



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

**Department of  
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE  
Contaminated Sites Program

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File: 1513.26.080

February 14, 2018

Nathan McLellan  
Delta Western Incorporated  
P.O. Box 79018  
Seattle, WA 79018

Re: Decision Document: 10<sup>th</sup> Street Tesoro  
Cleanup Complete Determination – Institutional Controls

Dear Mr. McLellan:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the 10<sup>th</sup> Street Tesoro located at 920 West 10<sup>th</sup> Street in Juneau. Based on the information provided to date, 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 unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete with Institutional Controls (ICs) determination is based on the administrative record for the 10<sup>th</sup> Street Tesoro, which is located in the ADEC office in Juneau, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

**Site Name and Location:**

10<sup>th</sup> Street Tesoro  
920 West 10<sup>th</sup> Street  
Juneau, AK 99801

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

Nathan McLellan  
Delta Western Incorporated  
P.O. Box 79018  
Seattle, WA 79018

**DEC Site Identifiers:**

File No.: 1513.26.080  
Hazard ID.: 26549

**Regulatory Authority for Determination:**

18 AAC 78 and 18 AAC 75

### **Site Description and Background**

The 10<sup>th</sup> Street Tesoro gas station is located at 920 West 10<sup>th</sup> Street in the Federal Flats neighborhood of downtown Juneau. The gas station was built by Delta Western in 1987 and has a convenience store, vehicle maintenance shop, and six fuel dispensers. The gas station (ADEC UST Facility #63) has four regulated underground storage tanks (USTs) that hold gasoline and diesel fuel for fueling purposes.

During installation of containment sumps below each of the six fuel dispensers, petroleum contaminated soil was discovered beneath the dispensers and seven cubic yards of soil were excavated and containerized. Delta Western disposed of the soil as part of their regular disposal activities. The release was immediately reported to ADEC. Confirmation samples documented the presence of petroleum contamination above ADEC cleanup levels along the sidewalls and/or bottoms of the pits.

### **Contaminants of Concern**

During the site investigation and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for lead, diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Gasoline Range Organics (GRO)
- Diesel Range Organics (DRO)
- Benzene
- Ethylbenzene
- Xylenes
- Toluene
- 1-methylnaphthalene
- 2-methylnaphthalene
- Naphthalene

### **Cleanup Levels**

The most conservative cleanup levels for the over-40 inch precipitation zone documented in Tables B1 and B2 (Method 2) of 18 AAC 75.340 apply to this site.

**Table 1 – Approved Cleanup Levels**

Contaminant	Method Two Migration to Groundwater Soil (mg/kg)
GRO	260
DRO	230
Benzene	0.022
Ethylbenzene	0.13
Xylenes	1.5
Toluene	6.7
1-methylnaphthalene	0.41
2-methylnaphthalene	1.3
Naphthalene	0.038

mg/kg = milligrams per kilogram

**Characterization and Cleanup Activities**

The site was added to the ADEC Contaminated Sites database on April 20, 2016 following receipt of the Notice of Release of Petroleum, ADEC UST Facility #63. All site activities conformed to Title 18 AAC 78 Underground Storage Tanks. Following the Notice of Release of Petroleum, a Site Assessment/Release Investigation was required. This work is documented in the *Juneau 10<sup>th</sup> Street Tesoro Station: Site Assessment/Release Investigation Report* dated April 2016, prepared by ISM Technical Services on behalf of Delta Western Inc. During containment sump installations, petroleum contaminated soil was identified and characterization samples were collected from the base and/or sidewalls of the excavations. A photoionization detector (PID) was used to field screen the soils. Analytical laboratory samples were analyzed for GRO, DRO, RRO, and BTEX. A subset of samples was also analyzed for PAHs. The results of the analyses indicated that petroleum contamination above ADEC cleanup levels was present at excavation area samples S3-F, S4-F, S4-S, S3-S, S6-S, S6-F0, and S6-F. These sample locations correspond to fuel pumps 3, 4, and 6. Pumps 4 and 6 are located on the east side of the station and pump 3 is on the west side. Pump 4 was the most heavily contaminated having a DRO concentration of 14,000 mg/kg which was above the maximum allowable concentration (MAC) according to 18 AAC 75.340 Table B2. This sample came from the sidewall of the excavation which abutted the canopy support. Further excavation in this area may have compromised the structure. The DRO contamination at the other pumps was 3,300 mg/kg at pump 3 and 540 mg/kg at pump 6. Other contaminants of concern observed above ADEC cleanup levels were BTEX and naphthalenes.

Due to the exceedance of the MAC and the site characteristics which prevented further excavation, a second investigation was completed to evaluate whether groundwater on site was contaminated and/or if the remaining contamination was migrating off-site. This work was documented in the *Juneau 10<sup>th</sup> Street Tesoro Station: Monitoring Well Installation/Groundwater Monitoring Report*, dated September, 2016, prepared by ISM Technical Services on behalf of Delta Western Inc. The installation of two groundwater monitoring wells was completed in accordance with 18 AAC 78.200. Results from sampling of the groundwater monitoring wells indicated that the groundwater had not been contaminated due to gas station activities. All of the groundwater results for petroleum ranges, PAHs, and BTEX were non-detect. Lead was detected in the groundwater at concentrations below ADEC groundwater cleanup levels.

The boreholes completed as groundwater monitoring wells were field screened using a PID and six soils samples were collected and analyzed for lead, GRO, DRO, RRO, and BTEX. One soil sample was also analyzed for PAHs. Lead was also detected in all six of the soil samples collected, but was below ADEC cleanup levels. The lead concentrations were below ADEC cleanup levels and are likely artifacts of historic mine tailings in the area as opposed to the use of leaded gasoline. Some of the soil samples also had RRO at levels below ADEC cleanup levels. No other petroleum fractions, BTEX, or PAHs were detected. The results of these analyses and those submitted previously during the initial site assessment/release investigation report dated April 2016 indicate that petroleum contamination associated with gasoline station activities is limited to the gasoline station itself, has not affected groundwater on site, or migrated off site.

An additional excavation occurred in the fall of 2017. This work is documented in the *Juneau 10<sup>th</sup> Street Tesoro Station: Excavation of POL Soils Report*, dated December 2017, prepared by ISM Technical Services on behalf of Delta Western Inc. The report documented excavation of petroleum contaminated soil in excess of the MAC. ISM Technical Services mobilized to the site and cut a 4 by 4 foot square out of the concrete at soil boring S4. Contaminated soil was excavated using hand tools and was guided by a PID. Confirmation soil samples were collected from the base and sidewalls of the excavation and analyzed for GRO, DRO, RRO, lead, and BTEX. One sample was also analyzed for PAHs. The results were all below ADEC cleanup levels. The excavated soil was placed into two 35-gallon drums and disposed of by Delta Western as part of their regular disposal activities.

### **Cumulative Risk Evaluation**

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

### **Exposure Pathway Evaluation**

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC'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 2.

**Table 2 – Exposure Pathway Evaluation**

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contamination is below the concrete fueling island and is inaccessible. All contamination is below the Method Two human health cleanup levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination is below the concrete fueling island and is inaccessible. All contamination is below the Method Two human health cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Contamination remains in the sub-surface, but is not expected to result in vapor intrusion.
Groundwater Ingestion	Pathway Incomplete	The groundwater meets the 18 AAC 75.340 Table C cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Surface water was not affected by the contamination.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	The contamination is not expected to affect ecological receptors.

**Notes to Table 2:** “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors.

**ADEC Decision**

Petroleum contamination remains in sub-surface soil above levels suitable for unrestricted future use, however, the contamination remaining on site is below human health cleanup levels and the use of institutional controls to limit potential future exposure and risk to human health or the environment have been applied. A Notice of Environmental Contamination and Institutional Controls (NEC-IC) has been recorded in the land records maintained by the Alaska Department of Natural Resources and a copy is attached to this letter.

**Institutional controls** necessary to support this closure determination include:

1. The Landowner agrees to notify ADEC prior to any sale or transfer of the property and shall report to ADEC every five years to document the status of compliance with the institutional controls described in this notice. Such notice and the reports should be sent to the ADEC at:  
Alaska Department of Environmental Conservation  
Division of Spill Prevention and Response  
Contaminated Sites Program  
Attention: IC Unit  
P.O. Box 111800  
Juneau, AK 99811-1800  
or be submitted electronically to [CS.Submittals@alaska.gov](mailto:CS.Submittals@alaska.gov).

2. In the event that the remaining contaminated soil becomes accessible in the future due to the canopy and fueling island being removed, the land owner shall notify ADEC and characterize and, if determined necessary, cleanup the soil.
3. No drinking water wells may be drilled on site.
4. The property shall not be used for residential purposes including use for child day care, educational facilities, playgrounds, hospitals or similar facilities.

### **Standard Conditions**

5. Any proposal to transport soil or groundwater 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. (See attached site figure.)
6. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
7. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

ADEC has determined the cleanup is complete as long as the institutional controls are properly implemented and no new information becomes available that indicates residual contamination may pose an unacceptable risk.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status to “Cleanup Complete with Institutional Controls” and will include a description of the contamination remaining at the site.

The institutional controls will be removed in the future if documentation is provided that shows concentrations of all residual hazardous substances remaining at the site are below the levels that allow for unrestricted exposure to, and use of, the contaminated media and that the site does not pose a potential unacceptable risk to human health, safety or welfare, or to the environment. Standard conditions 9-11 above will remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if the institutional controls are determined to be ineffective or if new information indicates that contaminants at 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, 555 Cordova Street,

Anchorage, Alaska 99501-2617, 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, P.O. Box 111800, Juneau, Alaska 99811-1800, 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 feel free to contact me at (907) 465-5207, or email at [danielle.duncan@alaska.gov](mailto:danielle.duncan@alaska.gov).

Sincerely,



Danielle Duncan  
Project Manager

Enclosures: Recorded NEC-IC Agreement which includes a site figure showing the location of residual soil contamination.

cc: Spill Prevention and Response, Cost Recovery Unit

