



Environmental Assessment
National Petroleum Reserve-Alaska

1-Year Winter Exploration Drilling Program
2012-2013

DOI-BLM-AK01000-2012-0001-EA

ConocoPhillips Alaska, Inc.

Preparing Office: Arctic Field Office

Project Title/Type of Action: National Petroleum Reserve-Alaska (NPR-A)
1-Year Winter Exploration Drilling Program

Serial/Lease/Case File Number: AA081832, AA081833, AA091675, FF096502

Land Use Plan: Northeast National Petroleum Reserve-Alaska Supplemental Integrated Activity Plan/Environmental Impact Statement (SIAP/EIS) July 16, 2008
Draft National Petroleum Reserve-Alaska Integrated Activity Plan
Environmental Impact Statement 2012

Applicant: ConocoPhillips Alaska, Inc.

Address: P.O. Box 100360

Anchorage, Alaska 99510-0360

Date: December 10, 2012

Lands Involved:

Proposed access routes inside the NPR-A totaling approximately 88 miles of Right-of-Way (ROW) to drill sites, storage sites, and water supply lakes. Two new proposed drill sites located within the Bear Tooth Unit, the plugging and abandonment of 5 wells and temporary use of 21 water supply lakes on federal land in the NPR-A.

TABLE OF CONTENTS

LIST OF ACRONYMS.....	4
1 INTRODUCTION.....	6
1.1 Need for Action.....	6
1.2 Purpose of Action.....	7
1.3 Related Statues, Regulations, Policies & Programs	7
1.3.1 Federal Laws and Regulations.....	8
1.3.2 Required Permits, Licenses, Authorizations and Approvals.....	8
1.3.3 Related Environmental Analyses.....	9
1.4 Decision to be Made.....	13
1.5 Scoping & Issues.....	10
1.6 Public Involvement.....	13
2. PROPOSED ACTION AND ALTERNATIVES.....	14
2.1 Description of the Proposed Action	14
2.1.1 Access and Construction	15
2.1.2 Water Use	17
2.1.3 Drilling Operations and Support	18
2.1.4 Plug & Abandonment.....	23
2.1.5 Waste Management	23
2.1.6 Air Emissions.....	24
2.1.7 Contingency Plans	24
2.1.8 Abandonment and Restoration	26
2.1.9 Community Relations.....	26
2.2 No-Action Alternative.....	27
2.3 Conformance.....	27
3. AFFECTED ENVIRONMENT	29
3.1 Introduction	29
3.1.1 Fish	29
3.1.2 Subsistence	31
4 ENVIRONMENTAL IMPACTS.....	31
4.1 Direct and Indirect Effects	32
4.1.1 Fish	32
4.1.2 Subsistence	33
4.2 Cumulative Effects.....	34
4.2.1 Fish	34
4.2.2 Subsistence	34
4.3 Residual Impacts	35
4.4 Mitigation and Monitoring.....	36
4.5 Additional Mitigation and Monitoring.....	36
4.6 Summary of Environmental Consequences.....	38
5 CONSULTATION AND COORDINATION.....	38
5.1 Agency Coordination	39
5.2 Public Coordination.....	39
5.3 List of Preparers	39
6 REFERENCES.....	41
Appendix A.....	43
Appendix B.....	55

LIST OF TABLES

Legal Description of Two Proposed Drilling Pads (Umiat Meridian)	5
Legal Descriptions of Five Proposed P&A Sites (Umiat Meridian)	5
Legal Descriptions of Proposed Ice Road and Snow Trail (Umiat Meridian)	5
Table 1.1 Permits and Authorizations for Proposed Project in the NPR-A.....	8
Table 1.2 Existing Permits and Regulatory Approvals	8
Table 1.3 Issues Considered in Evaluating Impacts	10
Table 1.4 Community Meetings Held in Relation to the Proposed Project Area.....	13
Table 2.1 Staking and Field Inspection	14
Table 2.2 Wells for Plugging and Abandonment.....	14
Table 2.3 Summary of Proposed Project.....	15
Table 2.4 Schedule.....	15
Table 2.5 Potential Vehicles Used during Ice Road and Pad Construction.....	16
Table 2.6 Volumes per NPR-A Location	17
Table 2.7 Water Sources Requested.....	19
Table 2.8 Stream Crossings on BLM lands for 2012-2013 exploration.....	20
Table 2.9 Operations Equipment List.....	22

LIST OF FIGURES

Figure 1. Location of proposed well pads, P&A sites and access routes.	7
Figure 2. Typical CPAI Exploration Pad.....	21
Figure 3. Cassin #1 Location.....	28
Figure 4. Cassin #6 Location.....	28
Figure 5. Permitted access corridors and past staked and drilled exploratory wells.	30

LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
ADEC	Alaska Department of Environmental Conservation
ADFG	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ANILCA	Alaska National Interest Land Conservation Act
AO	(BLM) Authorized Officer
AOGCC	Alaska Oil and Gas Conservation Commission
BLM	Bureau of Land Management
BMP	Best Management Practice
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
C-Plan	Oil Spill Discharge and Contingency Plan
CPAI	ConocoPhillips Alaska Incorporated
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FH	Fish Habitat
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impacts
IAP	Integrated Activity Plan
IHLC	Inupiat History, Language, and Culture
LAS	Land Administration System
LOA	Letter of Authorization
LPV	Low-Pressure Vehicle
NE	Northeast
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOS	Notice of Staking
NPDES	National Pollutant Discharge Elimination System
NPR-A	National Petroleum Reserve – Alaska
NPRPA	Naval Petroleum Reserve Production Act
NSB	North Slope Borough
ODPCP	Oil Discharge Prevention and Contingency Plan
P&A	Plug and Abandonment
ROD	Record of Decision
ROP	Required Operating Procedure
ROW	Right of Way
SAP	Subsistence Advisory Panel
SIAP/EIS	Supplemental Integrated Activity Plan/Environmental Impact Statement
SPCC	Spill Prevention, Control, and Countermeasures
TAPS	Trans Alaska Pipeline System
TWUP	Temporary Water Use Permit
USCOE	United States Corp of Engineers
USDOI	United States Department of Interior
USFWS	United States Fish & Wildlife Service

Land Descriptions:**Legal Description of Two Proposed Drilling Pads (Umiat Meridian)**

Well Name	Township	Range	Section
Cassin #1	12 North	1 West	28
Cassin #6	12 North	1 West	27

Legal Description of Five Proposed P&A Sites (Umiat Meridian)

Well Name	Township	Range	Section	Comment
Carbon 1	10 North	1 East	4	
Lookout 1	11 North	2 East	36	Private Land
Moose's Tooth C	10 North	1 East	3	
Scout 1	11 North	1 East	20	
Spark 1A	10 North	2 East	8	Private Land

Legal Descriptions of Proposed Ice Road and Snow Trail (All Umiat Meridian)

Township	Range	Section	Notes	Lakes/Well Location
8 North	7 East		State Land	--
8 North	6 East		State Land	--
8 North	5 East		State Land	--
8 North	4 East	25-36	State Land	--
8 North	3 East	1-3,10-15	Private Land Within	--
9 North	3 East	19-21, 27-35	Private Land Within	--
9 North	2 East	7-24		--
9 North	1 East	3-5, 8-10, 13-17, 21-25		--
10 North	1 East	3, 4, 5, 6, 7, 8, 9, 10, 15-22, 27-29, 32-34		Carbon 1, Moose's Tooth C
10 North	1 West	1-2, 12		--
11 North	4 East		No BLM Lands Crossed	--
10 North	4 East	6,7	Private Land Within	L9804 BLM (L9805 ≠BLM)
10 North	3 East	1-18		L9817
10 North	2 East	1-16	Private Land Within/Reg Sel (FF19148-38)	M9923 & M9922 BLM, M9910 ≠BLM, M9914≠BLM, Spark 1A ≠BLM
11 North	2 East	19, 30-32		M9911, M0020/R0079, M0345, M9910, M9924 ≠BLM, Lookout #1 ≠BLM
11 North	1 East	19-36		M0020/R0079, R0075, R0076, M0345, M0025, M0244, M0243, Scout 1, R0076 Staging Area
11 North	1 West	3-9, 13, 15-26, 27, 28- 33, 34, 35, 36		M0701, M0305, M0306A, M0301, M0244, M1201, M1202, M1203
11 North	2 West	25		M0306A
12 North	1 West	27-34		M0701, Cassin 1 & 6

Note: -- = No proposed lake, drill site or P&A Site within township.

**Environmental Assessment
ConocoPhillips Alaska, Inc.**

EA# DOI-BLM-AK010-2013-0001-EA

1 INTRODUCTION

ConocoPhillips Alaska, Inc. (CPAI) has applied for permits and/or posted notices to access and drill on valid oil and gas leases during a 1-year winter exploration program in the Northeast (NE) National Petroleum Reserve-Alaska (NPR-A). The Applicant has submitted permit applications to Federal and State agencies and the North Slope Borough (NSB), including the Bureau of Land Management (BLM) Right-of-Way (ROW) application (Table 1.1).

The proposed drill sites are located in the Bear Tooth Unit in the NPR-A held by CPAI, in part with Anadarko Petroleum Company, under BLM jurisdiction. Access to drilling areas and water supply lakes requires approximately 88 miles of ROW for drill site and lake access corridors. The proposed project lies entirely within the NPR-A and within the boundaries of the NSB. Traditional land use sites (e.g., cabins and campsites) are avoided. The BLM does not authorize use of private property, and access across private lands requires authorization of the land owner. Within the NE Planning Area, the BLM has designated areas where special stipulations apply.

CPAI is also proposing the plug and abandonment (P&A) of five well sites: Scout 1, Carbon 1, Spark 1A, Lookout 1, and Moose's Tooth C. All but Scout 1 are within the Greater Moose's Tooth Unit, held by CPAI. Scout 1 is located within the Bear Tooth Unit. The schedule is contingent upon permitting, weather, ongoing data analysis, and funding. Of the five P&A sites only three (Carbon 1, Scout 1 and Moose's Tooth C) are on BLM managed land.

1.1 NEED FOR ACTION

The need for the proposed action is for the BLM to fulfill its directive under the Naval Petroleum Reserves Production Act of 1976, as amended and the Energy Policy Act of 2005, to regulate oil and gas activity within the NPR-A. The project is needed to provide detailed information regarding potential reserves of oil and gas within the NPR-A. A primary need for the project is implicit in the worldwide demand for oil and gas that is accompanied by concern in the U.S. over dependence on foreign oil supplies and associated stability. The project is needed to supplement the diminishing North Slope oil supplies and maintain the efficiency of the Trans Alaska Pipeline System (TAPS). Revenues from production are needed to support local, state, and national economies.

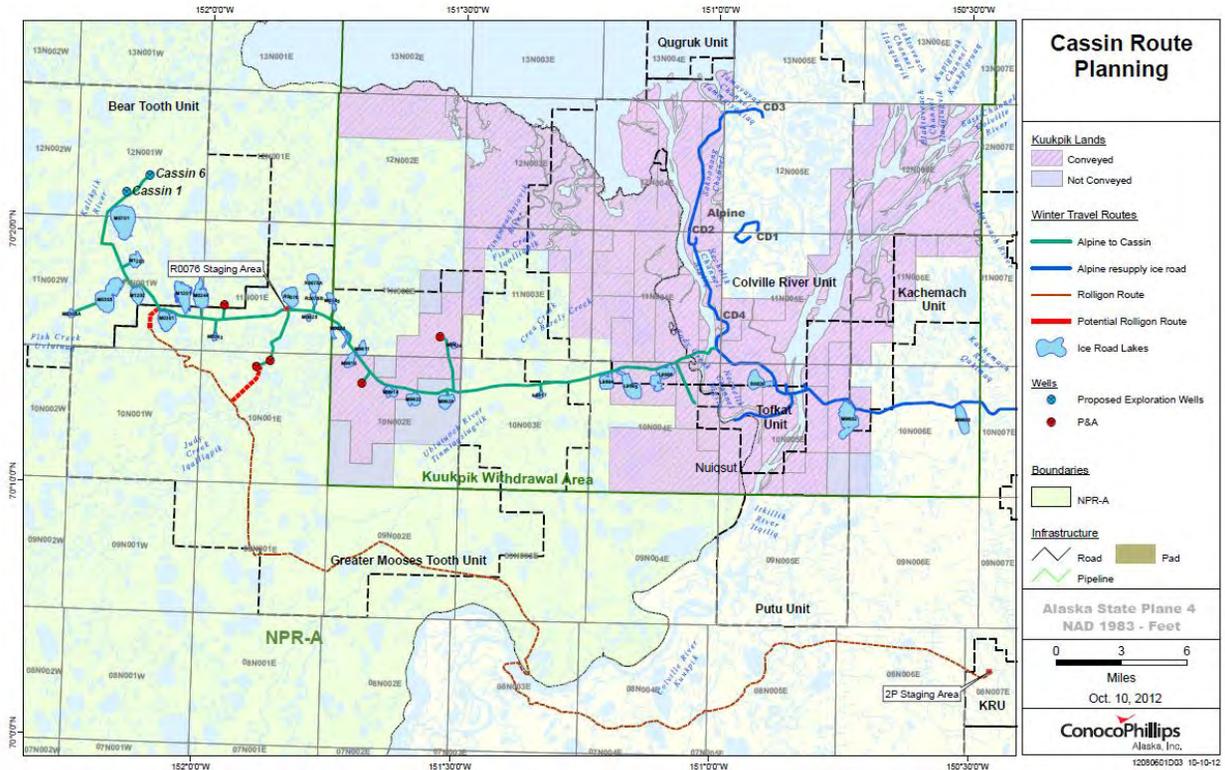


FIGURE 1: Location of Proposed well pads, P&A Sites and access routes

1.2 PURPOSE OF ACTION

The purpose for action is for BLM to provide access to and use of public lands within the NPR-A in a manner that protects the natural resources of public lands and prevents unnecessary or undue degradation. The objective of the proposed action is to allow the applicant to conduct the requested activity. The applicant’s purpose of the proposed project is twofold. One purpose is to determine whether lease holdings contain economically recoverable oil and gas in a one year exploration drilling and well testing program. The other purpose is the P&A of five well sites.

The proposed project is composed of several elements and is designed to meet the Applicant’s needs and objectives, including:

- Access to drilling and P&A sites and water supply lakes in a way that allows for maximum operations during the winter season in a cost-effective manner, while minimizing environmental impact.
- Drilling to acquire sufficient subsurface information to satisfy the applicant’s economic and exploration performance criteria.
- Compliance with all related requirements of the NPR-A leases, RODs, and all associated laws, regulations, permits, and approvals.

Alternatives to the proposed project are evaluated on the basis of their effectiveness in meeting these objectives.

1.3 Related Statues, Regulations, Policies, and Programs

The 2008 SIAP/EIS was completed to fulfill the BLM’s responsibility to manage lands in the NE Planning Area under the authority of the: Naval Petroleum Reserve Production Act, as amended (NPRPA), Federal Land Policy and Management Act of 1976 (FLPMA), National Environmental Policy Act (NEPA), and the Alaska National Interest Lands Conservation Act (ANILCA). Findings in the SIAP/EIS and decisions reflected in the 2008 ROD were based upon an open and collaborative public process, as well as experience with multiple exploration programs completed in the NPR-A.

1.3.1 Federal Laws and Regulations

The proposed action must comply with numerous Federal laws and Executive Orders (EOs) that apply to activities on public lands – including those listed above. Key Federal and State controls associated with the proposed action were described in the 2008 SIAP/EIS. The proposed action is consistent with the 2001 National Energy Policy and the Energy Policy Act of 2005, which address the need for exploration on BLM land, including the NPR-A.

The proposed action is in conformance with the Northeast SIAP/EIS (2008), NPRPA, FLPMA, ANILCA, Endangered Species Act, Marine Mammal Protection Act, Sustainable Fisheries Act, EO 11988, and EO 11990.

1.3.2 Required Permits, Licenses, Authorizations, and Approvals

A number of Federal, State, and local permits and approvals must be obtained before the applicant can access a drill site and commence drilling. Primary regulatory authorization requirements for the proposed project are listed in Table 1.1

Table 1.1 Permits and Authorizations for Proposed Project in the NPR-A

<i>Federal Authorizations and Approvals</i>	
Bureau of Land Management (BLM)	Right-of-Way (ROW) Application for Permit to Drill and Surface Use Plan Threatened and Endangered Species Determination Essential Fish Habitat Assessment (EFH) Subsistence Monitoring Plan ANILCA 810 Evaluation and Findings Archaeological and Cultural Resources Clearance Waste Management Plan Orientation Program
U.S. Fish and Wildlife Service (USFWS)	Letter of Authorization for Incidental Take of Polar Bear Concurrence on BLM Threatened and Endangered Species Determination
U.S. Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasures Plan (SPCC) (drilling/testing contractor)

State Authorizations and Approvals	
Alaska Oil and Gas Conservation Commission (AOGCC)	Authorization to Drill Well Sundries
Alaska Department of Environmental Conservation (ADEC)	Air Quality Minor Source General Permit Authorization for Temporary Storage of Drilling Waste Oil Discharge Prevention and Contingency Plan (ODPCP) Certificate of Financial Responsibility
Alaska Department of Natural Resources (ADNR)	Temporary Water Use Permits
Alaska Department of Fish and Game (ADFG)	Fish Habitat Permits
Local North Slope Borough (NSB) Authorizations and Approvals	
North Slope Borough (NSB)	Development Permits (for related elements) Inupiat History, Language, and Culture (IHLC) Clearance

Additionally, several existing permits apply to the proposed CPAI project (Table 1.2). These permits were applied for and received in conjunction with past projects in the same general area as the current proposed project.

Table 1.2 Existing Permits and Regulatory Approvals

Approval Type	Approval #	Issue Date	Expiration Date
Air Quality Minor General Permit	AQ1015MG140P	12/1/2012	5/11/2013
Temporary Water Use Permits	TWUP A2010-119	12/3/2012	12/2/2015
	TWUP A2010-180	12/17/2008	12/16/2013
	LAS 23900	5/8/2008	Indefinite
Fish Habitat Permits	FH11-0302	11/23/2011	12/31/2016
	FH05-III-0327 #2	12/16/2010	12/31/2015
	FH05-0328 #2	12/16/2010	12/31/2015

Key to table 1.2:

TWUP – Temporary Water Use Permit

FH – Fish Habitat

LAS – Land Administration System

1.3.3 Related Environmental Analyses

The environmental analyses most closely related to the proposed action are listed in Appendix B. All exploration EAs and associated Findings of No Significant Impact (FONSI) document findings that the project under review was: in compliance with ANILCA Title VIII provisions for protecting subsistence use and access; not likely to adversely affect Essential Fish Habitat (EFH); and not likely to adversely impact listed Threatened and Endangered Species.

Council of Environmental Quality (CEQ) Regulation 40 Code of Federal Regulations (CFR) 1502.20 encourages agencies to “tier off their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review.” The analysis for this EA is tiered off the 2008 NE SIAP/EIS (USDOI BLM 2008a) and its Record of Decision (ROD) [USDOI BLM 2008b] and the Draft National Petroleum Reserve-Alaska Integrated Activity Plan Environmental Impact

Statement (USDOI BLM 2012) which are incorporated in their entirety by reference in accordance with CEQ Regulation 40 CFR 1502.21.

1.4 DECISION TO BE MADE

The BLM's decision on the proposed action will be based on statutory and regulatory authority. Prior to authorizing the proposed project, the BLM must conduct a project-specific NEPA analysis and determine whether the proposed project should be approved, rejected, or modified, and if additional mitigation is needed. This Environmental Assessment (EA) has been prepared to meet requirements of the National Environmental Policy Act (NEPA), evaluate conformance with the relevant Integrated Activity Plan (IAP) and associated Environmental Impact Statement (EIS), and to support U.S. Department of Interior (USDOI) BLM decision-making on issuing authorizations required to construct and implement the proposed project.

The scope of this EA includes analysis of the effects of the proposed exploration activity and alternatives. This EA is the most recent in a series of NEPA documents prepared by the BLM in evaluating potential and proposed oil exploration and development in the NPR-A (see USDOI BLM 2008a, Vol. 5, Bibliography). This EA incorporates relevant portions of these documents, as described in more detail in this analysis.

The decision-maker will take into account technical, economic, environmental, and social issues (Table 1.3) and the purpose and need of the proposed project. This EA will be based on findings, management controls and protective measures of the NE NPR-A ROD (USDOI BLM 2008b), as well as other laws and regulations. The scope of this EA includes analysis which enables BLM to select among alternatives that meet the purpose and need, and are within the BLM's jurisdiction [40 CFR 1506.1(a) (2)].

1.5 SCOPING AND ISSUES

Public notification of the Environmental Analysis was announced on October 30, 2012 in the NEPA Register on file at the Arctic Field Office Environmental Assessment web site. No public comments have been received through December 10, 2012. Development of the 2008 NE IAP/EIS involved extensive input from other Federal agencies, the State, the NSB, thousands of individuals, and many institutions. BLM guidelines include a list of issues that are addressed, where applicable, in NEPA assessments, (BLM 2008a). Some elements are not present in the project area and are, therefore, not discussed further. A summary listing of related issues considered by AFO Field Staff is provided in Table 1.3.

Table 1.3 Issues Considered in Evaluating Impacts

Issue Considered	Determination	Basis of Determination (See Note 1) ¹
ACEC's	Not Present	
Air Quality	Minimal Impact	Air quality impacts likely to remain below applicable ambient air quality standards and increments. Protection provided by: ADEC air permit; 40 CFR 2020(c)(2), and NE ROP A-9

Issue Considered	Determination	Basis of Determination (See Note 1) ¹
Cultural and Paleontological Resources	Minimal Impact to Not Present	Archaeological and Cultural Resources Clearance by BLM required under the NHPA. Cultural resources survey was completed. Cultural resources expected to remain unaffected based on location; no impacts to paleontological resources expected, based on identified locations and <i>de minimus</i> surface disturbance. Protection provided by NE ROP C-2, E-13, and I-1.
Environmental Justice	Minimal Impact to Not Present	No disproportionately high and adverse human health or environmental effects to Nuiqsut residents has been identified for the proposed project. Impacts to subsistence use are not expected to be more than minor and short term. Protection provided by NE ROPs A-1 – A-7, B-1, B-2, F-1, H-1, H-2, and I-1. EO 12897 [See Subsistence]
Fisheries	Potentially Affected	The potential for impacts on fish overwintering in water source lakes is increased if water use exceeds the standard in ROP B-2f. Protections from other potential impacts provided by NE NPR-A ROPs A-3 – A6, B-1, B-2, C-2 – C-4, and D-1; additional permit stipulations required by this EA (Section 4.5); and ADF&G Fish Habitat Permits. EFH assessment finding is <i>not likely to adversely affect</i> .
Floodplains/Wetlands and Riparian Zones	Minimal Impact	Protection provided by NE NPR-A ROPs A-4, A-5, C-2, C-3, D-1 And EO 11988 AND EO 11990.
Invasive, Non-native species	Minimal Impact to Not Present	BMP M-2 (NPR A Draft IAP/EIS 2012) will ensure that invasive plants to not become an issue.
Native American Religious Concerns	Minimal Impact to Not Present	No disproportionately high and adverse human health or environmental effects to Nuiqsut residents has been identified for the proposed project. Impacts to subsistence use are not expected to be more than minor and short term. NE ROPs A-1 – A-7, B-1, B-2, F-1, H-1, H-2, and I-1. EO 12897 [See Subsistence]
Recreation	Minimally Impacted	Protection provided by NE NPR-A ROPs A-1, A-5, C-3, C-4, , F-1, and I-1.
Socialcultural Systems	Minimally Impacted	No disproportionately high and adverse effects to Nuiqsut residents have been identified for the proposed project. Impacts to subsistence use are not expected to be more than minor and short term. Protection provided by NE ROPs A-1 – A-7, B-1, B-2, F-1, H-1, H-2, and I-1. EO 12897 [See Subsistence]
Subsistence	Potentially Affected	Large game could be deflected from areas of activity, but effects are expected to be short-term and minor. ANILCA 810 Evaluation and Findings by BLM required. Additional protection provided by: NE ROPs A-1- A-7, A-11, B-1, B-2, C-4, F-1, H-1, H-2, and I-1 [See Note 2.] ²
Threatened & Endangered Species Steller's eider	Minimally Impacted	Steller's eiders are listed as Threatened under the Endangered Species Act. No impacts expected other than those already covered in NE NPR A Final Supplemental IAP/EIS. USFWS concurred with the BLM ESA finding of <i>not likely to adversely affect</i> . Protection provided by Section 7 of the Endangered Species Act (J), ROP A-4, A-5, E-9
Threatened & Endangered Species Spectacled eider	Minimally Impacted	Spectacled eiders are listed as Threatened under the Endangered Species Act. No impacts expected other than those already covered in NE NPR A Final Supplemental IAP/EIS. USFWS concurred with the BLMs ESA finding of <i>not likely to adversely affect</i> . Protection provided by Section 7 of the Endangered Species Act (J), ROP A-4, A-5, E-9

Issue Considered	Determination	Basis of Determination (See Note 1) ¹
Threatened & Endangered Species Polar Bear	Minimally Impacted	Letter of Authorization for the Incidental and Intentional Take of polar bears issued under sections 101 (a) (4) (A) (c), 109(h) and 112(c) of the Marine Mammal Protection Act. In accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA), issuance of these LOAs also fulfills the requirements for Tier 2 Consultation of the Programmatic Biological Opinion. Protection provided by Section 7 of the Endangered Species Act, ROPs A-4 - A-8, C-1 and C-2.
Critical Habitat for Polar Bear	Minimally Impacted	USFWS concurred with the BLMs ESA finding of <i>not likely to adversely affect</i> polar bear critical habitat. Protection provided by ROPs C-1 and C-2.
Non threatened and endangered birds	Minimally Impacted	Snowy owls, gyrfalcons, raven and ptarmigan may inhabit the area during the operations period. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protection provided in that document by NE ROPs A-2 – A-6, E-9 and I-1
Non threatened and endangered mammals	Minimally Impacted	Caribou, grizzly bear, polar bear, wolf, wolverine and small mammals (weasel, rodents, and shrews) may inhabit the area. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protection provided in that document by NE ROPs A-2 – A-6, A-8, C-1, and F-1. Further protections provided by BMP M-1 from NPRA Draft IAP/EIS (2012).
Vegetation	Minimally Impacted	Protection provided by ROP C-2 and D-2 (NE NPRA Final Supplemental IAP/EIS).
Visual Resource Management	Minimally Impacted	Protection provided by NE NPR-A ROPs A-1, A-3, A-4, A-5, A-6, C-2, C-3, C-4, F-1, AND I-1.
Water Resources	Minimally Impacted	Applicants request to exceed the Requirement/Standard of Required Operating Procedure (ROP) B-2. Water Quality protected by frozen, snow-covered water bodies as well as USCOE, EPA, ADEC, ADFG and ADNDR required permits. Other protections provided by: NE ROPs A-1 – A-7, B-1, B-2, C2 – C-4, I-1.
Waste (Hazardous/Solid)	Minimally Impacted	Protection provided by ADEC waste storage permit and the Conoco Waste Management Plan Protection provided by required C-Plans and SPCC Plans, and BLM-required Orientation and Subsistence Protection Plans. Other protections provided by NE ROPS A-1 – A-7.
Wild & Scenic Rivers	Not Present	
Wilderness Characteristics	Minimally Impacted	Protection provided by NE NPR-A ROPs A-1, A-4, A-5, A-6, C-2, C-3, C-4, E-10, E-13, and I-1.

Key to Table 1.3:

AAC- Alaska Administrative Code
 ACEC- Area of Critical Environmental Concern
 ADFG- Alaska Department of Fish and Game
 ADNDR-Alaska Department of Natural Resources
 ANILCA- Alaska National Interest Lands Conservation Act
 BLM – Bureau of Land Management
 CFR Code of Federal Regulations
 C-Plan Oil Spill Discharge and Contingency Plan
 EA- Environmental Assessment

EFH – Essential Fish Habitat
 EO- Executive Order
 EPA Environmental Protection Agency
 ESA- Endangered Species Act
 IAP/EIS- Integrated Activity Plan/Environmental Impact Statement
 LOA-Letter of Authorization
 NE-Northeast
 NHPA- National Historic Preservation Act
 NPRA-National Petroleum Reserve in Alaska

ROP- Required Operating Procedure
SPCC-Spill Prevention, Control, and
Countermeasures

USCOE- United States Corp of Engineers
USFWS-United States Fish & Wildlife Service

Potentially Affected: The proposed action or alternative could result in potential impacts to resource or issues to the level that additional mitigation may be required, or there is a need to evaluate potentially significant issues.

Minimally Impacted: Resources or issues would not be affected to a degree requiring further analysis because either the expected impacts from the proposed action and alternative would be minimal, or standard protections (e.g., ROPs and Stipulations from overriding BLM plans or other legal protections) would reduce impacts. Minimally impacted resources or issues will not be analyzed further in this EA.

Not Present: Resources or issues are not expected to be affected by the proposed action or alternatives because activities would occur at a different time or place. Resource or issues not present will not be analyzed further in the EA.

Notes, Table 1.3:

¹ Determination tiered from: 2008 NE IAP/EIS Vo1. 2, Chap. 4; 2008 NE ROD; 2012 NPR-A IAP/EIS and laws and regulations as noted.

² Under the required Subsistence Plan, the Applicant will hire subsistence advisors (SAs) who will be familiar with local subsistence activities and will be on-site at all times. SAs will monitor ongoing activities and identify issues that have the potential to impact subsistence.

In summary, BLM resource specialists have identified the following issue for further evaluation in this EA: Fish and Subsistence

1.6 PUBLIC INVOLVEMENT

Development of the NE Supplemental IAP/EIS (USDOI BLM 2008a) involved extensive input from Federal agencies, the State, the NSB, thousands of individuals, and many institutions. Project-specific permit applications (see Table 1.1) are available for public review prior to agency decision making. CPAI has also posted their permit applications on the internet (available at: www.conocophillipsalaska.com/permits) to provide additional opportunities for public input and involvement.

A number of meetings and consultations have been held in Anchorage, Fairbanks, Nuiqsut, Barrow, and Wainwright by both the applicant and the BLM in order to discuss the current proposed activity by CPAI (Table 1.4). The applicant has also submitted a Subsistence Plan to the BLM that details the strategy to be employed by CPAI in order to ensure ongoing opportunities for local public involvement as the project proceeds. CPAI presented the plan of operations to the NPR-A Subsistence Advisory Panel on November 6, 2012, in Barrow, Alaska.

Table 1. 4 Community Meetings Held in Relation to the Proposed Project Area.

Meeting Date	Location	Event
August 4, 2012	Anchorage	Kuukpik Meeting
August 16, 2012	Nuiqsut	Community Meeting & Kuukpik Subsistence Oversight Panel
September 13, 2012	Barrow	NSB Planning Department
September 19, 2012	Anchorage	Pre-application meeting with regulatory agencies
September 20, 2012	Fairbanks	Pre-application meeting with regulatory agencies
September 27, 2012	Wainwright	NSB Planning Commission

2. PROPOSED ACTION AND ALTERNATIVES

The proposed project includes exploration drilling at two sites and the P&A of five wells during a one year winter program in the NE NPR-A. The proposed exploration program will begin in winter 2012-2013, with the drilling schedule contingent upon permitting, weather, ongoing data analysis, and funding. Table 2.1 documents the Notices of Staking (NOS) dates and field inspections, as required for BLM approval of the CPAI surface use plan. Table 2.2 documents P&A well site information. Access routes have been identified and field examined. Locations of the drill sites, P&A sites and local access routes are depicted on Figure 1. Figure 5 depicts the wells that CPAI has drilled since the 1998 lease sale.

Table 2.1 Staking and Field Inspection

Drill Site	Notice of Staking (NOS) date	Field Inspection date
Cassin 1	7/17/2012	8/13/2012
Cassin 6	7/17/2012	8/13/2012

Table 2.2 Wells for Plugging and Abandonment

	Carbon 1	Lookout 1	Moose's Tooth C	Scout 1	Spark 1A
NOS Date	8/26/2002	7/31/1999	7/31/1999	7/25/2003	7/31/1999
Date Drilled	Winter 2004	Winter 2001	Winter 2001	Winter 2004	Winter 2000
Date Capped	2004	2001	2001	2004	2001
Land Ownership	BLM	Not BLM	BLM	BLM	Not BLM
Last Surface Inspection	8/21/2010	8/21/2010	8/17/2012	8/26/2011	8/21/2010
APD Approval EA	AK-023-04-004	AK-020-00-011	AK-020-00-011	AK-023-04-004	AK-020-00-011

2.1 DESCRIPTION OF THE PROPOSED ACTION

The proposed project is described below, with main project components summarized in Table 2.3. The proposed project is similar to exploration programs completed in the NPR-A in previous winter seasons. Details are provided in the Applicant's Plan of Operations, submitted to multiple agencies including the BLM, Alaska Department of Natural Resources (ADNR), and the NSB. All lands encompassed by the Cassin #1 and Cassin #6 Prospects and Scout 1 are within the Bear Tooth Operating Unit. Carbon 1, Lookout 1, Moose's Tooth C, and Spark 1A are within the Greater Moose's Tooth Operating Unit. Additional analysis on the effects of winter operations and access on NPR-A resources and uses is detailed in USDOI BLM 2008a (Volume 2, Chapter 4.2).

2.1.1 Access and Construction

The proposed schedule calls for mobilization and ice pad/road construction to begin in December 2012 or January 2013 with drilling expected to begin in February 2013 (Table 2.4). CPAI proposes to drill the Cassin #1 well first with anticipated operations occurring between mid-February and March of 2013. The drilling of Cassin #6 is contingent upon success at the Cassin

#1 well. The wells would be drilled with the Doyon 141 drilling rig. The drill sites are located approximately 30 miles northwest of Nuiqsut (see Figure 1).

Table 2.3 Summary of Proposed Project.

Project Component	Program Total
Ice Drill Pads and Wells	Up to two drill pads each approximately 500 ft × 500 ft (approximately 7.4 acres). 5 P&A Ice Pads 200 ft × 200 ft. Remote Camp Ice Pad 300 ft × 300 ft. (approximately 2.1 acres)
Construction/ drilling support ice pads	Up to 60 people at Drill Site Camp and remote camp near Lakes R0076, R0075 or L9817, 40 people at testing camp No camp at P&A sites
Access	Approximately 88 miles of access corridor including access to lakes,
Water requirement	Total of 97.31 MG for the entire project.

Table 2.4 Schedule

Activity	Time frame
Mobilization	December 2012 or January 2013
Ice Pad Construction	Mid-December 2012 – Mid-February 2013
Drill and Complete Cassin #1	February 15 – March 18, 2013 (See Note 1)
Evaluate Well, P&A, Move off Location	March 15 – April 15, 2013
Drill and complete Cassin #6 (See Note 2)	March 15 – April 15, 2013

Notes, Table 2.4:

¹ Drilling Operations will begin once ice construction activities are complete

² Drilling of Cassin #6 depends on outcome of Cassin #1 operation.

Primary access will be by winter snow trail and ice roads. A snow trail starting from Kuparuk DS-2P (NonBLM Managed land), would cross the Colville River at, or near, Ocean Point to access drill site locations in the NPR-A. The main ice road system begins near Kuparuk drill pad 2L, and extends along the Alpine pipeline westward into NPR-A. The ice road system will be authorized by local, state, and federal permits.

Rolligon units and/or other approved tundra vehicles will be used to transport equipment (Table 2.5) and personnel to construct ice pads and roads associated with the proposed project (Table 2.3). Rolligons and/or ATVs may be used to pre-pack the ice road or side cast water on the ice road route to expedite the penetration of frost. Ice roads will generally be 25-35 feet wide and 6-inches thick. Depending on drilling rig and vehicle requirements the ice roads may be smaller. Rig mats or other similar items may be used on or in the construction of ice roads at selected locations as necessitated by field conditions encountered during ice road construction or during equipment movement. Such devices will be removed prior to the end of the operating season each year.

Table 2.5 Potential Vehicles Used during Ice Road and Pad Construction.

Heater (3)	Pickup Trucks (5)	140 bb Volvo Water Wagon (2)
Light Plant (6)	Mechanics Truck (1)	Maxi Hauls (30cys) w/Truck (6)
966 loaders (4)	16 G Motor Grader (2)	Volvo A35 Rock Truck (25cy) (2)
Fuel Truck (1)	150 bbl Water Truck (6)	Ice Road Van/Parts Connex (1)
Trimmer (1)	Overhead Pump (2)	15 Passenger Van/Bus (2)

The proposed winter routes (ice road/snow trail) to the exploration well sites are shown on Figure 1. Steam crossings are shown in Table 2.8. The exact route would be within a mile of the proposed routes. This flexibility is needed to accommodate minor rerouting due to field conditions, animal dens, changes in creek crossing characteristics, or other field conditions. Regulatory agencies would be contacted for approval if final routes are greater than a mile away from those shown in figure 1. As-built maps of the final routes would be prepared following construction. CPAI proposes a total of approximately 44 miles of ice road in the NPR-A with spurs to permitted lakes. Ice road maintenance would involve practices that protect the tundra and support safe operations (USDOI BLM 2008a).

A drilling camp large enough for 60 people would be located at either Cassin #1 or Cassin #6, depending on which well was currently being drilled. The other well would have a test well camp for 40 people (without drill rig present). A remote camp (midway camp) will be placed on an ice pad at a location near Lakes R0076, R0075 or L9817 (Figure 1) to facilitate the construction activities of the snow road and ice pad, and provide support during drilling operations. The pad will be approximately 300 ft × 300 ft and will accommodate up to 60 people. There will be five P&A ice pads and each one will be approximately 200 ft × 200 ft. No camp will be used for the P&A work.

The drilling operation will utilize two ice drill pads with approximate dimensions of 500 ft × 500 ft. The pad thickness for the exploration drill site will be approximately 0.5 to 2 feet, possibly more depending on the topography. Construction of each drill pad will require about 10 days. Construction of the pad will begin as soon as the proposed location can be assessed. Road and pad construction will probably be concurrent.

In addition, ice pullout areas or widened sections of Rolligon trail or ice road may be constructed at certain locations depending on field conditions. These wider areas are used to protect the tundra during drill rig moves where heavy equipment is required to help pull the rigs up hills, or to temporarily stage materials or equipment. Any widened sections of ice road will be documented in the end of season completion reports. All ice road, ice pad, and pullout areas will only be constructed in areas which have previously been cleared for archaeological/cultural resources, and cleared utilizing the NSB's Traditional Land Use Sites Inventory.

Access to the existing operating field via the Dalton Highway is controlled at security checkpoints. The well sites will be closed to the general public for purposes of safety and confidentiality.

2.1.2 Water Use

The freshwater requirements for constructing the project features (ice road/pads construction, maintenance, drilling operations, and camp use) are approximately 97.31 million gallons (MG) (Table 2.6). CPAI plans to utilize water from previously approved lakes and new proposed lakes for this winter's activity. CPAI has also requested approval to harvest ice aggregate from lakes. A total of 24 lakes will be used as water sources (see Table 2.7 for more detail).

Potable water will be hauled from an ADEC approved source or local lake water and will be processed through the drilling contractor's ADEC approved water purification system. Potential potable water sources will be analyzed to ensure drinking water standards are met before water is introduced into the camp's potable water treatment system.

Water and ice chips for road and pad construction will be pumped from permitted lakes and transported by trucks. Lakes will be accessed via snow trail or ice road spurs from the main winter trail using the most direct route possible. Signs will be placed at lake access points to identify each permitted lake that is being actively used. All water intake hoses will have screens at the intake points to prevent entrapment of fish, regardless of whether the lake has been identified as fish-bearing. CPAI plans to work with ADFG to ensure that screen designs comply with state requirements including 0.5 feet per second or less intake velocity, and screen mesh no greater than ¼ inch.

Table 2.6 Volumes per NPR-A Location

Construction	Gallons/Day	Total Gallons
Snow/Ice Road	1,000,000	44,000,000
Four Ice Staging Pad	800,000	4,000,000
Four Ice Lay Down Pads	800,000	4,000,000
Five P&A Pads	200,000	1,000,000
Two Ice Drill Pad	1,000,000	10,000,000
Total Construction		87,000,000
Operating (See Note 1)	Gallons/Day	Total Gallons
Road & Pad Maintenance	80,000	7,200,000
Rig Use	20,000	1,200,000
Camp Use	7,500	450,000
Testing Camp	7,500	337,500
Remote Construction Camp	7,500	1,125,000
Operating Total		10,312,000
Total Estimate		97,312,000

Notes, Table 2.6:

¹ Assumes approximately 60 day operation except the remote construction camp which will be onsite for approximately 150 days.

Snow cover will be removed from portions of all lakes approved for water withdrawal and/or ice mining. The purpose of snow removal is to provide access for water trucks and ice chippers, installation of temporary houses, and truck turnaround areas. Additional snow removal (beyond the minimal amount required for vehicle access and water/ice withdrawal) is allowed from any non fish-bearing lake and grounded portions of fish-bearing lakes without additional approvals.

Snow and ice chip removal from non-grounded portions of fish-bearing lakes must be approved by ADNR-Habitat on a case by case basis.

Exception to ROP B-2

For CPAI's 2012-2013 winter exploration program in the NPR-A, they are requesting to use ice aggregate at eight lakes in addition to the maximum liquid water volume typically allowed for use (Table Fish 1), which exceeds BLM's ROP B-2f. This ice aggregate would come from within the 4-ft (and shallower) contour of each lake where ice will become naturally grounded during typical winter conditions, a practice commonly permitted in conjunction with additional monitoring.

2.1.3 Drilling Operations and Support

CPAI proposes to drill up to two new wells during the 2012-2013 season. All wells drilled this season will be drilled using the Doyon 141 drill rig. The planned well design will be similar to that employed in previous North Slope exploration wells and in accordance with a Permit to Drill from the BLM and the Alaska Oil and Gas Conservation Commission (AOGCC). Due to the exploratory nature of the wells, nearly all information regarding the downhole aspects of the wells are confidential. The drilling program will include one or more reservoir penetrations and one ice drill pad at the drilling location.

Production tests would be performed as needed after production casing is set. Testing would occur once the drilling rig has moved on to its next location and may include extended flow periods to determine the productivity of the well.

CPAI may erect a communications tower on either of the drill pads and on the mid-camp pad, all of which are within the NPR-A. The tower locations will be determined by the actual rig locations in the NPR-A, proximity to existing communications stations, and other similar factors. Typically the tower would be in a corner away from the well head and near camp. These towers, which are about 70 ft tall, will be anchored with guy wires attached to concrete deadmen with dimensions of approximately 4 ft × 4 ft × 4 ft. Depending on the actual site configurations, deadmen may be placed on small ice pads (e.g. about 5 ft × 5 ft) located just off the edge of the drilling pad. The preferred tower location is shown in Figure 2. The towers will be removed at the end of the season.

Table 2.7 Water Sources Requested

Lake ID ^a	Latitude (N) (NAD83)	Longitude (W) (NAD83)	Max Depth (feet)	Surface Area (acres)	Volume (MG)	Ice Regime ^b	Sensitive Fish Species Captured ^{a,c}	Resistant Fish Species Captured ^{a,d}	15% of Water Under 7 ft of Ice (MG)	30% of Water Under 5 ft of Ice (MG)	35% of Total Lake Volume (MG)	Liquid Water Volume Requesting (MG)	Ice Aggregate Volume Requesting (MG)	Requires BLM Approval per NE ROP B-2f ^e
L9804	70.243	151.213	5.2	252.7	235.95	T	none	NS	--	0.00	--	0.00	66.09	Y
L9817	70.235	151.337	9.3	62.3	104.88	F	none	NS	--	5.49	--	5.49	3.42	Y
M9910	70.253	151.712	9.0	146.5	301.37	F	AG, HW, LC	NS, AB	1.44	--	--	1.44	9.85	Y
M9911	70.261	151.691	15.3	144.2	329.92	F	BW, LC	none	7.93	--	--	7.93	0.00	N
M9923	70.228	151.524	6.7	43.6	289.60	T	none	NS	--	4.69	--	4.69	35.23	Y
M9922	70.228	151.586	6.1	195.9	246.94	T	none	NS	--	1.32	--	1.32	18.71	Y
M0020/R0079	70.271	151.727	18.5	119.6	310.00	F	LC	none	14.98	--	--	14.98	0.00	N
M0025/R0077	70.281	151.798	8.2	46.2	53.32	F	none	NS	--	2.40	--	2.40	7.75	Y
R0075A	70.305	151.789	6.6	244.1	275.92	F	none	NS	--	3.40	--	3.40	0.00	N
R0075B	70.293	151.787	6.4	62.0	46.89	F	none	NS	--	0.52	--	0.52	13.30	Y
R0076	70.295	151.834	8.0	335.9	404.10	F	none	NS	--	17.67	--	17.67	54.12	Y
M0243	70.266	151.978	7.1	48.2	41.26	F	none	none	--	--	14.44	5.83	0.00	N
M0244	70.291	152.009	6.7	405.2	235.17	F	none	none	--	--	82.31	28.54	0.00	N
M0301	70.276	152.074	9.9	362.6	466.61	F	none	NS	--	20.69	--	20.69	0.00	N
M0305	70.291	152.193	9.1	740.3	1111.38	F	none	NS	--	49.35	--	49.35	0.00	N
M0306A	70.278	152.262	7.5	73.9	107.99	F	none	none	--	--	37.80	25.50	0.00	N
M0345	70.294	151.754	12.9	124.2	211.11	F	none	NS	--	19.61	--	19.61	0.00	N
M0701	70.341	152.169	11.9	839.0	1152.90	--	LC	NS	7.39	--	--	7.39	0.00	N
M1201	70.293	152.046	7.2	452.4	483.45	F	none	NS	--	5.03	--	5.03	0.00	N
M1202	70.293	152.134	8.1	235.5	239.53	F	none	NS	--	3.41	--	3.41	0.00	N
M1203	70.315	152.139	9.0	218.3	328.22	--	none	NS	--	16.49	--	16.49	0.00	N

MG = million gallons; -- = not estimated or not applicable

Notes:

^a Sources: MJM Research (2000a, 2000b, 2003a, 2003b, 2003c, 2007, 2012) and Reanier & Associates (2000).

^b Based on 2003-2011 data (Arp et. al 2012): B = bedfast (freezes to bottom every winter); F = floating (liquid water under ice every winter); T = transitional (varies annually between bedfast and floating)

^c AG = Arctic grayling; BW = broad whitefish; HW = humpback whitefish; LC = least cisco

^d AB = Alaska blackfish; NS = ninespine stickleback

^e For all lakes requiring BLM approval to use additional ice aggregate, spring lake recharge measurement or modeling is required by ADF&G on Fish Habitat Permits

Table 2.8 Stream crossings on BLM lands for 2012-2013 exploration

Stream Name	BLM Crossing Identifier	Latitude (NAD83)	Longitude (NAD83)	NHD COMID ^a	ADF&G Anadromous Waters Catalog Number
Ice Road					
Unnamed tributary to Ublutuoch River	IR1	70.2484	151.2192	72307989	--
Ublutuoch River	IR2	70.2421	151.3008	72307869	330-00-10840-2017
Fish Creek	IR3	70.2632	151.7148	72310249	330-00-70840
Fish Creek	IR4	70.2684	151.8505	72310263	330-00-70840
Snow (Rolligon) Trail					
Unnamed tributary to Colville River	ST1	70.0592	151.3574	73356197	--
Unnamed tributary to Colville River	ST2	70.0821	151.3444	73353147	--
Unnamed tributary to Colville River	ST3	70.0826	151.3468	73353147	--
Unnamed tributary to Colville River	ST4	70.0843	151.353	73353147	--
Unnamed tributary to Ublutuoch River	ST5	70.118	151.5593	72308147	--
Ublutuoch River	ST6	70.1336	151.6417	72307953	330-00-10840-2017
Unnamed tributary to Ublutuoch River	ST7	70.1243	151.8177	72309297	330-00-10840-2017-3508
Judy Creek	ST8	70.2075	151.9064	72310455	330-00-10840-2043
Unnamed tributary to Judy Creek	ST9	70.2158	151.9316	72314596	--
Fish Creek	ST10	70.2508	151.0283	72310275	330-00-70840
Unnamed tributary to Fish Creek	ST11	70.2701	151.1056	72304715	--

Notes:

^a National Hydrography Dataset Common Identifier (COMID) for stream segment.

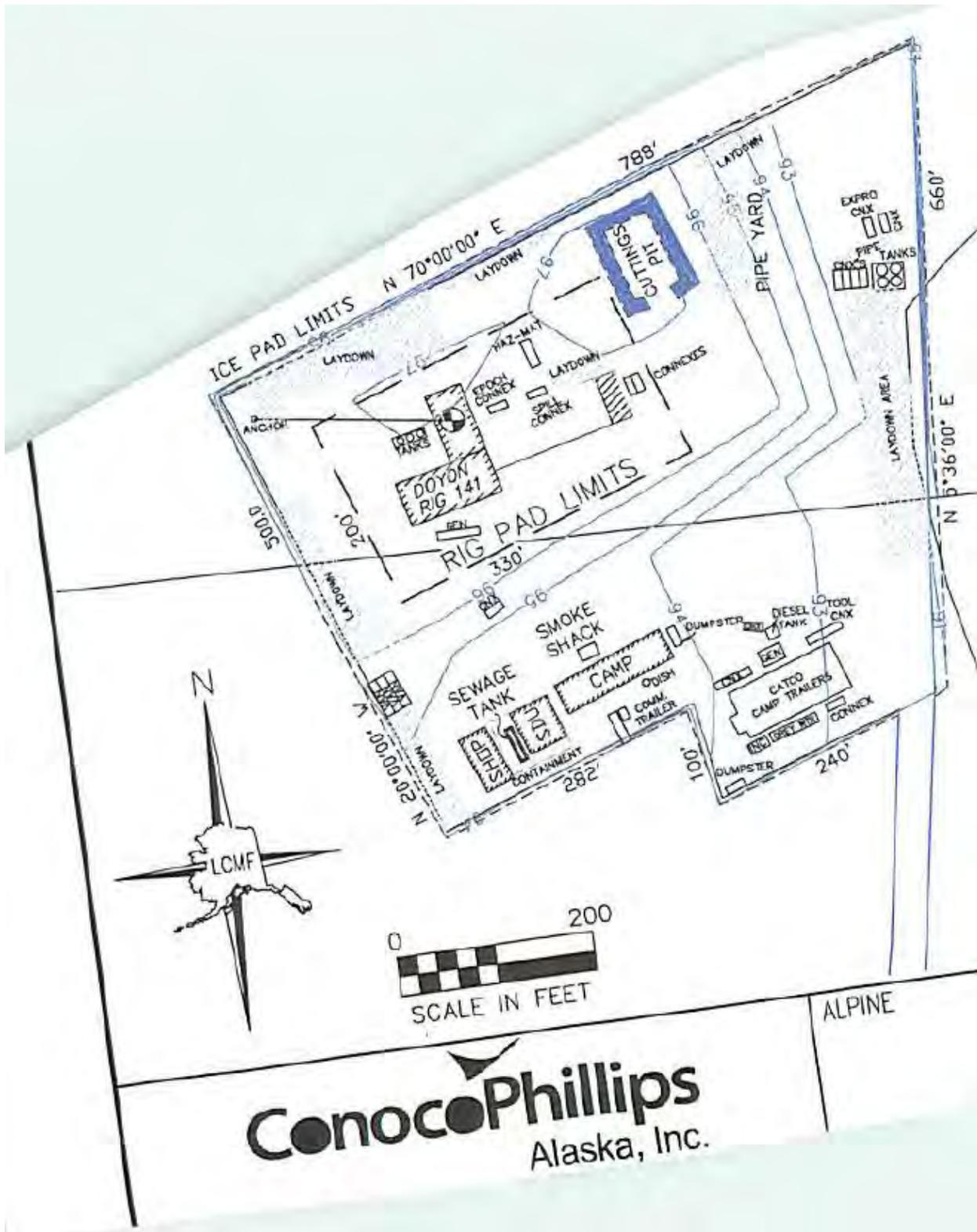


Figure 2 Typical CPAI Exploration Pad

All equipment (Table 2.9) necessary for drilling and formation evaluation (except for possibly vibroseis units for check shots) will stay on the ice pads throughout the operating period. During the mobilization of the remote camp, CPAI will have a bed truck and an 80-ton crane on site. There will also be between six and eight Rolligons in rotation moving camp modules, equipment and personnel. The drilling pad will include the drilling rig, rig camp buildings, warm and cold storage areas, maintenance buildings, and other equipment necessary to conduct the operations. The camp facilities will have the capability to accommodate a maximum of 60 people. Additionally, small camps (house up to 40 people) may be utilized on well sites where well testing operations are conducted with the drilling rig off site. Remote camp pads for ice road construction will be built along the main ice road route at several locations if needed.

Table 2.9 Operations Equipment List

2 to 4 snowmachines for surveying	1 to 2 Welding trucks	Drilling Rig- Doyon 141
Haaglund/Tukers for surveying	1 to 2 cranes	10 to 15 pick-ups/vans
Conductor drilling rig	2 to 4 bed trucks	2 to 4 300 bbl vac trucks
Hot oil displacement/pumping unit	1 to 2 supersuckers	Cementing pumping unit with product silos
2 to 4 325 bbl water trucks	Mud lab	1 to 2 Greywater/Blackwater trucks servicing the camps
1 to 2 winch trucks	E-line logging unit	Mudlogging shack- shown on the as-built
4 to 8 mobile light towers	IWD/MWD shack	2 to 3 Sows or large trucks for moving the rig modules
1 to 2 backhoes/excavators	4 to 8 mobile heaters	1 to 2 cats for assisting with rig moves
Cementing pumping unit	1 to 2 Fuel trucks	2 to 4 pump houses for water extraction form lakes

The drill pads will be constructed of ice with no cut and fill (i.e., no physical change to the surface topography). Ice roads and ice pads may be scarified with equipment to reduce slickness for safety purposes. The ice road or rolligon access point to each pad will not be determined until the road and pads are constructed (local topographic features may affect ice road/rolligon routing; the routes shown in the figures are approximate). No reserve pits will be constructed.

Light plants will be placed on frozen lakes at the water houses and road intersections for safety purposes. Light plants are portable units about the size of a small generator unit with a stand of lights about 10 feet into the air. The light plants will be refueled on the frozen lakes following CPAI's standard procedures for fuel transfers. All light plants will have 110% containment.

Up to 50,000 gallons of diesel fuel and up to 317,000 gallons of crude oil (for wells that are tested) will be stored at each well site in fuel storage areas with lined berms. All fuel transfers will follow best management practices associated with pollution prevention, and will be conducted in accordance with CPAI's Flammable and Combustible Fluid Transfer Policy. A spill technician with Alaska Clean Seas will be on site at each drilling location.

Vertical Seismic Profiles (VSPs) may be acquired using vibroseis trucks. These trucks are off-road vehicles approved for tundra travel. The operation typically requires the vibroseis units to move along a line starting at the well bore and stop at varying distances from the well out to a total distance dependent on the depth of the well and the magnitude of any deviation of the well. The VSP's would use two trucks to conduct the vibroseis for approximately 15 days. The

vibroiseis units would probably remain on the snow/ice roads or pad. If the trucks do leave a pad, all VSP lines will lie within a 2-mile radius of the snow/ice roads or pad.

2.1.4 Plug and Abandonment

CPAI is requesting authorization for the P&A of five wells within the NPR-A. Because each well is different in terms of status and design, the specific procedures for each well are submitted to the agencies with a Sundry Notice requesting approvals in advance of performing the work. Well work would begin after an ice road and pad have been constructed around the wellbore and scope of work has been approved by the agencies. No extra camp for P&A work would be needed and there will be no drill rig on site.

CPAI has the State and Federal Oil and Gas Bonds required for the proposed plugging and abandonment operations. The well abandonment procedures are outlined in CPAI's Exploration Plan of Operations submitted to BLM. The actual plugging procedure is similar to other plugging and abandoning completed on the North Slope. A BLM State Office Energy Branch employee would be present to observe the procedure on BLM managed lands. The State of Alaska is responsible for the P&A work on lands not managed by the BLM. Once the well has been cemented shut they propose to use an excavator around the wellhead to a depth of 5 feet below tundra level. All casing and tubing would be severed at 4 to 5 feet below tundra level once the cement has set. The original guardrail, cellar, wellhead and severed casing/tubing would be removed and transported to Prudhoe Bay. After photographically documenting the condition of the top of the well the marker plate would be welded on top of the well.

CPAI would then back-fill the sites with original soil, topping off with 5 yards of clean gravel from Prudhoe Bay, mounding it over the well to compensate for settling as soil thaws.

2.1.5 Waste Management

Wastes will be handled according to the comprehensive waste management plan required by the BLM under NE NPR-A SIAP/EIS ROP A-2, as summarized below.

Water-based drilling muds will be used which includes additives used to maintain desired drilling fluid properties and density. Excess drilling mud that cannot be reused would be transported to an approved Class II injection well in the Alpine, Kuparuk, or Prudhoe Bay fields, injected down the well, or potentially disposed of down an AOGCC approved annulus by annular injection. Prior to hauling, the cuttings will be stored in an ice-bermed storage cell or tanks at the drill site, and liquids will be temporarily stored in tanks on each ice pad. Upon completion of activities at the well sites, the ice-bermed drilling waste storage cells will be broken up and cleaned of contamination. The cleaned material will be left in place to melt at the end of the winter season. The rest of the material will be hauled to an injection site. An average of 20,000 gallons per day (gpd) of waste liquid from the well may require disposal, although all efforts to minimize this amount will be undertaken.

Solid, non-burnable waste will be deposited in large dumpsters or other suitable containers located at each site. These containers will be back-hauled to the NSB landfill at Prudhoe Bay or

taken to Kuparuk. The food waste that could attract wildlife either will be stored in enclosed conex containers in pending periodic hauling or will be hauled each day to a secured disposal site. While waiting for pick up, such wastes will be in secure wildlife-proof containers.

Camp wastewater will be hauled to an approved disposal facility at Alpine, Prudhoe Bay or Kuparuk for disposal. All treatment systems used will meet the ADEC requirements. The drill rig camp could generate about 6,500 gpd of domestic wastewater.

Production tests would be performed as needed after production casing is set. Testing may include extended flow periods to determine the productivity of the well. Following completion, the well will be hydro-fractured to enhance productivity. Oil from testing will be held in ice-bermed tanks until the testing is completed.

After testing, the oil will be either injected back into the formation from which it was produced or hauled to Alpine or Kuparuk and processed through their facilities. Produced gas will be flared.

2.1.6 Air Emissions

Sources of air emissions from the operation are rig engines, camp generator engines, steam generators, mobile non-road engine and construction equipment, used oil burners, hot-air heaters, light plants, incinerators, and potentially well test flaring equipment. CPAI has applied for ADEC authorization for the NPR-A exploration locations under Minor General Permit #1 for Oil and Gas Drilling Rigs. They are using Ultra-low sulfur diesel and evaluation of the potential for hydrogen sulfide (H₂S) release indicates that significant quantities are not expected at any drilling location. Measures and precautions associated with hydrogen sulfide are addressed in the Application for Permit to Drill filed with the BLM.

2.1.7 Contingency Plans

Contingency plans are described below.

Oil Discharge Prevention and Contingency Plan (ODPCP or C-Plan)

The Applicant is required to have approved oil spill response measures in place to meet Federal and State requirements. CPAI must have a site-specific ODPCP approved by ADEC that is considered sufficient to meet BLM requirements.¹ CPAI is requesting a minor amendment to the “North Slope Exploration ODPCP” for the NPR-A exploration locations.

The ODPCP will contain information on immediate response actions, receiving environments, spill cleanup, mobilization response times, and well control. The ODPCP encompasses standard response methodology and resources for the response. Additionally, the BLM inspects the wells and pads during construction and drilling.

¹ CPAI ODPCP is available for review at ADEC.

The Applicant's approved ODPCP, along with approved spill control equipment and supplies will be kept on site. Phone service will be available 24-hours a day at the drilling camp. CPAI will conduct a drill of the ODPCP to ensure that project personnel are knowledgeable of roles, responsibilities, and response strategies. The ODPCP will be amended, as necessary, to reflect any changes in the program that would have a bearing on spill responses.

A worst case release (i.e., blowout) is considered to be exceedingly unlikely. The worst case response planning standard for this project is a blowout of 82,500 barrels of oil total, or 5,500 barrels per day lasting 15 days. Based on required modeling, which considers prevailing wind direction, a blowout would distribute oil:

- Approximately seventy percent falls within 236 feet of the well, on the exploration pad.
- Eighty percent of the oil discharged falls within 700 feet of the well.
- Ninety percent of the oil discharged falls within 4,873 feet of the well.
- Ten percent of the oil discharged is in the form of droplets so small (50 μm or less) they

do not reach the ground.

No drilling will begin until the well pad is fully constructed and accessible by packed snow trail or ice road; the period of active drilling is subject to seasonal restrictions set in the ODPCP approval. In accordance with the ODPCP condition of approval, CPAI will cease drilling in hydrocarbon-bearing formations and isolate said zone by April 24th, to ensure the effectiveness of planned spill response methods prior to the onset of spring breakup.

Spill Prevention Control and Countermeasures (SPCC) Plans

An SPCC Plan provides guidelines for pollution prevention and addresses secondary containment where fuel and hazardous materials are stored in quantities of 1,320 gallons or more. The drilling contractor and the camp operator will have an SPCC Plan for fuel storage facilities.

Waste Management Plan

The applicant is required by the 2008 NE SIAP/EIS ROD (A-2) to submit to the AO for approval a Waste Management Plan for all phases of exploration and development. CPAI's plan is summarized in section 2.1.4 Waste Management above.

Hazardous Materials Emergency Contingency Plan

The applicant is required by the 2008 NE SIAP/EIS ROD (A-3) to have a Hazardous Materials Emergency Contingency Plan. Conoco's NS Exploration ODPCP contains procedures for immediate spill notification, response, and cleanup in the event of, or threat of, a hazardous substance spill and includes spill reporting information (see ODPCP, Part 1 - Response Action Plan). This information is applicable to all hazardous substance spills (e.g. not only a worst-case discharge). In addition, the ODPCP incorporates two response Strategies addressing a diesel tanker spill (see ODPCP, Part 1, scenarios in Section 1.6.5).

The ODPCP addresses appropriate procedures for fuel/hazardous substance handling/transfer and also references the *North Slope Environmental Field Handbook* and the *Alaska*

Safety Handbook. Combined, these documents describe the proper procedures employees and contractors must use for handling fuel/hazardous substances (see ODPCP, Part 2, Section 2.1.5).

Wildlife Protection and Encounter Plans

CPAI has a Polar Bear Avoidance and Interaction Plan and a Wildlife Interaction Plan. An approved orientation program is required for all personnel working in the NPR-A, to increase awareness of related environmental, social, and cultural concerns. These actions, along with the required Subsistence Plan, provide wildlife protection measures.

Other Plans

The North Slope operating fields have an Incident Management Team (IMT) which follows the Incident Command System (ICS). The IMT is on call 24-hours per day. Personnel involved in an emergency situation will notify Kuparuk Security who will direct the IMT to respond. An Environmental Health and Safety Policies and Procedures manual is available on CPAI's intranet web page and Emergency Response Plans are available at the individual facilities. Employees are required to watch a video entitled "The National Petroleum Reserve-Alaska Balancing the Use" and CPAI has filed an Orientation Program for BLMs approval. CPAI provides their North Slope employees with a copy of the "North Slope Environmental Field Handbook" which has short synopsis of O&G activities, agency phone numbers, what to do and not do in particular circumstances.

2.1.8 Abandonment and Restoration

Upon completion of drilling and evaluation operations, all debris will be hauled to an approved disposal site outside of the NPR-A. The ice pads will be chipped or scraped to pick up any spills and the scrapings will be hauled to an approved disposal well. Depending on the results of each well, they may be temporarily/operationally suspended if all testing is not completed by the end of tundra travel. Any well abandonment or suspension plans will be in accordance with applicable BLM and AOGCC regulations. Final site closure will be approved by appropriate agencies. After the ice road and ice pads melt in the summer, CPAI will perform an inspection of each location to pick up any remaining debris and to look for potential tundra damage. Prior to this activity CPAI will file a plan of operations for approval from the BLM.

2.1.9 Community Relations

CPAI conducted community meetings in Barrow, Nuiqsut and Wainwright to discuss summer field studies and exploratory drilling. In addition, CPAI representatives have attended meetings of the Subsistence Advisory Panel (SAP) to hear resident concerns about potential impacts to subsistence. CPAI will continue to keep the public informed about project development. Additional information about CPAI's NPR-A exploration drilling program can be found in documents included on their permit website, www.conocophillipsalaska.com/permits/. To date, CPAI has addressed key community issues as described below.

Cultural and Paleontological Resources. CPAI conducted a cultural and paleontological resources survey at pad locations and along access corridors. A letter report of survey findings was submitted to the BLM. No known cultural resources would be affected by the proposed exploration activities.

Economic Opportunity. CPAI has worked with the NSB and nearby communities to identify local economic opportunities. The Applicant will employ Subsistence Advisors, and puts a priority on obtaining local goods and services. CPAI has a policy of local hire priority. To that end, they have a 24-hour Jobs Hotline, an external Job Posting Website, notification to Alaska Job Service and advertise in the Anchorage and Fairbanks Newspapers.

Subsistence. The project area is recognized as a subsistence use area for Nuiqsut and Barrow. Public meetings and consultations included subsistence discussions. The Applicant plans to continue consultation with subsistence users and implement mitigation measures, as necessary. CPAI has prepared a Subsistence Plan to satisfy a requirement of the 2008 NE SIAP/EIS ROD (H-1). The document will assist in the identification of potential issues and response actions. Prior to issuing development permits, the NSB solicits public review including State and Federal agencies, local officials, residents, and private property owners in the affected area.

2.2 NO-ACTION ALTERNATIVE

With the no-action alternative, exploratory drilling under existing, valid oil and gas leases would not be allowed as proposed and the P&A work on five wells would not take place. Permit applications to the BLM would be denied, and no access of 88 miles of ice road/snow trail construction, no ice drill pads, no use of up to 97.31 MG of water (project total) from 22 water supply lakes, no drilling of up to two exploratory wells, or drilling support activities on Federal Lands in the NE NPR-A would be allowed. While this alternative is contrary to the current Administration's policy and lease rights, analysis is required by NEPA.

2.3 CONFORMANCE

The proposed action is in conformance with the NE SIAP/EISs (USDOI BLM 2008a) and associated ROD (USDOI BLM 2008b), National Petroleum Reserve Product Act (NPRPA), Federal Land Policy Management Act (FLPMA), Alaska National Interest Lands Conservation Act (ANILCA), Endangered Species Act, Executive Order (EO) 11988, EO 11990, and terms of the federal leases.

In the NE NPR-A SIAP/EIS (USDOI BLM 2008a), the BLM evaluated the direct, indirect, and cumulative effects of winter exploration in the NPR-A. This analysis concluded that the stipulations and ROPs provided adequate protection for surface resources and subsistence activities in the planning area. In the associated ROD (USDOI BLM 2008b), several changes were made to those protective measures to address new data, new regulations, and new public concerns.

As part of the most recent analysis, the BLM considered site-specific evaluations of exploration programs in the NE Planning area over the past years, all of which received a Finding of No

Significant Impact by the BLM. Findings for these winter exploration programs included analysis of Threatened and Endangered Species, Essential Fish Habitat (EFH) and Subsistence Use under ANILCA 810, as well as coordination with the State Historic Preservation Office. In addition to BLM permits, other required Federal, State, and local authorizations were issued.



Figure 3: Cassin #1 Location



Figure 4: Cassin #6 Location

3. AFFECTED ENVIRONMENT

Previous federal exploration in the NPR-A has taken place in the general area of the proposed action. The relation of the project area to previously-drilled exploratory wells and permitted access corridors in the project area is shown in Figure 5.

3.1 INTRODUCTION

Environmental characteristics of the general project area have been extensively described in the NE NPR-A IAP/EIS (USDOI BLM 2008a, Vol. 1, Chapter 3), to which this analysis is tiered, with some site-specific features described below. Proposed activities would take place on the Arctic Coastal Plain, where temperatures average below freezing for 8 months of the year. A dramatic change to higher temperatures and longer day length occurs during the other 4 months. Annual precipitation is low, averaging 8 inches per year, with more than half falling as snow. Snow cover is typically established in late September/October and disappears late May/mid-June. North Slope air quality meets the National Ambient Air Quality Standards and State of Alaska air quality regulations. Concentrations of regulated air pollutants are far less than the maximum allowable levels (USDOI BLM 2008a, Vol.1, p.3-6).

The topography of the project area is generally flat to gently rolling, dominated by permafrost-related geomorphic features including polygonal patterned ground, shallow lakes, and extensive areas of wetland interlaced with small, meandering streams. Permafrost ranges from 650 to 1,330 feet deep, with an active thaw layer typically 1 to 2 feet deep.

The proposed ROW segment crosses channels and tributaries of the Ublutuoch River, Fish Creek, Nigliagvik, Nigliq and Judy Creek drainage system. CPAI has identified 22 lakes in the NE NPR-A which may be utilized as water sources.

Proposed drilling activities are located approximately 30 miles northwest of Nuiqsut. Residents of Nuiqsut commonly use the project area to harvest subsistence resources.

Based on the proposed project and the issue identification in Section 1.5, the following discussion of the affected environment covers those issues that warranted further consideration within this EA: Fish and Subsistence

3.1.1 Fish

Details on all fish species in the region, including general distributions and life histories, can be found in the NE NPR-A SIAP/EIS (USDOI BLM 2008a). Fish inhabiting water source lakes on BLM lands that may be used for the CPAI 2012-13 winter operations are documented in MJM Research (2000a; 2000b; 2003a; 2003b; 2003c; 2007; 2012) and Rainer & Associates (2000). This includes Alaska blackfish, Arctic grayling, broad whitefish, humpback whitefish, least cisco, and ninespine stickleback. For consideration of water use limits (ROP B-2), fish in lakes are classified according to their susceptibility to low levels of dissolved oxygen. Alaska blackfish and ninespine stickleback are considered “resistant” due to their greater tolerance to low dissolved oxygen while all other species in the region are considered “sensitive”.

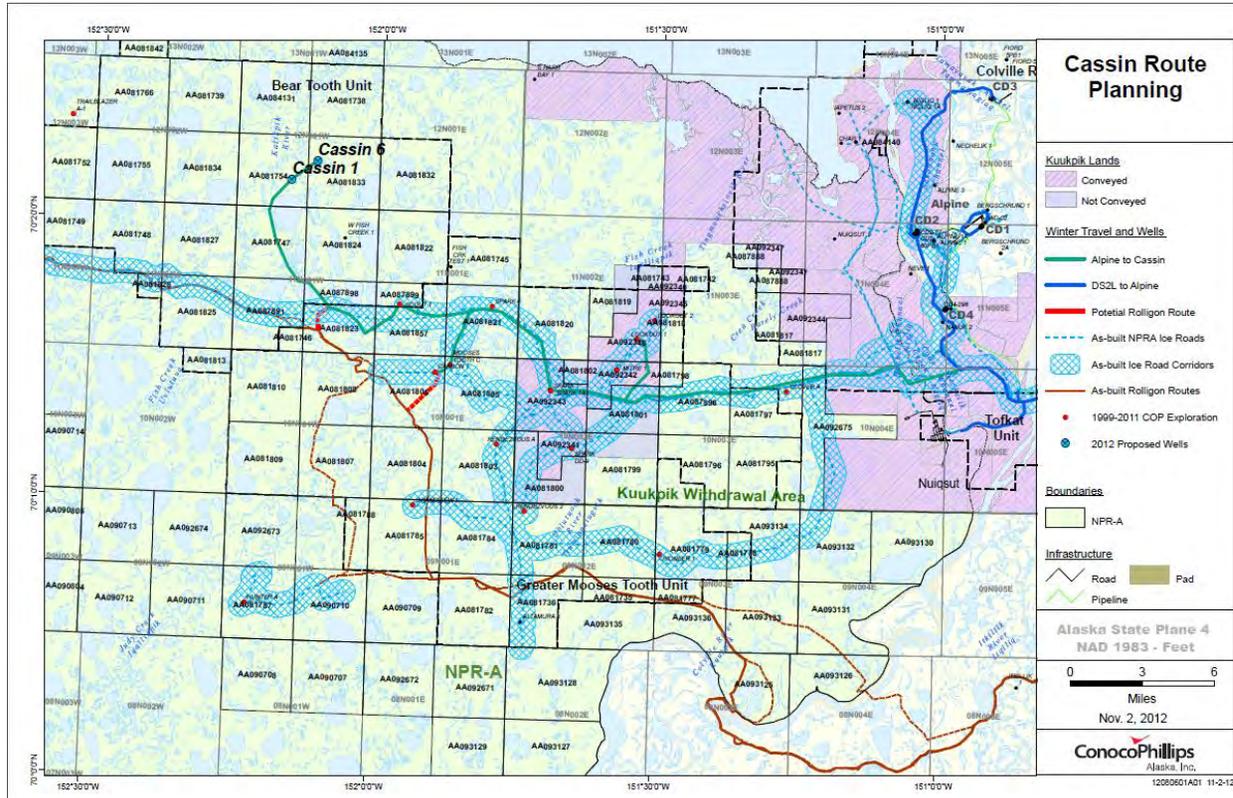


Figure 5. Previously Permitted access corridors and drilled exploratory wells.

3.1.2 Subsistence

Subsistence can be defined as hunting, fishing, and gathering for the primary purpose of acquiring traditional food. Subsistence activities are a culture base and provide a sense of identity to the Inupiat people. Subsistence resources supply not only nutritional value, but are also used for clothing, tools, and transportation. Cultural and family ties are preserved through obtaining, sharing, and bartering such resources

There is a wide range of species hunted throughout the year in the NPR-A region for local subsistence purposes. These include whale, seal, walrus, bear, birds, caribou, furbearers, small mammals, and fish. Species such as seals, polar bears, and caribou are hunted throughout the entire year in the Barrow area. Fresh and salt-water fish, and small mammals are hunted or trapped in the late spring and summer months. Caribou, whales, walrus are typically hunted or fished in late summer and early fall. Berries and other flora are normally gathered in early to mid-fall.

The proposed project is located within both the Barrow and the Nuiqsut subsistence use areas (USDOI BLM 2008a, Map 3-38). Barrow, a community of over 4,500 residents is located approximately 200 miles to the northwest of the project area. Nuiqsut, a community of 403 residents, is located within the general project area. The primary subsistence use of the area during the proposed project dates will be by residents of Nuiqsut, for the purposes of caribou, small mammal, bird and furbearer hunting. Under ice fishing may also occur during the latter part of the project timeline. Many residents may simply travel through the project area in order to access hunting cabins or camps located outside of the project area. Access will primarily be by snow machine.

4 ENVIRONMENTAL IMPACTS

If authorized, the proposed project would be the 16th winter exploration drilling program in the NPR-A since the 1999/2000 winter drilling season. Figure 5 shows the relationship of the proposed new sites to those that have been drilled previously and those that have been permitted but not drilled.

Activities proposed by CPAI are similar to previously authorized exploration activities in the NPR-A over the past 13 years. All of these programs have been approved and monitored on the basis of full implementation of relevant restrictions, protective measures, and the mitigation set forth in the applicable RODs, as well as state and local permits, and compliance. To date, authorizations to conduct winter exploration in the NPR-A have resulted in no long-term significant impacts to the environment, or access to and the use of subsistence resources.

Because the proposed activities are not substantially different from those previously evaluated, and because no significant new scientific information or analyses have been developed since the most recent related evaluation (i.e., USDOI BLM 2012 and USDOI BLM 2008), this NEPA analysis will focus on impacts due to the project-specific/site-specific differences of the proposed action.

4.1 DIRECT AND INDIRECT EFFECTS

The proposed action is built on experience gained from decades of similar operations on the North Slope. This EA is tiered from the 2008 NE IAP/EIS and its ROD along with the 2012 Draft NPR-A IAP/EIS. Related discussions of impacts are found in: 2008 NE NPR-A IAP/EIS, Vol. 2, Chapter 4.6 (Environmental Consequences of Alternative D, the preferred alternative).

Issues specifically identified in Section 1.5 for further analysis in this EA are discussed below.

4.1.1 Fish

Proposed Action

As identified in Table 1.3, the potential for impacts on fish overwintering in water source lakes is increased if water use exceeds the standard in ROP B-2f. For CPAI's 2012-2013 winter exploration program in the NPR-A, they are requesting to use ice aggregate at eight lakes in addition to the maximum liquid water volume typically allowed for use (Table 2.7), which exceeds BLM's ROP B-2f. This ice aggregate would come from within the 4-ft (and shallower) contour of each lake where ice will become naturally grounded during typical winter conditions, a practice commonly permitted in conjunction with additional monitoring. As snow removal is not permitted beyond this 4-ft contour, this activity should not contribute to additional lake freezedown. In the existing areas of oil exploration and development on the Arctic coastal plain, lakes pumped solely for winter exploration activities have recharged in the spring, including at some lakes where additional ice aggregate has been utilized (Streever et al. 2001; URS 2001; Baker 2002; Hinzman et al. 2006 ; Baker 2007; Holland et al. 2008). The BLM has also granted an exception to ROP B-2f during past winter oil and gas operations in this local area without a negative outcome. Furthermore, at each of the eight lakes where CPAI is requesting an exception to ROP B-2f, ADF&G Division of Habitat is requiring additional work that will help evaluate if the lake water levels recharge in spring. Specifically, each Fish Habitat Permit for the lakes in question states:

“...Ice removal in succeeding years will be contingent upon receipt of information denoting measured recharge of the lake or a developed predictive method to determine if a particular lake has adequate drainage area and recharge capabilities to support sustained use beyond current recommended levels.”

The documentation of winter-pumped lakes recharging in this particular region, the successful implementation of an exception to ROP B-2f by the BLM in recent years for this operation area, and the additional monitoring or modeling required by ADF&G support the BLM's decision to grant an exception to ROP B-2f at this set of eight lakes. This exception from BLM only pertains to the 2012-13 winter exploration season and consideration for water use in future years beyond the guidelines outlined in ROP B-2 will depend on the results and observations from this season.

No-Action Alternative

Under the no-action alternative, CPAI would not drill at the two well locations or plug and abandon the three wells located on BLM-managed land, in which case there would be no need for water from lakes to construct ice roads and pads.

4.1.2 Subsistence

Proposed Action

The proposed project involves winter activity in an area with important subsistence value. While the wintertime is not the primary season for subsistence harvesting, it is the principal time period for furbearer harvesting. Other subsistence activities that occur during the winter, and thus could be impacted by the proposed exploratory drilling program, include caribou, small mammal, and bird hunting. These activities are frequently based from subsistence cabin or camp locales, which are accessed during the winter by snow machine. Ice fishing may also occur. The two proposed exploratory drilling sites, as well as the associated access routes and P&A wells, are located in an area utilized by subsistence harvesters from Nuiqsut and Barrow. The two exploratory drill sites are located approximately 30 miles northwest of Nuiqsut and will have disproportionately high impacts on that community. The primary activities associated with the project that could affect subsistence use include ice road construction, overland moves, and the several month-long duration of the exploratory drilling and associated camps at the Cassin #1 well and (potentially) the Cassin #6 pad locations.

Local knowledge, as elicited through public testimony at NPR-A Subsistence Advisory Panel (SAP) meetings, indicates that exploratory activity displaces resources from the area of effect. This displacement can lead to hunters having to travel further to harvest resources. In most cases, these activities are expected to cause only short-term, minor displacement and/or disturbance, usually only the time period in which the construction activity or camps are active. Plugging and abandoning these wells would result in a positive long-term effect compared to the no action alternative.

Mitigation measures that minimize impacts to subsistence use have been adopted by the BLM (USDOI BLM 1998; 2008b), including winter-only exploration, measures that protect fish and wildlife, and consultation requirements by the company with affected communities. CPAI has developed a Subsistence Plan that includes the use of local subsistence advisors to identify and help mitigate potential impacts of the proposed project to subsistence use. The plan also includes methods for increased communication between the community and the company.

No-Action Alternative

Under the No-Action Alternative, CPAI would not drill at the two well locations, would not plug and abandon the three wells located on BLM-managed land, and there would be no need for the construction of an ice road or snow road. No activity would occur within the subsistence use areas for the communities of Barrow and Nuiqsut, therefore, no potential displacement of resources from the area would occur. There would be no impacts to subsistence resulting from ice road construction, overland moves or the camps associated with the drilling locations. Over

the long-term, leaving well sites un-plugged could result in adverse environmental effects, which could affect subsistence.

4.2 CUMULATIVE EFFECTS

The BLM has evaluated the cumulative effects of past, present, and reasonably foreseeable oil and gas activities in and around the NPR-A in a series of recent NEPA analyses. This EA tiers to the most recent cumulative impact analysis in the USDO I BLM 2008a (Volume 3, Chapter 4, Section 4.7). That analysis was based on a timeframe of approximately 1900 through 2100, and a geographic range incorporating the entire North Slope of Alaska and adjacent marine waters. Based on the requirements of 40 CFR 1508.7, and guidance in the Council on Environmental Quality handbook on cumulative effects (CEQ, 1997), this analysis of winter exploration drilling considers a narrower temporal and spatial framework (i.e. approximately 30 years past and future and influences limited to a distance of approximately 21 miles from the access corridor and drilling areas). The causes and impacts of climate change are global in scope, with associated impacts evaluated in USDO I BLM 2008a. The primary influences in the current analysis include: oil and gas activities; the community of Nuiqsut; and subsistence, research/inventory, and recreation activity, as analyzed in USDO I BLM 2008a.

To date, no recent exploration activities authorized by the BLM in the NPR-A, individually or in combination, have caused significant direct, indirect, or cumulative adverse impacts to the environment. There have been some minor, short-term, local adverse impacts as a direct result of activities associated with approved winter exploration programs. The small number and minimal severity of the impacts occurring from 1999 to 2012 demonstrates the overall effectiveness of the environmental protections that are applied to winter exploration activities in the NPR-A.

Results of previous analyses that have been incorporated by reference, and considerations of existing and proposed protective measures in the NPR-A, are key factors in limiting the cumulative impacts analysis to the issues listed below. Neither the Proposed Action nor the No-Action Alternative would add substantially to the incremental past, present, and future impacts described below.

4.2.1 Fish

As discussed in the 2008 NE IAP/EIS (Section 4.7.7), restricted winter habitat for fish in the Arctic makes many species vulnerable to the impacts of oil and gas surface activities. Some effects from winter water use associated with oil and gas exploration may accumulate, but due to protective measures (Table 1.3), effects to fish at the population level are not likely.

4.2.2 Subsistence

BLM protective measures have been applied in the NPR-A during the winter drilling seasons without any significant individual or collective direct, indirect, or cumulative impacts to subsistence resources. Activity levels are expected to be similar in the future, such that cumulative impacts are expected to remain insignificant for both the Proposed Action and the

No-Action Alternative. In addition, stipulations and ROPS/BMPs have been developed to avoid the potential for significant restriction of subsistence uses or access to subsistence resources (USDOI BLM 1998, 2008b).

Multi-year winter exploration drilling projects and the potential for concurrent operations within and adjacent to the NPR-A have been discussed with local residents through meetings with the local communities, NSB, regulatory and resource agencies in order to minimize project-specific and cumulative effects to subsistence resources or access.

In addition to winter activities, summer activities including studies, monitoring, and recreational use occur in the NPR-A. These include aircraft support for fish and wildlife studies, as well as inspections of proposed drilling sites and abandonment inspections. Helicopters are frequently used as the basic means of air support. Helicopter activity can result in deflection of wildlife and disturbance to people engaged in subsistence activities. This disturbance is usually localized to the area in which the helicopter is operating, and temporary in nature, in that it only occurs during the period in which the activity is taking place. Fixed wing aircraft are used for local passenger and freight transportation, subsistence, and recreation. Although every effort is made to minimize the effects of aircraft activity, aircraft transportation is crucial to many activities. Summer activities in the NPR-A require separate BLM authorization(s), with associated assessment of potential environmental impact.

4.3 RESIDUAL IMPACTS

Despite the system of controls in place, and the modern technology and methods proposed, some minor impacts from the proposed action cannot be avoided. The impacts include:

- Temporary surface disturbance by winter drilling at well sites.
- Temporary increase in industrial activity affecting wintertime local tranquility and solitude.
- Temporary minor impacts to tundra from ice roads and pads. Longer-term, but relatively minor, visual impacts from multiple green and/or brown trails along portions of the spur routes to ice pads and water supply lakes.
- Short-term visual and noise impacts of drill rig, camp, traffic, etc.
- Temporary disturbance, with possible displacement of some wildlife, in the area while exploration activities are underway. Possible additive effect on winter wildlife mortality.
- Possible minor, temporary impact on subsistence resources and activities if caribou or other animal movements shift away from places where winter activity occurs.
- Possible loss of some small mammals (e.g., lemmings, voles, and ground squirrels) due to ice road/pad construction and the hardened overland trail. This would be an adverse impact to those individuals lost, but not to any local wildlife population.
- Temporary, localized, minor degradation of air quality and, possibly water quality (oxygen depletion, wastewater disposal, and spills).
- Possible temporary restriction of public access to land around drill sites during active drilling activities to meet air quality requirements and increase public safety.

Residual effects have been broadly evaluated for those areas considered for leasing, leased, and subsequently explored (USDOI BLM 2008a, Vol. 3, Section 4.8). With the additional mitigation measures described in Section 4.5, below, the site-specific effects expected from the proposed action are consistent with those previously-discussed impacts, and none of the impacts are expected to be significant for the proposed action.

4.4 MITIGATION AND MONITORING

In consultation with agencies and local residents, North Slope operators have actively worked to develop winter exploration technologies that create minimal impacts to the environment and to local residents. Many of these enhancements, such as ways to reduce damage to tundra, have been incorporated into operational plans, including the proposed project.

The BLM will continue to monitor the following resources as the proposed action is implemented:

1. Access to subsistence use areas and displacement of subsistence resources
2. Cultural resources
3. Tundra/vegetation
4. Fish habitat
5. Lake recharge

BLM monitoring measures will involve: 1) the drilling operation, including the drill rig and ancillary facilities, and 2) other surface activities. The former involves geotechnical and engineering considerations such as the presence of hydrogen sulfide gas. The latter includes the movement of equipment, supplies, and personnel to and from the drilling operations and the continuing protection of vegetation, fish, and wildlife habitat, as well as subsistence activities.

The objective of this monitoring program is to ensure that all terms and conditions of the Federal oil and gas leases, the NE NPR-A RODs (USDOI BLM 1998b, 2008b), the NPRPA, and FLPMA (where applicable) are met.

4.5 ADDITIONAL MITIGATION AND MONITORING

The BLM will incorporate the following additional mitigation measures into approvals for the CPAI Applications to Drill and ROW permit. CPAI shall:

1. Provide the BLM Arctic Field Office with a weekly activities summary report. This report shall include all required reports identified below. The report shall be delivered in digital format every Monday through the applicable season(s) for the life of this project.
2. The permittee and their contractors must cooperate with the U.S. Fish and Wildlife Service and other designated Federal, State, or local agencies to monitor the impacts of their activities on polar bears.
3. The permittee or their contractors shall allow a U.S. Fish and Wildlife Service observer access to the activity site to monitor the impacts of the activity on polar bears.
4. Permittee and their contractors are required to obtain and adhere to the requirements found in the Letter of Authorization (LOA) for the incidental take of polar bears issued by the U.S. Fish and Wildlife Service, Marine Mammals Management Office. A copy of the LOA and any associated documents including a polar bear interaction plan, if required, must be submitted to the BLM prior to work starting on the ground in NPR-A.

5. Hazing of polar bears is prohibited unless authorized by the U.S. Fish and Wildlife Service, Marine Mammals Office.
6. The permittee and their contractors are required to review educational materials explaining polar bear denning habitat characteristics in order to enable them to recognize and avoid these areas while traveling and choosing camp sites (materials are available from the BLM).
7. All activities are prohibited within 1 mile of known polar bears dens (including those encountered in the course of permitted activities). Locations of known polar bear dens can be obtained from the U.S. Fish and Wildlife Service, Marine Mammals Management Office.
8. All observed polar bear dens must be reported to the U.S. Fish and Wildlife Service, Marine Mammals Management Office as soon as possible. The phone number for reporting is included in the Letter of Authorization from the U.S. Fish and Wildlife Service.
9. Should occupied dens be identified within one mile of activities, work in the immediate area will cease and the U.S. Fish and Wildlife Service must be contacted for guidance before proceeding with activities. The U.S. Fish and Wildlife Service will evaluate these instances on a case-by-case basis and determine the appropriate action.
10. The permittee or their contractors must designate a qualified individual or individuals to observe, record and report effects of the activity on polar bears to the U.S. Fish and Wildlife Service within 24 hours of visual observations. Evidence of polar bears, such as tracks, carcass, or dens will also be reported.
11. Every polar bear observed shall be recorded on a polar bear observation form. The permittee and their contractors shall obtain this form from the U.S. Fish and Wildlife Service.
12. The permittee or their contractors shall submit an annual polar bear observation report to the BLM within 60 days of completion of field operation. This report shall contain information on all evidence of polar bears, including active den locations, and the actions taken by the permittee on the adherence of these stipulations.
13. A set-back of ½ mile from all barrier island and bluff (coastal and river) habitats within designated polar bear critical habitat shall be maintained for all operations unless the U.S. Fish and Wildlife Service, Marine Mammals Management Office allows for mitigation of this stipulation through the Letter of Authorization (LOA) process. The LOA stipulations regarding setbacks shall override this stipulation and the LOA stipulation should be followed.
14. The Permittee or their contractors must follow the polar bear interaction guidelines provided in the document titled: “Polar Bear Interaction Guidelines”

The following permit stipulations implement practices that will further reduce the likelihood of impacts to fish habitat and water resources on BLM lands (adapted from Noel et al. 2008). CPAI shall:

- 15.) Provide the BLM with any data collected at ice road or snow (Rolligon) trail stream crossings regarding ice thickness or depth of liquid water during the pioneering stage of construction.
- 16.) Provide the BLM with an as-built of all ice roads, snow trails, and ice pads at the time the infrastructure is completed. Data should be in the form of ESRI shapefile(s) referencing the North American Datum of 1983 (NAD83).
- 17.) Post a sign on the access road to each lake being utilized as a water source, clearly identifying the lake by its number.
- 18.) Maintain a daily record of water removed as liquid or ice aggregate from each lake utilized as a water source and provide the BLM with this record weekly in conjunction with the progress report. A formatted spreadsheet provided by the BLM must be used for reporting.
- 19.) Immediately cease pumping and notify the BLM within 24 hours if water removal exceeds the volume approved at any lake.
- 20.) Notify the BLM within 24 hours of any observation of dead or injured fish on water source intake screens or in the hole being used for pumping. Temporarily cease pumping from that hole until additional preventative measures are taken to avoid further impacts to fish.
- 21.) Provide the BLM with photographs documenting the condition of all ice road or snow trail channel crossings that have been “removed, breached, or slotted” (per ROP C-3) at the end of the winter operation period. Geographic coordinates (latitude/longitude) of a crossing must accompany each set of photos. **ROP C-3 Clarification:** ROP C-3 requires that any “bridges” created at stream crossings be breached or removed before spring breakup. A stream channel crossing is a “bridge” only if additional layers of snow, ice, and/or liquid water are added to the crossing (not including streambank ramps). If additional layers are added to a crossing, then ROP C-3 applies and the crossing must be breached before spring breakup.
- 22.) Provide the BLM any data or photographs collected at water source lakes regarding an evaluation of spring recharge.
- 23.) At the Ublutuoch River ice road crossing (IR2), remove as much of the ice bridge as is reasonable without damaging streambanks or the streambed at the end of operations.

4.6 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This analysis has considered, tiered from, and incorporated by reference, previous studies and findings on oil and gas winter exploration activities on the North Slope and, specifically, in the NPR-A. Also considered were the requirements and restrictions for water withdrawals and fish

stream crossings included in Fish Habitat permits. The potential issue (s) identified in the evaluation of the proposed action for this EA was Fish and Subsistence. The analysis found that impacts would be short term and localized and that mitigation measures in Appendix A and project specific stipulations from Section 4.5 would adequately reduce any adverse effects to Fish and Subsistence. Likewise, the analysis also found that mitigation measures would adequately reduce any adverse effects to Fish and Subsistence would also be short term and localized. The proposed action would not contribute to significant cumulative effects to Fish and Subsistence in the proposed project areas. Based on this analysis, it is concluded that direct, indirect, and cumulative impacts from the proposed action should be relatively minor and short-term, with no significant impacts foreseen.

5 CONSULTATION AND COORDINATION

5.1 AGENCY COORDINATION

The preparers of this EA have consulted with the following contacts in setting the scope of analysis and alternatives to be addressed:

ADNR, Division of Mining Land and Water
ADFG
USFWS

In preparing its plan of operations, CPAI conducted a series of meetings with resource agencies, regulatory agencies, and local governments. The proposed project has recently undergone review by the NSB, as well as other State and Federal agencies, as described in Section 1.5.

CPAI provided the BLM with permit applications and support documentation that summarize the proposed project and their compliance with applicable stipulations. The BLM has inspected the proposed drill sites at Cassin #1, Cassin #6 and access routes. The BLM and CPAI discussed the proposed action as the proposed program was being developed. These discussions will continue as the project progresses.

5.2 PUBLIC COORDINATION

In preparing its plan of operations, CPAI conducted meetings with affected North Slope community residents, as described in Section 1.6. Local residents provided Traditional Knowledge that was considered in the project plan and in this EA.

CPAI has prepared a Subsistence Plan that presents measures to mitigate potential impacts on subsistence resources and access.

5.3 LIST OF PREPARERS

Susan Flora, Environmental Scientist
Richard Kemnitz, Hydrologist
Michael Kunz, Archaeologist
Stacey Fritz, Anthropologist/Subsistence Specialist

Debbie Nigro, Wildlife Biologist
Roger Sayre, NEPA Specialist
Matthew Whitman, Fish Biologist
Donna Wixon, Natural Resource Specialist
Dave Yokel, Wildlife Biologist

ANILCA Requirements

Section 810 Subsistence Evaluation

The proposed action will not significantly restrict subsistence uses. No reasonably foreseeable and significant decrease in the abundance of harvestable resources or in the distribution of harvestable resources, and no reasonably foreseeable limitations on harvester access will result from the proposed action.

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APPENDIX A

**NE IAP/EIS ROD
Stipulations and Required Operating Procedures****Waste Prevention, Handling, Disposal, Spills, Air Quality, and Public Health and Safety:*****A-1 Required Operating Procedure***

Objective: Protect the health and safety of oil field workers and the general public by disposing of solid waste and garbage in accordance with applicable Federal, state, and local law and regulations.

Requirement/Standard: Areas of operation shall be left clean of all debris.

A-2 Required Operating Procedure

Objective: Minimize impacts on the environment from non-hazardous and hazardous waste generation. Encourage continuous environmental improvement. Protect the health and safety of oil field workers and the general public. Avoid human-caused changes in predator populations.

Requirement/Standard: Lessees/permittees shall prepare and implement a comprehensive waste management plan for all phases of exploration and development, including seismic activities.

The plan shall be submitted to the AO for approval, in consultation with Federal, state, and NSB regulatory and resource agencies, as appropriate (based on agency legal authority and jurisdictional responsibility), as part of a plan of operations or other similar permit application. Management decisions affecting waste generation shall be addressed in the following order of priority: 1) Prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan shall consider and take into account the following requirements:

- a.** Methods to avoid attracting wildlife to food and garbage. All feasible precautions shall be taken to avoid attracting wildlife to food and garbage. (A list of approved precautions, specific to the type of permitted use, can be obtained from the AO.)
- b.** Disposal of putrescible waste. Requirements prohibit the burial of garbage. Lessees and permitted users shall have a written procedure to ensure that the handling and disposal of putrescible waste will be accomplished in a manner that prevents the attraction of wildlife. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the AO. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility in accordance with USEPA and ADEC regulations and procedures. The burial of human waste is prohibited except as authorized by the AO.
- c.** Disposal of pumpable waste products. Except as specifically provided, the BLM requires that all pumpable solid, liquid, and sludge waste be disposed of by injection in accordance with USEPA, ADEC, and the Alaska Oil and Gas Conservation Commission regulations and procedures. On-pad temporary muds and cuttings storage, as approved by ADEC, will be allowed as necessary to facilitate annular injection and/or backhaul operations.
- d.** Disposal of wastewater and domestic wastewater. The BLM prohibits wastewater discharges or disposal of domestic wastewater into bodies of fresh, estuarine, and marine water, including wetlands, unless authorized by a NPDES or state permit.

A-3 Required Operating Procedure

Objective: Minimize pollution through effective hazardous-materials contingency planning.

Requirement/Standard: For oil- and gas-related activities, a Hazardous Materials Emergency Contingency Plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. Procedures applicable to fuel and hazardous substances handling (associated with transportation vehicles) shall consist of Best Management Practices (BMPs) if approved by the AO. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of Federal, state, and NSB contacts. Other Federal and state regulations may apply and require additional planning requirements. All appropriate staff shall be instructed regarding these procedures. In addition contingency plans related to facilities **developed** for oil production shall include requirements to:

- a. provide refresher spill-response training to NSB and local community spill-response teams on a yearly basis,
- b. plan and conduct a major spill-response field-deployment drill annually,
- c. prior to production and as required by law, develop spill prevention and response contingency plans and participate in development and maintenance of the North Slope Subarea Contingency Plan for Oil and Hazardous Substances Discharges/Releases for the National Petroleum Reserve - Alaska operating area. Planning shall include development and funding of detailed (e.g., 1:26,000 scale) environmental sensitivity index maps for the lessee's operating area and areas outside the lessee's operating area that could be affected by their activities. (The specific area to be mapped shall be defined in the lease agreement and approved by the AO in consultation with appropriate resource agencies). Maps shall be completed in paper copy and geographic information system format in conformance with the latest version of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's Environmental Sensitivity Index Guidelines. Draft and final products shall be peer reviewed and approved by the AO in consultation with appropriate Federal, state, and NSB resource and regulatory agencies.

A-4 Required Operating Procedure

Objective: Minimize the impact of contaminants on fish, wildlife, and the environment, including wetlands, marshes and marine waters, as a result of fuel, crude oil, and other liquid chemical spills. Protect subsistence resources and subsistence activities. Protect public health and safety.

Requirement/Standard: Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees **shall develop a comprehensive spill prevention and response contingency plan** per 40 CFR § 112 (Oil Pollution Act). The plan shall consider and take into account the following requirements:

- a. On-site Clean-up Materials. Sufficient oil-spill-cleanup materials (absorbents, containment devices, etc...) shall be stored at all fueling points and vehicle-maintenance areas and shall be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.
- b. Storage Containers. Fuel and other petroleum products and other liquid chemicals shall be stored in proper containers at approved locations. Except during overland moves and seismic operations, fuel, other petroleum products, and other liquid chemicals designated by the AO that in total exceed 1,320 gallons shall be stored within an impermeable lined and diked area or within approved alternate storage containers, such as over packs, capable of containing 110% of

the stored volume. In areas within 500 feet of water bodies, fuel containers are to be stored within appropriate containment.

c. Liner Materials. Liner material shall be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.

d. Permanent Fueling Stations. Permanent fueling stations shall be lined or have impermeable protection to prevent fuel migration to the environment from overfills and spills.

e. Proper Identification of Containers. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled or purchased.

f. Notice of Reportable Spills. **Notice of any reportable spill (as required by 40 CFR § 300.125 and 18 AAC § 75.300) shall be given to the AO as soon as possible, but no later than 24 hours after occurrence.**

g. Identification of Oil Pans (“*duck ponds*”). All oil pans shall be marked with the responsible party’s name.

A-5 Required Operating Procedure

Objective: Minimize the impact of contaminants from refueling operations on fish, wildlife and the environment.

Requirement/Standard: Refueling of equipment within 500 feet of the active floodplain of any water body is prohibited. Fuel storage stations shall be located at least 500 feet from any water body with the exception of small caches (up to 210 gallons) for motor boats, float planes, ski planes, and small equipment, e.g. portable generators and water pumps, will be permitted. The AO may allow storage and operations at areas closer than the stated distances if properly designed to account for local hydrologic conditions.

A-6 Required Operating Procedure

Objective: Minimize the impact on fish, wildlife, and the environment from contaminants associated with the exploratory drilling process.

Requirement/Standard: Surface discharge of reserve-pit fluids is prohibited.

A-7 Required Operating Procedure

Objective: Minimize the impacts to the environment of disposal of produced fluids recovered during the **development** phase on fish, wildlife, and the environment.

Requirement/Standard: Discharge of produced water in upland areas and marine waters is prohibited.

A-8 Required Operating Procedure

Objective: Minimize conflicts resulting from interaction between humans and bears during leasing and associated activities.

Requirement/Standard: Oil and gas lessees and their contractors and subcontractors will, as a part of preparation of lease operation planning, prepare and implement bear-interaction plans to minimize conflicts between bears and humans. **These plans shall include measures to:**

- a. Minimize attraction of bears to the drill sites.
- b. Organize layout of buildings and work areas to minimize human/bear interactions.
- c. Warn personnel of bears near or on drill sites and identify proper procedures to be followed.
- d. Establish procedures, if authorized, to discourage bears from approaching the drill site.

- e. Provide contingencies in the event bears do not leave the site or cannot be discouraged by authorized personnel.
- f. Discuss proper storage and disposal of materials that may be toxic to bears.
- g. Provide a systematic record of bears on the site and in the immediate area.
- h. Encourage lessee/permittee to participate and comply with the Incidental Take Program under the Marine Mammal Protection Act.

A-9 Required Operating Procedure

Objective: Reduce air quality impacts.

Requirement/Standard: Concurrent with implementation of the requirement for adoption of use of ultra low sulfur diesel in the “North Slope Ultra Low Sulfur Diesel Transition Agreement,” as amended, between the State of Alaska, BP Exploration (Alaska) Inc. and ConocoPhillips Alaska, Inc., or implementation of federal regulations requiring use of “ultra low sulfur” diesel within NPR-A if these regulations take effect prior to the “Transition Agreement,” all oil and gas operations (vehicles and equipment) that burn diesel fuels must use “ultra low sulfur” diesel as defined by the Alaska Department of Environmental Conservation – Division of Air Quality, subject to its availability. The use of alternative diesel fuel may be considered and approved by BLM’s Authorized Officer on a case-by-case basis.

Water Use for Permitted Activities:

B-1 Required Operating Procedure

Objective: Maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Water withdrawal from rivers and streams during winter is prohibited.

B-2 Required Operating Procedure

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds, and maintain populations of, and adequate habitat for, fish and invertebrates, and waterfowl.

Requirement/Standard: Water withdrawal from lakes may be authorized on a site-specific basis depending on water volume, and depth, and fish population and species diversification. Current water withdrawal requirements specify:

- a. Lakes that are ≥ 7 feet with sensitive fish (any fish except ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 15% of calculated volume deeper than 7 feet; lakes that are between 5 and 7 feet with sensitive fish, water available for withdrawal would be calculated on a case by case basis.
- b. Lakes that are ≥ 5 feet with only non-sensitive fish (i.e., ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 30% of calculated volume deeper than 5 feet.
- c. Any lake with no fish present, regardless of depth, water available for withdrawal is up to 35% as specified within the permit.
- d. A water-monitoring plan may be required to assess draw down and water quality changes before, during, and after pumping any fishbearing lake or lake of special concern.
- e. The removal of naturally grounded ice may be authorized from lakes and shallow rivers on a site-specific basis depending upon its size, water volume, and depth, and fish population and species diversification.

- f. Removed ice aggregate shall be included in the 15% or 30% withdrawal limits—whichever is the appropriate case—unless otherwise approved.
- g. Any water intake structures in fish bearing or non-fish bearing waters shall be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury. Note: All water withdrawal equipment must be equipped and must utilize fish screening devices approved by the Alaska Department of Natural Resources (ADNR).
- h. Compaction of snow cover or snow removal from fish-bearing water bodies shall be prohibited except at approved ice road crossings, water pumping stations on lakes, or areas of grounded ice.

The following lease stipulations and ROPs apply to overland moves, seismic work, and any similar cross-country vehicle use of heavy equipment on nonroaded surfaces during the winter season. These restrictions do not apply to the use of such equipment on ice roads after they are constructed.

Winter Overland Moves and Seismic Work:

C-1 Required Operating Procedure

Objective: Protect grizzly bear, polar bear, and marine mammal denning and/or birthing locations.

Requirement/Standard:

- a. Cross-country use of heavy equipment and seismic activities is prohibited within ½ mile of occupied grizzly bear dens identified by the ADFG unless alternative protective measures are approved by the AO in consultation with the ADFG.
- b. Cross-country use of heavy equipment and seismic activities is prohibited within 1 mile of known or observed polar bear dens or seal birthing lairs. Operators shall consult with the USFWS and/or NOAA Fisheries, as appropriate, before initiating activities in coastal habitat between October 30 and April 15.

C-2 Required Operating Procedure

Objective: Protect stream banks, minimize compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

Requirement/Standard:

- a. Ground operations shall be allowed only when frost and snow cover are at sufficient depths to protect the tundra. Ground operations shall cease when the spring snowmelt begins (approximately May 5 in the foothills area where elevations reach or exceed 500 feet and approximately May 15 in the northern coastal areas). The exact dates will be determined by the AO.
- b. Only low-ground-pressure vehicles shall be used for on-the-ground activities off ice roads or pads. A list of approved vehicles can be obtained from the AO. Limited use of tractors equipped with wide tracks or “shoes” will be allowed to pull trailers, sleighs or other equipment with approved undercarriage. Note: This provision does not include the use of heavy equipment such as front-end loaders and similar equipment required during ice road construction.
- c. Bulldozing of tundra mat and vegetation, trails, or seismic lines is prohibited; however, on existing trails, seismic lines or camps, clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.

- d. To reduce the possibility of ruts, vehicles shall avoid using the same trails for multiple trips unless necessitated by serious safety or superseding environmental concern. This provision does not apply to hardened snow trails for use by low-ground-pressure vehicles such as Rolligons.
- e. The location of winter ice roads shall be designed and located to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in the subsequent year.
- f. Motorized ground-vehicle use within the CRSA associated with overland moves, seismic work, and any similar use of heavy equipment shall be minimized within the Colville River Raptor, Passerine, and Moose Area from April 15 through August 5, with the exception that use will be minimized in the vicinity of gyrfalcon nests beginning March 15. Such use will remain ½ mile away from known raptor nesting sites, unless authorized by the AO.

C-3 Required Operating Procedure

Objective: Maintain natural spring runoff patterns and fish passage, avoid flooding, prevent streambed sedimentation and scour, protect water quality and protect stream banks.

Requirement/Standard: Crossing of waterway courses shall be made using a low-angle approach. Snow and ice bridges shall be removed, breached, or slotted before spring breakup. Ramps and bridges shall be substantially free of soil and debris. Except at approved crossings, operators are encouraged to travel a minimum of 100 feet from known overwintering fish streams and lakes.

C-4 Required Operating Procedure

Objective: Avoid additional freeze-down of deep-water pools harboring over-wintering fish and invertebrates used by fish.

Requirement/Standard: Travel up and down streambeds is prohibited unless it can be demonstrated that there will be no additional impacts from such travel to over-wintering fish or the invertebrates they rely on. Rivers and streams shall be crossed at shallow riffles from point bar to point bar whenever possible.

Oil and Gas Exploratory Drilling:

D-1 Lease Stipulation

Objectives: Protect fish-bearing rivers, streams, and lakes from blowouts and minimize alteration of riparian habitat.

Requirement/Standard: Exploratory drilling is prohibited in rivers and streams, as determined by the active floodplain, and fish-bearing lakes.

D-2 Lease Stipulation

Objective: Minimize surface impacts from exploratory drilling.

Requirement/Standard: Construction of permanent or gravel oil and gas facilities shall be prohibited for exploratory drilling. Use of a previously constructed road or pad may be permitted if it is environmentally preferred.

Facility Design and Construction:

E-9 Required Operating Procedure

Objective: Avoidance of human-caused increases in populations of predators of ground nesting birds.

Requirement/Standard:

- a. Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes. The lessee shall provide the AO with an annual report on the use of oil and gas facilities by ravens, raptors and foxes as nesting, denning, and shelter sites.
- b. Feeding of wildlife is prohibited and will be subject to noncompliance regulations.

E-10 Required Operating Procedure

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Illumination of all structures between August 1 and October 31 shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward, unless otherwise required by the Federal Aviation Administration.

E-13 Required Operating Procedure

Objective: Protect cultural and paleontological resources.

Requirement/Standard: Lessees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Upon finding any potential cultural or paleontological resource, the lessee or their designated representative shall notify the AO and suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO.

E-18 Required Operating Procedure

Objective: Avoid and reduce temporary impacts to productivity from disturbance near Steller's and/or spectacled eider nests.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 200 meters of occupied Steller's and/or spectacled eider nests, from June 1 through August 15, will be restricted to existing thoroughfares, such as pads and roads. Construction of permanent facilities, placement of fill, alteration of habitat, and introduction of high noise levels within 200 meters of occupied Steller's and/or spectacled eider nests will be prohibited. In instances where summer (June 1 through August 15) support/construction activity must occur off existing thoroughfares, USFWS-approved nest surveys must be conducted during mid-June prior to the approval of the activity. Collected data would be used to evaluate whether the action could occur based on employment of a 200m buffer around nests or if the activity would be delayed until after mid-August once ducklings are mobile and have left the nest site. The BLM will also work with the USFWS to schedule oil spill response training in riverine, marine, and inter-tidal areas that occurs within 200 meters of shore outside sensitive nesting/brood-rearing periods or conduct nest surveys. The protocol and timing of nest surveys for Steller's and/or spectacled eiders will be determined in cooperation with the USFWS, and must be approved by the USFWS. Surveys should be supervised by biologists who have previous experience with Steller's and/or spectacled eider nest surveys.

Use of Aircraft for Permitted Activities:

F-1 Required Operating Procedure

Objective: Minimize the effects of low-flying aircraft on wildlife, traditional subsistence activities, and local communities.

Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines (Note: This ROP is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs. **However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data**):

- a. Aircraft shall maintain an altitude of at least 1,500 feet above ground level (AGL) when within ½ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and within ½ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from the BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 feet AGL (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would endanger human life or violate safe flying practices. Caribou wintering areas will be defined annually by the AO. The AO will consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges.
- c. Land user shall submit an aircraft use plan as part of an oil and gas exploration or development proposal. **The plan shall address strategies to minimize impacts to subsistence hunting and associated activities, including but not limited to the number of flights, type of aircraft, and flight altitudes and routes, and shall also include a plan to monitor flights.** Proposed aircraft use plans should be reviewed by appropriate Federal, state, and Borough agencies. Consultations with these same agencies will be required if unacceptable disturbance is identified by subsistence users. Adjustments, including possible suspension of all flights, may be required by the AO if resulting disturbance is determined to be unacceptable. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered so as to allow larger aircraft to be employed, resulting in fewer flights to the facility.
- d. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
- e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) over the Teshekpuk Lake Caribou Habitat Area (Map 1) from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area (Map 2) should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.
- g. Hazing of wildlife by aircraft is prohibited. Pursuit of running wildlife is hazing. If wildlife begins to run as an aircraft approaches, the aircraft is too close and must break away.

Oil Field Abandonment:

G-1 Lease Stipulation

Objective: Ensure the final disposition of the land meets the current and future needs of the public.

Requirement/Standard: Upon abandonment or expiration of the lease, all oil and gas-related facilities shall be removed and sites rehabilitated to as near the original condition as practicable, subject to the review of the AO. The AO may determine that it is in the best interest of the public to retain some or all facilities. Within the Goose Molting Area, the AO, when determining if it is in the best interest of the public to retain a facility, will consider the impacts of retention to molting geese and goose molting habitat.

Subsistence Consultation for Permitted Activities:

H-1 Required Operating Procedure

Objective: Provide opportunities for participation in planning and decision making to prevent unreasonable conflicts between subsistence uses and oil and gas and related activities.

Requirement/Standard: Lessee/permittee shall consult directly with affected communities using the following guidelines:

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence communities, the NSB, and the National Petroleum Reserve - Alaska Subsistence Advisory Panel to discuss the siting, timing and methods of their proposed operations to help discover local traditional and scientific knowledge, resulting in measures that minimize impacts to subsistence uses. Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities will not result in unreasonable interference with subsistence activities.
- b. The applicant shall submit documentation of consultation efforts as part of its operations plan. Applicants should submit the proposed plan of operations to provide an adequate time for review and comment by the National Petroleum Reserve - Alaska Subsistence Advisory Panel and to allow time for formal Government-to-Government consultation with Native Tribal governments. The applicant shall submit documentation of its consultation efforts and a written plan that shows how its activities, in combination with other activities in the area, will be scheduled and located to prevent unreasonable conflicts with subsistence activities. Operations plans must include a discussion of the potential effects of the proposed operation, and the proposed operation in combination with other existing or reasonably foreseeable operations.
- c. A subsistence plan addressing the following items must be submitted:
 1. A detailed description of the activity(ies) to take place (including the use of aircraft).
 2. A description of how the lessee/permittee will minimize and/or deal with any potential impacts identified by the AO during the consultation process.
 3. A detailed description of the monitoring effort to take place, including process, procedures, personnel involved and points of contact both at the work site and in the local community.
 4. Communication elements to provide information on how the applicant will keep potentially affected individuals and communities up-to-date on the progress of the activities and locations of possible, short-term conflicts (if any) with subsistence activities. Communication methods could include holding community meetings, open house meetings, workshops, newsletters, radio and television announcements, etc.

5. Procedures necessary to facilitate access by subsistence users to conduct their activities. In the event that no agreement is reached between the parties, the AO shall consult with the directly involved parties and determine which activities will occur, including the timeframes. During development, monitoring plans must be established for new permanent facilities, including pipelines, to assess an appropriate range of potential effects on resources and subsistence as determined on a case-by-case basis given the nature and location of the facilities. The scope, intensity, and duration of such plans will be established in consultation with the AO and Subsistence Advisory Panel. Permittees that propose barging facilities, equipment, supplies, or other materials to NPR-A in support of oil and gas activities in the planning area shall notify, confer, and coordinate with the Alaska Eskimo Whaling Commission, the appropriate local community whaling captains' associations, and the NSB to minimize impacts from the proposed barging on subsistence whaling activities.

H-2 Required Operating Procedure

Objective: Prevent unreasonable conflicts between subsistence activities and geophysical (seismic) exploration.

Requirement/Standard: In addition to the consultation process described in ROP H-1 for permitted activities, before applying for permits to conduct geophysical (seismic) exploration, the applicant shall 1) consult with local communities and residents and 2) notify the local Search and Rescue organizations of current and recent seismic surveys. For the purpose of this standard, a potentially affected cabin/campsite is defined as any camp or campsite within the boundary of the area subject to proposed geophysical exploration and/or within 1 mile of actual or planned travel routes used to supply the seismic operations while it is in operation.

- a. Because of the large land area covered by typical geophysical operations and the potential to impact a large number of subsistence users during the exploration season, the permittee/operator will **notify in writing** all potentially affected long-term cabin and camp users.
- b. The official recognized list of cabin and campsite users is the NSB's 2001 (or most current) inventory of cabins and campsites.
- c. A copy of the notification letter and a list of potentially affected users shall also be provided to the office of the appropriate Native Tribal government.
- d. The AO will prohibit seismic work within 1 mile of any known, long-term, cabin or campsite unless an alternate agreement between the cabin/campsite owner/user is reached through the consultation process and presented to the AO. (Regardless of the consultation outcome, the AO will prohibit wintertime seismic work within 300 feet of a known long-term cabin or campsite.)
- e. The permittee shall notify the appropriate local Search and Rescue (e.g., Nuiqsut Search and Rescue, Atkasuk Search and Rescue) of their current operational location within the NPR-A on a weekly basis. This notification should include a map indicating the current extent of surface use and occupation, as well as areas previously used/occupied during the course of the operation in progress. The purpose of this notification is to allow hunters up-to-date information regarding where seismic exploration is occurring, and has occurred, so that they can plan their hunting trips and access routes accordingly. Identification of the appropriate Search and Rescue offices to be contacted can be obtained from the NPR-A Subsistence Advisory Panel.

H-3 Best Management Practice

Objective: Minimize impacts to sport hunting and trapping species and to subsistence harvest of those animals.

Requirement/Standard: Hunting and trapping by lessee's/permittee's employees, agents, and contractors are prohibited when persons are on "work status." Work status is defined

as the period during which an individual is under the control and supervision of an employer. Work status is terminated when the individual's shift ends and he/she returns to a public airport or community (e.g., Fairbanks, Barrow, Nuiqsut, or Deadhorse). Use of lessee/permittee facilities, equipment, or transport for personnel access or aid in hunting and trapping is prohibited.

Orientation Programs Associated with Permitted Activities:

I-1 Required Operating Procedure

Objective: Minimize cultural and resource conflicts.

Requirement/Standard: All personnel involved in oil and gas and related activities shall be provided information concerning applicable stipulations, ROPs, standards, and specific types of environmental, social, traditional, and cultural concerns that relate to the region. The lessee/permittee shall ensure that all personnel involved in permitted activities shall attend an orientation program at least once a year. **The proposed orientation program shall be submitted to the AO for review and approval and should:**

- a. provide sufficient detail to notify personnel of applicable stipulations and ROPs as well as inform individuals working on the project of specific types of environmental, social, traditional and cultural concerns that relate to the region.
- b. Address the importance of not disturbing archaeological and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to avoid disturbance.
- c. Include guidance on the preparation, production, and distribution of information cards on endangered and/or threatened species.
- d. Be designed to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in areas in which personnel will be operating.
- e. Include information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation.
- f. Include information for aircraft personnel concerning subsistence activities and areas/seasons that are particularly sensitive to disturbance by low-flying aircraft. Of special concern is aircraft use near traditional subsistence cabins and campsites, flights during spring goose hunting and fall caribou and moose hunting seasons, and flights near North Slope communities.
- g. Provide that individual training is transferable from one facility to another except for elements of the training specific to a particular site.
- h. Include on-site records of all personnel who attend the program for so long as the site is active, though not to exceed the 5 most recent years of operations. This record shall include the name and dates(s) of attendance of each attendee.
- i. Include a module discussing bear interaction plans to minimize conflicts between bears and humans.
- j. Provide a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel.
- k. Include training designed to ensure strict compliance with local and corporate drug and alcohol policies. This training should be offered to the NSB Health Department for review and comment.
- l. Include training developed to train employees on how to prevent transmission of communicable diseases, including sexually transmitted diseases, to the local communities. This training should be offered to the NSB Health Department for review and comment.

Endangered Species Act—Section 7 Consultation Process:

J. The lease areas may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or to have some other special status. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activities that will contribute to the need to list such a species or their habitat. The BLM may require modifications to or disapprove a proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC § 1531 et seq., including completion of any required procedure for conference or consultation.

Other

M-1 Best Management Practice

Objective: Minimize disturbance and hindrance of wildlife, or alteration of wildlife movements through the NPR-A.

Requirement/Standard: Chasing wildlife with ground vehicles is prohibited. Particular attention will be given to avoid disturbing caribou

M-2 Best Management Practice

Objective: Prevent the introduction, or spread, of non-native, invasive plant species in the NPR-A.

Requirement/Standard: Certify that all equipment and vehicles (intended for use either off or on roads) are weed-free prior to transporting them into the NPR-A. Monitor annually along roads for non-native invasive species, and initiate effective weed control measures upon evidence of their introduction. Prior to operations in the NPR-A, submit a plan for the BLM's approval, detailing the methods for cleaning equipment and vehicles, monitoring for weeds and weed control.

Appendix B Related Environmental Analyses NPR-A Exploration

Environmental Analysis ^a	Decision Document	Related Activity ^b <i>(proposed exploration drilling sites, access route corridors, and water supply associated with the total program, unless otherwise noted)</i>
Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement. USDO I BLM. August 1998.	Record of Decision, Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement. BLM, October 1998	Multi-use management of the Northeast NPR-A, including oil and gas leasing, exploration and development
EA: AK-020-00-011. Environmental Assessment, 1999-2000 Winter Exploration Drilling Program in the National Petroleum Reserve-Alaska (NPR-A). USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. January 2000. [ARCO]	Finding of No Significant Impact and Decision Record AA-081794. Application for Permit to Drill and Right-of-Way. BLM. January 2000	Spark 1, Lookout A, Clover A, Clover B, Moose's Tooth A, Moose's Tooth C, Rendezvous A, and Rendezvous B. 30-mi ice road corridor; 20-mi packed snow trail corridor; 1 ice airstrip/yr; 137 MG water (23 lakes in NPR-A). 3-year program over 5 years
EA: AK-023-01-001. Environmental Assessment, Trailblazer Exploration Drilling Program, 2000-2005, National Petroleum Reserve-Alaska (NPR-A). USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. November 2000 (minor revision January 2001). [BPX]	Finding of No Significant Impact and Decision Record AA-081752. Application for Permit to Drill and Right-of-Way. BLM. January 2001	Trailblazer A-H. 34-mi ice road corridor; 18-mi packed snow trail corridor; 1 ice airstrip/yr; 525 MG water (52 lakes in NPR-A); 54-mi non-federal offshore ice road. 5-year program
EA: AK 023-01-003. Environmental Assessment, National Petroleum Reserve-Alaska (NPR-A) Exploration Program, Winter Drilling 2000-2006. USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. December 2000 (minor revision March 2001). [Phillips]	Finding of No Significant Impact and Decision Record AA-081780. Application for Permit to Drill and Right-of-Way. BLM. March 2001	Spark 2, Spark 3, Spark 4, Spark 5, Rendezvous 1, Rendezvous 2, Outlook 1, Oxbow 1, Hunter 1, and Sunrise 2. Up to 5 temporary camp/storage ice pads; 56-mi ice road corridor (+20 mi existing ROW); 0-mi packed snow trail corridor (+20 mi existing ROW); 1 ice airstrip/yr; 500 MG water (83 lakes in NPR-A). 5-year program
EA: AK-023-02-004. Environmental Assessment, National Petroleum Reserve-Alaska (NPR-A) Altamura Prospect Exploration Program. December 2001 (Minor revision January 2002). [Anadarko]	Finding of No Significant Impact and Decision Record AA-081736. Application for Permit to Drill. BLM. January 2002.	Altamura 1 and Altamura 2. 7-mi ice road corridor; 4-mi packed snow trail corridor (+15 mi existing ROW); 1 ice airstrip/yr; 19 MG water (9 lakes in NPR-A). 2-year program
EA: AK-023-02-005. Environmental Assessment, National Petroleum Reserve-Alaska (NPR-A) 2001-2006 Exploration Drilling Program. USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. December 2001 (Minor revision January 2002). [Phillips]	Finding of No Significant Impact and Decision Record AA-081780. Application for Permit to Drill and Right-of-Way. BLM. January 2002.	Spark 6, Spark 7, Spark 8, Hunter A, Hunter 2, Lookout 2, Mitre 1, Rendezvous 3, Nova 1, Nova 2, Pioneer 1, Grandview 1, Tuvaq 1, Tuvaq 2, and Tuvaq 3. 30-mi ice road (+40 mi existing ROW); 100-mi packed snow trail (+31 mi existing ROW); 2 ice airstrip sites; 120 MG water (14 lakes in NPR-A). 5-year program
EA: AK-023-02-033. Environmental Assessment, Puviaq Storage Site Project, National Petroleum Reserve-Alaska. USDO I BLM, Northern Field Office, Arctic Management Team. March 2002. [CPAI]	Finding of No Significant Impact and Decision Record FF-093572. BLM NPR-A Permit 298401. March 28, 2002.	Access to and rig storage near Puviaq; 1 over-summer ice storage pad; 80-mi packed snow trail corridor. 1-year program
EA: AK-023-03-008. Environmental Assessment. National Petroleum Reserve-Alaska (NPR-A) Exploration Drilling Program, Puviaq #1 and #2 Exploration Wells. USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. December 2002. [CPAI]	Finding of No Significant Impact and Decision Record AA-081854. Application for Permit to Drill and Right-of-Way. BLM. December 2002.	Puviaq 1 and Puviaq 2. 76-mi ice road corridor; 168 mi packed snow trail corridor (+107 mi existing ROW); one over-summer ice storage pad, 2 ice airstrip sites; 124 MG water (28 lakes in the NPR-A). 2-year program
EA: AK-023-03-027. Environmental Assessment, Storage Ice Pads, USDO I BLM, Northern Field Office, Arctic Management Team. February 2003. [CPAI]	Finding of No Significant Impact and Decision Record FF-093905. Permit 298401. February 2003.	Alternate trail access to and rig storage near Kokoda/Carbon. 11-mi packed snow trail corridor; over-summer ice storage pad. 1-year program
EA: AK-023-03-032. Environmental Assessment, Access To and Drill Stacking at Inigok. USDO I BLM, Northern Field Office,	Finding of No Significant Impact and Decision Record FF-093906. BLM NPR-A Permit 281001.	Access to and rig storage at existing facility at Inigok; 30-mi packed snow trail corridor (+27 mi existing ROW). Access to lease; 6-

Environmental Analysis ^a	Decision Document	Related Activity ^b <i>(proposed exploration drilling sites, access route corridors, and water supply associated with the total program, unless otherwise noted)</i>
Arctic Management Team. February 2003. [TOTAL E&P USA, Inc.]	February 2003.	mi hardened trail corridor. 1-year program
Northwest National Petroleum Reserve-Alaska Final Integrated Activity Plan/Environmental Impact Statement. USDO I BLM. November 2003.	Record of Decision, Northwest National Petroleum Reserve-Alaska Integrated Activity Plan/ Environmental Impact Statement. BLM. January 2004.	Multi-use management of the Northwest NPR-A, including oil and gas leasing, exploration and development
EA: AK-023-04-005. Environmental Assessment, National Petroleum Reserve-Alaska (NPR-A) 2003-2008 Exploration Drilling. USDO I BLM, Northern Field Office, Arctic Management Team. December 2003. [TOTAL E&P USA]	Finding of No Significant Impact and Decision Record AA-084161. Application for Permit to Drill and Right-of-Way. BLM. December 2003.	Caribou 07-16, Caribou 09-11, Caribou 14-12, Caribou 18-08, Caribou 23-14, Caribou 26-11, Caribou 35-05, and Caribou 35-14. One temporary staging ice pad; 60-mi ice road corridor (+22 mi existing ROW); 31-mi packed snow trail corridor (+ 27 mi existing ROW); corridor; 170 MG water (35 lakes in NPR-A). 5-year program
EA: AK-023-04-004. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) 2003-2008 Exploration Drilling Program, USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. November 2003 (Minor revision December 2003). [CPAI]	Finding of No Significant Impact and Decision Record AA-084129. Application for Permit to Drill and Right-of-Way. BLM. December 2003.	Kokoda 1, Kokoda 2, Powerline 1, Grandview 2, Carbon 1, Summit 2, and Scout 1. 62-mi ice road corridor (+ 22 mi existing ROW); 5 ice airstrip sites; 92 MG water (12 lakes in NPR-A). 5-year program
Final Environmental Impact Statement. Alpine Satellite Development Plan. USDO I BLM, Alaska State Office, in cooperation with U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Coast Guard, and the State of Alaska Anchorage, Alaska. September 2004.	Record of Decision, Final Environmental Impact Statement, Alpine Satellite Development Plan. Prepared by BLM, October 2004.	Production Development
EA: AK-023-05-005. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) Northeast Planning Area, Winter Exploration Drilling Program. USDO I BLM, Alaska, Northern Field Office and Anchorage Field Office. December 2004 [CPAI]	Finding of No Significant Impact and Decision Record AA-081727. Application for Permit to Drill and Right-of-Way. BLM. December 2004.	Kokoda 3, Kokoda 4, Kokoda 5, Noatak 1, Bounty 1, Defiance 1; up to 10 temporary camp/storage ice pads; 26-mi ice road corridor (+84 mi existing ROW); 8-mi packed snow trail corridor (+88 mi existing ROW); 2 ice air strips/yr; 80 MG water (58 lakes in NPR-A). 5-year program
Final Northeast National Petroleum Reserve-Alaska Amended Integrated Activity Plan/Environmental Impact Statement. USDO I BLM. January 2005 – remanded for further action	ROD – vacated by federal court	Multi-use management of the Northeast NPR-A, including oil and gas leasing, exploration and development
EA: AK-023-06-003. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) Northwest Planning Area, Winter Exploration Drilling Program 2005-2007. USDO I BLM, Alaska, Fairbanks District Office, Arctic Field Office. December 2005 [FEX]	Finding of No Significant Impact and Decision Record AA-085574. Application for Permit to Drill, 3100.00 and Right-of-Way, 2884.01. BLM. December 2005.	Aklaq 1, Aklaq 1A, Aklaq 2, Aklaq 2A, Aklaq 2B, Aklaqyaaq 1, Amaguq 1; 31-mi ice road corridor; 78-mi packed snow trail corridor (+399 mi existing ROW); 2 ice air strips/year; up to 4 temporary camp/storage ice pads, 85 MG water (28 lakes in NPR-A). 2-year program
EA: AK-023-07-001. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) Northwest Planning Area, Winter Exploration Drilling Program 2006-2008. USDO I BLM, Alaska, Fairbanks District Office, Arctic Field Office. December 2006 [FEX]	Finding of No Significant Impact and Decision Record AA-085574. Application for Permit to Drill, 3100.00 and Right-of-Way, 2884.01. BLM. December 2006.	Aklaq 3, Aklaq 4, Aklaq 5, Aklaq 6, Aklaq 7, Aklaq 7A, Aklaqyaaq 2, Amaguq 2; Uugaq 1; 62 -mi new access corridor, 2ice air strips/year; 113 MG water (34 lakes in NPR-A). 2-year program
EA: AK-023-07-002. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) Northeast Planning Area, Winter Exploration Drilling Program 2006-2011. USDO I BLM, Alaska, Fairbanks District Office, Arctic Field Office. December 2006. [CPAI]	Finding of No Significant Impact and Decision Record AA-081840. Application for Permit to Drill, and ROWs, FF-092931 and FF-093835. BLM. December 2006.	Noatak-2, Noatak-3, Nugget-1, Nugget-2, Cassin-1, Cassin-2, Cassin-3, Spark DD 9-12; 110-mi new access corridor; 3 ice air strips/year; 201.5 MG water (9 new lakes in NPR-A). 5-year program

Environmental Analysis ^a	Decision Document	Related Activity ^b <i>(proposed exploration drilling sites, access route corridors, and water supply associated with the total program, unless otherwise noted)</i>
EA: AK-023-07-006. Environmental Assessment National Petroleum Reserve-Alaska (NPR-A) Northwest Planning Area, Petro-Canada (Alaska), Inc. Winter Exploration Drilling Program 2007-2009. USDOI BLM, Alaska, Fairbanks District Office, Arctic Field Office. April 2007. [PCA]	Finding of No Significant Impact and Decision Record AA-085497. Application for Permit to Drill, and ROWs, FF-095123. BLM. April 2007.	Alaqtq2 1, Tupaagruk 1, Tupaagruk 2, Tupaagruk 3. 43 miles of new access corridor; 2 ice airstrips/year; 58.8 MG water (22 new lakes in NPR-A). 2-year program
EA: AK-023-08-002. Environmental Assessment National petroleum Reserve-Alaska (NPR-A) Northeast Planning Area, Winter Exploration Drilling Program 2007-2009. USDOI BLM, Alaska, Fairbanks District Office, Arctic Field Office.	Finding of No Significant Impact and Decision Record AA081726 & AA084141. Application for Permit to drill, and ROW FF095270. BLM. December 2007	Wells 12, 13, 14, 15, 16, 17, 18, 19, 21, and 22. 7 miles of ROW in NPR-A. 38 miles of access route on fed lands outside NPR-A. 120MG water (13 new lakes in NPR-A). 2 yr program.
EA:AK-023-2008-007. Environmental Assessment National petroleum Reserve-Alaska (NPR-A) Northeast Planning Area, Winter Exploration Drilling Program 2007-2012. USDOI BLM, Alaska, Fairbanks District Office, Arctic Field Office.	Finding of No Significant Impact and Decision Record AA081775, AA081781 & AA081800. Application for Permit to drill, and ROW FF092931. BLM. December 2007	Rendezvous 2, Spark Down Dip 9, Stony Hill. 110 miles of access corridor. 201.5 MG water (17 lakes). 3 ice air strips. 5 Yr program.
Northeast National Petroleum Reserve –Alaska Final Supplemental Integrated Activity Plan/Environmental Impact Statement. USDOI BLM. May 2008.	Record of Decision, Northeast National Petroleum Reserve – Alaska Final Supplemental Integrated Activity Plan/Environmental Impact Statement. BLM. July 2008.	Northeast NPR-A Oil & Gas Leasing, exploration and development.
EA: DOI-BLM-LLAKF01000-2009-001. Environmental Assessment National petroleum Reserve-Alaska (NPR-A) Northeast & Northwest Planning Area, Winter Exploration Drilling Program 2008-2012. USDOI BLM, Alaska, Fairbanks District Office, Arctic Field Office.	Finding of No Significant Impact and Decision Record AA086604, AA086615, AA086616 & AA086617 Application for Permit to drill, and ROW FF095310. BLM. November 2008.	Wolf Creek #4, Wolf Creek #5, Wolf Creek #6, Tsavorite #1A, Tsavorite #1B,, Tsavorite #1C,, Tsavorite #1D,, Tsavorite #1E, 66 Miles of snow trail, 35 miles in field ice road, 2 ice air strips, 23 lakes in NPR-A. 390 MG water.
EA: DOI-BLM-LLAK01000-2009-0004. Environmental Assessment National petroleum Reserve-Alaska (NPR-A) Northeast Planning Area, Winter Exploration Drilling Program 2008-2013. USDOI BLM, Alaska, Fairbanks District Office, Arctic Field Office.	Finding of No Significant Impact and Decision Record AA081785 & AA081779. Application for Permit to drill, and ROW FF092931. BLM. December 2008	Grandview #1 East, Pioneer #1. 27 Miles of new ROW. 26 new lakes. 52.45 MG water

Key:

^a Documents are available for review at the Fairbanks District Office, BLM, 1150 University Avenue, Fairbanks, Alaska 99709.

^b All mileage and water volumes are approximate for comparative impact analysis purposes.

BLM – Bureau of Land Management
 BPXA – BP Exploration (Alaska) Incorporated
 CPAI – ConocoPhillips Alaska, Incorporated
 EA – Environmental Assessment
 FEX – FEX L.P. Incorporated
 LUEA – Land Use Emphasis Area
 MG – Million gallon(s)
 Mi – Mile(s)

NPR-A – National Petroleum Reserve – Alaska
 NW – Northwest
 PCA – Petro-Canada (Alaska), Inc.
 ROD – Record of Decision
 ROW – Right-of-Way
 USDOI – U.S. Department of the Interior
 yr – year(s)