STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 1508.26.006

June 27, 2012

Ms. Mary Jean Sebens
Mountain Corporation
P.O. Box 863
Haines, Alaska 99827

Re: Decision Document; Mountain Market (formerly K&J Auto)
Corrective Action Complete Determination

Dear Ms. Sebens:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with Mountain Market (formerly K&J Auto) located on Third Avenue in Haines. 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 Mountain Market (formerly K&J Auto) Contaminated Site administrative record, which is located in the offices of the Alaska Department of Environmental Conservation (DEC) in Juneau, 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 Corrective Action Complete Determination.

Site Name and Location
Mountain Market (formerly K&J Auto)
Mountain Corporation
Corner of Haines Hwy and Third Ave

Lots 9, 10 & 11, Block 6, Mission Subdivision
Haines, Alaska

Address of Contact Party
Ms. Mary Jean Sebens
P.O. Box 863
Haines, Alaska 99827

DEC Site Identifiers
Hazard ID 24544
File: 1508.26.006
Database reckey 1995110029801

Regulatory Authority
Title 18 Alaska Administrative Code 78

Site Background

The Mountain Market site is located on the corner of Haines Highway Cutoff and Third Avenue. The site was operated by K&J Auto as a service station from the 1950s to the 1990s selling both gasoline and diesel fuel. The fuels were stored in underground storage tanks (USTs) located in the southeast corner of the property. K&J Auto did not register the tanks with the DEC UST Program. After purchasing the property from K&J Auto in 1991, the Mountain Corporation (MC) dismantled the fuel dispensers and emptied all fuel from the buried tanks. MC employed Smith Bayliss LeResche Inc (SBL) to register the tanks with the DEC UST Program and perform a Site Assessment of all the UST systems on the property.

Historical Site Assessment and Cleanup Actions

Soil

In July of 1991, SBL excavated test pits to investigate the Mountain Market property for petroleum release. SBL reported finding imported gravel overlying a native silt-clay layer of glacial till that appeared in all test pits at depths ranging from six to eight feet below grade. SBL observed pockets of subsurface water with occasional patches of sheen but no petroleum free product. Laboratory analysis of soil samples collected from the test pits detected gasoline (GRO) and diesel (DRO) range hydrocarbons and benzene, ethylbenzene, toluene, and xylenes (BTEX) hydrocarbon compounds above regulatory levels. In August of 1991, SBL filed the necessary forms notifying DEC of the petroleum release and that the five USTs at the site would be closed by removal in the next year. In April of 1992, SBL excavated, cleaned and disposed of the USTs and piping off-site. The greatest levels of soil contamination in the UST Site Assessment and Release Investigation detected 3,500 mg/kg GRO, 1,200 mg/kg DRO, 25 mg/kg benzene, 230 mg/kg toluene, 46 mg/kg ethylbenzene, and 275 mg/kg total xylenes. GRO, DRO and BTEX were established as Contaminants of Concern (COCs) for subsequent Release Investigation and UST Corrective Action at the site.

In 1992, the UST Corrective Action Plan (CAP) to remove all contaminated soil above the glacial till layer on the property was completed but due to pavement and a power line utility corridor on the Mountain Market side of Third Avenue, contamination extending under the road could not be excavated. The highest level of contamination detected in soil remaining at the site after the CAP removal was in sample 11 UST-S-N collected at a depth of seven feet below grade at the edge of Third Avenue in the southeast corner of the property. A volume of 1,700 cubic yards of contaminated soil was transported off site and subsequently remediated to the satisfaction of the DEC. The COC levels in soil sample 11 UST-S-N are

displayed in Table1; bold print signifies concentrations that exceed regulatory levels.

Hydrocarbon range and compound COCs	Highest levels in milligram per kilogram (mg/kg)	Migration to Groundwater cleanup level in mg/kg
GRO	**9,200**	260
DRO	**700**	230
Benzene	**21**	0.025
Toluene	**420**	6.5
Ethylbenzene	**120**	36.9
Total Xylenes	**590**	63

Table1: Highest COC levels in 1992 soil confirmation sample 11 UST-S-N

In 2001, Carson Dorn Inc (CDI) collected subsurface soil samples from borings on the Mountain Market property, on the Third Avenue roadbed and on Lot 11, Block D, Mission Street Subdivision, an undeveloped property owned by Mike Ward (Ward Property). In the subsequent 2002 Report by CDI, the highest levels detected in soil samples were 2200 mg/kg GRO, 270 mg/kg DRO, 12 mg/kg benzene, 34 mg/kg ethylbenzene, 6.5 mg/kg toluene, and 130 mg/kg total xylenes at a depth of?. Soil contamination was greatest in the southeast corner on the Mountain Market site and on the boundary line between the Ward Property and the Third Avenue right of way (ROW). Figure 1 from the 2002 CDI Report displaying the layout of borings and monitor wells with the associated data is included in this letter as Attachment B.

In March 2003, DEC approved a *Remedial Action Plan* (RAP) prepared by CH2M Hill (Hill) for the Mountain Market site. Actions proposed in the RAP included: 1) creation of a workplan; 2) excavate and dispose of the remaining contaminated soil located in Third Avenue and the Ward Property across the street; 3) installation and monitoring of groundwater wells; and 4) creation of a final report and long-term monitoring plan. In May, 2003, the DEC and Hill modified the RAP to install an air-sparging system. Piping for the system was installed between the former UST sites and the Third Avenue roadbed.

On July 1, 2003, Hill began excavating contaminated soil from the Ward Property, which is located east of the site across Third Avenue. Hill encountered a native silt-clay till layer on grade with the adjacent roadside drainage ditch along Third Avenue. Hill identified and excavated contaminated soil extending into the upper two to six inches of the till from the Ward Property. An estimated 60-cubic yard volume of material was excavated, loaded into shipping containers and transported by barge to the Rabanco Roosevelt Landfill in Washington for disposal.

Additional site activity in July of 2003 included the installation of a 50-foot air-sparging line horizontally along the till soil layer six feet below ground surface at the edge of Third Avenue, where the highest contaminant levels were found at the site. An additional 30 cubic yards of contaminated soil were removed during the air-sparging line installation and also shipped to Rabanco. The sparging blower, blower housing, and associated control panels were not installed until December of 2003.

In a letter report to DEC dated July 31, 2003, Hill concluded that contamination that had migrated eastward from the site to the Ward Property was successfully removed and the low levels of benzene contamination remaining in the till soil layer on the floor of the excavation represented a de minimis quantity. Groundwater was not encountered during the Ward Property excavation however; the drainage ditch along Third Avenue had contained standing water.

Out of the three confirmation samples collected along the edge of Third Avenue, only one sample-- 03MM03SL collected from the excavation wall four feet below grade near MW-3 -- exceeded the migration to groundwater (MTG) soil cleanup level (see results for this sample in Table 2). No lead was detected above background levels in any of the samples. The Mountain Corporation subsequently calculated and proposed alternative soil cleanup levels under Method Three in accordance with 18 AAC 75.340(e) (See Table 2). Based on confirmation sampling data and the alternative cleanup levels, soil contamination above the default and alternative soil cleanup levels in the Third Avenue ROW appeared to be limited.

Hydrocarbon range and compound COCs	Highest levels in milligram per kilogram (mg/kg)	Default MTG soil cleanup levels in mg/kg	Alternative MTG soil cleanup levels mg/kg
GRO	**3,500**	260	2600
DRO	300	230	2300
Benzene	**55**	0.025	0.25
Toluene	**110**	6.5	65
Ethylbenzene	130	6.9	69
Total Xylenes	**890**	63	630

Table 2 Highest COC levels in the 2004 off-site soil confirmation samples

Groundwater

Site investigation work to date has evaluated shallow groundwater that appears throughout the site above a native silt-clay till layer of soil during periods of steady rainfall. The shallow groundwater is hydraulically connected to surface water in

the roadside ditches along Third Avenue and Haines Highway Cutoff. Due to low capacity and poor quality, the shallow groundwater is not used as a drinking water source. Residents in the area receive their drinking water from a surface water source supplied and managed by the Borough of Haines.

The exposure pathway between contaminated groundwater and surface water presents a potential exposure pathway but there are no significant or threatened ecologic receptors located in roadside ditches on Third Avenue and Mission Street near the site, therefore exposure pathway is incomplete.

The human health exposure pathway for groundwater consists of direct contact only. Because neither shallow groundwater nor surface water is used for drinking, the ingestion pathway is not complete. As a result, the Mountain Corporation received DEC concurrence that groundwater at the site meets the criteria outlined in 18 AAC 75.350 which include that it is not a current or reasonably expected potential future drinking water source based on volume, quality and that an alternative, higher quality drinking water source exists (municipal water supply). Based on this determination, the values listed in 18 AAC 75.345 (Table C) for the COCs increased by tenfold. The point of compliance for this alternative standard is the Mountain Market property line at Third Avenue; the right-of-way and the Ward Property were not included in the determination.

In 2001, Carson Dorn Inc (CDI) installed four temporary monitor wells to investigate the migration of petroleum contamination in the shallow soils to off-site properties. Soil boring and well locations with data from the subsequent 2002 CDI Report are displayed in Figure 1 as Attachment B to this letter. Well MW-2 and MW-3 were installed on the Ward Property and two other wells were installed in the ditches along the Haines Highway Cutoff and Mission Street ROWs. The highest levels of COCs detected were from MW-3 on the Ward Property (Table 3). Samples from all other wells met the applicable criteria.

Hydrocarbon range and compound COCs	Highest levels in groundwater (GW) sample in mg/L	Default Table C GW cleanup level in mg/L	Alternative GW cleanup levels in mg/L
GRO	**53**	2.2	22
DRO	**8**	1.5	15
Benzene	**3.6**	0.005	0.05
Toluene	9.8	1.0	10
Ethylbenzene	**9.4**	0.7	7
Total Xylenes	5.5	10	100

Table 3 highest levels of COCs in water (MW-3) on the Ward Property in 2001

In mid December of 2003, Hill installed four new monitoring wells to characterize on-site and off-site groundwater contamination. Wells MW-1, MW-2, MW-3 and MW-4 installed by CDI in 2001 were decommissioned from the site. The new MW-1 was placed in clean soil on the west side of the site where groundwater is not influenced by on-site contamination. The new MW-2 was placed at the air-sparging system in the southeast corner of the property. The new MW-3 was placed on eastern edge of the Third Avenue in the ROW; the new MW-4 was placed on the northern edge of Mission Street in the ROW. Before operation of the system began, groundwater was surveyed and samples were collected for laboratory analysis. In May of 2004 Hill repeated sampling of the four wells.

In June of 2004, Hill submitted *Remedial Action Report, Mountain Market, Haines* for MC. The report analyzed groundwater contamination levels in conjunction with the groundwater elevation survey and proposed a Long Term Groundwater Monitoring Plan for the site. Hill determined the direction of groundwater flow was easterly. Hill determined that the shallow contaminated groundwater aquifer is comprised of man-made fill material (pit gravel) situated on a glacial till layer at a depth of between six and seven feet below ground surface. The aquifer resides beneath Mountain Market, Third Avenue and Mission Street but does not appear to exist along the western edge of the Ward property.

Periodic monitoring of the new wells (MW-1, MW-2, MW-3 and MW-4) began in December of 2003 and May of 2004; then CDI sampled the wells in September of 2005, August of 2007 and in July of 2009. Sample results from the wells over the six year period steadily declined. In 2011, DEC reexamined the groundwater monitoring plan, observing that the levels for all COCs in samples collected from MW-1 and MW-4 were consistently below Table C criteria. Therefore, further sampling from those wells was concluded. In addition, DRO levels in wells MW-1, MW-2, MW-3 and MW-4 were consistently below Table C levels for years so it was eliminated as a COC.

As a result of these changes, 2011 groundwater samples were collected from MW-2 and MW-3 only and analyzed for the GRO and BTEX. Also, DEC requested Mountain Corporation turn off the air sparging unit several months before collecting samples from the two remaining wells.

In September of 2011 CDI conducted the groundwater sampling and in November of 2011 submitted a letter report to DEC. In MW-2 on the Mountain Market property, all compounds met the alternative cleanup criteria. Only MW-3 on the Third Avenue right of way had two COCs above the criteria -- GRO and benzene (See Table 4).

Hydrocarbon	Highest GW levels	Default Table C	Alternative cleanup

range and compound COCs	in milligram per liter (mg/L)	cleanup level in mg/L	level in mg/L
GRO	**23**	2.2	22.0
Benzene	**0.295**	0.005	0.05
Toluene	1.85	1.0	10.0
Ethylbenzene	1.15	0.7	7.0
Total Xylenes	4.195	10	100.0

Table 4 2011 groundwater sample results for MW-3

In the report, CDI concluded the on-site groundwater contamination was below the alternative cleanup levels and residual offsite groundwater contamination (MW-3) is under the roadway and road shoulder. Additionally, it is unknown if well MW-3 is hydraulically connected to and potentially influenced by new petroleum releases from Third Avenue road surface water runoff to the roadside ditch. Based on the results of the most recent sampling event and the conceptual site model, CDI requested a decision of cleanup complete for the site.

Contaminants of Concern
Soil and water samples at the site have been analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX) and gasoline (GRO) and diesel (DRO) range petroleum hydrocarbons. Based on these analyses and knowledge of the site, the following Contaminants of Concern were identified:

- Gasoline Range Hydrocarbons
- Diesel Range Hydrocarbons
- Benzene
- Toluene
- Ethylbenzene
- Total xylenes

Cleanup Levels
Shallow intermittent groundwater encountered in the site investigation is not a current or reasonably anticipated future drinking water source, per an 18 AAC 75.350 groundwater use determination. As a result, 18 AAC 75.340(e) Method Three alternative cleanup levels for soil and groundwater were historically calculated and approved by the DEC for the UST release source property (Mountain Market). Even though site conditions are similar for the adjacent Third Avenue right of way and the Ward property, the applicable soil cleanup levels for these properties are default levels established in 18 AAC 75.341, Method Three, Tables B1 and B2, Migration to Groundwater. Both sets of soil cleanup levels are

displayed in the following table for use in the evaluation of exposure pathways for the entire site.

Hydrocarbon range and compound COCs	Default migration to groundwater soil cleanup Levels mg/kg	Alternative soil cleanup levels in mg/kg
GRO	260	2,600
DRO	230	2,300
Benzene	0.025	0.25
Toluene	6.5	65
Ethylbenzene	6.9	69
Total Xylenes	63	630

Shallow intermittent groundwater encountered in the site investigation is not a current or reasonably anticipated future drinking water source, per an 18 AAC 75.350 groundwater use determination. As a result, the alternative groundwater cleanup levels ten times the Table C levels in 18 AAC 75.345 apply to the source property at Mountain Market and the default Table C levels in 18 AAC 75.345 are applicable to groundwater in all other areas at the site. Both sets of cleanup levels are displayed in the following table for use in the evaluation of exposure pathways for the entire site.

Hydrocarbon range and compound COCs	Table C Cleanup Level in mg/L	Table C Alternative Cleanup level in mg/L
GRO	2.2	22.0
Benzene	0.005	0.05
Toluene	1.0	10.0
Ethylbenzene	0.7	7.0
Total Xylenes	10	100.0

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, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1 as Attachment A to this letter.

Cumulative Health Risk Calculation
Pursuant to 18 AAC 75.325 (g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be calculated. A chemical that is detected at one-tenth or more of the Table B1 inhalation or ingestion values set out in 18 AAC 75.341(c) or the Table B2 values set out in 18 AAC 75.341(d) must be included when calculating cumulative risk under 18 AAC 75.325(g). Cumulative risk from petroleum contamination of environmental media at the site is addressed using the BTEX and PAH analyte concentration data. Monitoring well data for groundwater is excluded from the cumulative risk calculation for this site because the shallow groundwater is not a potential drinking water source. With data currently available, the DEC has determined that petroleum compounds remaining at the referenced site following cleanup are in concentrations that do not present a cumulative risk to human health.

DEC Decision
Since groundwater at the site and in the area is not a current or reasonably anticipated future drinking water source, per an 18 AAC 75.350 groundwater use determination, the Department has determined that institutional controls are not necessary for residual groundwater contamination above Table C levels. Investigation of groundwater and long term monitoring has served as an indication that any remaining contaminants of concern have sufficiently attenuated and will continue to decrease further with time. Based on the results of an exposure pathway assessment, DEC has determined under 18 AAC 78.270(b) that the release does not pose a threat to human health, safety, or welfare, or to the environment and requires no further assessment or cleanup action This site will be designated as closed on the Department's contaminated sites database.

Although a Corrective Action Complete determination has been granted, DEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600. 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 78.276(f) 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.

If you have questions about this corrective action complete closure decision, please contact the DEC project manager, Bruce Wanstall at (907) 465-5210 or by email at bruce.wanstall@alaska.gov

Approved By,

Sally Schlichting
Environmental Manager

Recommended By

Bruce Wanstall
Environmental Program Specialist

Attachment A: Exposure Pathway Evaluation
Attachment B: Table 1, 2002 CDI Report
Attachment C: Site Photograph May 2012, Mountain Market at Mission and 3rd

cc: Jolene Cox, Carson Dorn Inc, via email
Mark Earnest, Haines Borough Manager

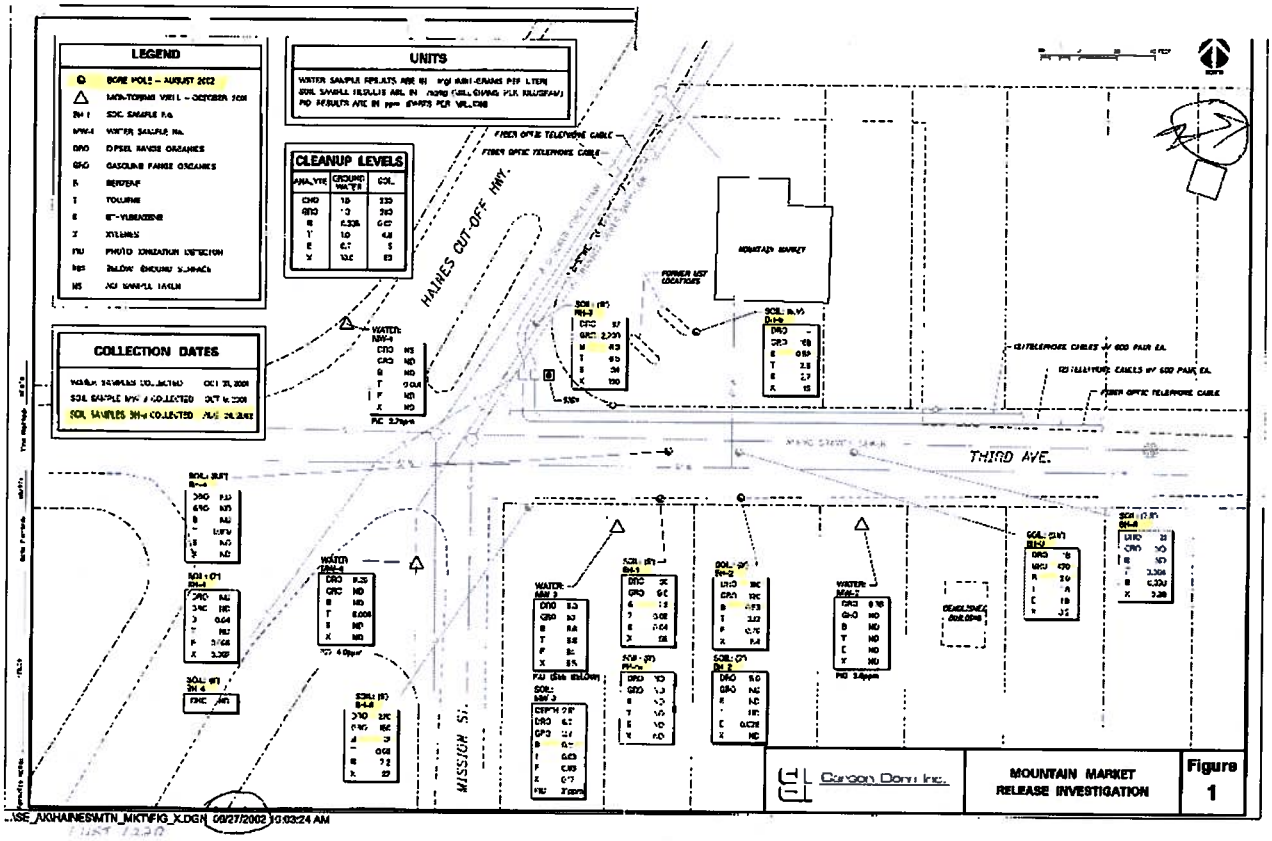
Attachment A: Exposure Pathway Evaluation

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	There is no surface soil contamination at the site above the MTG cleanup levels.
Sub-Surface Soil Contact	De-minimis exposure	Subsurface soil in 1992 exceeded human health levels at one location but all other soil data at the site is below ingestion cleanup levels.
Inhalation – Outdoor Air	De-minimis exposure	Soil and groundwater data indicate that benzene contamination remains under Third Avenue at a depth of six feet below grade but is de minimis in volume and unlikely to exceed soil screening levels for outdoor air
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Any remaining subsurface contamination will not exceed the inhalation screening levels and is not within 30 feet of buildings at the site.
Groundwater Ingestion	Pathway Incomplete	DEC determined that the contaminated shallow groundwater is not a current or future drinking water source. The Haines Public Water System provides potable water to the area
Surface Water Ingestion	Pathway Incomplete	There is no surface water influenced by the site hydrology that is currently being used or has any potential to become a future drinking water source.
Wild Foods Ingestion	Pathway Incomplete	There are no contaminants of concern with the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Significant or threatened aquatic and terrestrial species are not present.

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. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

Attachment B: Figure I, 2002 CDI Report



Attachment C: Mountain Market at Mission and 3rd May 2012

Site Photograph May 2012, Mountain Market at Mission and 3rd