PROJECT DESCRIPTION

KUPARUK RIVER UNIT KUPARUK CONSTRUCTION SERVICES PAD EXPANSION NORTH



ConocoPhillips Alaska, Inc. 700 G Street Anchorage, AK 99501

September 29, 2015

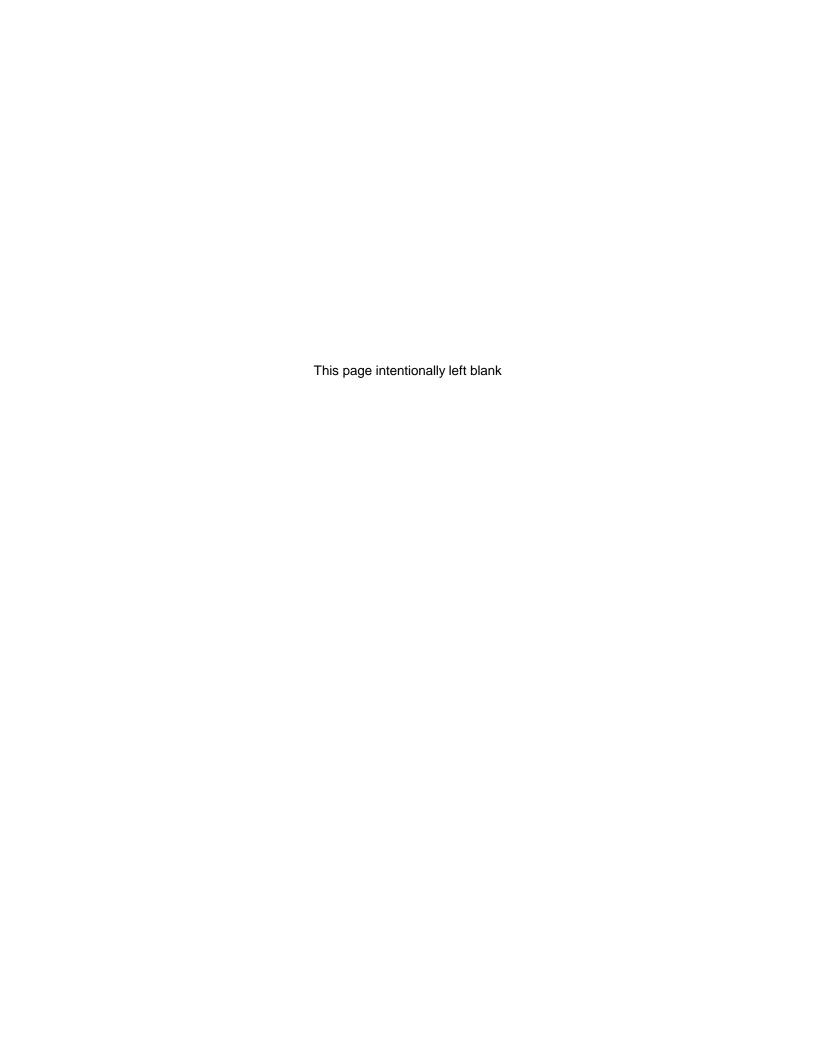


TABLE OF CONTENTS

1.0	APPLICANT	1
2.0	PROJECT LOCATION	1
3.0	PROJECT OVERVIEW	1
4.0	PROJECT PURPOSE AND NEED	2
5.0	PROJECT BACKGROUND	2
6.0	DEVELOPMENT SCHEDULE	2
7.0	PROJECT COMPONENTS	4 4
8.0	ICE ROADS AND OTHER FRESH WATER REQUIREMENTS	5
9.0	FUEL STORAGE	5
10.0	NORTH SLOPE ECONOMIC OPPORTUNITY PLAN	5
11.0	TRAINING	5
12.0	CONTINGENCY PLANS	6
	12.1 SPILL PREVENTION MEASURES	
	12.2 STATE SPILL RESPONSE PLAN12.3 FEDERAL SPILL RESPONSE PLAN	
13.0	WILDLIFE ACCESS	
14.0	COMMUNICATIONS	
_		
15.0	SNOW REMOVAL	
16.0	WASTE DISPOSAL	8
17.0	AIR EMISSIONS	8
18.0	CULTURAL RESOURCES	8
19.0	IMPACT MITIGATION	8
20.0	REQUIRED PERMITS	9

LIST OF TABLES

Table 1:	Project Location	1
	ADNR Div. of Oil & Gas Leases	
Table 3:	Material and Impacted Area	4
	Impact Mitigation	
	Potential Permits and Associated Plans and Approvals	

LIST OF ATTACHMENTS

Attachment 1	Vicinity Maps, Pad Layouts and Cross Sections
Attachment 2	Wildlife Avoidance and Interaction Plan
Attachment 3	USFWS LOA for Incidental Takes
Attachment 4	Economic Opportunity Plan
Attachment 5	U.S. Fish & Wildlife Service Programmatic Biological Opinion



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1.0 APPLICANT

ConocoPhillips Alaska, Inc. (CPAI)

Post Office Box 100360

Anchorage, Alaska 99510-0360

Point of Contact: Samuel Widmer (907) 265-1450

Email: sam.widmer@conocophillips.com

2.0 PROJECT LOCATION

The proposed Kuparuk Construction Services (KCS) gravel pad expansion will be located in the Kuparuk River Unit. The KCS pad is located approximately 3 miles west of Kuparuk Main Camp. The KCS project includes an expansion of the existing pad to the north by 58.6 acres. The site is within the North Slope Borough Resource Development District and is approximately 25 miles east of the Village of Nuiqsut. None of the project facilities will be on, or near, any native allotments.

Table 1, along with Attachment 1, shows the project location.

Table 2 shows the Alaska Department of Natural Resources (ADNR) - Oil & Gas Lease Numbers.

Project ComponentTownshipRangeSectionsKCS Pad Expansion12 North9 East36Project ComponentLatitudeLongitudeKCS Pad Expansion70.342256149.731005

Table 1: Project Location

Table 2:	ADNR	Div.	of	Oil	&	Gas	Leases
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KCS ADL 025646

3.0 PROJECT OVERVIEW

CPAI proposes the placement of approximately 502,000 cubic yards of gravel fill material onto 58.6 acres of tundra at KCS. This gravel placement is necessary for the expansion of the KCS pad to accommodate continued development of the Greater Kuparuk Area. No new drill sites, cross country pipelines, or power lines are to be constructed as part of this project. The development will utilize the existing Kuparuk road infrastructure for access to the gravel pit and pad. Gravel for the KCS pad expansion will come from C Pit or E Pit. The proposed gravel expansion is within the existing Kuparuk River Unit (KRU) and will be used to support oil and gas production.

1

4.0 PROJECT PURPOSE AND NEED

The proposed action would place gravel fill material to expand the work surface of KCS pad to support growth necessary for the continued development and production of oil and gas resources within the KRU.

The placement of fill would accommodate continued development and maintenance activities by providing space for shops, offices, camps, vehicle parking, bullrails, storage tanks, and equipment staging. Existing infrastructure would be used to support the project for access, egress, and power supply. No new drill sites, cross-country pipelines, or power lines are proposed as part of this project.

Over the past 20 years, the workload within the KRU has increased by 4% to 4.5% each year and this pad expansion would increase efficiency to continue to meet increasing demand. As development continues in the KRU, there is an increasing need for additional camps, shops, offices, and staging of vehicles and equipment. This new pad expansion will provide the space required for installation of new camps, offices, shops, vehicle parking, and equipment staging, all of which are essential for continued development of the KRU and reducing the decline of oil production on the North Slope. In addition, CPAI plans to move all of the camps, infrastructure, and equipment from the 12-acre pad located at T13N R9E Sections 9 and 16 to the expanded KCS pad to consolidate and improve the efficiency of North Slope operations. Movement of camps from the 12-acre pad will also benefit the environment, because they will no longer rely on diesel-powered generators once relocated to the expanded KCS pad where electricity is available. That will result in a reduction of air emissions.

By supporting continued development of oil and gas resources on the North Slope, the proposed KCS gravel expansion project will help meet the energy needs of the nation and economically benefit both private and public parties through taxes, royalties, and employment. The project will also generate tax-based revenue for schools, public health care facilities, and social services.

5.0 PROJECT BACKGROUND

The KCS pad is located approximately 3 miles west of CPF-1 within the KRU. The proposed KCS Pad expansion project would allow for continued development of oilfields within the KRU. Development within the KRU began in the early 1980's. With additional development supported by this project, production is expected to continue for another 30 to 40 years.

6.0 DEVELOPMENT SCHEDULE

Construction of the KCS pad expansion is scheduled to begin in the first quarter of 2016. The construction would occur in phases as follows:

2

Phase 1 – Approximately 19.6 acres including a 30-foot wide access road and the eastern most portion of the pad expansion;

Phase 2 – 19.5 acres of the central portion of the pad expansion; and

Phase 3 - 19.5 acres of the western most portion of the pad expansion.

Phase 1 will be constructed in Q1 2016, phase 2 will occur in Q1 2017, and phase 3 will be developed in Q1 2018. This phased approach to development will minimize impacts to wetlands by placing gravel only as necessitated by development needs. Upon completion of phase 3, existing power poles on the northern edge of the existing KCS pad will be removed and the cables buried. The camps will be placed on gravel installed during phase 1 in order to maintain a safe distance (~2,000 feet) from the blast zone around existing pipelines.

Additional information can be found in the Environmental Evaluation Document.

7.0 PROJECT COMPONENTS

The overall scope of the pad expansions includes use of the following existing resources:

- Gravel from Mine Site C (ADL 420329);
- Gravel from Mine Site E (ADL 420329);
- · Access Road; and
- Fresh water from the KIC Reservoir (ADL 407812), Mine Site D (LAS 23894), and Lake K107 (TWUP A2011-166) for gravel compaction and dust control.

A 58.6-acre (23.76 hectare) expansion of KCS pad (Attachment 1) to accommodate:

3

- Three rig camps
- Vehicle parking areas
- Bullrails
- Equipment staging
- Laydown space
- Shops
- Storage tanks
- Other oil and gas infrastructure as needed

9/29/2015

7.1 PAD DESIGN

The proposed KCS pad expansion is 58.6 acres. Impacted acreage includes area covered by the gravel pad side-slopes. The size and shape of the pad, including the layout of the facilities, is shown in Attachment 1.

Table 3: Material and Impacted Area

	Gravel - Cubic Yards	Acres
KCS Pad Extension	502,000	58.6

Gravel pad space will be provided at KCS to accommodate the relocation of rig camps and other infrastructure from the 12-acre pad as well as new infrastructure to support increasing oil production from the Greater Kuparuk Area.

The pad will be constructed to a minimum thickness of five feet of gravel fill, with additional depth as needed for thermal protection of the permafrost. The side slopes will be constructed to a ratio of 2:1 to minimize surface impact. Space on the gravel pad will be provided for rig camps, vehicle parking, bullrails, shops, storage tanks, and equipment staging.

The APDES Stormwater Pollution Prevention Plan (SWPPP) would be required for the proposed project to minimize potential impacts of stormwater discharges to waters within or near the project. CPAI will comply with the existing North Slope General APDES permit to ensure that no water quality impacts occur during construction or operation of the proposed project.

7.2 MATERIAL SITES (Mine Site)

The gravel required for the expansion of this pad will be obtained from the existing Mine Site C or Mine Site E. CPAI has existing material sales from the State of Alaska (ADL 420329) for the purchase of the fill material. Gravel will be hauled over the existing road system and no ice roads will be constructed for the haul.

7.3 CAMP REQUIREMENTS

No oil production or processing will be conducted at KCS pad. All construction personnel will be housed at the Kuparuk Operations Center (KOC). Potable water will be delivered from the KOC water plant. Waste water from the camps will be treated at the KOC waste water treatment plant for disposal. Food waste will be incinerated at Kuparuk and non-burnable waste will be recycled or trucked to the NSB landfill at Deadhorse.

8.0 ICE ROADS AND OTHER FRESH WATER REQUIREMENTS

The only freshwater that would be required for the proposed project would be for gravel compaction and dust control during construction of the pad expansion. The water would come from the KIC Reservoir, Mine Site D, and Lake K107. All sources are permitted for water use. Water use will comply with state water withdrawal requirements and permit conditions.

9.0 FUEL STORAGE

Secondary containment for regulated fuel storage tanks will be sized appropriately for the container type and size. When necessary, secondary containment will be sized to allow for precipitation. Manifold tanks without isolation valves will be treated as a single tank for calculating secondary containment requirements. Specific information on tanks and spill prevention details are contained in the contingency plans discussed in Section 12.0.

10.0 NORTH SLOPE ECONOMIC OPPORTUNITY PLAN

CPAI is committed to continuing its partnership with local contractors and businesses in the development of the Greater Kuparuk Area. This gravel will be placed by the existing maintenance contractor work force at Kuparuk. When reasonable to do so, CPAI has committed to hire and, where appropriate, to provide training to Kuukpik shareholders, Nuiqsut residents, and Alaska Natives. When appropriate, local resident hire will continue to be coordinated through the Kuukpik employment coordinator to identify and place qualified individuals interested in working on the project. In addition, CPAI and its contractors assist with scholarships, career training, and internship opportunities to further expand local workforce capabilities and ensure that local residents are hired and retained as CPAI's employment requirements increase. Attachment 4 includes the Economic Opportunity Plan.

11.0 TRAINING

CPAI requires all North Slope employees and contractors to complete a minimum level of compliance training; however, the specific activities or tasks an employee is assigned to perform will ultimately determine the extent of training required. An 8-hour unescorted training program provided by the North Slope Training Cooperative (NSTC) is the minimum requirement for employees of all operating companies and contractors working in or on the North Slope facilities and consists of: a general camps and safety orientation, a review of the Alaska Safety Handbook, environmental excellence, HAZWOPER First Responder Awareness, personal protective equipment, and hazard communication (HAZCOM). Company or contract employees who require access to operating facilities and well pads/drill sites may also require hydrogen sulfide training. Job specific and special awareness training driven by regulation or company policy include courses in: confined space entry procedures, respiratory protection,

5

energy isolation procedures, fall protection, asbestos awareness, benzene awareness, electrical safety, hearing conservation, naturally occurring radioactive materials (NORM), Toxic Substances Control Act (TSCA), National Petroleum Reserve Alaska (NPRA) Orientation, static electricity, and cultural awareness training.

12.0 CONTINGENCY PLANS

CPAI will amend the current approved Kuparuk River Unit (KRU) Oil Discharge Prevention and Contingency Plan (ODPCP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan to address construction and operation of the KCS pad expansion. The KRU ODPCP complies with State of Alaska requirements in AS 46.03.020(10)(A) and 18 AAC 75 and federal EPA requirements in 40 CFR 112.

The intent of the ODPCP and SPCC Plan is to demonstrate CPAI's capability to prevent oil and hazardous materials spills from entering the water and land and to ensure rapid response if a spill event occurs.

12.1 SPILL PREVENTION MEASURES

CPAI has designed the project facilities to minimize the possibility of spills. CPAI will also implement pipeline maintenance and inspection programs and an employee spill prevention training program to further reduce the likelihood of spills occurring.

CPAI will provide regular training for its employees on the importance of preventing oil or hazardous material spills. CPAI will provide new-employee orientation, annual environmental training seminars, and appropriate certification classes about specific issues, including spill prevention and response. CPAI employees will participate in frequent safety meetings, which will address spill prevention and response issues, as appropriate. The CPAI Incident Management Team will also participate in regularly scheduled training programs and will conduct spill response drills in coordination with federal and state agencies.

12.2 STATE SPILL RESPONSE PLAN

CPAI will implement an oil spill contingency plan designed to minimize accidental oil spill impacts. The existing Alaska Department of Environmental Conservation (ADEC) approved KRU ODPCP will be amended to include the KIC & KCS Expansions. Through the amended KRU ODPCP, CPAI would ensure that readily accessible inventories of appropriate oil spill response equipment and personnel at Kuparuk will be available for use at the sites. In addition, the spill response cooperative, Alaska Clean Seas (ACS), will act as CPAI's primary response action contractor and will provide trained personnel to manage all stages of a spill response, from detection, to containment and cleanup.

12.3 FEDERAL SPILL RESPONSE PLAN

The KRU SPCC Plan will be implemented to prevent oil discharge to navigable waters of the United States. The KRU SPCC Plan will address spill prevention program to minimize the potential for oil discharges at these locations.

13.0 WILDLIFE ACCESS

The usual wildlife that could be in the area during the winter are: owls, ravens, arctic fox, musk ox, and possibly an occasional over-wintering caribou. These animals frequent all locations on the North Slope.

Grizzly bears also inhabit the general area but it is unlikely they will be active during the winter construction season. Polar bears are occasionally seen north of this area along the coast. Although encounters with polar bears, or grizzly bears, are unlikely, CPAI and its contractors will exercise caution while working on the project and will watch for bear sign. If there is a sign of a bear, or a bear den is identified, the Alaska Department of Fish and Game (ADF&G) and US Fish and Wildlife Service (USFWS) will be notified and the work activities altered to avoid any disturbance. CPAI will employ a Polar Bear/Personnel Encounter Plan approved by the USFWS (see Attachment 2). Also, CPAI previously applied for, and received, a Letter of Authorization (LOA) from the USFWS for the incidental take of polar bears during oil and gas operations within the Greater Kuparuk Area (see Attachment 3).

The probability of encountering a grizzly bear during winter operations is remote. However, should a grizzly bear be encountered, the same procedures outlined in the attached Polar Bear/Personnel Encounter Plan would be applicable. Food will be kept inside buildings or containers that minimize odors. Hazardous materials will be kept in drums or other secure containers. Buildings and drill pad layouts will be designed to maximize visibility and minimize potential areas that a bear could crawl into or otherwise be hidden from view. Any sightings will be immediately reported to the site superintendent and personnel in the area will be warned of the location of the bear. Any grizzly bear sightings will be reported to Security & the Kuparuk Field Environmental Coordinators, who will then report to the ADF&G and the USFWS.

Project personnel will be instructed not to feed wildlife of any type or in any other way attempt to attract them either at the facility or on the roads.

14.0 COMMUNICATIONS

The existing microwave telecommunications will support the KCS pad expansion. No new communications tower will be required.

15.0 SNOW REMOVAL

The current Kuparuk snow removal plan will be will be used for this project. KRU standard operating procedures require the use of snow blowing equipment to minimize gravel carry over to the tundra.

16.0 WASTE DISPOSAL

Sanitary wastes that may be generated from a temporary camp will be hauled to the Kuparuk wastewater treatment system. Food waste will be incinerated at Kuparuk and non-burnable waste will be recycled or trucked to the NSB landfill at Deadhorse.

17.0 AIR EMISSIONS

Crude production processing will not occur on the KCS pad. Minor air emissions during the gravel construction will occur and will include only mobile and temporary equipment such as dozers, trucks, loaders, light plants and temporary heaters. No air permit is required for this activity.

18.0 CULTURAL RESOURCES

An archaeological survey of the project areas has been conducted and a request for authorization was submitted and approved by Alaska Department of Natural Resources State Historic Preservation Office (SHPO). A request will be submitted to the North Slope Borough Department of Inupiat History, Language and Culture (IHLC). Cultural resources will not be significantly impacted by the proposed project. The NSB, State, and local entities will be notified immediately in the event that prehistoric, historic, or archaeological objects are discovered during construction activities or operations.

19.0 IMPACT MITIGATION

ConocoPhillips Alaska, Inc. intends to implement features and procedures designed to prevent or minimize impacts to the environment and human resources. The major features or procedures include:

Table 4: Impact Mitigation

Protection/Impact Activity		Standard Design Feature or Practice		
Bear Dens	Agency Coordination	CPAI coordinates with ADF&G and the		
		USFWS to locate bear dens so that they can		
		be avoided.		
Cultural/archaeological	Cultural/archaeological Construction Cultural/archaeological resource surveys			
Resources conducted prior to ground disturb		conducted prior to ground disturbing activity.		
Dust Control	Road Watering	Gravel roads are watered to minimize dust		
		and maintain the integrity of the roads.		
Minimal Foot Print	Road Design	Roads are built to the minimum width		
	_	necessary for adequate operations and safety.		
Minimal Foot Print	Pad Design	Pad is designed for the minimum footprint		

		necessary for the activity.		
Permafrost Road and Pad		Gravel road and pad are a minimum of 5 feet		
	Design	thick.		
Ponding, runoff	Operations	Cleared snow is placed in designated areas.		
Predator Control	Food Waste	Predator-proof dumpster bins are used for		
		accumulation of food wastes. Workers are		
		trained regarding the problems associated		
		with feeding wildlife.		
Predator Control	Training	CPAI prepared a Wildlife Avoidance &		
		Interaction Plan to provide guidance to		
		employees and contractors for managing		
		predators.		
Runoff, ponding	Pad Design	Pad and facilities are orientated to minimize		
		wind drifted snow accumulations.		
Socio-cultural	Jobs	CPAI hires Borough residents for jobs at		
		Kuparuk.		
Socio-cultural	Training	CPAI employees and contractors receive		
	_	cultural awareness training.		
Spills	Spill Prevention and	CPAI prepares Oil Discharge Prevention and		
	Response Planning	Contingency Plans and Spill Prevention		
		Control and Countermeasures Plans (or		
		amends existing plans) to address spill		
		prevention measures and response actions		
		for all drill sites.		
Spills	Spill Response	Alaska Clean Seas is funded by CPAI and its		
'		partners to respond to spills		
Subsistence	Hunter Access	Subsistence hunters are allowed access to		
		CPAI's oil fields subject to safety policies.		
Waste Minimization	Waste Disposal	Wastes are managed according to the Alaska		
	_	Waste Disposal and Reuse Guide (the "Red		
		Book").		
Wildlife, Safety	Speed Limits	CPAI maintains safe speed limits on all North		
,		Slope roads.		
	•			

20.0 REQUIRED PERMITS

Table 5 lists the permits and associated plans and approvals potentially required for the proposed development.

Table 5: Potential Permits and Associated Plans and Approvals

Agency a	nd Permit	
US Army Corps of Engineers	CWA Section 404	
US Fish & Wildlife Service	Endangered Species Act (ESA) Section 7	
	consultation (See Attachment 5 -	
	Programmatic Biological Opinion)	
Alaska Department of Natural Resources	Lease/Unit Plan of Operations (DOG)	
	Cultural Site Clearance (SHPO)	
	Temporary Water Use Permit (DMLW)	
	Land Use - Tundra Travel Authorization	
	(DMLW)	
	Material Sale Contract (DMLW)	
Alaska Department of Environmental	CWA Section 401 Certification	
Conservation		
	APDES Kuparuk Storm Water Pollution	
	Prevention Plan (SWPPP) Amendment	
	ODPCP Plan Amendment	
North Slope Borough	Development Permit	
	Cultural Clearance (IHLC)	



CPAI is the unit operator

UNIT PLAN OF OPERATIONS AMENDMENT APPLICATION

State of Alaska

Department of Natural Resources, Division of Oil & Gas 550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563 Phone: 907-269-8800 Fax: 907-269-8943

Phone: 907-269-8800 Fax: 907-269-8943
Permitting Email: dog.permitting@alaska.gov



SECTION I: APPLICANT INFORMATION						
1. Applicant:	2. Applicant Contact:					
Name: ConocoPhillips Alaska, Inc. (CPAI)	First Steve Last Brashear Name:					
	Title: Permitting Coordinator					
Mailing Address: P.O. Box 100360	Mailing Address: P.O. Box 100360					
City: Anchorage	City: Anchorage					
State: AK Zip Code: 99510-0360	State: AK Zip Code: 99510-0360					
Phone: 907-263-4691 Fax: 907-265-6216	Phone: 907-263-4691 Fax: 907-265-6216					
Email: Steve.W.Brashear@ConocoPhillips.com	Email: Steve.W.Brashear@ConocoPhillips.com					
3. Unit Name Kuparuk River Unit						
4. Unit Operator Contact:						
First Name: Wendy Last Name: Mahan	Title: Environmental Coordinator					
Mailing P.O. Box 100360 Address:						
City: Prudhoe Bay State: AK	Zip Code: 99734					
Phone: 907-659-7212 Fax: 907-659-7254	Email: N1438@@conocophillips.com					

SECTION II: 3RD PARTY INFORMATION (Fill out this section only if you are applying for the Applicant)	SECTION III: APPLICATION DATE AND NUMBER
3rd Party Company N/A Name:	Application Date (Office Use Only):
First N/A Last N/A Name:	
Title: N/A	
Mailing Address: N/A	
City: N/A	
State: N/A Zip Code: N/A	
Phone: N/A Fax: N/A	
Email: N/A	
Describe the affiliation to the Applicant:	Application Number: LO/NS 81-212
N/A	

SECTION IV: PROJECT INFORMATION 1. Project Name: KCS Pad Expansion North 2. Proposed Start Date: 3/5/2016 3. Project Description:

Describe the relationship between the Unit Operator and the Applicant:

Is activity discussed in the approved Plan of Development on file with the Division's Units Section? ☐ Yes ☐ No					
Describe what and where:					
ConocoPhillips Alaska, Inc. (CPAI) requests authorization to expand the Kuparuk Construction Services (KCS) pad to the north by 58.6 acres by placing approximately 491,874 cubic yards of gravel. A previous expansion of the KCS pad occurred in 2014. That project was an expansion of approximately 10 acres to the south; however, it was not sufficient in size to meet all of the needs associated with continued development of the Kuparuk River Unit. The southern expansion was limited by the presence of Charlie Creek, from which CPAI had to remain at least 200 feet away.					
	SECTION V: LAND STATUS				
1. State Mineral Estate:					
Are supplemental pages for land status in	ncluded in Appendix C?	☑ Yes	□ No		
Affected ADL: 025641	Date Effective: 2/1/1965 Da	te Assigned:	Enter Date.		
Oil And Gas Lessee(s): CPAI					
Surface Ownership: State of Alaska					
Do you have, or anticipate having an Acc	ess Agreement: ⊠ Yes □ No				
Special Use Lands: None identified					
Jointly Managed Lands: None identifie	d				
Other Considerations: None					
Project Components	Meridian, Township, Range, And Section(s)	(GPS Coordinates		
Install Phase 1 of gravel expansion including access road.	Umiat, T12N, R9E, Section 36	70 20′ 54″N /	149 43′ 58″W		
Install Phase 2 of gravel expansion.	Umiat, T12N, R8E, Section 18	70 20′ 52″N / 149 44′ 07″W			
Install Phase 3 of gravel expansion, connect to exisiting pad, and bury on-pad power line.	Umiat, T12N, R8E, Section 18	70 20′ 50″N /	149 44′ 18″W		
2. State of Alaska Surface Lands:					
Are supplemental pages for land status in	ncluded in Appendix C?	□ Yes	⊠ No		
	ick here to enter text.				
Access Authorization(s): Click here to	enter text.				
Special Use Lands: Click here to en	ter text.				
Jointly Managed Lands: Click here to	enter text.				
Other Considerations: Click here to					
Project Components	Meridian, Township, Range, And Section(s)		GPS Coordinates		
Click here to enter text.	Click here to enter text.		to enter text.		
Click here to enter text.	Click here to enter text.		to enter text.		
Click here to enter text.	Click here to enter text.	Click here to enter text.			
3. Private Lands:					
Are supplemental pages for land status included in Appendix C? □ Yes □ No					
Oil And Gas Mineral Estate Owner: N/A					
Surface Ownership And Access Agreeme	Surface Ownership And Access Agreement(s): N/A				
Special Use Lands: N/A					
Jointly Managed Lands: N/A					
Other Considerations: N/A					

Project Components	Meridian, Township, Range, And Section(s)	GPS Coordinates
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

SECTION VI: SEQUENCE AND SCHEDULE OF OPERATIONS

Project Milestone #	Project Milestone	Proposed Start Date	Proposed End Date
1.	Install Phase 1 of gravel expansion	3/5/2016	5/31/2016
2.	Install Phase 2 of gravel expansion	1/1/2017	5/31/2017
3.	Install Phase 3 of gravel expansion, connect to existing pad, and bury on- pad power lines.	1/1/2018	5/31/2018
4.			
5.			
6.	Enter Milestone.	Enter Date.	Enter Date.
7.	Enter Milestone.	Enter Date.	Enter Date.
8.	Enter Milestone.	Enter Date.	Enter Date.
9.	Enter Milestone.	Enter Date.	Enter Date.
10.	Enter Milestone.	Enter Date.	Enter Date.

SECTION VII: PROJECTED USE REQUIREMENTS

1. Describe the proposed operations, including the location and design, of Well Sites:

N/A

2. Describe the proposed operations, including the location and design, of **Buildings**:

The pad expansion will be constructed in three phases over a period of time. Phase 1 (located furthest east of the Oliktok Road) will include space for three rig camps and a parking area with bullrails. Phase 2 will include space for a shop, additional parking with bullrails, and a tank storage area for wells support. Phase 3 will include space for a shop, vehicle parking and bullrails, storage tanks, and a VAC truck staging area. All three phases will provide space for buildings and infrastructure that will support continued development of the Kuparuk River Unit.

3. Describe the proposed operations, including the location and design, of Fuel and Hazardous Substances:

Storage tanks will be placed on the pad expansion after it is complete. Secondary containment for regulated fuel storage tanks will be sized appropriately for the container type and size. When necessary, secondary containment will be sized to allow for precipitation. Manifold tanks without isolation valves will be treated as a single tank for calculating secondary containment requirements.

4. Describe the proposed operations, including the location and design, of **Solid Waste Sites**:

Sanitary wastes that may be generated from the camps will be hauled to the Kuparuk wastewater treatment system. Food waste will be incinerated at Kuparuk and non-burnable wates will be recycled or trucked to the NSB landfill in Deadhorse.

5. Describe the proposed operations, including the location and design, of Water Supplies:

Water will be trucked from the Kuparuk Operations Center (KOC) water plant.

6. Describe the proposed operations, including the location and design, of **Utilities**:

In Phase 3 of the development, power lines located on pad along the northern portion of the existing KCS pad will be buried in the pad. Power supply will be provided to the camps and other buildings by generator until after phase 3 is completed and the overhead powerlines are buried in the pad.

7. Describe the proposed operations, including the location and design, of Material Sites:

Gravel used for the development will come from Mine Site C.

8. Describe the proposed operations, including the location and design, of Roads:

A short access road will connect the pad expansion to the existing gravel road.

9. Describe the proposed operations, including the location and design, of Airstrips:

N/A

10. Describe the proposed operations, including the location and design, of All Other Facilities and Equipment:

The KCS pad will be expanded to the north by 58.6 acres to provide space for three rig camps, parking, bullrails, shops, and other infrastructure to support continued oil and gas development in the Kuparuk River Unit.

11. If another permit(s) is required for the above described Projected Use Requirements, provide the following information:

Agency	Permit Type	Permit Number	Application Status	Projected Use Requirement(s)
North Slope Borough	Administrative Approval	NSB 16-142F	Received	1, 6, 7, 8, 10

SECTION VIII: REHABILITATION PLAN

1. Proposed Level of Infrastructure, Facilities and Equipment Removal:

Not Applicable.

2. Description of Restoration and Rehabilitation Activities for Vegetation, Habitat, Impacted Wildlife, and Other Applicable Resources:

The amended application does not change the rehabilitation plans outlined in the original authorization. Upon abandonment

SECTION IX: OPERATING PROCEDURES DESIGNED TO MINIMIZE ADVERSE EFFECTS

Describe operating procedures designed to prevent or minimize adverse effects on other natural resources and other uses of the Unit area and adjacent areas including:

Fish and Wildlife Habitats: CPAI has a Wildlife Avoidance Interaction Plant design to prevent or minimize adverse effects on other natural resource.

Historic and Archeological Sites:

CPAI does not believe this would have any impacts to cultural resources since the work is being performed adjacent to an existing pad. The area was previously cleared, and CPAI also reviewed the area for any existing Alaska Heritage Resources Surveys (AHRS) and Traditional Land Use Inventory (TLUI) sites. No impacts are expected.

Public Use Areas: This area is not open to the public.

Other Uses: N/A

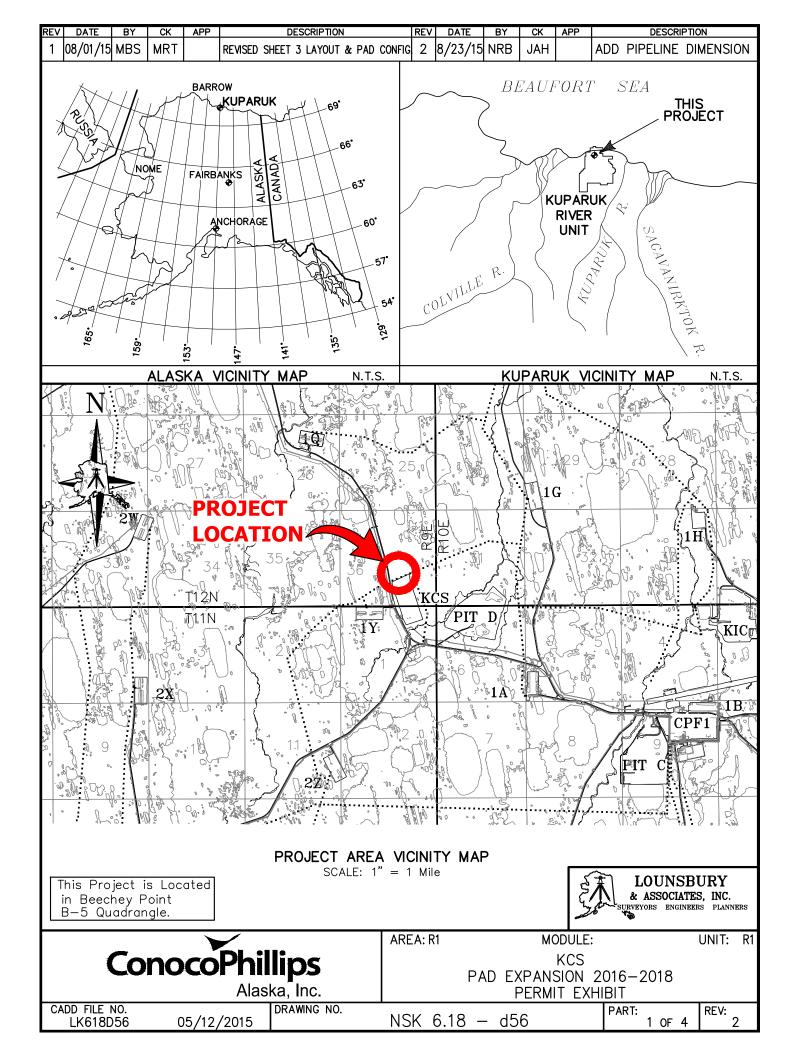
SECTION X: GLOSSARY OF TERMS

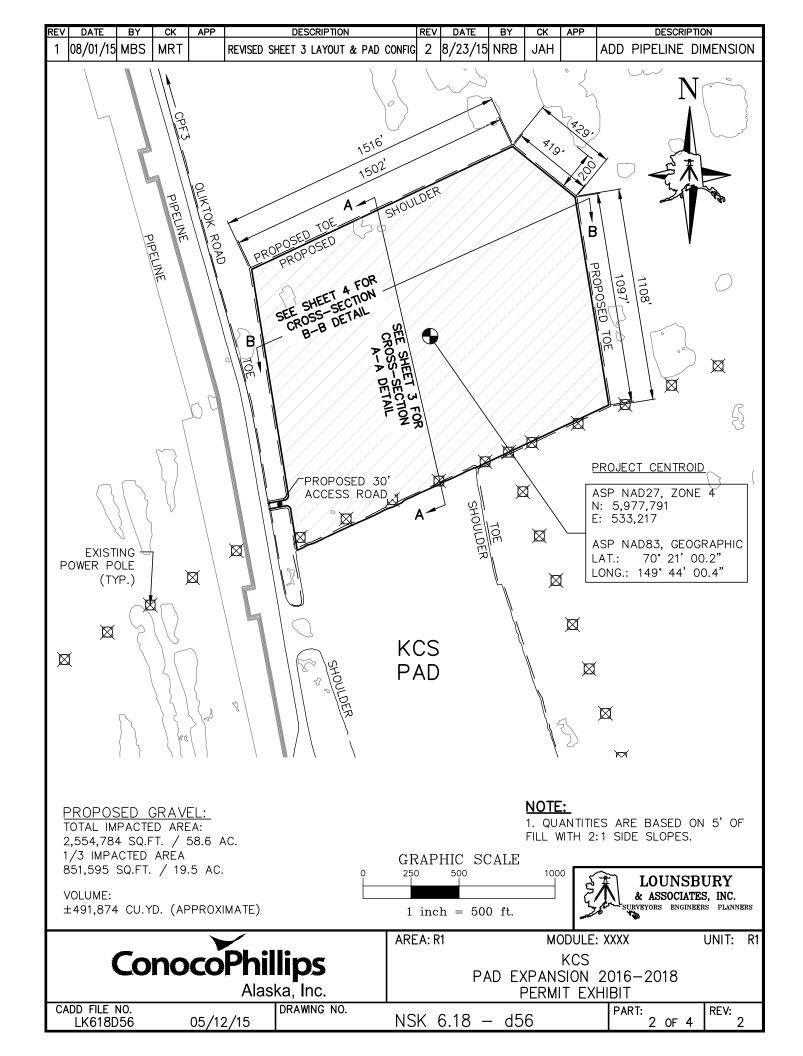
Term #	Term	Term Definition
1.	N/A	Not Applicable
2.	TBD	To Be Determined
3.	VSM	Vertical Support Member
4.	Enter Term.	Enter Term Definition.
5.	Enter Term.	Enter Term Definition.

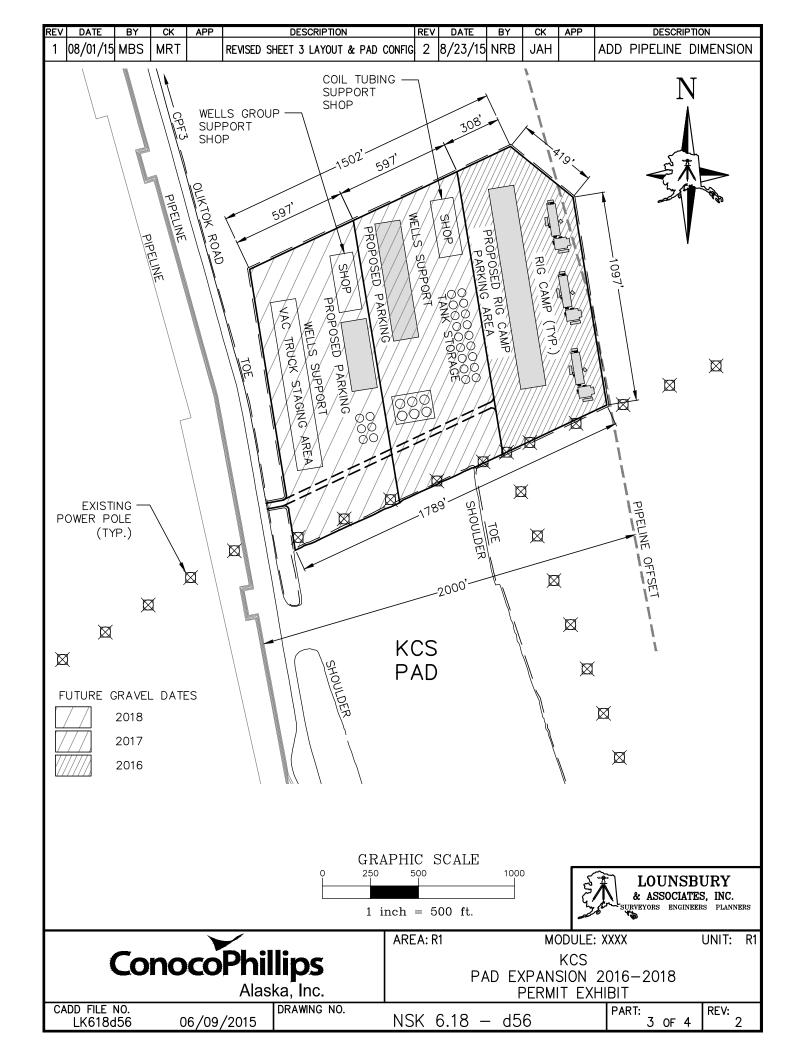
SECTION XI: CONFIDENTIALITY

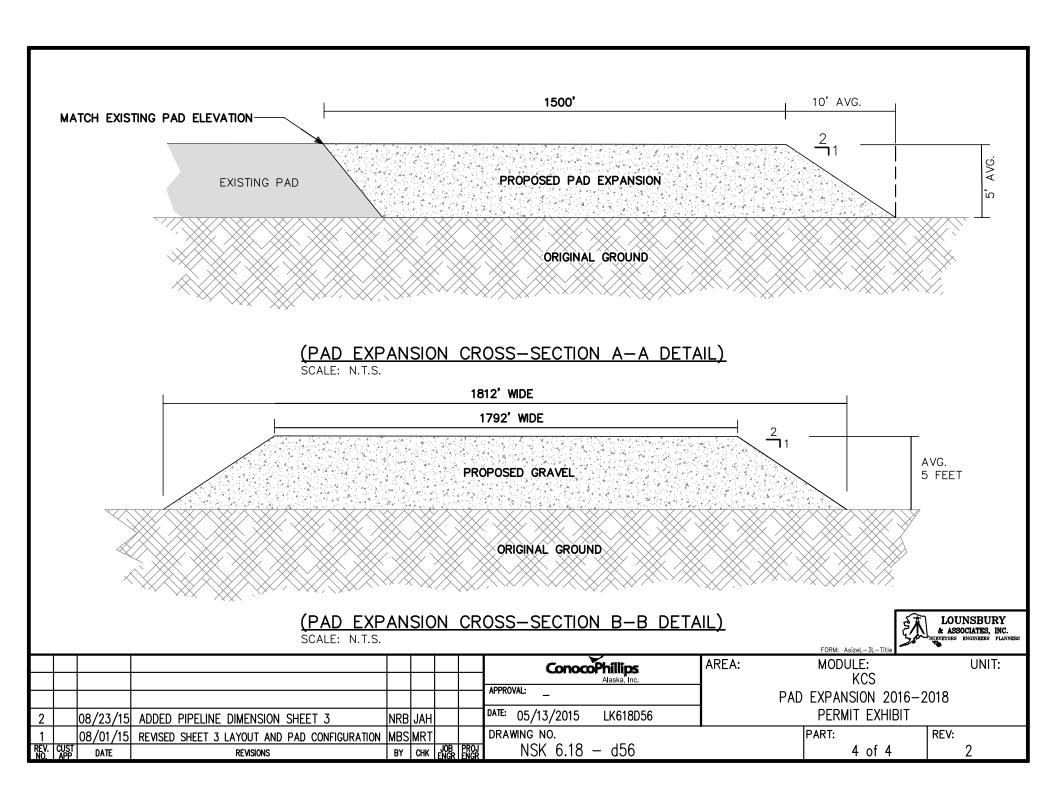
The undersigned hereby requests that each page/section of this application <u>marked</u> confidential be held confidential under AS 38.05.035(a)(8). APPLICANT CONTACT:

	Stephen W. Brashear	Permitting Coordinator	1/13/2016
Signature	Name	Title	Date









APPENDIX B: MITIGATION MEASURES

Not Applicable

MITIGATION MEASURE ANALYSIS: NORTH SLOPE

The following instructions are provided for guidance to adequately complete the Mitigation Measure Analysis form.

- 1. The applicant shall respond to each Mitigation Measure, and all subsets of mitigation measures; i.e. A.2.d.i should be addressed and A.2.d.ii, and so forth.
- 2. The applicant's response shall begin by clearly indicating if the <u>mitigation measure is satisfied</u>, a <u>waiver is requested</u>, or if the mitigation measure is <u>not applicable</u>.
- 3. The applicants' response shall then address how the proposed project clearly satisfies the mitigation measure, meets the intent of the mitigation measure, is not practicable, or is not applicable.
- 4. The applicant shall verify working 'in consultation with' parties other than Department of Natural Resources (DNR), Division of Oil and Gas (DO&G) by reporting meeting dates and parties present for Mitigation Measures which require consultation with parties other than DNR, DO&G; i.e. Mitigation Measure 1.b.

Please note that this form, along with the Plan of Operations Application form and the Plan of Operations, must be adequately completed before DNR DO&G will review an application for potential approval.

NORTH SLOPE	Company Response	
A. Mitigation Measures		
1. Facilities and Operations		
a. A plan of operations must be submitted and approved before conducting exploration, development or production activities, and must describe the lessee's efforts to minimize impacts on residential, commercial, and recreational areas, Native allotments and subsistence use areas. At the time of application, lessee must submit a copy of the proposed plan of operations to all surface owners whose property will be entered.	A.1.a. Mitigation measure satisfied. The KCS Pad Expansion is on State of Alaska lands and a Plan of Operations is included as part of this application to the Alaska Department of Natural Resources – Division of Oil & Gas with the project applications, as well as other permitting agencies. There are no native allotments or private lands.	
b. Facilities must be designed and operated to minimize sight and sound impacts in areas of high residential, commercial, recreational, and subsistence use and important wildlife habitat. Methods may include providing natural buffers and screening to conceal facilities, sound insulation of facilities, or by using alternative means approved by the Director, in consultation with ADF&G and the NSB.	A.1.b. Mitigation measure satisfied. The proposed project is not in an area of high residential, commercial, or recreational use. The project is located in a subsistence use area and is within the existing Kuparuk Oil field. There will be an increase in noise during construction activities but this will be temporary. Only those structures necessary for oil and gas production will be situated on the pad (see Environmental Evaluation Document for further details).	
c. To the extent practicable, the siting of facilities will be prohibited within 500 feet of all fish-bearing streams and waterbodies and 1,500 feet from all current surface drinking water sources. Additionally, to the extent practicable, the siting of facilities will be prohibited within one-half mile of the banks of the main channel of the Colville, Canning, Sagavanirktok, Kavik, Shaviovik, Kadleroshilik, Echooka, Ivishak, Kuparuk, Toolik, Anaktuvuk and Chandler Rivers. Facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the Director, in consultation with ADF&G, that site locations outside these buffers are not practicable or that a location inside the buffer is environmentally preferred. Road, utility, and pipeline crossings must be consolidated and aligned perpendicular or near perpendicular to watercourses.	A.1.c. Mitigation measure satisfied. The project is not situated closer than 500 feet from any fish bearing stream. There are no surface drinking water sources within 1,500 feet of the project. The project is located at a distance of greater than one half mile from the Colville, Canning, Sagavanirktok, Kadleroshilik and Kuparuk rivers. The project will use the existing Kuparuk road system and no new power lines or utilities will be constructed.	
d. No facilities will be sited within one-half mile of identified Dolly Varden overwintering and/or spawning areas on the Canning, Shaviovik, and Kavik rivers. Notwithstanding the	A.1.d. Mitigation measure not applicable. The project is not within a half mile of any Dolly Varden overwintering or spawning areas.	

previous sentence, road and pipeline crossings may only be sited within these buffers if the lessee demonstrates to the satisfaction of the Director and ADF&G in the course of obtaining their respective permits, that either (1) the scientific data indicate the proposed crossing is not within an overwintering and/or spawning area; or (2) the proposed road or pipeline crossing will have no significant adverse impact to Dolly Varden overwintering and/or spawning habitat.	
e. Impacts to important wetlands must be minimized to the satisfaction of the Director, in consultation with ADF&G and ADEC. The Director will consider whether facilities are sited in the least sensitive areas. Further, all activities within wetlands require permission from the US Army Corps of Engineers (see Lessee Advisories).	A.1.e. Mitigation measure satisfied. The facilities are designed to the minimum size and tundra footprint to meet project needs. Use of the existing KCS pad was evaluated and found to be of insufficient size for the development. See Environmental Evaluation Document (EED) for details.
f. Exploration facilities, including exploration roads and pads, must be temporary and must be constructed of ice unless the Director determines that no practicable alternative exists. Re-use of abandoned gravel structures may be permitted on a case-by-case basis by the Director, after consultation with the director, DMLW, and ADF&G. Approval for use of abandoned structures will depend on the extent and method of restoration needed to return these structures to a usable condition.	A.1.f. Mitigation measure not applicable. The project is not an exploration facility.
g. Pipelines must utilize existing transportation corridors where conditions permit. Pipelines must be designed to facilitate the containment and cleanup of spilled fluids. Where practicable, onshore pipelines must be located on the upslope side of roadways and construction pads, unless the director, DMLW, determines that an alternative site is environmentally acceptable. Wherever possible, onshore pipelines must utilize existing transportation corridors and be buried where soil and geophysical conditions permit. All pipelines, including flow and gathering lines, must be designed, constructed and maintained to assure integrity against climatic conditions, geophysical hazards, corrosion and other hazards as determined on a case-by-case basis.	A.1.g. Mitigation measure not applicable. No pipelines are being installed as part of this project.
h. Pipelines shall be designed and constructed to avoid significant alteration of caribou and other large ungulate movement and migration patterns. At a minimum, above-ground pipelines shall be elevated 7 feet, as measured from the ground to the bottom of the pipe, except where the pipeline intersects a road, pad, or a ramp installed to facilitate wildlife passage. Lessees shall consider increased snow depth in the sale area in	A.1.h. Mitigation Measure not applicable. No new pipelines will be constructed. A.1.h.i Mitigation Measure not applicable. A.1.h.ii Mitigation Measure not applicable.

Revised: March 2013

relation to pipe elevation to ensure adequate clearance for wildlife. ADNR may, after consultation with ADF&G, require additional measures to mitigate impacts to wildlife movement and migration.

- A.1.h.iii Mitigation Measure not applicable.
- Environmentally preferred alternatives for field development include use of buried pipelines, onshore directional drilling, or elevated structures. Approved causeways must be designed, sited, and constructed to prevent significant changes to nearshore oceanographic circulation patterns and water quality characteristics (e.g., salinity, temperature, suspended sediments) that result in exceedances of water quality criteria, and must maintain free passage of marine and anadromous fish.

i. The state of Alaska discourages the use of continuous-fill causeways.

- ii. Causeways and docks shall not be located in river mouths or deltas. Artificial gravel islands and bottom founded structures shall not be located in river mouths or active stream channels on river deltas, except as provided for in (iii).
- iii. Each proposed structure will be reviewed on a case-by-case basis. Causeways, docks, artificial gravel islands and bottom founded structures may be permitted if the Director, in consultation with ADF&G, ADEC, and the NSB determines that a causeway or other structures are necessary for field development and that no practicable alternatives exist. A monitoring program may be required to address the objectives of water quality and free passage of fish, and mitigation shall be required where significant deviation from objectives occurs. (See also Lessee Advisories regarding U.S. Army Corps of Engineers requirements.)
- i. Dismantlement, Removal and Rehabilitation (DR&R): Upon abandonment of material sites, drilling sites, roads, buildings or other facilities, such facilities must be removed and the site rehabilitated to the satisfaction of the Director, unless the Director, in consultation with DMLW, ADF&G, ADEC, NSB, and any non-state surface owner, determines that such removal and rehabilitation is not in the state's interest.

A.1.i. Mitigation measure satisfied. ConocoPhillips Alaska, Inc. (CPAI) will plan to fully dismantle, remove, and restore all temporary and permanent improvements approved by the Plan of Operations unless the State determines, at the time of rehabilitation, that different rehabilitation measures are necessary to deliver up the land in good order and condition. When CPAI completes construction of all of the improvements approved by the Alaska Department of Natural Resources (ADNR) that are detailed in the Plan of Operations, CPAI will submit to ADNR a list of actions that CPAI anticipates taking to rehabilitate the area.

Revised: March 2013

j. Gravel mining sites required for exploration and development activities will be restricted to the minimum necessary to develop the field efficiently and with minimal environmental damage. Where practicable, gravel sites must be designed and constructed to function as water reservoirs for future use. Gravel mine sites required for exploration activities must not be located within an active floodplain of a watercourse unless the director, DMLW, after consultation with ADF&G, determines that there is no practicable alternative, or that a floodplain site would enhance fish and wildlife habitat after mining operations are completed and the site is closed.

A.1.j. Mitigation measure satisfied. The KCS Expansion will use gravel fill from the existing Mine Site C or E, which are located within the Kuparuk River Unit and also currently used for general Kuparuk field wide gravel needs. Mine Site C and E have an approved mining and rehabilitation plan.

Mine site development and rehabilitation within floodplains must follow the procedures outlined in McLean, R. F. 1993, North Slope Gravel Pit Performance Guidelines, ADF&G Habitat and Restoration Division Technical Report 93-9, available from ADF&G.

2. Fish and Wildlife Habitat

a. Detonation of explosives within or in proximity to fish-bearing waters must not produce instantaneous pressure changes that exceed 2.7 pounds per square inch in the swim bladder of a fish. Detonation of explosives within or in close proximity to a fish spawning bed during the early stages of egg incubation must not produce a peak particle velocity greater than 0.5 inches per second. Blasting criteria have been developed by ADF&G and are available upon request from ADF&G. The location of known fish-bearing waters within the project area can also be obtained from ADF&G.

A.2.a. Mitigation measure satisfied. The KCS Pad Expansion will use gravel fill from the existing Mine Site C or E located within the Kuparuk River Unit, both of which are active mine sites that are also used for general field wide gravel needs. The mine sites do not contain fish bearing waters.

The lessee will consult with the NSB prior to proposing the use of explosives for seismic surveys. The Director may approve the use of explosives for seismic surveys after consultation with the NSB.

- b. Water intake pipes used to remove water from fish-bearing waterbodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement. Screen mesh size shall be no greater than 1 mm (0.04 inches), unless another size has been approved by ADF&G. The maximum water velocity at the surface of the screen enclosure may be no greater than 0.1 foot per second, unless an alternative velocity has been approved by ADF&G.
- A.2.b. Mitigation measure satisfied. All withdrawals from fish bearing sources use a screen with mesh no greater than 1 mm (0.04 inches) and the surface of the screen enclosure will allow a maximum water intake velocity no greater than 0.1 foot per second (meeting the requirements of ADF&G Technical Report No. 97-8, Water Intake Structures).
- c. Removal of snow from fish-bearing rivers, streams and natural lakes shall be subject to prior written approval by ADF&G. Compaction of snow cover overlying fish-bearing waterbodies is prohibited except for approved crossings. If ice thickness is not sufficient to facilitate a crossing, ice or snow bridges may be required.
- A.2.c. Mitigation measure satisfied. Any removal of snow from fish-bearing lakes will on be done after prior approval from the ADF&G. No ice roads will cross streams or other fish bearing waters.

d. Bears:

- i. Before commencement of any activities, lessees shall consult with ADF&G (907-459-7213) to identify the locations of known brown bear den sites that are occupied in the season of proposed activities. Exploration and production activities must not be conducted within one-half mile of occupied brown bear dens, unless alternative mitigation measures are approved by ADF&G. A lessee who encounters an occupied brown bear den not previously identified by ADF&G must report it to the Division of Wildlife Conservation, ADF&G, within 24 hours. Mobile activities shall
- A.2.d.i. Mitigation measure satisfied. As is standard practice for CPAI, prior to the start of winter construction CPAI will consult with ADF&G to identify the locations of known brown bear dens in the project area to ensure that the appropriate setback distance of ½ mile is addressed. If deviation from this requirement is necessary ADF&G personnel will be contacted for approval. See Attachment 1 of the Project Description Wildlife Avoidance and Interaction Plan for details.
- A.2.d.ii. Mitigation measure satisfied. As is standard, CPAI will consult with the USFWS regarding the location of known Polar Bear dens and

Revised: March 2013

avoid such discovered occupied dens by one-half mile unless alternative mitigation measures are approved by the Director, with concurrence from ADF&G. Non-mobile facilities will not be required to relocate.

- ii. Before commencement of any activities, lessees shall consult with the USFWS (907-786-3800) to identify the locations of known polar bear den sites. Operations must avoid known polar bear dens by 1 mile. A lessee who encounters an occupied polar bear den not previously identified by USFWS must report it to the USFWS within 24 hours and subsequently avoid the new den by 1 mile. If a polar bear should den within an existing development, off-site activities shall be restricted to minimize disturbance.
- iii. For projects in proximity to areas frequented by bears, lessees are required to prepare and implement a human-bear interaction plan designed to minimize conflicts between bears and humans. The plan should include measures to:
 - A. minimize attraction of bears to facility sites;
 - organize layout of buildings and work areas to minimize interactions between humans and bears;
 - warn personnel of bears near or on facilities and the proper actions to take;
 - D. if authorized, deter bears from the drill site:
 - E. provide contingencies in the event bears do not leave the site:
 - discuss proper storage and disposal of materials that may be toxic to bears; and
 - G. provide a systematic record of bears on the site and in the immediate area.

following consultation with the USFWS will survey the appropriate locations prior to the start of construction using a Forward Looking Infrared (FLIR) camera to document the presence of Polar Bear dens. Project personnel will maintain a one mile distance from all known dens in the project area. As per CPAI's Polar Bear Avoidance and Interaction Plan (January 2012) on file with the USFWS and included as Attachment 1 of the Project Description, newly identified dens will be reported to the USFWS within 24 hours and mitigation measures developed as appropriate.

A.2.d.iii. Mitigation measure satisfied. The KCS Pad Expansion will implement the CPAI Wildlife Avoidance and Interaction Plan (April 2012) to minimize conflicts between bears and humans. The plan discusses the proper handling of food and food waste, infrastructure design, grizzly and polar bear alert system, deterrence guidelines, and reporting. See Attachment 1 of the Project Description – Wildlife Avoidance and Interaction Plan - for details.

Revised: March 2013

e. Permanent, staffed facilities must be sited to the extent practicable outside identified brant, white-fronted goose, snow goose, tundra swan, king eider, common eider, Steller's eider, spectacled eider, and yellow-billed loon nesting and brood rearing areas.	A.2.e. Mitigation measures satisfied. The project site is an extension to an existing pad with no history of use by nesting or brood-rearing waterfowl. Habitats are primarily human modified Wet Sedge Meadow Tundra, Patterned Wet Meadow, and Dry Dwarf Shrub. Winter construction of gravel surfaces will eliminate physical disturbances of nesting sites and reduce noise and vehicle related disturbances during the breeding season.
3. Subsistence, Commercial and Sport Harvest Activities	

a.

- i. Exploration, development and production operations shall be conducted in a manner that prevents unreasonable conflicts between lease-related activities and subsistence activities. Lease-related use will be restricted when the Director determines it is necessary to prevent conflicts with local subsistence, commercial and sport harvest activities. In enforcing this term DO&G will consult with other agencies, the affected local borough(s) and the public to identify and avoid potential conflicts that are brought to the division's attention both in the planning and operational phases of leaserelated activities. In order to avoid conflicts with subsistence, commercial and sport harvest activities, restrictions may include alternative site selection, requiring directional drilling, seasonal drilling restrictions, and other technologies deemed appropriate by the Director.
- ii. Prior to submitting a plan of operations for either onshore or offshore activities which have the potential to disrupt subsistence activities, the lessee shall consult with the potentially affected subsistence communities and the NSB (collectively "parties") to discuss the siting, timing, and methods of proposed operations and safeguards or mitigating measures which could be implemented by the operator to prevent unreasonable conflicts. The parties shall also discuss the reasonably foreseeable effect on subsistence activities of any other operations in the area that they know will occur during the lessee's proposed operations. Through this consultation, the lessee shall make reasonable efforts to assure that exploration, development, and production activities are compatible with subsistence hunting and fishing activities and will not result in unreasonable interference with subsistence harvests.
- iii. A discussion of agreements reached or not reached during the consultation process and any plans for continued consultation shall be included in the plan of operations. The lessee shall identify who participated in the consultation and send copies of the plan to participating communities and the NSB when it is submitted to the division.

A.3.a.i. Mitigation measure satisfied. The only off-pad activity related to this project is the placement of gravel fill for the pad expansion. These off-pad activities will occur during the winter months. All other construction activities will occur year round, will be during the construction period (2016 -2018), and will be on-pad. Subsistence hunters will be allowed access to the area (subject to safety polices).

A.3.a.ii. Mitigation measure satisfied. Meetings with the North Slope Borough (NSB) and other permitting agencies were held to discuss the project scope, schedule, and potential impacts on: 7/7/2015.

A.3.a.iii. Mitigation measure satisfied. A pre-application meeting with agencies was held prior to submittal of the Plan of Operations and attendees are documented. The meeting was held July 7, 2015.

The pre-application meetings were held as follows:

A.3.a.iv.Mitigation measure satisfied. There were no unresolved issues from the community and pre-application meetings and no request for DNR to intercede.

A.3.1.v. Mitigation measure satisfied. The director will be notified of any subsistence hunter concerns during project construction and operations.

iv. If the parties cannot agree, then any of them may request the Commissioner of DNR or his/her designee to intercede. The commissioner may assemble the parties or take other measures to resolve conflicts among the parties.	
v. The lessee shall notify the Director of all concerns expressed by subsistence hunters during operations and of steps taken to address such concerns.	
b. Traditional and customary access to subsistence areas shall be maintained unless reasonable alternative access is provided to subsistence users. "Reasonable access" is access using means generally available to subsistence users. Lessees will consult the NSB, nearby communities, and native organizations for assistance in identifying and contacting local subsistence users.	A.3.b Mitigation measure satisfied. The project is in a traditional subsistence hunting area used by the community of Nuiqsut. Customary and reasonable access to the area will be maintained and any subsistence access concerns will be discussed with KSOP.
4. Fuel, Hazardous Substances and Waste	
a. Secondary containment shall be provided for the storage of fuel or hazardous substances.	A.4.a. Mitigation measure satisfied. Any tanks included with this project will include secondary containment.
b. Containers with an aggregate storage capacity of greater than 55 gallons which contain fuel or hazardous substances shall not be stored within 100 feet of a waterbody, or within 1,500 feet of a current surface drinking water source.	A.4.b. Mitigation measure satisfied. Containers with a capacity larger than 55 gallons will not be stored within 100 ft. of a water body or within 1,500 feet of a current surface drinking water source.
c. During equipment storage or maintenance, the site shall be protected from leaking or dripping fuel and hazardous substances by the placement of drip pans or other surface liners designed to catch and hold fluids under the equipment, or by creating an area for storage or maintenance using an impermeable liner or other suitable containment mechanism.	A.4.c. Mitigation measure satisfied. Drip pans and liners will be placed under equipment and connections, as appropriate to minimize the possibility of leakage to the environment. Some equipment may have built-in containment that satisfies this requirement. CPAI will provide training to employees on the importance of preventing the release of oil or hazardous material spills.
d. During fuel or hazardous substance transfer, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends. Appropriate spill response equipment, sufficient to respond	A.4.d. Mitigation measure satisfied. All fueling operations will be done in accordance with the Kuparuk Fieldwide Standard Operations Procedure for Fluid Transfers (F-005) and liners will be used as

to a spill of up to five gallons, must be on hand during any transfer or handling of fuel or hazardous substances. Trained personnel shall attend transfer operations at all times.	required by the Fieldwide Procedure for Liners and Drip Pans (F-006). Appropriate spill response equipment, sufficient to respond to a spill of up to 5 gallons, will be on hand during transfers or handling of fuel or hazardous substances. CPAI will provide training to employees on preventing oil or hazardous materials.
e. Vehicle refueling shall not occur within the annual floodplain, except as addressed and approved in the plan of operations. This measure does not apply to water-borne vessels.	A.4.e. Mitigation measure satisfied. No fueling will occur within the annual floodplain.
f. All independent fuel and hazardous substance containers shall be marked with the contents and the lessee's or contractor's name using paint or a permanent label.	A.4.f. Mitigation measure satisfied. Independent fuel and hazardous containers will be marked with the lessee's or contractor's name.
g. A fresh water aquifer monitoring well, and quarterly water quality monitoring, is required down gradient of a permanent storage facility, unless alternative acceptable technology is approved by ADEC.	A.4.g. Mitigation measure not applicable
h. Waste from operations must be reduced, reused, or recycled to the maximum extent practicable. Garbage and domestic combustibles must be incinerated whenever possible or disposed of at an approved site in accordance with 18 AAC 60. (See Lessee Advisories, ADEC.)	A.4.h. Mitigation measure satisfied. Sanitary waste that may be generated from the temporary camp will be hauled to the Kuparuk Operations Center (KOC) wastewater treatment facility. Food waste will be incinerated at the KOC facility and non-burnable waste will be recycled or trucked to the North Slope Borough landfill at Deadhorse.
i. New solid waste disposal sites, other than for drilling waste, will not be approved or located on state property during the exploration phase of lease activities. Disposal sites may be provided for drilling waste if the facility complies with 18 AAC 60. (See Lessee Advisories, ADEC.)	A.4.i. Mitigation measure not applicable.
j. The preferred method for disposal of muds and cuttings from oil and gas activities is by underground injection. Drilling mud and cuttings cannot be discharged into lakes, streams, rivers, or important wetlands. On pad temporary cuttings storage will be allowed as necessary to facilitate annular injection and/or backhaul operations. Impermeable lining and diking, or equivalent measures, will be required for reserve pits. Surface discharge of drilling muds and cuttings into reserve pits shall be allowed only when the Director, in consultation with ADF&G, determines that alternative disposal	A.4.i. Mitigation measure not applicable. No drilling will occur at this pad.

Revised: March 2013

methods are not practicable. Injection of non-hazardous oilfield wastes is regulated by AOGCC through its Underground Injection Control (UIC) Program for oil and gas wells. See also Mitigation Measure 8.a.vi.

k. Proper disposal of garbage and putrescible waste is essential to minimize attraction of wildlife. The lessee must use the most appropriate and efficient method to achieve this goal. The primary method of garbage and putrescible waste is prompt, on-site incineration in compliance with state of Alaska air quality regulations. The secondary method of disposal is on-site frozen storage in animal-proof containers with backhaul to an approved waste disposal facility. The tertiary method of disposal is on-site non-frozen storage in animal proof containers with backhaul to an approved waste disposal facility. Daily backhauling of non-frozen waste must be achieved unless safety considerations prevent it.

A.4.k. Mitigation measure satisfied. Food waste will be incinerated at the KOC facility and non-burnable waste will be recycled or trucked to the North Slope Borough landfill at Deadhorse. As per polices outlined in CPAI's Wildlife Avoidance and Interaction Plan, all food taken into vehicles will be stored in containers to minimize odors and all food waste returned to the construction camp to be handled as stated above. See Attachment 1 of the Project Description – Wildlife Avoidance and Interaction Plan for details

Revised: March 2013

5. Access

a. Except for approved off-road travel, exploration activities must be supported only by ice roads, winter trails, existing road systems or air service. Wintertime off-road travel across tundra and wetlands may be approved in areas where snow and frost depths are sufficient to protect the ground surface. Summertime off-road travel across tundra and wetlands may be authorized subject to time periods and vehicle types approved by DMLW. Exceptions may be granted by the director of the DMLW, and the Director, if an emergency condition exists; or, if it is determined, after consulting with ADF&G that travel can be accomplished without damaging vegetation or the ground surface. Exceptions, including the use of gravel, may also be granted on a site specific basis, if it is determined, after consulting with ADF&G and DMLW, that no practicable alternatives exist for constructing an exploration road or pad in the area south of the boundary described below and depicted in the map below:

A.5.a. Mitigation measure not applicable. No exploration activities are required.

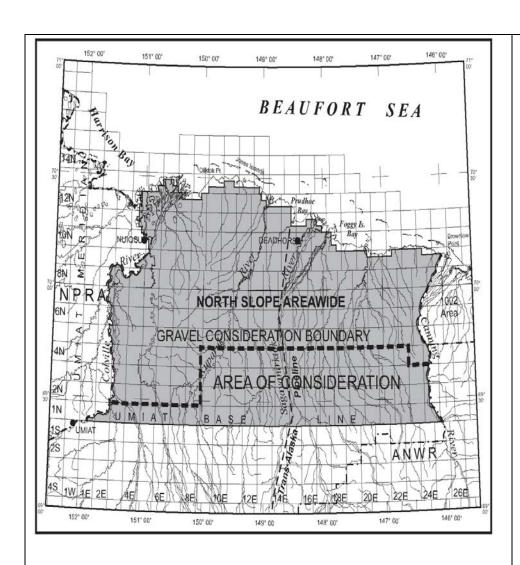


Figure 7.1: Gravel Consideration Boundary

Beginning at the NPR-A boundary, from the northeast corner of T 1N, R 2E,

Page 14 of 18

Revised: March 2013

Figure 7.1: Gravel Consideration Boundary	
Beginning at the NPR-A boundary, from the northeast corner of T 1N, R 2E,	
 east to the northwest corner of T 1N, R 9E, then north to the northwest corner of T 4N, R 9E, then east to the northwest corner of T 4N, R 23E, then south to the southwest corner of T 4N, R 23E, and then east along the top of T 3N to the ANWR boundary. 	
b. Public access to, or use of, the lease area may not be restricted except within the immediate vicinity of drill sites, buildings, and other related facilities. Areas of restricted access must be identified in the plan of operations. Lease facilities and operations shall not be located so as to block access to or along navigable or public waters as defined in AS 38.05.	A.5.b. Mitigation measure not applicable. The KCS project is outside of the "Area of Consideration".

6. Prehistoric, Historic, and Archeological Sites

a. Prior to the construction or placement of any structure, road, or facility resulting from exploration, development, or production activities, the lessee must conduct an inventory of prehistoric, historic, and archeological sites within the area affected by an activity. The inventory must include consideration of literature provided by the NSB, nearby communities, Native organizations, and local residents; documentation of oral history regarding prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from the activity.

A.6.a. Mitigation measure satisfied. An inventory of prehistoric, historic, and archeological sites within the affected area was performed by Mr. Rick Reanier of Reanier and Associates in August 2015. Prior to this most recent survey the entire project area had been examined for cultural resources numerous times over the past 25 years. Mr. Reanier's survey included a literature survey, including a review of the North Slope Borough TLUI, and a ground search. A request for clearance is being submitted to the Alaska State Historic Preservation Office (SHPO) along with the permit applications. Cultural or archeological resources are not expected to be affected by this project.

b. The inventory of prehistoric, historic, and archeological sites must be submitted to the Director, and to SHPO who will coordinate with the NSB for review and comment. If a prehistoric, historic, or archeological site or area could be adversely affected by a lease activity, the Director, after consultation with SHPO and the NSB, will direct the lessee as to the course of action to take to avoid or minimize adverse effects.

A.6.b. Mitigation measure satisfied. The entire project area was examined for cultural resources and historical artifacts by Mr. Rick Reanier of Reaner & Associates, Inc. in August 2015. No cultural resource sites were found as a result of his survey.

c. If a site, structure, or object of prehistoric, historic, or archaeological significance is discovered during lease operations, the lessee must report the discovery to the Director as soon as possible. The lessee must make reasonable efforts to preserve and protect the discovered site, structure, or object from damage until the Director, after consultation with the SHPO and the NSB, has directed the lessee as to the course of action to take for its preservation.

A.6.c. Mitigation measure satisfied. No historic or cultural resources found. During construction, if a site, structure, or object of prehistoric, or archaeological significance is discovered, CPAI will report the discovery to the director as soon as possible and reasonable efforts will be made to preserve and protect the discovery until the director, after consultation with DPOR Office of History and Archeology and the NSB provide direction as to the course of action to take for its preservation.

7. Local Hire, Communication, and Training a. Lessees are encouraged to employ local and Alaska residents and contractors, to the A.7.a. Mitigation measure satisfied. CPAI is committed to continuing extent they are available and qualified, for work performed in the lease area. Lessees its partnership with local contractors and business in the construction shall submit, as part of the plan of operations, a proposal detailing the means by which of the KCS Pad Expansion project through competitive bid contracting the lessee will comply with the measure. The proposal must include a description of the opportunities. When reasonably foreseeable to do so CPAI is operator's plans for partnering with local communities to recruit, hire and train local and committed to hire and, where appropriate, to provide training to Alaska residents and contractors. The lessee is encouraged, in formulating this Kuukpik shareholders, Nuigsut residents and Alaska Natives. When proposal, to coordinate with employment and training services offered by the State of appropriate, local resident hire will continue to be coordinated through Alaska and local communities to train and recruit employees from local communities. the Kuukpik employment coordinator to identify and place qualified individuals interested in working on the project. In addition, CPAI and its contractors assist with scholarships, career training and internship opportunities to further expand local workforce capabilities and ensure that local residents are hired and retained as CPAI's employment requirements increase. b. A plan of operations application must describe the lessee's past and prospective A.7.b. Mitigation measure satisfied. See Project Description Section efforts to communicate with local communities and interested local community groups. 11.0 and A 7.a (above). c. A plan of operations application must include a training program for all personnel A.7.c. Mitigation measure satisfied. In addition to all North Slope including contractors and subcontractors. The program must be designed to inform each employees and contractors completing a minimum level of compliance person working on the project of environmental, social, and cultural concerns that relate training, which includes the specific activities or tasks an employee is to that person's job. The program must use methods to ensure that personnel assigned to perform, an unescorted training program, a general camp understand and use techniques necessary to preserve geological, archeological, and and safety orientation and a review of the North Slope Safety biological resources. In addition, the program must be designed to help personnel Handbook, training focusing on environmental excellence and cultural increase their sensitivity and understanding of community values, customs, and lifestyles awareness is required of all personnel working on the North Slope. in areas where they will be operating. 8. Definitions

Revised: March 2013

a. In this document:

- i. "Facilities" means any structure, equipment, or improvement to the surface, whether temporary or permanent, including, but not limited to, roads, pads, pits, pipelines, power lines, generators, utilities, airstrips, wells, compressors, drill rigs, camps and buildings;
- ii. "Important wetlands" means those wetlands that are of high value to fish, waterfowl, and shorebirds because of their unique characteristics or scarcity in the region or that have been determined to function at a high level using the hydrogeomorphic approach:
- iii. "Minimize" means to reduce adverse impacts to the smallest amount, extent, duration, size, or degree reasonable in light of the environmental, social, or economic costs of further reduction;
- iv. "Plan of operations" means a lease Plan of operations under 11 AAC 83.158 and a unit Plan of operations under 11 AAC 83.346;
- v. "Practicable" means feasible in light of overall project purposes after considering cost, existing technology, and logistics of compliance with the standard;
- vi. "Secondary containment" means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest independent container plus 12 inches of freeboard. Double walled tanks do not qualify as Secondary Containment unless an exception is granted for a particular tank.
- vii. "Temporary" means no more than 12 months.

A.8.a.vi "Secondary containment" – Mitigation Satisfied, no tanks as part of the project.

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Not Applicable

PROJECTED USE REQUIREMENTS: SUPPLEMENTAL SECTION				
Agency	Permit Type	Permit Number	Application Status	Projected Use Requirement(s)
USACE	Section 404	TBD	Pending	8, 10
U.S. Fish & Wildlife Service	Section 7 Consultation	-	Pending	6, 7, 8, 10
Alaska Dept. of Natural Resources	Cultural Clearance - SHPO	2015-01629	Approved	10
Alaska Dept. of Natural Resources	Temporary Water Use Authorization	A2011-66; A2012-32; LAS 23894	Approved	10
Alaska Dept. of Natural Resources	Material Sale Contract	ADL 420329	Approved	10
Alaska Dept. of Environmental Conservation	CWA Section 401 Certification	-	Pending	8, 10
Alaska Dept. of Environmental Conservation	APDES Kuparuk Storm Water Prevention Plan (SWPPP) Amendment	-	Pending	10
Alaska Dept. of Environmental Conservation	ODPCP Plan Amendment	-	Pending	10
North Slope Borough	IHLC Clearance	16-008	Approved	10
Enter Agency.	Enter Permit Type.	Enter Permit Number.	Enter Application Status.	Enter Projected Use Requirement(s).
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