

**United States Environmental Protection Agency
Region X
POLLUTION REPORT**

Date: Thursday, March 16, 2006

From: Carl Lautenberger

Subject: Progress Report

BP Alaska GC1-GC2 Transmission Pipeline Discharge

BP Explortion 900 E Benson Blvd, Deadhorse, AK

Latitude: 70.3074300

Longitude: -148.8157100

POLREP No.:	10	Site #:	AKOil012006
Reporting Period:	3/15-16/06	D.O. #:	
Start Date:	3/2/2006	Response Authority:	OPA
Mob Date:	3/2/2006	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#	E06005		

Site Description

The spill area adjacent to the pipeline has been delineated. It was calculated that 1.93 acres of tundra and frozen lake surface have been impacted. The aerial photo at left shows the status of snow removal operations on March 13.

Snow and frozen conditions allow for working on the tundra and minimize damage from people, equipment, and oil contamination. Snow berms originally containing the spill have been dismantled (no movement of contamination observed) to allow greater space for the vegetation trimming equipment.

The source of the spill was determined to be a one to two square inch hole in the pipeline at the 6 o'clock position, internal corrosion is the suspected cause of the hole but further investigation is ongoing.

GC2 remains shutdown, BP has applied freeze protection to approximately 230 wells and associated flow lines effected by the shutdown.

Weather: Mostly sunny with natibviksuq (Inupiat for drifting snow), itrifubaa (Inupiat for icy cold), lows about -20F, highs about -10F, anuqijqsuq (Inupiat for windy): east winds 10-20 mph with wind chills of -40F to -55F.

Current Activities

One START is on site (OSC Jeffrey Rodin returned to Seattle 3/15/06).

RESPONSE ACTION: Incident response priorities and objectives are

- Ensure all personnel are safe
- Mitigate potential of further release
- Continue containment of the spill
- Remove contamination from the area
- Manage and dispose of waste appropriately

The initial response tactics of recovery of free liquid oil by vacuum equipment and absorption of oil by snow later removed by tracked bobcat is nearly complete. Clean snow from uncontaminated layers was hauled into the spill site to facilitate further absorption of surface oil. Most areas of the spill site had 2-3 layers of snow hauled in and removed when visibly contaminated. Soils with dark contamination staining will continue to be covered with snow as long as absorption by snow is effective in these areas.

Priority efforts are vegetation trimming, removal of gravel from the caribou crossing, and melting of contaminated snow at the CC-2 pad.

The next step will primarily focus on trimming of contaminated vegetation according to the Tundra

Treatment Plan finalized on 3/15/06. Broom sweeping of the tundra has occurred on areas ready for vegetation trimming. Trimming began on 3/16/06. The Environmental Branch is working on developing a trimming protocol with ADEC. The first step of trimming after initial brooming will be trimming identified areas with the 72" trimmer to a depth of 3". The intention is to remove the upper layers of vegetation and refrain from damaging the root zone. After trimming with the large unit, the trimmed area will be swept by hand or broom attachment on a bobcat. Brooming will allow areas that remain oily to be identified - these are typically soft spots or depressions in the tundra. These remaining oiled areas will be flagged and later excavated by the small trimmer (40" wide), by backhoe or by hand shoveling. After an area has been trimmed and broomed, any unnecessary heavy equipment (other than brooming or secondary trimming) will be excluded from the clean area. The trimming operation will also be planned in a pattern and manner that will prevent equipment from traveling through dirty areas and across clean areas. The trimmed areas will be delineated by GPS to assure that areas are not missed in the event that blowing snow covers the site making visual identification of trimmed areas difficult. ADEC expects that they will receive a very high success rate in the removal of contamination from the tundra using the trimming method.

The caribou crossing gravel has been excavated to the bottom of the pipe elevation to allow examination of the pipeline. The upper culvert section at the leak site has been removed. Contaminated insulation was not located on the top and sides, however, oil has been found in the bottom of the culvert. Gravel beneath the culvert has also been found to be oiled, liquid oil has also been located. Lab analysis identified the flashpoint of the gravel contamination to be 121F. The gravel will continue to be hand-excavated and super-sucked, respiratory protection will be used as required due to VOC levels. The scaffolding and tenting installed at the caribou crossing remains in place. Veco is working on constructing safer walking access at this location. The line is being UT testing.

Two snow melters are on site. One began operations 3/16/06. The second unit will go on-line 3/17/06. A third unit is on standby. Thus far fluid has not been measured and transported off-site of the melting operations facility (CC-2).

ACS is beginning the process of identifying equipment for decontamination and demobilization.

A wildlife fence has been constructed around the spill site to exclude arctic fox.

A 24-hour cleanup operation is in effect. Day shift will continue to be staffed by 30-40 workers on site, and 10 staff will cover the night shift. Night operations are expected to decrease and may cease as the recovery operation continues - vegetation trimming can only occur during daylight hours.

Plans are under development to shift the response from a Incident Management Team to project response. The Unified Command has stood down, although agency representatives will remain on site and continue consultation as required. The current IAP covers operations through 3/17/06, 1900 hours. The next IAP is under development.

Planned Removal Actions

Vegetation trimming, according to the Tundra Treatment Plan dated 3/15/06 is the primary clean-up method at present. Trimming protocols will be finalized 3/17/06 pending approval by ADEC.

The second of the two snow melters is scheduled to begin operations on 3/17/06. A third melter is available to the effort if additional capacity is required.

A small area of the spill site might be flushed with water as a test of this method on arctic tundra in winter. ADEC has identified a portion of the site with favorable conditions for flushing (all water and contamination would drain to a small depression to contain fluids.)

The discovery of more contaminated gravel beneath the culvert was unanticipated in its extent. BP is researching additional storage facilities for the contaminated gravel. Operations expects that gravel excavation will continue throughout the weekend.

Next Steps

The Tundra Treatment Plan and Wildlife Interaction Plan for Near and Long Term have been approved by the FOSC, SOSC and LOSC. These plans will be modified if needed.

Alaska Clean Seas is identifying equipment for decontamination and demobilization. The Planning Section is working on a plan to transfer operations from a IMT response to a project. Night operations are decreasing and may end as the recovery progresses.

Regarding remediation of the tundra after the contamination recovery is completed, Charlie Hopson, President of the North Slope Borough Assembly proposed at the 3/16/06 evening briefing that re-sodding of the spill site with eroded tundra be considered as the preferred tundra remediation method, as opposed to reseeded. The process would involve collecting tundra eroded from river banks into the rivers during break-up. Ideal depth of the peat and vegetation mat of the tundra should be 6-12". These harvested pieces of tundra are then placed on the bare ground. This is the traditional method of recovering bare ground exposed for the construction of permafrost ice cellars and cemetery mounds. The LOSC's from the North Slope Borough (NSB) report that this method allows for the tundra to appear undisturbed within two summers. This method is favorable to the NSB because it prevents the introduction of exotic non-native seeds to the tundra and provides insulation to the bare ground, preventing melting of near-surface permafrost. It also provides an immediate appearance of recovery. The IC requested the Environmental Branch to follow up on obtaining approval for this tundra remediation method from appropriate agencies. The NSB will provide personnel to assist and guide BP staff in the re-sodding technique. ADEC and ADNRR have provided approval to use this technique as a test. Plans will be developed to identify areas within the spill site to sod, seed or use other methods. BP may use tundra sod that is already planned for removal from a pad to be constructed this summer, rather than harvesting tundra eroded into the rivers.

Key Issues

With extreme wind chill, ongoing site operations have been hampered for personnel safety reasons. Frostbite is a concern and BP is swapping crews frequently and is providing warm up shacks for workers. Spill site workers are restricted to 30 to 45 minute shifts depending on the wind chill.

At the Caribou Crossing, VOCs in the culvert have been detected at levels up to 7 ppm. Vapor and atmospheric monitoring in the tents and at super-sucking sites continues. Benzene has not been detected.

Disposition of Wastes

All waste is being handled according to the approved waste handling plan. Recovered fluids are transported offsite by vacuum trucks to Flow Station 2 (FS-2) and offloaded into a 10,000 barrel (bbl) tank. Soils in the caribou crossing area are being tested for contamination. Contaminated gravel is transported to a containment area on Drill Site 4 for subsequent testing and disposal. Contaminated snow and ice are being stockpiled at the CC-2A facility. A snow melter will be installed at CC-2A, and melted fluids will be taken to the FS-2 tank for measurement. Oiled debris (e.g., PPE) is being contained in a dumpster for subsequent offsite disposal.

Waste Stream	Quantity	Manifest #	Disposal Facility
Oil-contaminated snow (total quantity includes snow brought in from clean areas for additional oil absorption.)	5044 CY		CC-2A containment cell (for subsequent melting.)
Contaminated Gravel (from Caribou Crossing, site of leak)	326 CY		Drill Site 4 (DS-4) containment area
Free fluid (oil/water) recovery (**Note: Fluid recovery is continuing on site, however, updated quantity data is not available until fluid is transported from spill site to the disposal facility.)	1513 BBLS		Tank #1934 at Flow Station 2 (FS2) facility