THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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File: 102.26.010

September 18, 2012

Anastasia E. Duarte
Retail Environmental Remediation Administrator
Tesoro Refining and Marketing Company
2450 South 344th Way, Suite 201
Auburn, WA 98001-5931

Re: ADEC Decision Document; Tesoro Northstore #105
Corrective Action Complete Determination

Dear Ms. Duarte:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Tesoro Northstore #105 located at 1246 Noble Street, Fairbanks, Alaska. 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 at this time.

Our determination is based on the administrative record for the Tesoro Northstore #105 which is located in the offices of the ADEC in Soldotna, 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 this Corrective Action Complete Determination.

Introduction

Site Name and Location:
Tesoro Northstore #105
1246 Noble Street
Fairbanks, Alaska 99701

Name and Mailing Address of Contact Party:
Anastasia E. Duarte
Retail Environmental Remediation Administrator
Tesoro Refining and Marketing Company
3450 South 344th Way, Suite 201
Auburn, WA 98001-5931

Current Property Owner and Legal Description:
Amie and Matthew Greer

See attached EXHIBIT "A" for the property legal description. The said property is commonly known as Lot 7, Kolde Homestead, located in the Fairbanks Recording District, Fourth Judicial District, State of Alaska.

ADEC Site Identifiers:

File No.:	102.26.010
Hazard ID No.:	24161
Reckey No.:	1989310029203

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 78

Background

Underground fuel storage tank systems (USTs) were installed at this property in 1968. These systems consisted of two 8,000-gallon gasoline, one 6,000-gallon diesel and one 500-gallon waste oil tank, two dispenser islands with a canopy, and associated piping. The property was used as a retail fuel sales station until September of 1989, when the retail fuel sales station was closed. Petroleum impacted soil and groundwater were encountered during the UST removals in September of 1989. Soil and groundwater samples collected at this site have been tested for: diesel range organics (DRO); gasoline range organics (GRO); benzene, toluene, ethylbenzene and xylenes (BTEX); polycyclic aromatic hydrocarbons (PAH's); and lead.

The property is currently used as a restaurant and espresso stand, with an associated asphalt pavement parking lot. This property is connected to the local public water and sewer service. A water well search was performed, and the two drinking water wells initially reported approximately 1200 feet away from this site were determined to no longer have any drinking water wells. These two properties are now serviced with drinking water by the local Fairbanks public utility system.

A more detailed history of this site is contained within ADEC's project file for this site, which is available for public review.

Site Characterization and Cleanup Activities

In September of 1989 two 8,000-gallon gasoline, one 6,000-gallon diesel underground fuel storage tanks, and two dispenser fueling islands were removed. The excavated soil was stockpiled on site and covered for future remedial/corrective actions. Confirmation soil samples were collected from the sidewalls of the tank removal excavation (9 feet below ground surface) with maximum soil contaminant concentrations of GRO at 145 mg/kg, toluene at 14 mg/kg, ethylbenzene at 4.0 mg/kg, and xylenes at 42 mg/kg. Due to the approach of winter, the excavation and stockpile were covered for future corrective action.

In September and October of 1990 additional excavation of contaminated soil and the removal of the product piping and a 500-gallon waste oil tank was conducted. Approximately 1,600 cubic yards of contaminated soil were transported off-site to a storage and treatment cell at another Tesoro site (Interior Fuels Company) for remediation. Soil contamination was discovered at 6 to 14 feet below ground surface within the depths of the USTs excavation limits with benzene at 0.03 mg/kg to 4.90 mg/kg. Total Petroleum Hydrocarbons was discovered at 0.5 to 9 feet below ground surface within the waste oil tank and vent line excavation at concentrations from 41 mg/kg to 2,160 mg/kg. Groundwater contamination was encountered in the UST excavation with benzene detected at 0.46 mg/L. Following these release investigation activities, a subsurface infiltration gallery was constructed at the base of the excavation for use in future remediation efforts.

In February of 1991 three groundwater monitoring wells were installed to evaluate the extent of groundwater contamination. Benzene contamination was detected in soil at 15 to 16.5 feet below ground surface at 0.05 mg/kg, and in groundwater at 0.067 mg/L to 3.2 mg/L. Ethylbenzene and toluene was also detected in groundwater at 1.6 mg/L and 17.0 mg/L, respectively.

In May of 1991 a groundwater monitoring well was installed in the area of the former 500-gallon waste oil tank with benzene detected in groundwater at 0.059 mg/L.

In October of 1991 three off-site groundwater monitoring wells were installed to further define the extent of soil and groundwater contamination. Soil samples collected did not contain contaminants exceeding ADEC cleanup levels. Benzene was detected in one of the groundwater monitoring wells at 0.020 mg/L.

In September of 2001 an in-well vapor stripping and circulation system was installed to further enhance the remediation efforts of the subsurface soil and groundwater contamination. Benzene was detected in soil at 0.0448 mg/kg at 14 feet below ground surface.

In March of 2004 following the corrective actions performed at the site, one (1) confirmation soil boring was advanced on the western property boundary to define the remaining soil contaminant concentrations. Soil samples collected from 16 feet below ground surface did not detect any soil contamination.

Remediation techniques have been performed at the site since 1991 using a subsurface infiltration gallery via two soil vapor extraction (SVE) wells with the injection of a PES-31 solution, which targeted the areas south of the former retail building and the former UST excavation. Various applications of PES-31 were conducted from 1991 through 2000. In September of 2001 two vapor stripping and circulation wells (VSC) wells were installed west of the former USTs. In 2011 the operation of the VSC and SVE treatment systems were terminated to prepare for a rebound test to be completed in the second quarter of 2012. Groundwater samples were then collected in May of 2012. Benzene was detected at 0.00667 mg/L in a monitoring well located in the area of the former USTs excavation.

Following the completion of remedial action performed at this site from 1997 to 2011, residual soil contamination remained in the subsurface soil exceeding the ADEC's Method Two 'Migration to Groundwater' soil cleanup levels at depths exceeding 12 feet below ground surface.

Groundwater concentrations have consistently tested below the groundwater cleanup levels since 2010; with the exception that one groundwater sample collected in May of 2012 had a reported benzene concentration of 0.00667 mg/L. The affected groundwater is not currently used as a drinking water source, and the site is serviced by the local public water and sewer systems.

Contaminants of Concern

During the investigations at this site, soil and water samples were analyzed for diesel range organics (DRO); gasoline range organics (GRO); benzene, toluene, ethylbenzene, and xylenes (BTEX); polycyclic aromatic hydrocarbons (PAH's); and lead. Following the completion of the cleanup measures employed at this site, residual concentrations of the following Contaminants of Concern remained at this site in subsurface soil and or groundwater in excess of the ADEC Cleanup Levels:

- Benzene

Cleanup Levels

The default **soil** cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B1 and B2 Under 40 inch Zone, Migration to Groundwater.

Contaminant	Soil Cleanup Level (mg/kg)
• Benzene	0.025

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

Contaminant	Groundwater Cleanup Level (mg/L)
• Benzene	0.005

Pathway Evaluation

Following investigation and cleanup at the site, exposures to the remaining contaminants were 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 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-minimis Exposure	The contaminated surface soil was predominantly excavated and transported off site. The residual soil contaminant concentrations do not exceed ADEC soil cleanup levels for human exposure.
Sub-Surface Soil Contact	De-minimis Exposure	The residual soil contaminant concentrations do not exceed ADEC soil cleanup levels for human exposure.
Inhalation – Outdoor Air	De-minimis Exposure	The residual soil contaminant concentrations do not exceed ADEC outdoor air soil cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-minimis Exposure	There is currently one building located on the property. Based on the minimal mass of remaining contamination, indoor air quality is unlikely to be affected.
Groundwater Ingestion	De-minimis Exposure	Residual groundwater contamination is restricted to this property. Local public sewer and water service lines are connected to this property.
Surface Water Ingestion	Pathway Incomplete	Near surface contamination has been removed through excavation, and no surface waters are located within the potential area of impact from this site.
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	The residual sub-surface contamination has no potential to contact ecological receptors.

Notes to Table 1: "De-minimis Exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal mass of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors.

ADEC Decision

The cleanup actions to date have served to adequately remove contaminated soil from this site, and to reduce soil and groundwater contaminant concentrations. Contamination remains on site above established default soil and groundwater cleanup levels; however ADEC has determined there is no unacceptable risk to human health or the environment. Therefore, we are issuing this Corrective Action Complete determination, subject to the following conditions:

1. The most current soil sample analytical data from this site detected benzene contamination exceeding the applicable soil cleanup levels, in the area of the former underground storage tanks, located within the southern portion of the property boundaries. This area is identified on the MWH Figure 1, **SITE PLAN WITH AREA OF CONCERN** (See attachment). Any proposal to excavate, transport, move, treat, and/or dispose of residual contaminated soil in this area at this "site" requires prior ADEC approval. This is consistent with the requirements of 18 AAC 78.274(b), and 18 AAC 78.600(h). 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.

2. Public water service is currently provided to this property. Water wells may not be installed on this property without the prior notification, and approval, of ADEC.

3. All groundwater monitoring wells, treatment wells, and subsurface treatment piping associated with this project must now be properly decommissioned in accordance with ADEC's November 2011 Monitoring Well Guidance. Tesoro Refining and Marketing Company must now prepare and provide ADEC with a work plan which identifies proposed decommissioning procedures for ADEC review and approval, prior to implementation of those procedures. Decommissioning work should be completed when frost is not present in the soil. The decommissioning of these wells and any subsurface treatment piping must be documented in a written report submitted to ADEC. This work must be performed or directly supervised by a 'qualified person', as defined in 18 AAC 78.995(118), and the report must be signed by a qualified person.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status to 'Cleanup Complete', and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 78.276(f) 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. The Tesoro Refining and Marketing Company remains liable for any additional assessment and/or cleanup action, should ADEC impose such a requirement.

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.

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 ADEC Decision Document, or any other aspect of this project, please contact me at (907) 262-3422, or via e-mail at paul.horwath@alaska.gov

Sincerely,

Paul Horwath

Paul Horwath, PE
Engineer I, DEC

Attachments: MWH Figure 1, **SITE PLAN WITH AREA OF CONCERN**
EXHIBIT "A" – Property Legal Description

Cc: Amie and Matthew Greet, Property Owners, Fairbanks
Robert Gilfilian, P.E., MWH, Anchorage
Michael Zidek, MWH, Anchorage