-R-806819 MNTR. AGNCY.- EPA-600/2 84-037 NTI Prices- PC A07/MF A01 NDN- 033-0088-8532-9

This report relates genetic engineering and biological waste treatment, so that opportunities for its improvement can be identified and evaluated. It describes the state of development of gene manipulation and natural limits to biodegradation as of early 1983. It identifies a number of research topics that are likely to contribute to new pollution treatment techniques. These include the basic mechanisms underlying microbical co-metabolism and oligotrophy; molecular genetics in filamentous fungi, t strict anaerobes and in archaebacteria; directed evolution of enzymes and metabolic pathways; and studies to advance understanding of dehalogenations by microbes.

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OCS OIL AND GAS LEASE OFFERINGS CENTRAL GULF OF MEXICO APRIL 1984 AND WESTERN GULF OF MEXICO JULY 1984 - PB84-132547

Brashier, J. Beckert, H. Rouse, M.

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8406 REPORT DATE- Dec 83 PAGINATION- 514p REPORT NO.- MMS-GM-ES-84-001 NTIS Prices- PC A22/MF A01 NDN- 033-0088-1246-6

This Environmental Impact Statement (EIS) is a description of the environmental aspects and impacts of oil and gas activities resulting from these lease offerings for the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issues and areas of concern, and the major alternatives of holding these lease offerings.

ANALYSIS OF PETROLEUM HYDROCARBONS IN INTERTIDAL ORGANISMS EXPOSED TO EKOFISK CRUDE OIL - DE83750965

Lichtenthaler, R. G. Oreld, F.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8405 n0800 REPORT DATE- Jul 81 PAGINATION- 40p REPORT NO.- SI-R-770803-3 AVAIL. NOTE- U.S. Sales Only. Portions are illegible in microfiche products. NTIS Prices- PC A03/MF A01 NDN- 033-0087-7834-3

Aliphatic and aromatic hydrocarbons in intertidal organisms (Patella vulgata, Nucell lapillus and Balanus balanoides) exposed to Ekofisk (North Sea) crude oil were analysed. The organisms sprayed with petroleum accumulate both types of hydrocarbons Highest levels of hydrocarbons are found in Balanus balanoides, lowest levels in

INAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS (OUTER CONTINENTAL SHELF) OIL AND GAS SALES 72 74 AND 79. VOLUME 1 - PB84-102805

Holt, J. Bartz, M. Lehman, J.
CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8401 REPORT DATE- Jan 83 PAGINATION- 603p REPORT NO.- MMS-GM-ES-83-001 NTIS Prices- PC A99/MF A01 SUPL INFO- SEE ALSO VOLUME 2, PB84-102813. NDN- 033-0086-2532-0

The FREIS is description of the environmental aspects and impacts of oil and gas activities resulting from these sales for the states bordering the Gulf of Mexico. I provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issues and areas of concern, and the major alternatives of holding these sales.

INAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS (OUTER ONTINENTAL SHELF) OIL AND GAS SALES 72 74 AND 79. VOLUME 2 - PB84-102813

Holt, J. Bartz, M. Lehman, J.

CORPORATE AUTHOR(S)- Minerals Management Service, Metairie, LA. Gulf of Mexico OCS Regional Office. JOURNAL VOL.- u8401 REPORT DATE- Jan 83 PAGINATION- 470p REPORT NO.- MMS-GM-ES-83-002 NTIS Prices- PC A20/MF A01 SUPL INFO- SEE ALSO VOLUME 1, PB84-102805. NDN- 033-0086-2531-9

This Final Regional Environmental Impact Statement (FREIS) is a description of the environmental aspects and impacts of oil and gas activities resulting from these sales for the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequence; it discusses the proposed action, issues and areas of concern, and the major alternatives of holding these sales.

AMAGE ASSESSMENT OF OIL SPILLS. - DE83750839

Kveseth, K. Seip, H. M. Johannessen, K.

CORPORATE AUTHOR(S)- Sentralinstitutt for Industriell Forskning, Oslo (Norway). JOURNAL VOL.- u8326 n0800 REPORT DATE- Apr 82 PAGINATION- 31p REPORT NO.- SI-R-810808-5 AVAIL. NOTE- U.S. Sales Only. Portions are illegible in microfiche products. NTIS Prices- PC A03/MF A01 NDN- 033-0086-1036-5

The report describes a damage assessment scheme for oil spilled in coastal waters. Damage in the environment as well as recreational and economic losses are considered and results from case studies are presented. 4 drawings, 14 tables. (ERA citation 08:040188)

SURVEY OF ROCKY SHORE TRANSECTS IN THE REGION OF SULLOM VOE SHETLAND. - PB83-257931

Hiscock, K. Emerson, D. C. Thomas, A. Iball, K.

CORPORATE AUTHOR(S)- Field Studies Council, Pembroke (Wales). Oil Pollution Research Unit. JOURNAL VOL.- u8326 DESCRIP. NOTE- Rept. for May-Jun 81 REPORT DATE- 1981 (C) PAGINATION- 120p NTIS Prices- PC E07/MF E07 NDN- 033-0086-0300-2

A resurvey was carried out of twenty-seven transects originally laid down on rocky shores in the region of Sullom Voe, Shetland, in 1980. The resurvey, intended to detect any gross changes in the rocky shore plant and animal populations due to oil pollution from the nearby oil terminal, sampled animals and plants from each transec for abundance, and also measured the density of limpets and barnacle spats. A specialized abundance scale was given in detail. An area of chronic pollution at Mavis Grind was mentioned in detail; some degree of recovery was noted. It was concluded that changes in species abundance were continuing trends and that while some shores near Sullom Voe terminal are stable others are very variable seasonally.

UATIC-PATHWAYS MODEL TO PREDICT THE FATE OF PHENOLIC COMPOUNDS. - DE83011074

Aaberg, R. L. Peloquin, R. A. Strenge, D. L. Mellinger, P. J.

CORPORATE AUTHOR(S)- Battelle Pacific Northwest Labs., Richland, WA. JOURNAL VOL. u8323 n0800 REPORT DATE- Apr 83 PAGINATION- 60p REPORT NO.- PNL-4202 CONT. NO.- AC06-76RL01830 NTIS Prices- PC A04/MF A01 NDN- 033-0085-2773-5

Organic materials released from energy-related activities could affect human health and the environment. To better assess possible impacts, we developed a model to predict the fate of spills or discharges of pollutants into flowing or static bodies of fresh water. A computer code, Aquatic Pathways Model (APM), was written to implement the model. The computer programs use compartmental analysis to simulate aquatic ecosystems. The APM estimates the concentrations of chemicals in fish tissue

use of dispersants (toxicity and considerations for dispersant use), impact of oil and dispersants on coral reefs, impact of oil on seagrass beds and sandy beaches, impact of oil on mangroves (seedling survival and tolerance, regeneration, forest type vulnerability, and cleanup and recovery activities in mangroves), conclusions, and recommendations. The study concludes that coral reefs and seagrass beds may escape significant spill damage if pollution is not chronic and if dispersants are not used. Sandy and rocky shores may be severely impacted but recover quickly. Mangroves are the most vulnerable coastal ecosystem. Recommendations are that oil spill contingency plans must be prepared for all areas, and that the necessary equipment for the plans must be in place.

ASSESSMENT OF PAST PRESENT AND FUTURE RISKS OF OIL SPILLS IN AND NEAR THE PRESENT SEA OTTER RANGE IN CALIFORNIA. - PB83-216069

Tinney, R. T. Jr.

CORPORATE AUTHOR(S)- Tinney (Richard T.), Jr., Arlington, VA. JOURNAL VOL.- u8319 DESCRIP. NOTE- Final rept. REPORT DATE- Jun 83 PAGINATION- 215p CONT. NO.- MM2324944-0 MNTR. AGNCY.- MMC 83/01 NTIS Prices- PC A10/MF A01 NDN- 033-0083-8832-2

In 1977 the U.S. Fish and Wildlife Service listed the Sea Otter in California as a threatened species, primarily because of the potential risk posed to the population by oil spills. This report examines the extent of the oil spill risk as it existed i 1977, as it exists now, and as it is expected to exist in 1988. Included are risk-related factors such as offshore oil exploration, development, production, and transportation, oil spill response capability, coastwise transportation of crude oil and refined products, and improved offshore technology.

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF CRUDE OIL ON TWO FRESHWATER LAKE ECOSYSTEM - PB83-219774

Werner, M. D. Adams, V. D. Lamarra, V. A.

CORPORATE AUTHOR(S)- Utah Water Research Lab., Logan. JOURNAL VOL.- u8319 REPORT DATE- Apr 83 PAGINATION- 220p REPORT NO.- UWRLQ-8304 CONT. NO.- DI-14-34-0001-0253 PROJ. NO.- OWRT-B-187-UTAH MNTR. AGNCY.- W83 03273, OWRT B-187-UTAH(1) NTIS Prices- PC A10/MF A01 NDN- 033-0083-8525-4

The responses of two freshwater lake ecosystems (Bear Lake, Utah-Idaho, and New Fork Lake, Wyoming) to crude oil impaction were investigated in two phases. The effects were first studied on three phase (gaseous-aqueous-sediment) laboratory microcosms. Notable responses were increased oxygen demand, nutrient immobilization, reduction i plant biomass accumulation, and a heterotrophically dominated ecosystem. The second phase investigated the effects of crude oil on plant litter decomposition in the lakes.

OIL PERSISTENCE IN TUNDRA AND ITS IMPACT ON THE BELOW-GROUND ECOSYSTEM. FINAL REPORT. - DE83008992

Linkins, A. E. Atlas, R. M. Everett, K. R.

CORPORATE AUTHOR(S)- Virginia Polytechnic Inst. and State Univ., Blacksburg. Dept. o Biology. JOURNAL VOL.- u8317 n0800 REPORT DATE- 1981 PAGINATION- 65p REPORT NO.- DOEOR04940-3 CONT. NO.- AS05-76OR04940 NTIS Prices- PC A04/MF A01 NDN- 033-0083-4264-4

Prudhoe Bay crude oil was applied as a 20 1/m exp 2 surface spray on Eriophorium vaginatum tussock tundra at Eagle Summit, Ak, in August 1979. Oil caused a significant reduction in mycorrhizal root numbers and root respiration rates in Betula nana, but not E. vaginatum root tips which had grown through the 5 to 15 cm deep oil contaminated soil. Significant changes did occur in leaf scenescent pattern of B. nana and the tillering index of E. vaginatum. Soil cellulase and phosphatase enzyme activities both declined in the oiled soil horizons but were unaffected in horizons immediately below visibly contaminated organic matter. (ERA citation 08:023039)

BIOLOGICAL EFFECTS OF THREE DIFFERENT SHORELINE CLEANUP METHODS. - DE82750484

Mattsson, J. Lethinen, C. Linden, O.

CORPORATE AUTHOR(S)- Swedish Water and Air Polllution Research Lab., Studsvik. JOURNAL VOL.- u8316 n0700 REPORT DATE- Jun 81 PAGINATION- 17p REPORT NO.- IVL-B-629 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A02/MF A01 NDN- 033-0083-1250-0

In order to simulate a real oil spill the shore of a small island in the Baltic proper was treated with a weathered crude oil. The aim of the study was to

PACIFIC NORTHWEST LABORATORY ANNUAL REPORT FOR 1981 TO THE DOE OFFICE OF THE ASSISTANT SECRETARY FOR ENVIRONMENTAL PROTECTION SAFETY AND EMERGENCY PREPAREDNESS. PART 5. ENVIRONMENTAL AND OCCUPATIONAL PROTECTION ASSESSMENT AND ENGINEERING. - DE82008032

Glass, W. A.
CORPORATE AUTHOR(S)- Battelle Pacific Northwest Labs., Richland, WA. JOURNAL VOL. u8314 n0700 REPORT DATE- Feb 82 PAGINATION- 59p REPORT NO.- PNL-4100-Pt.5 CONT. NO.- AC06-76RL01830 NTIS Prices- PC A04/MF A01 NDN- 033-0082-0746-7

This report describes research in environment, health, and safety conducted during fiscal year 1981. The five parts of the report are oriented to particular segments o the program. Parts 1 to 4 report on research performed for the DOE Office of Health and Environmental Research in the Office of Energy Research. Part 5 reports progress on all research performed for the Office of the Assistant Secretary for Environmenta Protection, Safety and Emergency Preparedness. The parts are: Part 1: Biomedical Sciences under Program Manager, H. Drucker; Part 2: Ecological Sciences, under Program Manager, B.E. Vaughan; Part 3: Atmospheric Sciences under Program Manager, C.E. Elderkin; Part 4: Physical Sciences under Program Manager, J.M. Nielsen; and Part 5: Environmental and Occupational Protection, Assessment, and Engineering under Program Managers, D.L. Hessel, S. Marks, and W.A. Glass. (ERA citation 07:048111)

EFFECTS OF CHRONICAL OIL POLLUTION OUTSIDE A REFINERY IN THE NORTHERN BALTIC. - IVL-B-538

Mattsson, J. Linden, O. Lundberg, S. Notini, M.

CORPORATE AUTHOR(S)- Swedish Water and Air Pollution Research Lab., Frykta. JOURNAL VOL.- u8313 n0600 REPORT DATE- Feb 80 PAGINATION- 22p AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A02/MF A01 NDN- 033-0081-8205-7

The area influenced by the petroleum refinery at Nynaeshamn south of Stockholm, Sweden, has been investigated are used. The content of petroleum hydrocarbons has been analysed in sediments, mussels, and fishes. Samples from the rockweed area and from the deeper areas with soft seafloor. The analysis showed that samples from a bi area contained excess petroleum hydrocarbons. In the rockweed area no effect on the fauna could be proved. In the soft seafloor area it was noted that the number of living organisms was considerably reduced. (ERA citation 06:004523)

ECOLOGICAL RESEARCH DIVISION MARINE RESEARCH PROGRAM. - DOE/EV-0082

CORPORATE AUTHOR(S)- Department of Energy, Washington, DC. Office of Health and Environmental Research. JOURNAL VOL.- u8313 n0500 REPORT DATE- May 80 PAGINATION- 90p NTIS Prices- PC A05/MF A01 NDN- 033-0081-8038-3

This report presents program summaries of the various projects sponsored during 1979 by the Marine Research Program of the Ecological Research Division. Program areas include the effects of petroleum hydrocarbons on the marine environment; a study of the baseline ecology of a proposed OTEC site near Puerto Rico; the environmental impact of offshore genthermal energy development; the movement of radionuclides through the marine environment; the environmental aspects of power plant cooling systems; and studies of the physical and biological oceanography of the continental shelves bordering the United States. (ERA citation 05:028002)

ECOLOGICAL STUDY OF THE 'AMOCO CADIZ' OIL SPILL. - PB83-159475

CORPORATE AUTHOR(S)- National Oceanic and Atmospheric Administration, Rockville, MD. JOURNAL VOL.- u8311 REPORT DATE- Oct 82 PAGINATION- 481p NTIS Prices- PC A21/MF A01 NDN- 033-0081-4134-1

Contents: Physical, chemical, and microbiological studies after the Amoco Cadiz oil spill; Microbial degradation within sediment impacted by the Amoco Cadiz oil spill; Laboratory simulation of the microbiological degradation of crude oil in a marine environment; The Amoco Cadiz analytical chemistry program; Studies of hydrocarbon concentrations at the Ile Grande and Baie de Lannion stations polluted by the wreck of the Amoco Cadiz; Evolution of the hydrocarbons present in the sediments in the Aber Wrac'h Estuary; The Amoco Cadiz oil spill, distribution and evolution of oil pollution in marine sediments; Amoco Cadiz pollutants in anaerobic sediments: Fate and effects on anaerobic processes.

PERSISTANCE OF METULA OIL IN THE STRAIT OF MAGELLAN SIX AND ONE-HALF YEARS AFTER THE INCIDENT. - PB83-147371

Gundlach, E. R. Domeracki, D. D. Thebeau, L. C.

CORPORATE AUTHOR(S)- Research Planning Inst., Inc., Columbia, SC. JOURNAL VOL.- u8308 DESCRIP. NOTE- Final rept. REPORT DATE- May 80 PAGINATION- 35p REPORT NO.- RPIR8151515 GRANT NO.- NA80RA-D-00061 NTIS Prices- PC A03/MF A01 NDN- 033-0080-6454-1

This study, undertaken from 18 to 21 February 1981, is based on the resurvey of stations analyzed during August 1975 and February and August 1976 (14, 15). These stations were previously found to contain moderate to heavy concentrations of METULA oil and were considered representative of that shoreline segment. Comparisons to the data derived during 1975/76 are based on repeat topographic profiling at three sites The physical characteristics (primarily color and consistency) of the remaining oil were noted, and the relationship between substrate (oiled or previously oiled) and resident biological community was given special attention.

PROCEEDINGS: SECOND ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING. - DE82906198

CORPORATE AUTHOR(S)- Texas A and M Univ., College Station. Dept. of Oceanography. JOURNAL VOL.- u8308 n0700 REPORT DATE- Nov 81 PAGINATION- 113p REPORT NO.- CONF-8104171-Absts. NTIS Prices- PC A06/MF A01 NDN- 033-0080-5575-8

The proceedings contain abstracts of research programs on the environment of the Gul of Mexico. Topics include topography, environmental effects of oil spills, economic effects of oil spills, geology, fisheries, marine ecology, endangered species studies, coastal and continental shelf ecosystems studies, and satellite oceanography. (ERA citation 07:060860)

PROPOSED FIVE-YEAR OCS OIL AND GAS LEASE-SALE SCHEDULE: FINAL SUPPLEMENT TO THE FINAL ENVIRONMENTAL STATEMENT JANUARY 1982-DECEMBER 1986. VOLUME 1 OF 2. - DE82906137

CORPORATE AUTHOR(S)- Bureau of Land Management, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8308 n0700 REPORT DATE- Jul 81 PAGINATION- 584p REPORT NO.- NP-2906137 NTIS Prices- PC A25/MF A01 NDN- 033-0080-5560-6

This supplement considers a July 1981 proposed five-year schedule extending from january 1982 to December 1986 and consisting of 42 oil and gas leasing sales in 14 o the 23 planning areas of the Outer Continental Shelf. This document supplements FEIS 80-3. In this document, the proposed schedule dated July 1981 is examined using two different leasing options, one offering all of the acreage within a planning area an the other offering only areas of hydrocarbon potential. A second alternative re-examines the April 1981 draft proposed schedule. A third alternative examines the current schedule with two leasing options, one offering the current pace and system of leasing, the other using the current leasing system but offering larger amounts o acreage per sale. A fourth alternative concerns two modifications of the proposed schedule in Alaska. The first modification reduces the number of sales offshore Alaska while making adjustments in the timing of other Alaska sales. The second modification covered in this alternative proposes the deletion of all Arctic Ocean OCS sales and this too is analyzed with the area-wide and areas of hydrocarbon potential options. Estimates of the amounts of oil and gas to be discovered are around 8.3 billion barrels of oil and around 39 trillion cubic feet of gas. The number of oil spills that might be expected have also been estimated. Impacts to marine and coastal exosystems will occur in excess of those described in the FEIS fo the current schedule. Localized impacts to marine organisms in the vicinity of offshore structures will also increase with the increase in drilling and development activity. In addition, impacts to local economies, infrastructure, land use and subsistence lifestyles (Alaska), and multiple use conflicts on the OCS are expected to occur to an uncertain degree. This supplement also describes the new leasing system and explains what effects it may have on the environment. (ERA citation 07:049206)

ANNUAL TECHNICAL PROGRESS REPORT. - DE82018434

CORPORATE AUTHOR(S)- Marine Biological Lab., Woods Hole, MA. JOURNAL VOL.- u8308 n0700 REPORT DATE- 1979 PAGINATION- 19p REPORT NO.- DOEEV02989-1 CONT. NO.- AC02-76EV02989 NTIS Prices- PC A02/MF A01 NDN- 033-0080-3385-4

Progress is reported on a study to determine the effects of oil on tundra ponds and streams. The specific parts of the program are to determine: (1) long-term recovery from oil perturbation of panels and lakes where oil was spilled years ago; (2) effects of different quantities and fractions of oil on zooplankton survival; (3) effects of oil on plankton-eating fish; and (4) effec[redacted] of oil on the survival and behavior of animals and plants in streams. (ERA citat[redacted]n 07:048078)

EFFECT OF OIL ON TUNDRA PONDS AND STREAMS. ANNUAL TECHNICAL PROGRESS REPORT. - DE82016981

CORPORATE AUTHOR(S)- Marine Biological Lab., Woods Hole, MA. JOURNAL VOL.- u8308 n0700 REPORT DATE- 1979 PAGINATION- 19p REPORT NO.- DOEEV02989-T1 CONT. NO.- AC02-76EV02989 AVAIL. NOTE- Microfiche copies only. NTIS Prices- MF A01 NDN- 033-0080-2925-5

Highlights of accomplishments during the year are summarized in this report. The purposes of this project are to investigate: (1) long-term recovery from oil

perturbation of ponds and lakes where oil was spilled years ago; (2) effects of different quanitites and fractions of oil on zooplankton survival; (3) effects of oi and oil-contaminated food on plankton-eating fish; and (4) effects of oil and on the survival and behavior of animals and plants in streams. (ERA citation 07:052699)

BEACHED BIRD CARCASSES AS A MEANS OF EVALUATING NATURAL AND HUMAN-CAUSED SEABIRD MORTALITY. FINAL REPORT. - DE82016736

Page, G. W. Stenzel, L. E. Ainley, D. G.

CORPORATE AUTHOR(S)- Point Reyes Bird Observatory, Stinson Beach, CA. JOURNAL VOL.- u8308 n0700 REPORT DATE- 1 Jun 82 PAGINATION- 150p REPORT NO.- DOEEV10254-T1 CONT. NO.- AC03-79EV10254 NTIS Prices- PC A07/MF A01 NDN- 033-0080-2845-7

A model was developed to determine the extent to which a large spill, by directly killing birds, could reduce the size of bird populations in the Gulf of the Farallones and its adjacent California estuaries. An attempt was then made to apply the model to a large spill that occurred in this area during 1971. To add perspective, the problem of the low but constant level of oil pollution that exists in developed coastal areas is discussed, and the way in which mortality from oil pollution compares with that from other factors is considered. (ERA citation 07:055223)

TYPES OF POTENTIAL EFFECTS OF OFFSHORE OIL AND GAS DEVELOPMENT ON MARINE MAMMALS AND ENDANGERED SPECIES OF THE NORTHERN BERING SEA AND ARCTIC OCEAN. - PB83-146142

Cowles, C. J. Hansen, D. J. Hubbard, J. D.

CORPORATE AUTHOR(S)- Bureau of Land Management, Anchorage, AK. Alaska Outer Continental Shelf Office. JOURNAL VOL.- u8307 DESCRIP. NOTE- Technical paper no. 9 (Final) REPORT DATE- Dec 81 PAGINATION- 32p REPORT NO.- BLM-YK-TE-81-006 NTIS Prices- PC A03/MF A01 NDN- 033-0080-1325-9

The report summarizes information on the types of potential effects on marine mammals, endangered species, and rare plants which may be associated with oil and ga lease sales pending for the northern Bering Sea and arctic regions. The discussion does not imply that any specific level of impact will be sustained but rather identifies the various potential effects associated with offshore exploration, development, and production of petroleum hydrocarbon resources in the Alaska arctic regions.

ECOLOGICAL MONITORING OF AQUEOUS EFFLUENTS FROM PETROLEUM REFINERIES - PB83-114025

Payne, F. G. Girton, C. de Ligny, W. De Roocker, A. Sirvins, A.

CORPORATE AUTHOR(S)- CONCAWE, The Hague (Netherlands). JOURNAL VOL.- u8303 REPORT DATE- 1982 (C) PAGINATION- 65p REPORT NO.- CONCAWE-882 NTIS Prices- PC A04/MF A01 NDN- 033-0079-1652-5

The report provides information which will allow the management of inland and coasta refineries to evaluate the need for appropriate ecological monitoring programs to study the effect of aqueous discharges on the environment into which they are discharged. The stages in the development of a monitoring program are reviewed and a description is given of some benefits that may arise from properly conducted studies Other sections outline procedures for sampling, collection and analysis of data and describe several case histories at refinery sites in a variety of natural habitats. The report illustrates the practical contribution that a ecological monitoring program can make to overall refinery management. (Copyright (c) CONCAWE, 1982.)

DRAFT REGIONAL ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GULF OF MEXICO OCS OIL AND GAS SALES 72 74 AND 79. - PB82-263591

CORPORATE AUTHOR(S)- Minerals Management Service, New Orleans, LA. Gulf of Mexico OC Regional Office. JOURNAL VOL.- u8226 REPORT DATE- Aug 82 PAGINATION- 795p MNTR. AGNCY.- BLM-YM-ES 82-009-1792 NTIS Prices- P[redacted]A99/MF A01 NDN- 033-0078-4234-7

This Environmental Impact Statement is a description of the environmental aspects an impacts of oil and gas activities resulting from these sales for the states borderin the Gulf of Mexico. It provides a description of the area, affected environment, and environmental conseguences; it discusses the proposed action, issues and areas of concern, and the major alternatives of holding these sales.

PETROLEUM CONTAMINATION: QUANTIFICATION AND PASSIVE TAGGING IN ORGANISMS AND SEDIMENTS. - PB82-254087

Farrington, J. W. Tripp, B. W.
CORPORATE AUTHOR(S)- Woods Hole Oceanographic Institution, MA. JOURNAL VOL.- u822 DESCRIP. NOTE- Final rept. REPORT DATE- Mar 82 PAGINATION- 171p GRANT NO.- EPA-R-802724 MNTR. AGNCY.- ERLN X36, EPA-600/3 82-012 NTIS Prices- PC A08/MF A01 NDN- 033-0077-8119-0

A review of hydrocarbons in the marine environment is presented with the goal of providing a background for evaluating methods for the measurement of petroleum pollution in marine organisms and sediments. Comparisons are made of extraction, isolation and measurement procedures applied to hard shell clams (Mercenaria mercenaria) and near shore and estuarine sediments. Gas chromatographic, gas chromatographic-mass spectrometric, and U.V.-fluorescence techniques were used to analyze the hydrocarbons isolated by these procedures.

PROCEEDINGS OF THE BI-STATE CONFERENCE ON THE CHESAPEAKE BAY APRIL 27-29 1977. CRC PUBLICATION NO. 61. - DE82010246

CORPORATE AUTHOR(S)- Chesapeake Research Consortium, Inc., Baltimore, MD. JOURNAL VOL.- u8222 n0000 REPORT DATE- Oct 77 PAGINATION- 310p REPORT NO.- DOENBM-2010246 CONT. NO.- EE-77-G-01-6109 NTIS Prices- PC A14/MF A01 NDN- 033-0077-4440-4

The conference included discussions on the following subject areas: the condition of the Chesapeake Bay; maritime developments; toxic substances; prevention and control of spills; fisheries and wildlife; and non-point pollution.

INVESTIGATION OF OIL DISPERSANTS. - DE82901434

Lethinen, C.

CORPORATE AUTHOR(S)- Styrelsen foer Teknisk Utveckling, Stockholm (Sweden). JOURNAL VOL.- u8221 n0000 REPORT DATE- Mar 81 PAGINATION- 80p REPORT NO.- STU-81-3142 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A05/MF A01 NDN- 033-0077-0392-0

The investigation summarizes the state of knowledge of oil dispersants. Economical aspects are treated. Dispersal is discussed as an alternative treatment in Swedish waters. Some general views and cases of oilspill are dealt with. The standards of approval and use of oil dispersants are discussed. The international policy of dispersal is presented.

BIOLOGICAL IMPACT AND EFFECTS ON FISHERIES OF OIL SPILL IN BAHRAIN AUGUST - SEPTEMBER 1980. - DE82901433

Linden, O.

CORPORATE AUTHOR(S)- Swedish Water and Air Pollution Research Lab., Goeteborg. JOURNAL VOL.- u8221 n0000 REPORT DATE- Mar 81 PAGINATION- 26p REPORT NO.- IVL-B-607 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A03/MF A01 NDN- 033-0077-0391-8

The report was presented at the IMCO/UNEP International Workshop on Combating Marine Pollution from Oil Exploration, Exploitation, and Transport in the Kuwait Action Pla Region, held in Manama, Bahrain, 6 - 10 December 1980. It was prepared under the terms of an IMCO/FAO Advisory Mission to Bahrain which took place following a major oil spill affecting the coast of the country in August-September 1980. Conclusions are arrived at concerning the biological impact of the spill and the effect of the spill on fisheries: the first being mainly the mortality of marine life as a result of smothering of organisms by residual oil in and above the inter-tidal zone and the effect due to the destruction of fishing equipment and the prevention of fishing during the acute phase of the spill. The report lists the recommendations to the Bahrain Government concerning restrictions on the use of dispersants in shallow wate and the need to avoid removal and replacement of oil contaminated sediments unless such oil was likely to re-contaminate sections of the beach reserved for recreationa use or fishing-related activities.

IMPACT OF OIL POLLUTION OF THE SEAS AND ENVIRONMENTAL ASPECTS OF THE CLEAN-UP OF OIL SPILLS. - DE82900943

Linden, O.

JOURNAL VOL.- u8221 n0000 REPORT DATE- Jan 80 PAGINATION- 23p REPORT NO.- IVL-B-552 AVAIL. NOTE- U.S. Sales Only. NTIS Prices- PC A02/MF A01 NDN- 033-0077-0337-2

The report is a summary of a paper presented at ESCAP-SEPS seminars in Goa, India an Dacca, Bangladesh in November-December 1979. The impact of oil pollution in the marine environment is described together with some environmental aspects of the problem of oil spill clean-up. Particular attention is paid to the problems related to tropical countries.

TATISTICAL DATABASE MANAGEMENT FOR E:OSYSTEM-EFFECTS ANALYSIS. - DE82005199

Goyert, J. C. Daniels, K. L.

CORPORATE AUTHOR(S)- Oak Ridge National Lab., TN. JOURNAL VOL.- u8220 n0000 REPORT DATE- 1981 PAGINATION- 12p REPORT NO.- CONF-811208-4 CONT. NO.- W-7405-ENG-26 NTIS Prices- PC A02/MF A01 NDN- 033-0076-6596-6

A team of scientists in the Environmental Sciences Division (ESD) at Oak Ridge National Laboratory has developed a multi-year study to estimate the environmental effects of a synthetic oil spill into lentic freshwater ecosystems. The toxicity of synthetic fuels was evaluated at three levels of increasing complexity; single species bioassays, laboratory microcosms, and outdoor pond ecosystems. A statistical database management system had to be developed that would organize, document, retrieve, and analyze the large amounts of data that were generated during the study The potential problems anticipated in developing the database included: (1) developing a logical file organization and documentation system; (2) designing consistent and unambiguous code sheets while satisfying the needs of different scientific investigators; and (3) creating and updating data files during the period of study. These problems were resolved by: (1) developing a hierarchical file structure and naming convention using partitioned data sets; (2) creating investigator specific and project specific code sheets while maintaining consistent variable names across all project components; and (3) employing the Statistical Analysis System's MACRO, INFILE, and SET statements for data set creation and update

ATURAL WEATHERING OF OIL IN MARINE SEDIMENTS: TISSUE CONTAMINATION AND GROWTH OF THE .AM PROTOTHACA STAMINEA. - DE82005227

Anderson, J. W. Riley, R. G. Kiesser, S. L. Thomas, B. L. Fellingham, G. W.

CORPORATE AUTHOR(S)- Battelle Pacific Northwest Labs., Sequim, WA. Marine Research Lab. JOURNAL VOL.- u8219 n0000 REPORT DATE- Oct 81 PAGINATION- 25p REPOR NO.- PNL-SA-9627, CONF-8110135-1 CONT. NO.- AC06-76RL01830 NTIS Prices- PC A02/MF A01 NDN- 033-0076-4166-4

Three groups (80 per group) of small (<30 mm) clams, Protothaca staminea, were place in the intertidal environment of Sequim Bay, Washington for one year to measure the effects of oiled sediment on growth and tissue contamination. Detailed glass capillary gas chromatographic analysis of initial and final sediment samples and tissues were used to describe the fate of specific oil components in the sediment, with depth, and the uptake by the clams. Concentrations of sediment receiving a top layer (3 cm) of highly contaminated sediment reached background levels after one year, while sediment mixed to depth (10 cm) with oil still contained measurable contamination at the 5 to 10 cm depth. The pattern of specific hydrocarbon loss is i agreement with results of spill studies, molecular weight relationships and biodegradation data. The ratios for tissue concentrations to final sediment concentrations for phenanthrenes, alkylnaphthalenes and dibenzothiophenes were all between 0.16 and 0.18. This would indicate that the sulfur-containing compounds were not preferentially retained in tissues. Statistical analyses of 31 to 48 individuall measured and marked clams (per group) showed that growth in oil-treated sediment was significantly (0.001 level) slower than in clean sediment. In addition, oil mixed into sediment (10 cm) produced greater tissue contamination and more reduction in growth (0.01 level) than a layer (3 cm) of oiled sediment.

TOC OIL SPILL ASSESSMENT: APPENDICES (SECTION 9). - PB82-197799

Boehm, P.

CORPORATE AUTHOR(S)- Energy Resources Co., Inc., Cambridge, MA. JOURNAL VOL.- u8215 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 82 PAGINATION- 86p CONT. NO.- DI-AA851-CT0-71 MNTR. AGNCY.- BLM-YM-P/[illegible]82-004-3331 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB82-197765. NTIS Prices- PC A05/MF A0 NDN- 033-0075-5394-5

The Ixtoc I oil well blowout in the Bay of Campeche resulted in the largest documented spill in history. Approximately half a million metric tons of oil were released into the marine environment from June 1979 to March 1980, with an unknown quantity of oil impacting the northwest Gulf of Mexico shelf. This study was undertaken to establish the effects of residues of Ixtoc oil on the inner shelf. During the study the Burmah Agate oil tanker spilled part of its cargo of light crud oil following a collision off Galveston, Texas. A suite of chemical analytical techniques was employed successfully to firmly establish the range of compositions o

Ixtoc and Burmah Agate oils which might be encountered in sediments and animal tissue.

IXTOC OIL SPILL ASSESSMENT: FINAL REPORT (SECTIONS 1-8) - PB82-197781

Boehm, P.

CORPORATE AUTHOR(S)- Energy Resources Co., Inc., Cambridge, MA. JOURNAL VOL.- u8215 REPORT DATE- Apr 82 PAGINATION- 335p CONT. NO.- DI-AA851-CT0-71 MNTR. AGNCY.- BLM-YM-P/T 82-003-3331 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB82-197765. NTIS Prices- PC A15/MF A01 NDN- 033-0075-5393-3

The Ixtoc I oil well blowout in the Bay of Campeche resulted in the largest documented spill in history. Approximately half a million metric tons of oil were released into the marine environment from June 1979 to March 1980, with an unknown quantity of oil impacting the northwest Gulf of Mexico shelf. This study was undertaken to establish the effects of residues of Ixtoc oil on the inner shelf. During the study the Burmah Agate oil tanker spilled part of its cargo of light crud oil following a collision off Galveston, Texas.

IXTOC OIL SPILL ASSESSMENT: EXECUTIVE SUMMARY. - PB82-197773

Boehm, P.

CORPORATE AUTHOR(S)- Energy Resources Co., Inc., Cambridge, MA. JOURNAL VOL.- u8215 DESCRIP. NOTE- Final rept. REPORT DATE- Apr 82 PAGINATION- 41p CONT. NO.- DI-AA851-CT0-71 MNTR. AGNCY.- BLM-YM-P/T 82-005-3331 AVAIL. NOTE- Also available in set of 3 reports PC E99, PB82-197765. NTIS Prices- PC A03/MF A0 NDN- 033-0075-5392-1

The Ixtoc I oil well blowout in the Bay of Campeche resulted in the largest documented spill in history. Approximately half a million metric tons of oil were released into the marine environment from June 1979 to March 1980, with an unknown quantity of oil impacting the northwest Gulf of Mexico shelf. This study was undertaken to establish the effects of residues of Ixtoc oil on the inner shelf. During the study the Burmah Agate oil tanker spilled part of its cargo of light crud oil following a collision off Galveston, Texas. A suite of chemical analytical techniques was employed successfully to firmly establish the range of compositions o Ixtoc and Burmah Agate oils which might be encountered in sediments and animal tissue.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF: FINAL REPORTS OF PRINCIPAL INVESTIGATORS VOLUME 16. BIOLOGICAL STUDIES - PB82-185653

Hunt, G. L. Kaiwi, J. Schneider, D. Sanger, G. A. Patten, S. M.

CORPORATE AUTHOR(S)- National Oceanic and Atmospheric Administration, Rockville, MD. Office of Marine Pollution Assessment. JOURNAL VOL.- u8214 REPORT DATE- Jan 82 PAGINATION- 609p NTIS Prices- PC A99/MF A01 NDN- 033-0075-2609-7

Contents: Pelagic distribution of marine birds and analysis of encounter probability for the Southeastern Bering Sea; The winter feeding ecology and trophic relationship of marine birds in Kachemak Bay, AK; Seasonal use of coastal habitat from Yakutat Ba to Cape Fairweather by migratory seabirds, shorebirds and waterfowl.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF: FINAL REPORTS OF PRINCIPAL INVESTIGATORS VOLUME 12. BIOLOGICAL STUDIES - PB82-185638

Hunt, G. L. Blackburn, J. E. Rogers, D. E.

CORPORATE AUTHOR(S)- National Oceanic and Atmospheric Administration, Rockville, MD. Office of Marine Pollution Assessment. JOURNAL VOL.- u8214 REPORT DATE- Aug 81 PAGINATION- 713p NTIS Prices- PC A99/MF A01 NDN- 033-0075-2607-3

Contents: Reproductive ecology, foods and foraging ar[redacted] of seabirds nesting on the Pribilof Islands, 1975-1979; Pelagic and Demersal Fish assessment in the Lower Cook Inlet estuary system; Epipelagic meroplankton, juvenile fish, and forage fish: Distribution and relative abundance in coastal waters near Yakutat.

A REPORT TO THE SHETLAND OIL TERMINAL ENVIRONMENTAL ADVISORY GROUP ON THE BEACHED BIRD SURVEY SCHEME IN SHETLAND MARCH 1979 TO FEBRUARY 1980 - PB82-181231

Heubeck, M.

CORPORATE AUTHOR(S)- Shetland Oil Terminal Environmental Advisory Group, Aberdeen (Scotland). JOURNAL VOL.- u8213 REPORT DATE- 1979 (C) PAGINATION- 25p NTIS Prices- PC A02/MF A01 NDN- 033-0074-9853-3

Mexico oil and gas lease sales, identifying future environmental study needs, and furnishing a forum for scoping as required by the Council of Environmental Quality. Topics discussed included topographic features monitoring, reef fish populations, IXTOC oil spill damage assessment, Gulf of Mexico geology, recreational fisheries investigations, ecological mapping, deep sea biology, polychaete study, southwest Florida shelf study, satellite oceanography and circulation model, coastal ecologic characterizations, and endangered species.

EVALUATION OF EXISTING MARINE INTERTIDAL AND SHALLOW SUBTIDAL BIOLOGIC DATA - PB82-134065

Zeh, J. E. Houghton, J. P. Lees, D. C.

CORPORATE AUTHOR(S)- Mathematical Sciences Northwest, Inc., Bellevue, WA. JOURNAL VOL.- u8206 REPORT DATE- Jul 81 PAGINATION- 278p MNTR. AGNCY.- EPA-600/7 81-036 NTIS Prices- PC E10/MF A01 NDN- 033-0073-2373-3

This study was initiated in order to evaluate a large set of marine intertidal and shallow subtidal biologic data collected in two baseline study programs in the marir waters of northwestern Washington between 1974 and 1979. This report summarizes and compares methodologies. Communities in three broad habitat categorizations--rocky intertidal, soft substrate intertidal, and subtidal--were examined by means of cluster analysis. For the intertidal habitats, numerical assemblage parameters such as richness, biomass, and diversity were computed and examined by means of multiple regression and analysis of variance to fulfill the first study objective.

PROPOSED GULF OF MEXICO OCS OIL AND GAS SALES 67 AND 69. - PB82-109430

CORPORATE AUTHOR(S)- Bureau of Land Management, New Orleans, LA. New Orleans Outer Continental Shelf Office. JOURNAL VOL.- u8206 DESCRIP. NOTE- Environmental impact statement (Final). REPORT DATE- Aug 81 PAGINATION- 315p REPORT NO.- BLMYMES-81-004-1792 NTIS Prices- PC A14/MF A01 NDN- 033-0073-2154-2

This Environmental Impact Statement (EIS) is a description of the environmental aspects and impacts of oil and gas activities resulting from these sales for the states bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences; it discusses the proposed action, issue and areas of concern, and the major alternatives of holding these sales.

IN SITU MONITORING OF THE EFFECTS OF WATER QUALITY ON BENTHIC DETRITAL DECOMPOSITION. - COO-3254-39

Lee, J. J. Mastropaolo, C. McEnery, M. Tietjen, J. H. Garrison, J.

CORPORATE AUTHOR(S)- City Coll., New York. Dept. of Biology. JOURNAL VOL.- u8205 n0500 REPORT DATE- 1978 PAGINATION- 27p CONT. NO.- EY-76-S-02-3254 NTIS Prices- PC A03/MF A01 NDN- 033-0072-8738-8

Detrital decomposition is an important marine benthic process which contributes to the fertility of seas, particularly in estuarian and coastal waters. The process involves a complex community of microorganisms and small animals which interact with each other in a manner similar to that which occurs in forest litter and in composts Plastic chambers for measuring decomposition rates of Spartina alterniflora were placed on the bottom of the sea at four sites in the northeast: Towd Point, Southampton, New York; the effluent quarry of the Millstone power plant on Niantic Bay, Long Island Sound; Winsor Cove, Cataumet, Massachusetts (the site of an oil spill); and Sippewissett marsh, Falmouth, Massachusetts (a control site for Winsor Cove). The stations were visited monthly. By various means we measured the rates of decomposition and growth of sediment microbial and animal populations. (ERA citation 05:019545)

FINAL ENVIRONMENTAL IMPACT STATEMENT FOR IRONTON MINE. - DE81029831

CORPORATE AUTHOR(S)- Federal Energy Administration, Washington, DC. JOURNAL VOL.- u8203 n0600 REPORT DATE- Jul 77 PAGINATION- 556 REPORT NO.- FES-7677-10, FEAS-77205 NTIS Prices- PC A24/MF A01 NDN- 033-0072-4012-8

This site-specific Environmental Impact Statement (EIS) has identified particularly sensitive environmental parameters that have been investigated in detail for the Ironton, Ohio Early Storage Reserve site. The most sensitive parameters to be affected by oil storage development at this site appear to be air quality and water quality. The significant adverse impacts to the physical environment that could result from the program include: locally significant increases in hydrocarbon emissions during transport of oil from the Gulf of Mexico to the Ironton Mine; degradation of surface water quality due to sedimentation from runoff and erosion during pipeline construction activities; and the potential for an increase in the frequency of oil spills along the transportation corridors. Changes in water quality would have a short term impact on the aquatic organisms in local areas. Oil spill

aspects and impacts of oil and gas activities resulting from this sale for the stat
bordering the Gulf of Mexico. It provides a description of the area, affected
environment, and environmental consequences; it discusses the proposed action, issu
and areas of concern, and the major alternatives of holding the sale.

PROPOSED 1977 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE GULF OF MEXICO. OCS SALE NO. 47: DRAFT ENVIRONMENTAL IMPACT STATEMENT. VOLUME 1. - PB81-241085

CORPORATE AUTHOR(S)- Bureau of Land Management, New Orleans, LA. New Orleans Outer Continental Shelf Office. JOURNAL VOL.- u8124 REPORT DATE- Nov 76 PAGINATION- 489p REPORT NO.- BLMYMES-7611 NTIS Prices- PC A21/MF A01 NDN- 033-0071-1959-5

This EIS (Environmental Impact Statement) is a description of the environmental aspects and impacts of oil and gas activities resulting from this sale for the state bordering the Gulf of Mexico. It provides a description of the area, affected environment, and environmental consequences.

ASSESSMENT OF TREATED VS UNTREATED OIL SPILLS. FINAL REPORT. - DOE/EV/24047-03

Wilson, M. P.

CORPORATE AUTHOR(S)- Rhode Island Univ., Kingston. Univ. Energy Center. JOURNAL VOL.- u8119 n0600 REPORT DATE- Feb 81 PAGINATION- 1048p CONT. NO.- AS02-76EV04047 NTIS Prices- PC A99/MF A01 NDN- 033-0069-7465-7

The results of a series of studies conducted to determine the practicability and feasibility of using dispersants to mitigate the impact of an oil spill on the environment are described. The method of approach is holistic in that it combines th physical, chemical, microbial and macro-fauna response to a spill treated with dispersants and compares this with spills that are left untreated. The program integrates mathematical, laboratory, meso-scale (three 20 foot high by three feet in diameter tanks, in-situ experiments and analyses to determine if the use of dispersants is an effective oil spill control agent. In summary, it appears viable t use dispersants as determined on a case by case basis. The case for using dispersant has to be based on whether or not their use will mitigate the environmental impact o the spill. In the case of an open ocean spill that is being driven into a rich inter-tidal community, the use of dispersants could greatly reduce the environmental impact. Even in the highly productive George's Bank area at the height of the cod spawning season, the impact of the use of dispersants is well within the limits of natural variability when the threshold toxicity level is assumed to be as low as 100 ppB, a level which is often found in the open ocean. Thus, it appears that dispersants can and should be used when it is evident that their use will mitigate the impacts of the spill. Their use in areas where there is poor circulation and therefore little possibility of rapid dilution is more questionable and should be a subject of future studies. (ERA citation 06:016499)

GULF OF MEXICO INFORMATION TRANSFER MEETING PROCEEDINGS HELD AT NEW ORLEANS LOUISIANA O MAY 12-13 1980. - PB81-189300

CORPORATE AUTHOR(S)- Texas A and M Research Foundation, College Station. JOURNAL VOL.- u8117 DESCRIP. NOTE- Final rept. REPORT DATE- Oct 80 PAGINATION- 72p CONT. NO.- DI-AA551-CT8-35 MNTR. AGNCY.- BLM/YM/ES 80/8 NTIS Prices- PC A04/MF A01 NDN- 033-0069-3396-5

In the spring of 1980, the Outer Continental Shelf Office of the Bureau of Land Management, New Orleans, Louisiana, had an urgent requirement to obtain data and information for preparing Environmental Impact Statements and Assessment Reports. Th proceedings cover some of these subject areas: Environmental impact studies, marine biology, marine geology, archaeology, physical oceanography, oil and gas leases and water chemistry.

ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF NORTHEAST GULF OF ALASKA INTERIM SYNTHESIS REPORT. - PB81-177883

CORPORATE AUTHOR(S)- Science Applications, Inc., Boulder, CO. JOURNAL VOL.- u8115 REPORT DATE- Jul 80 PAGINATION- 298p GRANT NO.- NOAA-03-7-022-35213 MNTR. AGNCY.- NOAA 81011910 NTIS Prices- PC A13 NDN- 033-0068-7060-8

This volume represents an interim edition of the Northeast Gulf of Alaska (NEGOA) Synthesis Report and is intended to present a multidisciplinary overview of information relevant to possible Alaskan Outer Continental Shelf oil and gas development. The program focuses on several lease areas, ranging from the subarctic Northeast Gulf of Alaska to the arctic Beaufort Sea. This current synthesis organize all available marine environmental information pertinent to OCS development for the given lease area. It presents a picture of the operation and vulnerability of the environmental system.

STRATEGIC PETROLEUM RESERVE WEST HACKBERRY OIL STORAGE CAVERN FIRE AND SPILL OF SEPTEMBER 21 1978: AN ENVIRONMENTAL ASSESSMENT. FINAL REPORT. - DOE/RA-7137

Taylor, A.

CORPORATE AUTHOR(S)- Dames and Moore, Houston, TX. JOURNAL VOL.- u8115 n0600
REPORT DATE- 29 Feb 80 PAGINATION- 680p CONT. NO.- AC96-78P007137 NTIS
Prices- PC A99/MF A01 NDN- 033-0068-5655-7

This report summarizes an environmental assessment of the fire and oil spill at the Strategic Petroleum Reserve site, West Hackberry, Louisiana. Subjective identification of oil contaminated habitats was supported by a more rigorous classification of samples utilizing discriminant analysis. Fourteen contaminated stations were identified along the shore of Black Lake just north and west of Wellpa 6, encompassing approximately 9 hectares. Seasonal variation in the structures of marsh and lake bottom communities in this contaminated area were not generally distinguishable from that of similar communities in uncontaminated habitats along th southern and southeastern shores of Black Lake. The major impact of spilled oil on the marsh vegetation was to accelerate the natural marsh deterioration which will eventually impact animals dependent on marsh vegetation for habitat structure. Vanadium, the predominate trace metal in the oil, and pyrogenic products due to the fire were found at the most distant sampling site (5 km) from Cavern 6 during Phase I, but were not detected downwind of the fire in excess of background levels in the later phases. Remote sensing evaluation of vegetation under the plume also indicated that stress existed immediately after the fire, but had disappeared by the end of th 1-year survey. (ERA citation 06:010276)

LONG TERM EFFECTS OF THE BARGE FLORIDA OIL SPILL. - PB81-144792

Sanders, H. L. Grassle, J. F. Hampson, G. R. Morse, L. S. Garner-Price, S.

CORPORATE AUTHOR(S)- Woods Hole Oceanographic Institution, MA. JOURNAL VOL.- u811
DESCRIP. NOTE- Final rept. REPORT DATE- Jan 81 PAGINATION- 225p GRANT NO.-
EPA-R-801001-02 MNTR. AGNCY.- EPA-600/2 81-012 NTIS Prices- PC A10/MF A01
NDN- 033-0068-3685-6

The report describes the effects on the marine and estuarine benthos of no. 2 fuel oil spilled by the barge FLORIDA off West Falmouth, Massachusetts. Analyses of hydrocarbons established that pollution was greatest and most persistent in the intertidal and subtidal zones of Wild Harbor River, less severe in degree and duration at stations farthest from shore. Plants, crustaceans, fish, and birds suffered both high mortality immediately after the spill, and physiological and behavioral abnormalities directly related to high concentrations of the fuel oil.

CONTENTS AND LONG TIME EFFECTS IN THE LITTORAL ZONE AFTER AN OIL SPILL. A TWO YEAR STUD OF THE TSESIS OIL SPILL. - IVL-B-549

Notini, M.

CORPORATE AUTHOR(S)- Swedish Water and Air Pollution Research Lab., Fryksta.
JOURNAL VOL.- u8112 n0600 REPORT DATE- Mar 80 PAGINATION- 16p AVAIL. NOTE-
U.S. Sales Only. NTIS Prices- PC A02/MF A01 NDN- 033-0067-8478-9

In 1977 a Russian tanker, Tsesis, grounded in the archipelago south of Stockholm, Sweden. 1000 tons of oil were spread in the sea. 400 tons were left in the environment after cleaning. The oil has caused considerable acute damage to the Faun on the seashore. The balance between different species has been disturbed. During th two years following the oil spill the difference from the situation immediately before the accident has been greater as time has passed. The population of crustaceans has increased five times, while the population of molluscs (especially Theodoxus) decreased to a 10th. The content of aromatic and aliphatic substances in mussels increased rapidly after the oil spill, and has since then decreased slowly t the normal value. (ERA citation 06:004524)