

STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

SEAN PARNELL, GOVERNOR

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File: 200.38.005

August 2, 2010

Gerry McCully
McCully Trucking Ltd.
P.O. Box 1680
Dawson City, Yukon Territory, Canada
Y0B 1G0

Re: Decision Document; McCully Truck Rollover 32.1 Taylor Hwy.
Cleanup Complete Determination

Dear Mr. McCully:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the McCully Truck Rollover located at mile 32.1 of the Taylor Hwy. Based on the information provided to date, the DEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment, and this site will be closed.

This decision is based on the administrative record for the McCully Truck Rollover MP 32.1 Taylor Highway, which is located in the DEC offices in Fairbanks, Alaska. 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 Determination.

Introduction:

Site Name and Location:

McCully Truck Rollover MP 32.1 Taylor Highway
MP 32.1 Taylor Highway, approximately 32.5 Miles northeast of Tok
Tok, Alaska 99780
Section 22, Township 022 North, Range 06 East, Copper River Meridian.

Name and Mailing Address of Contact Party:

Gerry McCully
McCully Trucking Ltd.
P.O. Box 1680
Dawson City, Yukon Territory, Canada
Y0B 1G0

ADEC Site Identifiers:

ADEC Reckey: 2007330120901
File: 200.38.005

Hazard ID: 4585

Regulatory authority under which the site is being cleaned up:
18 AAC 75

Background

On July 28, 2007, 3,698 gallons of diesel fuel were spilled at Mile 32.1 Taylor Highway. The spill was caused by a tanker rollover into the east (uphill) ditch of the highway on the west slope of Mt. Fairplay. The tanker was owned and operated by McCully Contracting Ltd. McCully hired Nugget Construction to conduct the cleanup, who in turn subcontracted Shannon and Wilson, Inc. to provide field screening assistance. The fuel was reportedly being transported to Dawson City, Yukon Territory, for use in barges, and likely diesel #2 heating fuel (summer blend). The volume spilled was calculated after the remainder was offloaded from the wrecked tanker and metered. That volume was subtracted from the total volume hauled by the tanker. Soil and surface water samples were taken and tested for diesel range organics (DRO); and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The area where the release occurred has several feet of overburden underlain by fractured bedrock. Groundwater is estimated to be deep but actual depth is unknown. The nearest surface water body is a small creek located about 460 feet from the release site and surface water from the release point can flow into the creek during periods of runoff. The unnamed creek flows into the West Fork of the Dennison Fork of the South Fork of the Forty Mile River. The closest settlement is over twenty miles away.

Site Characterization and Cleanup Actions

Following the initial response actions, soil excavation of the ditch area was conducted on August 1 through 4, 2007. Nugget Construction excavated soil along 260 feet of the ditch, 2 to 4 feet deep and 4 to 14 feet in width. They excavated to the maximum feasible depth as the excavation was limited by the fractured bedrock encountered at 2 feet to 4 feet below the original ditch surface. They estimated 126 yards of contaminated material was removed, which they then screened to remove larger particles. The soil treatment facility (OIT Inc., Moose Creek, Alaska) reported 167.5 tons was delivered from the site and thermally treated. Soil samples collected from the ditch after the excavation was completed contained 8,650 to 14,000 mg/kg DRO. The soil transported off site ranged from 822 to 11,600 mg/kg DRO. Nugget also constructed an underflow dam at the southern end of the contaminated ditch area as a precaution against runoff potentially carrying contaminants downgrade to the creek.

In October 2007, Shannon & Wilson installed 13 soil borings along the ditch and in the road bed area. Due to the presence of fractured bedrock, the borings were completed between 2 to 9 feet below ground surface (bgs) though the original plan proposed installing 9 borings to 20 feet bgs. Soil samples were screened and 5 samples (with 1 duplicate) were collected. DRO was detected from 41.5 to 1,560 mg/kg with the highest concentration in the ditch area. Shannon & Wilson concluded that contamination migrated vertically with slight horizontal migration based on the geology of the site (i.e. fractured bedrock interspersed with fine soil particles).

In May 2008, Shannon & Wilson conducted a site visit and took surface water samples from the underflow dam effluent and from the nearby creek which crosses the road approximately 460 feet down gradient from the dam. There was a slight sheen on the water behind the dam but no sheen on the water leaving the dam or in the creek. Analytical results indicated that water leaving the

underflow dam contained BTEX that exceeded the total aromatic hydrocarbons (TAH) water quality standard of 10 ug/L by a few parts per billion. Polycyclic aromatic hydrocarbons (PAHs) were not analyzed at this time. The sample taken in the creek did not detect DRO or BTEX above practical quantitation limits (PQLs). Shannon and Wilson recommended a follow up visit in the spring of 2009 for further sampling and evaluation of the site.

Shannon & Wilson conducted another site visit in May 2009. The underflow dam at the end of the spill site had been partially washed out in the early spring of 2009 and was repaired. The ditch where the original spill took place did not retain any water but the dam had retained some water approximately one foot deep. Surface water samples were taken from behind the dam and from the creek. No sheen was detected behind the dam or on the creek. Analytical results showed no BTEX or PAH analytes were detected above their PQLs in either location and TAH/TAqH water quality criteria were not exceeded. The contaminated surface soils had previously been removed to a depth of 2 to 4 feet and backfilled with clean material. Based on this information, Shannon & Wilson determined that contamination above cleanup levels at the site is limited to subsurface soils in the location of the original release.

In the spring of 2010, the underflow dam was removed by an Alaska Department of Transportation and Public Facilities (ADOT&PF) road crew and the ditch contoured to allow proper drainage along the roadside. Any remaining absorbent boom material was removed.

Contaminants of Concern

During the investigations at this site, soil and surface water samples were analyzed for diesel range organics (DRO); BTEX; as well as polycyclic aromatic hydrocarbons (PAH). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Diesel Range Organics (DRO)
- BTEX

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
• Diesel Range Organics	250
• Benzene	0.025
• Toluene	6.5
• Ethylbenzene	6.9
• Total Xylenes	63

The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C Groundwater Cleanup Levels.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/L)</u>
• Diesel Range Organics	1.5
• Benzene	0.005
• Toluene	1.0
• Ethylbenzene	0.7
• Total Xylenes	10

Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil – Direct Contact	Pathway Incomplete	Contaminated surface soils removed.
Sub-Surface Soil – Direct Contact	De Minimis Exposure	Contamination remains in the subsurface, but is not likely to be contacted unless disturbed by excavation at the site.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination remains in the subsurface, but is well below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no buildings at the site and any remaining contamination is well below inhalation cleanup levels. Buildings are not expected to be built in the right-of-way in the future.
Groundwater Ingestion	De Minimis Exposure	Contamination remains in the subsurface soil above migration to groundwater cleanup levels, however groundwater is assumed to be very deep and the de minimis contamination is not likely to migrate to groundwater. The area is state property and the Department of Transportation and the Department of Natural Resources will be notified of contamination.
Surface Water Ingestion	De Minimis Exposure	No sheen was detected in the creek at any time and the sheen detected in the underflow dam initially was not seen in subsequent visits. Surface water analytic tests initially indicated TAH slightly exceeded surface water standards but subsequent tests indicate that contamination is no longer present in surface water. Recreational activity and use of surface water is unknown but considered unlikely due to the remote location of source water.
Wild Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants are located in the subsurface of a road right-of-way. Contaminants no longer appear to be migrating to surface water.

Notes to Table 1: “De-minimis exposure” means that in DEC’s judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. “Pathway incomplete” means that in DEC’s judgment contamination has no potential to contact receptors.

ADEC Decision

Contamination remains on site above established default cleanup levels; however DEC has determined there is no unacceptable risk to human health or the environment.

The cleanup actions to date have served to excavate and adequately remove contaminated surface soil from the site. Water quality (WQ) exceedances are no longer found in water runoff or in the creek. Based on the information available, DEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department's database.

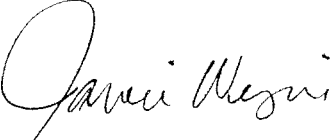
Although a Cleanup Complete determination has been granted, DEC approval is required for off-site soil disposal in accordance with 18 AAC 75.325(i). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

This determination is in accordance with 18 AAC 75.380(d) and does not preclude DEC 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.

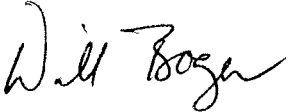
Appeal

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.

Approved By:

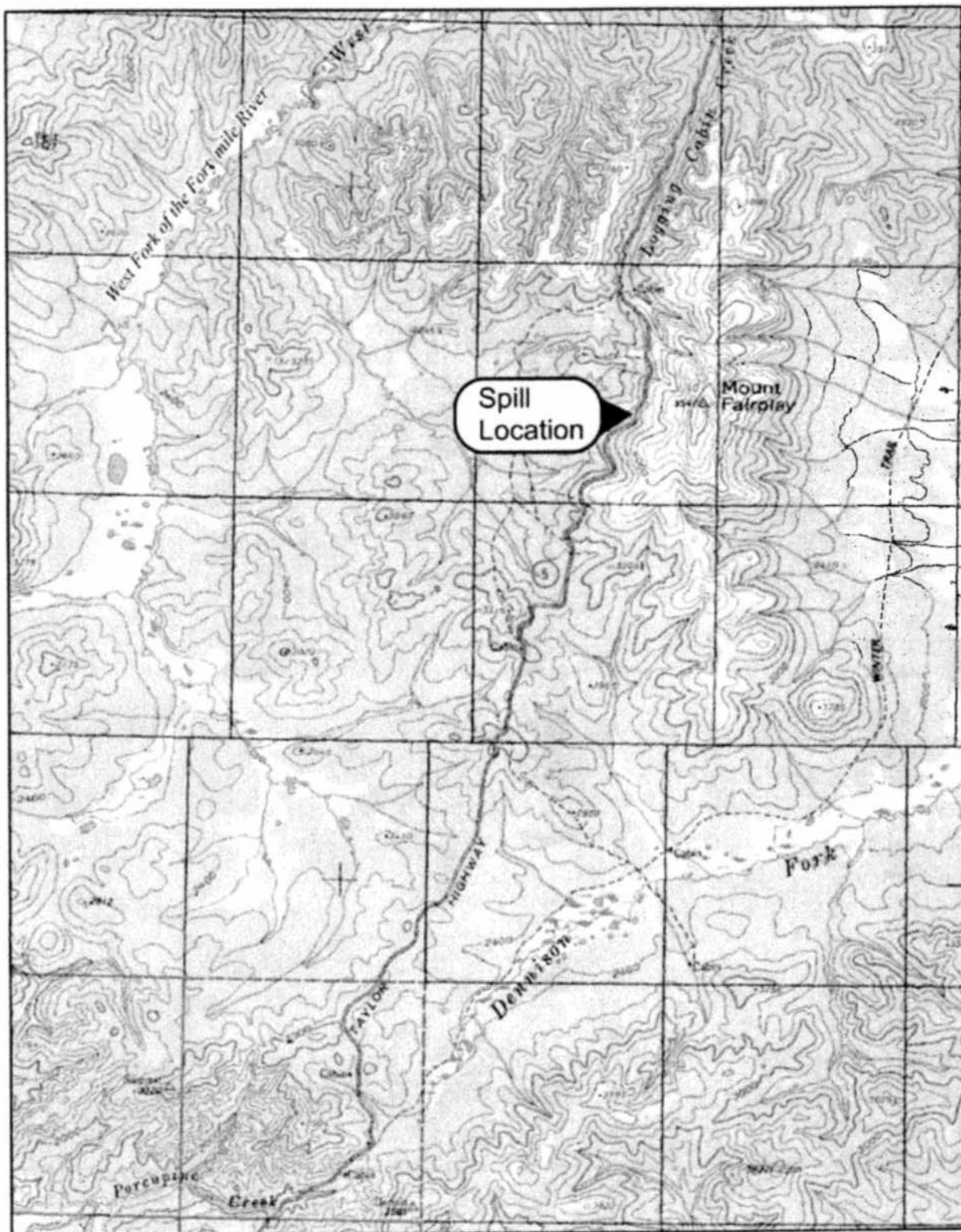

For Rich Sundet
Environmental Program Manager

Recommended By:

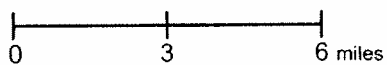

Will Boger
Environmental Program Specialist

Cc: Rodney Guritz, Shannon and Wilson
Ron Pruett, Alcan Adjusters
Sam Myers, ADOT
Chris Milles, ADNR

Enclosure: Site Map and Drawing showing spill location and remaining contamination



Map scale:



32 Mile Taylor Highway
Diesel Tanker Spill Site

SITE LOCATION

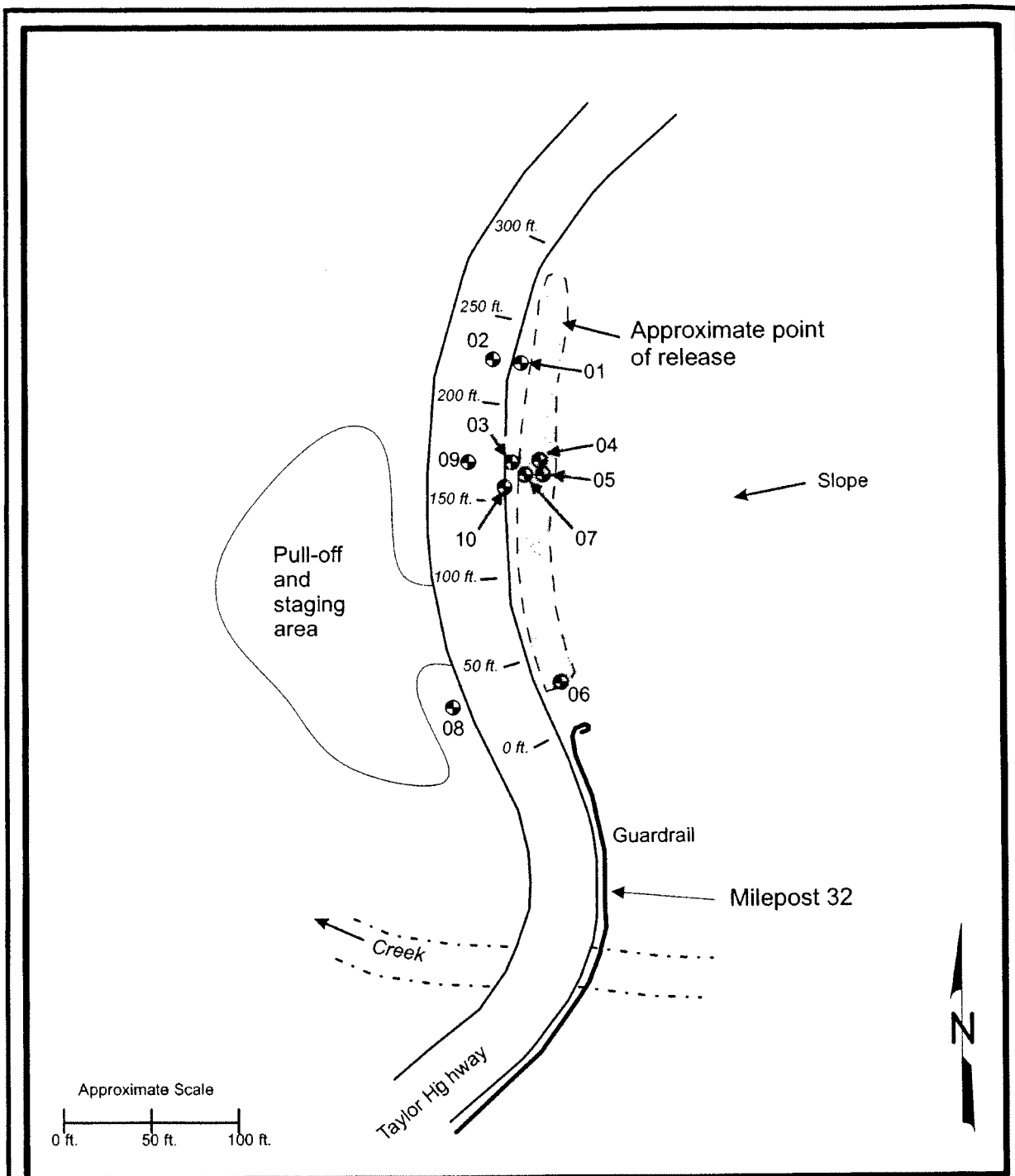
January 2008

31-1-11385-001



SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 1



Shaded drawing area indicates approximate subsurface area of contamination remaining at site.

● Soil-boring location with boring number

Notes: Offset borings (011, 061, 071) located within 3 feet of corresponding borings, and are not shown here

32 Mile Taylor Highway
Diesel Tanker Spill

SITE PLAN

January 2008

31-1-11385-001

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Figure 2