

# **DRILLING WASTE MANAGEMENT PLAN**

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## **NORTH SLOPE COLVILLE RIVER UNIT**

### **CD-5 CONSTRUCTION & DEVELOPMENT PROGRAM**



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

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# PLAN OF EXPLORATION/OPERATIONAL OVERVIEW

## CD-5 SATELLITE DEVELOPMENT PROJECT

ConocoPhillips Alaska, Inc.

### 1.0 PROJECT DESCRIPTION

CPAI proposes to construct the CD5 drill site, an access road including a spur to a pipeline valve, pipelines, bridge abutment, communication equipment, and power cables for oil and gas production. The CD-5 drill site will be located in the Colville River Unit (CRU) and approximately 6 miles west/southwest of the existing Alpine Central Processing Facility (CD1) and 5 miles from CD4. Drilling wastes (i.e., muds and cuttings) will be disposed of through annular disposal on-site and/or transported to an approved Class II disposal well such as the Alpine disposal well at CD1.

This Drilling Waste Management Plan has been prepared in compliance with Title 18 Alaska Administrative Code (AAC) 60.430 to address temporary storage of drilling waste resulting from drilling that will begin in the second quarter of 2012 and will continue until all planned wells are completed, estimated 12 to 16 months.

### 1.2 Operator Information

The following list contains names, titles, and phone numbers of people responsible for conducting drilling activity:

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**Table 1: Contact List**

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Name	Title	Company	Phone	Mobile
Chip Alvord	Drilling Team Leader	CPAI - Anch	907.265.6120	907.244.5966
Tom Brodie	Senior Drilling Engineer	CPAI - Anch	907.265.6377	907.244.5684
Bruce St. Pierre	Sr. Environmental Coordinator	CPAI - Anch	907.265.6417	907.223.3648
Shellie Colegrove/ Christy McCollough	Environmental Compliance	CPAI - Kuparuk	907.670.4200	TBA

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## **2.0 DRILLING WASTE MANAGEMENT**

Drilling wastes (i.e., muds and cuttings) will be disposed of through annular disposal on-site and/or transported to an approved Class II disposal well such as the Alpine disposal well at CD1. Drill cuttings may be washed and reused. Reserve pits are not required. Well work waste materials will be managed according to the Alaska Waste Disposal and Reuse Guide. A temporary storage cell will be constructed for staging of muds and cuttings prior to disposal. Produced water will be processed and re-injected to the subsurface.

Sanitary wastes that may be generated from a temporary camp will either be disposed of through annular disposal on-site, hauled to the Alpine wastewater treatment system, or treated and discharged under the North Slope General NPDES Permit AKG-33-0000. Food waste will be incinerated at Alpine and non-burnables will be recycled or trucked to the NSB landfill at Deadhorse.

### **2.2 Description of Storage Facility**

Please see Section 7.0 in the Project Description and attached Figure Sheets that describe and illustrate the drill site layout. The proposed temporary drilling waste storage areas will be constructed on the CD-5 pad and will consist of wood timbers lined with a liner impermeable to drilling waste. The dimensions of each of the storage areas will be 100 feet (ft.) x 150 ft. x 3 ft. This gives a gross storage area volume of 45,000 cubic (cu.) ft. (1,667 cubic yards). Since there is a requirement of 2 feet of freeboard, the useable storage volume is 1/3 of gross or 15,000 cu. ft. (556 cu. yd.). The storage cells may be constructed with smaller dimensions and higher berms, as long as there is 2 feet of freeboard above the cuttings.

During winter operations ice berm containment areas may be used to hold frozen cuttings.

### **2.3 Inspection of Temporary Storage Facility**

The storage area for drilling waste will be periodically inspected to ensure compliance with 18 AAC 60.430 regulations. Field observations will be recorded to document that the cuttings and fluid are properly contained within the waste storage area. Observations regarding the integrity of the storage area will be recorded and any problems will be noted and reported to the drilling supervisor. Corrective action will be immediately implemented if any damage is observed.

### **2.4 Disposal of Produced Fluids**

Production tests will be performed as needed after production casing is set and cemented. Testing may include extended flow periods to determine the productivity of the well. Produced fluids will pass through an adequately sized separator system to prevent oil carryover into the gas stream. Oil from testing will be held in tanks until the testing is completed. After testing, the oil will either be injected back into the formation from which it was produced or hauled and

processed at Kuparuk or Alpine. Produced gas will be flared in accordance with ADEC air permit requirements.

### **2.5 Closure Plan Activities**

Upon completion of drilling and evaluation operations, all debris will be hauled to an approved disposal site.

## **3.0 Drilling Support**

Used drilling muds will be temporarily stored in heated tanks within secondary containment until an annulus is available for annular disposal. Cuttings will be temporarily stored within impermeable containment cells at each ice drill pad. Storage and disposals will comply with state and federal regulations and the North Slope Borough policies. Containment will be a minimum of 110 percent of the largest tank.

### **3.1 Liquid Storage**

Any liquids needed for the drilling project will be stored in containment with an impermeable liner.

### **3.2 Cuttings Processing**

The cuttings processing unit will include shakers that will separate the liquids and solids. This drilling waste liquid will be stored in tanks (heated when necessary), within secondary containment, until suitable annulus is available for annular disposal. Waste solids will be placed into containment cells, and then transported to the Alpine Central Processing Facility.