THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, AK 99709-3643
Phone: 907-451-2143
Fax: 907-451-2155
www.dec.alaska.gov

File: 2100.26.112

March 25, 2021

Chevron Environmental Management Company
ATTN: Susan Erickson
6001 Bollinger Canyon Road
San Ramon, CA 94583

Re: Decision Document: Unocal - #5580 (former), Cline's Tesoro
Cleanup Complete Determination

Dear Ms. Erickson:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Unocal - #5580 (former), Cline's Tesoro located at 442 Gambell Street, Anchorage. 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 determination is based on the administrative record for the Unocal - #5580 (former), Cline's Tesoro, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
Unocal - #5580 (former), Cline's Tesoro
442 Gambell Street
Anchorage, AK 99501

Name and Mailing Address of Contact Party:
Susan Erickson
Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583

ADEC Site Identifiers:
File No.: 2100.26.112
Hazard ID.: 23368

Regulatory Authority for Determination:
18 AAC 78 and 18 AAC 75

Site Description and Background
In July 1966, Unocal completed construction of a three-bay station with two hoists and three pump islands at the 442 Gambell Street property. Site facilities have also included two 8,000-gallon unleaded gasoline underground storage tanks (USTs), one 4,000-gallon diesel UST on the south side of the station building, one 500-gallon used oil UST, and one 280-gallon waste oil tank that was formerly located on the west side of the gasoline USTs.

In 1967, Unocal sold the site and facilities to Scarteen Corporation, who continued to lease to Unocal. In 1983 a new double post hoist was installed to replace the original hoist and the underground piping was replaced with coated steel pipe. In June 1986, Unocal reacquired the property and later that year they conducted a subsurface investigation at the site. Contamination was first identified during this site investigation, which included the installation of four monitoring wells and the collection of analytical soil and groundwater samples. Total petroleum hydrocarbons were detected in groundwater up to 5.7 milligrams per liter (mg/L) and benzene and total xylene concentrations exceeded current groundwater cleanup levels at one of the four monitoring well locations. In January 1987, the property transferred from Unocal to Richard Cline, the current property owner, and Unocal approved the replacement of the product tanks as a condition of the exchange. Confirmation samples collected following the removal of two 8,000-gallon unleaded gasoline tanks, one 4,000-gallon diesel tank, and one 500-gallon waste oil tank identified petroleum contamination above cleanup levels, which was reported to ADEC on March 6, 1987.

The site is currently a Tesoro branded service station comprised of a station building, office trailer, one three-chamber UST, product dispensers and piping.

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

- DRO
- GRO
- Benzene
- Toluene
- Ethylbenzene
- Xylenes
- Naphthalene
- Tetrachloroethylene

Cleanup Levels
Concentrations of DRO, GRO, BTEX, naphthalene, and tetrachloroethylene have been detected above the most stringent cleanup levels established for soil in 18 AAC 75.341(c), Table B1 and 18 AAC 75.341(d), Table B2. DRO, GRO, and BTEX have been detected about groundwater cleanup levels established in 18 AAC 75.345, Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/L)
DRO	250	1500
GRO	300	2200
Benzene	0.022	4.6
Toluene	6.7	1100
Ethylbenzene	0.13	15
Xylenes	1.5	190
Naphthalene	0.038	1.7
Tetrachloroethylene	0.19	41

mg/kg = milligrams per kilogram
µg/L = micrograms per liter

Characterization and Cleanup Activities
Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began following the identification of hydrocarbon contamination. These activities are described below.

Groundwater monitoring began in 1986 following the installation of monitoring wells MW-1, MW-2, MW-3, and MW-4. Initial groundwater results indicated total petroleum hydrocarbon, benzene, toluene, ethylbenzene, and total xylenes were present up to 5.7 mg/L, 0.071 mg/L, 0.236 mg/L, 0.0077 mg/L and 1.159 mg/L, respectively. In May 1997 an additional three soil borings were advanced and converted to monitoring wells MW-5, MW-6, and MW-7 to further characterize the extent of contamination present at the site. Soil samples collected during this event detected benzene, ethylbenzene, and total xylenes at concentrations above cleanup levels in 3 of the 7 samples, ranging from 12.5 to 34.5 feet below ground surface (bgs).

Additional site characterization and cleanup was conducted in 1998 which included the removal of two 8,000-gallon unleaded gasoline USTs, one 4,000-gallon diesel UST, one 500-gallon waste oil UST, three pump islands, and approximately 150 linear feet of piping. In addition to the system removal, 716.90 tons of contaminated soil was removed from the site and transported to Alaska Soil Recycling (ASR). Confirmation soil samples collected following this excavation reported DRO (up to 8,500 mg/kg), GRO (12,000 mg/kg), benzene (81 mg/kg), toluene (840 mg/kg), ethylbenzene (210 mg/kg), total xylenes **(**2,600 mg/kg), and tetrachloroethylene (0.920 mg/kg) above cleanup levels. Chromium and arsenic were also detected, but were determined to

be within normal ranges for background metals and are not considered contaminants of concern at this site.

In 2005 MW-4 was abandoned and an additional monitoring well, MW-8, was installed north of the former dispenser islands. Analytical soil samples were collected at 30 and 40 feet bgs from the soil boring for MW-8, all results were below cleanup levels at this location.

Additional soil and groundwater characterization was completed in 2010 through the advancement of soil borings CB10-1, CB10-2, CB10-3, CB10-4, CB10-5, and CB10-6 at former sample locations C-1, C-4, C-7, C-45, C-46, and C-48 to evaluate contaminant attenuation at locations with previous cleanup level exceedances. These samples were analyzed for GRO, DRO, RRO, VOCs, PAHs, and PCBs. Analytical results indicated that all analytes met cleanup levels with the exception of benzene which was detected up to an estimated concentration of 0.028 mg/kg at 12 feet bgs in soil boring C-1; the soil sample collected deeper at 15 feet bgs in the same soil boring did not detect benzene above the detection limit of 0.023 mg/kg. The soil boring located at C-1 (CB10-4) was converted into monitoring well MW-9.

In 2011, two shallow soil borings, HA-1 and HA-2, were advanced to 3 feet bgs and sampled to delineate shallow soil impacts near the northeast dispenser island and southern dispenser island. All sample results were below cleanup levels.

In 2014 four additional soil borings B-1, B-2, B-3, and B-4 were advanced and samples were analyzed for DRO, BTEX, and PAHs. All results were below cleanup levels with the exception of naphthalene (0.13 mg/kg), benzene (0.34 mg/kg), ethylbenzene (0.52 mg/kg), and total xylenes (5.7 mg/kg) concentrations that exceeded migration to groundwater cleanup levels at a depth of 32 feet bgs at sample location B-4.

In May 2018, three angled soil borings were advanced to assess current contaminant concentrations in soil where contamination remained over cleanup levels during previous sampling events, but were now located beneath site infrastructure. Sample B18-1 was advanced to assess conditions near the southern dispenser islands that originally exceeded cleanup levels in 1998 at sample locations C14 and C15, and remained above cleanup levels when the area was resampled in 2014 at B-1. Angle borings B18-2 and B18-3 were advanced beneath the station's office to confirm exceedances observed beneath the waste oil tank that exceeded cleanup levels in the 1997 sample MW-5 and 1998 samples C20 and C21 that remained above cleanup levels in the 2014 confirmation sample B-4. Samples were analyzed for DRO, full VOCs, and PAHs and all results were below the most stringent cleanup levels.

According to recent groundwater sampling events, all analytical groundwater sample results are below Table C groundwater cleanup levels. In 2020 site characterization and remediation activities were concluded with the decommissioning of remaining site monitoring wells MW-1, MW-2, MW-3, MW-8, and MW-9.

Cumulative Risk Evaluation
Pursuant to 18 AAC 78.600(d), 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, Exposure Controlled, 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	Contaminant concentrations are below the most stringent cleanup levels in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De Minimis Exposure	Contaminant concentrations are below the most stringent cleanup levels in the sub-surface soils.
Inhalation – Outdoor Air	De Minimis Exposure	Contaminant concentrations are below the most stringent cleanup levels in soil and groundwater throughout the site.
Inhalation – Indoor Air (vapor intrusion)	De Minimis Exposure	Contaminant concentrations are below the most stringent cleanup levels in soil and groundwater throughout the site.
Groundwater Ingestion	De Minimis Exposure	Contaminant concentrations are below groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Contaminant concentrations in soil and groundwater are below the most stringent cleanup levels and are not expected to migrate to surface water.
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	All contaminant concentrations are below the most stringent cleanup levels and are not expected to impact 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
Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

2. 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.

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 contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to 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 20 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 contact me at (907) 451-2144, or by email at rebekah.reams@alaska.gov.

Sincerely,

Digitally signed by Rebekah Reams
Date: 2021.03.25 13:44:31 -08'00'

Rebekah Reams
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit
Robert Burgess, ADEC
Max Elias, ARCADIS
Richard Cline