

# STATE OF ALASKA

SEAN PARNELL, GOVERNOR

## DEPT. OF ENVIRONMENTAL CONSERVATION

### DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

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File: # 300.38.153  
Certified Return Receipt

Article No: 7009 2820 0001 7169 6217

October 7, 2010

Sarah Kenshalo  
ConocoPhillips Alaska, Inc.  
P.O. Box 100360  
Anchorage, AK 99510-0360

Re: Record of Decision; ConocoPhillips DS 2A Diesel Spill  
Cleanup Complete -Institutional Controls Determination

Dear Ms. Kenshalo:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with ConocoPhillips DS 2A Diesel Spill located near Kuparuk, Alaska. Based on the information provided to date and the administrative record, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required as long as the site is in compliance with established institutional controls (ICs).

This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete with ICs determination.

#### **Introduction**

##### Site Name and Location

ConocoPhillips DS 2A Diesel Spill  
Near Kuparuk, Alaska

##### Name and Mailing Address of Contact Party:

Sarah Kenshalo  
ConocoPhillips Alaska, Inc.  
P.O. Box 100360  
Anchorage, AK 99510-0360



ADEC Site Identifiers:

Hazard ID #3976

CS file # 300.38.153

Regulatory authority under which the site is being cleaned up:

18 AAC 75

**Background**

A 1,200-gallon produced water spill consisting of approximately 90% water and 8% crude oil impacted the gravel pad at Drill Site 2A in April, 2002.

**Contaminants of Concern**

During the various investigations at this site, soil samples were analyzed for diesel range organics (DRO) and residual range organics (RRO). Based on the results of these investigations, the following contaminant of concern was identified:

- DRO

**Cleanup Levels**

The cleanup levels for petroleum hydrocarbon-contaminated soil on manmade gravel pads and roads in the Arctic Zone are established in 18 AAC 75.341 Method One, Table A2 and 18 AAC 75.341 Method Two Tables B1 and B2.

A number of factors are considered by ADEC when evaluating site specific cleanup levels in the Arctic Zone including:

- human health (ingestion/inhalation);
- ecological impacts (contamination impacting ecological species other than humans);
- groundwater and surface water quality;
- presence of free phase product; and
- any other factors that might cause a deleterious impact to the environment.

In the Arctic Zone, the migration to surface water pathway is evaluated as the primary migration pathway because the migration to groundwater pathway is not considered applicable due to the presence of continuous permafrost. Impacted surface water can adversely affect both human and ecological receptors, depending on the location of the contaminant source, its proximity to surface waters, and water usage in the impacted area. Therefore the migration to surface water pathway is evaluated as a possible risk to human health (drinking water source) and/or for compliance with Alaska Water Quality standards (18 AAC 70).

In addition, the migration to surface water is evaluated as a possible exposure pathway for ecological receptors because of the tundra wetland ecosystem that exists throughout the Arctic region. Potential future use of the property must also be taken into account when determining closure status. Differentiating between a "Cleanup Complete" and a "Cleanup Complete with Institutional Controls" determination will be based on site specific conditions and exposure pathways as determined by ADEC.

### Site Characterization and Cleanup

Spill response activities at the site included the removal and disposal of approximately 14 cubic yards (cy) of impacted snow and approximately 100 cy of contaminate gravel. Gravel excavation was limited as the spill impacted an area beneath the manifold module which could not be safely excavated. Confirmation samples collected following excavation activities contained DRO up to 15,300 mg/kg at the base of the excavation under the manifold module.

Delineation of the impacted area occurred in July 2002 when soil gas screening and additional analytical sampling was conducted. The results of the investigation indicated the contaminated area did not extend beyond the area already characterized and did not impact other areas of the pad.

### Pathway Evaluation

Following investigation and cleanup at the site, human health exposure to the remaining contaminants in soil was evaluated using ADEC's Exposure Tracking Model. The human health exposure pathways that were evaluated for this decision document included: inhalation of indoor and outdoor air; ingestion of soil; dermal contact with soil; and ingestion of surface water. A summary of this pathway evaluation is included in Table 1.

**Table 1 – Exposure Pathway Evaluation**

Pathway	Result	Explanation
Direct Contact with Surface Soil	Pathway Incomplete	Contaminated soil is not located at the surface.
Direct Contact with Sub-Surface Soil	De Minimis Exposure	The remaining contaminated soil is beneath a building at an active facility and is not accessible to receptors, and the risk is considered insignificant.
Inhalation-Outdoor Air	De Minimis Exposure	Clean fill above contaminated soil will mitigate exposure via this pathway and the area is frozen for much of the year.
Inhalation-Indoor Air	Pathway Incomplete	Buildings in this area are on pilings therefore are not subject to vapor intrusion from the subsurface. For future risk, clean fill above contaminated soil will mitigate exposure via this pathway and the area is frozen for much of the year.
Groundwater Ingestion	Pathway Incomplete	Shallow groundwater in the Arctic Zone is not available in sufficient quantity to be used as a drinking water resource.
Surface Water Ingestion	Pathway Incomplete	Surface water in the area is not used for drinking water purposes.

Wild Foods Ingestion	Pathway Incomplete	Wild foods are not collected in this area.
Exposure to Ecological Receptors	De Minimis Exposure	There are no complete exposure pathways to ecological receptors at the surface and remaining contamination is considered de minimis.

### **ADEC Decision**

The ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete- ICs determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore CPAI or their designate shall report to ADEC concurrent with the reporting schedule in the Rehabilitation Plan, or as soon as CPAI becomes aware of any change in land ownership or use, if earlier. **The report can be sent to the ADEC project manager or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov).**
2. The remaining contaminated soil beneath the Manifold Module must be removed once it becomes accessible.
3. Any proposal to transport soil or porewater off site requires ADEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

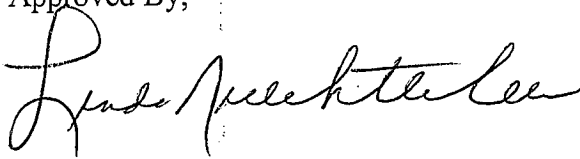
### **Appeal**

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision

under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

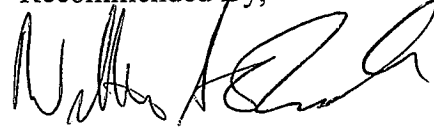
If you have questions about this closure decision, please contact ADEC Project Manager William O'Connell at (907) 269-3057.

Approved By,



Linda Nuechterlein  
Environmental Manager

Recommended By,



William O'Connell  
Environmental Program Specialist

CC: Gary Schulz, ADNR NRO

Attachment A: Cleanup Complete- ICs Agreement Signature Page

**Attachment A: Cleanup Complete-ICs Agreement and Signature Page\***

ConocoPhillips Alaska, Inc. (CPAI) agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this Record of Decision (ROD) document dated **October 7, 2010** for CPAI Delta State 2. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

\_\_\_\_\_  
Signature of Authorized Representative, Title  
ConocoPhillips Alaska, Inc.

\_\_\_\_\_  
Printed Name of Authorized Representative, Title  
ConocoPhillips Alaska,

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**For Internal Use Only**

**\*Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan and Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager so that the PM can update the CS database.

Site Figure

