



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Environmental
Conservation

Division of Spill Prevention and Response
Contaminated Sites Program

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File: 102.38.042

June 3, 2013

Ms. Susan Cowee
Williams Gate Land Company
72600 Sundown Lane
Palm Desert, CA 92260

751 Williams Gate Road
Fairbanks, Alaska 99701

Re: Decision Document, Giant Tire
Cleanup Complete Determination

Dear Ms. Cowee:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with Giant Tire located at 751 Williams Gate Road in Fairbanks, Alaska. Based on the information provided to date, ADEC 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 Giant Tire, which is located in the offices of the Alaska Department of Environmental Conservation (ADEC) 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.

Site Name and Location:

Giant Tire
751 Williams Gate Road
Fairbanks, Alaska 99701
Lot 1 and Portion of NE corner of Lot 35 RAHOI

Name and Mailing Address of Contact Party:

Ms. Sue Cowee
Williams Gate Land Company
72600 Sundown Lane
Palm Desert, CA 92260

DEC Site Identifiers:

ADEC Reckey: 1992310926001
File: 102.38.042
Hazard ID: 1638

Regulatory Authority for Determination:

18 AAC 75

Background

The site is located on 5.91 acres at 751 Williams Gate Road in Fairbanks. The property has been owned by Williams Gate Land Company (Susan Cowee) since 1993. Prior to 1993, the property was owned by Dr. Art Hansen. The site has operated as a tire business, Giant Tire Inc. since 1979. Three buildings are currently

located and used on the property, not including several storage sheds. There is a 30-foot deep private well at building #2 (hereinafter referred to as the Giant Tire well), but it is reportedly not used for drinking water due to high iron content. Drinking water is currently purchased off the site and transported to the property in 5-gallon containers. Groundwater is located at about 7-10 feet below ground surface in the area. Figure 1 shows the Giant Tire property in 2011.

An environmental site assessment conducted in October 1991 revealed several areas of contamination at this site. Surface staining was noted around above ground fuel tanks in addition to several used containers of paint and solvents. Used buckets and drums of unknown origin were also present. Currently, there are two above-ground storage tanks (ASTs) on the property and two underground storage tanks (USTs). A 300 gallon AST is used for heating fuel for a trailer and a 2000 gallon AST is used as a vehicle fueling station. A 500 gallon UST supplies heating fuel to the office and a 5000 gallon UST supplies heating fuel to the shop (Building #3, Fig. 2). A 300 gallon fuel oil tank adjacent to the small building by the gate (Building #2; Fig. 2) was removed in 2008.

Soil and groundwater samples collected at this site have been tested for: diesel range organics (DRO); gasoline range organics (GRO); residual range organics (RRO); benzene, toluene, ethylbenzene and xylenes (BTEX); volatile organic compounds (VOCs) including tetrachloroethylene (PCE) and trichloroethylene (TCE); polycyclic aromatic hydrocarbons (PAHs); polychlorinated biphenyls (PCBs); lead and other metals.

No specific information has been obtained at the site to determine groundwater flow direction. However, based on USGS data, groundwater flow at the site is presumed to be similar to regional groundwater flow, which is generally to the northwest and sometimes varying from west to northwest.

Characterization and Cleanup Activities

An environmental site assessment was conducted by Shannon and Wilson in October 1991 as requested by the property owner, Dr. Art Hansen, who intended to sell the property. Shannon and Wilson identified several areas of contamination on the site including stained soils and groundwater contamination. A total of ten surface samples (SS1 -SS10) were collected in areas of observed surface staining and were analyzed for total petroleum hydrocarbons (TPH) and VOCs. Sample SS-1, collected at the northwest corner of building #3, contained TPH at 14,000 milligrams per kilogram (mg/kg) and tetrachloroethylene (PCE) at 0.14 mg/kg. Sample SS-8 south of building #1 contained TPH at 13,000 mg/kg. Sample SS-2, in the northwest portion of the property near paint and solvent cans contained total xylenes at a concentration of 2,230 mg/kg; samples SS-4, SS-5, and SS-6 contained TPH at 1,400 mg/kg, 270 mg/kg, and 2,100 mg/kg, respectively. Additionally, three soil borings were completed (B-1, B-2, and B-4) for subsurface sampling. Borings B-1 and B-2 were analyzed for DRO, which was not detected. Boring B-4, adjacent to SS-8, was sampled for DRO, GRO, and VOCs, and contained DRO at a concentration of 6,300 mg/kg and GRO at 90 mg/kg at a depth of approximately 5 feet; concentrations decreased with depth suggesting a surface spill. No other soil samples taken during the 1991 site assessment contained contaminants above ADEC target cleanup levels at that time. A groundwater sample taken from monitoring well B-4 (same location as soil boring B-4) contained benzene at a concentration of 0.019 milligrams per liter (mg/L), which was above its cleanup level of 0.005 mg/L.

A follow-up investigation by Shannon and Wilson was conducted in July 1992 to evaluate the possibility of contamination migrating to the Giant Tire property from presumed up-gradient and off property sources. No survey was performed to determine groundwater elevation, however based on USGS data groundwater flow was presumed to be similar to regional groundwater flow, which is generally to the northwest and sometimes varying from west to northwest. This investigation included the installation of two monitoring wells, B-5 and B-6, as well as groundwater sampling of monitoring well B-4. Analyses of soil samples from the monitoring well borings did not detect any contaminants. Groundwater samples from these wells also did not contain contaminants, however a groundwater sample from well B-4 contained benzene at 12.0

mg/L and ethylbenzene at 9.4 mg/L. Total xylenes were also detected in this sample but the detection was below the 18 AAC 75.345 cleanup level.

In June 1993, the property was purchased by the then operator of Giant Tire, Williams Gate Land Company (Sue Cowee). At this time, the property owner and her staff began an independent cleanup of the property consisting of the removal of material left by the previous owners or leasees. These activities included removing the transformer debris and containers of paint, varnishes, solvents, etc. left in the vicinity of SS-2 and SS-3 by the previous owner, as well as the excavation and disposal of soil and buried debris on the northwest corner of the property. No confirmation samples were collected. Disposal records at the Fairbanks North Star Borough Landfill indicate that a total of 109.3 tons of material were disposed of in June 1993 and October 1994. The majority of ASTs on the site were sold for re-use or for scrap at some point in the 1990s. Two ASTs remain on site; one is a small, 300 gallon tank supplying heating fuel to a trailer on the property, and the other is a 2,000 gallon tank that is used as a fueling station. Building #3 consists of a shop and an office; the shop is in the western portion of the building and is supplied heating oil by a 5,000 gallon UST. A smaller (500 gallon) UST supplies heating oil to the office portion of the building. The 300 gallon tank by building #2 was removed around 2008 and had not been used for several years. It did not contain fuel when it was removed from the property.

In 2008, Shannon and Wilson inspected the condition of the monitoring wells, decommissioned the badly damaged wells B-5 and B-6, and redeveloped and repaired well B-4 prior to sampling it. A groundwater sample from monitoring well B-4 contained benzene, ethylbenzene, and xylenes as well as GRO at levels below their respective 18 AAC 75.345 cleanup levels. DRO was detected at a concentration of 3.63 mg/L in excess of its 1.5 mg/L 18 AAC 75.345 cleanup level. The Giant Tire well, providing water not used for drinking to the facility, was also sampled for volatile organic compounds (VOCs). Trichloroethylene (TCE) was detected below its 18 AAC 75.345 cleanup level at 0.550 micrograms per liter ($\mu\text{g/L}$).

Alaska Resources and Environmental Services, LLC (ARES) was contracted to conduct site assessment and cleanup activities subsequent to the 2008 work by Shannon and Wilson. In September 2009, ARES collected soil samples and installed a monitoring well, MW-2, in the vicinity of the 1991 soil sample SS-1 to determine if contamination remained in the area around the northwest corner of building #3. Soil samples were analyzed for DRO, RRO, and VOCs. No VOCs were detected; however both DRO and RRO were detected above their 18 AAC 75.341 soil cleanup levels, with maximum concentrations of 3,640 mg/kg and 6,060 mg/kg respectively. Groundwater samples were collected from MW-2 and existing well B-4; these samples were analyzed for DRO and VOCs. DRO was detected above its 18 AAC 75.345 cleanup level in the sample from well B-4 at a concentration of 1.74 mg/L. No analytes were detected above their 18 AAC 75.345 cleanup levels in the groundwater sample from MW-2.

ARES conducted a soil removal and additional site assessment in August through October of 2012. Site assessment activities included sampling two soil borings, SB-1 and SB-2, on the west and northwest edge of the property, respectively. Two temporary monitoring wells were installed through these borings to ensure that any residual contamination was not migrating off property. These well points were named TMW-1 and TMW-2 (same numbering as respective borings). ARES also conducted sampling of existing monitoring wells (B-4 and MW-2) and the private Giant Tire well. Contaminated soil was excavated from the northwest corner of building #3 around MW-2, which was decommissioned after sampling because it was within the area of excavation.

Soil samples collected from the 2012 temporary well boreholes were field screened with PID; the sample with the highest PID reading from each boring was analyzed for VOCs, DRO, GRO, RRO, PAHs, and lead. Of these, DRO and RRO were detected at levels below their respective 18 AAC 75.341 migration to groundwater cleanup levels and lead was detected below its 18 AAC 75.341 cleanup level of 400 mg/kg in both soil borings. GRO, VOCs, and RRO were not detected. Groundwater samples from temporary wells TMW-1 and TMW-2 contained GRO, DRO, and RRO at levels below their respective 18 AAC 75.345

cleanup levels. Lead was also detected below the 18 AAC 75.345 cleanup level of 0.015 mg/L at 0.0125 mg/L and 0.0092 mg/L in TMW-1 and TMW-2, respectively. The groundwater sample from well B-4 contained GRO at 0.0818 mg/L, DRO at 0.430 mg/L, RRO 0.290 mg/L, and ethylbenzene at 0.0027 mg/L. These concentrations are below 18 AAC 75.345 cleanup levels for these compounds. The Giant Tire private well was sampled for VOCs and was non-detect for all analytes.

During the soil excavation of 2012, approximately 18.8 cubic feet of soil was removed from the northwest corner of building #3, where contamination was originally identified in 1991. Field screening with a photo ionization detector (PID) was used to guide the excavation and confirmation samples were collected to verify final conditions. Stockpile samples contained DRO at concentrations up to 4,400 mg/kg and RRO at up to 28,200 mg/kg. Soil was transported to OIT for thermal remediation. Confirmation samples from the base of the soil excavation indicated that DRO and RRO remained at levels below their 18 AAC 75.341 cleanup levels of 81.0 mg/kg and 224 mg/kg respectively. No survey was performed in 2012 to determine groundwater elevations at the site.

DRO had decreased in B-4 during the 2008, 2009 and 2012 sampling events from 3.63 mg/L, 1.74 mg/L to 0.430 mg/L, respectively. Contaminated soil in the vicinity of B-4 had apparently been affected only by surface spills, and the steady decrease in contaminant concentrations in groundwater over time suggests that if any contamination remains it is not affecting groundwater. The extent of this surface spill at B-4 in 1991 was relatively small and contaminant concentrations in nearby surface samples were low. Exposure to contamination potentially remaining in soils in the vicinity of B-4 is expected to be de minimis.

Based upon a walk-through and visual site inspection conducted in 2009, ARES estimated that the volume of contaminated soil remaining throughout the site is estimated to be less than 2 cubic yards.

In 2013, all monitoring wells remaining at the site (B-4, TMW-1 and TMW-2) were decommissioned in accordance with ADEC guidance.

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for DRO, GRO, RRO, BTEX, VOCs, PAHs, PCBs, and lead. Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Diesel Range Organics (DRO)
- Residual Range Organics (RRO)
- Benzene
- Ethylbenzene
- Tetrachloroethylene (PCE)

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 or Ingestion.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
DRO	250
RRO	10,000
Benzene	0.025
Ethylbenzene	6.9
PCE	0.024

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

Contaminant	Site Cleanup Level (mg/L)
DRO	1.5
RRO	1.1
Benzene	0.005
Ethylbenzene	0.7
PCE	0.005

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 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis exposure	Contaminated surface soils in the northwest corner of the property have been excavated and thermally treated at OIT. Petroleum contaminated soil potentially remaining south of building #1 (13,000 mg/kg TPH identified in 1991) appears to have attenuated based on visual observation of no surface stains, and is considered a de minimis contact risk.
Sub-Surface Soil Contact	De Minimis exposure	DRO, RRO, and lead contamination remain in the subsurface in the northwest corner of the property around building #3, but are below their 18 AAC 75.341 contact and ingestion cleanup levels. DRO contaminated soil may remain south of building #1 (6,300 mg/kg DRO identified in 1991 at 5 feet bgs) but it is below its 18 AAC 75.341 contact and ingestion cleanup levels, and also considered to pose a de minimis exposure risk.
Inhalation – Outdoor Air	De Minimis exposure	DRO and RRO remain in soils around the northwest corner of building #3 and south of building #1 but are below their 18 AAC 75.341 outdoor inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No VOCs or PAHs were detected in soil above their migration to groundwater cleanup levels in the northwest area of the property. Remaining soil contamination in the area south of building #1 is considered to present a de minimis risk exposure. No VOCs were detected in the groundwater in recent sampling event.
Groundwater Ingestion	De Minimis exposure	Remaining DRO, GRO, RRO, and VOC contamination is below groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	There is no surface water located within ¼ mile of the site.

Wild Foods Ingestion	Pathway Incomplete	Site located in industrial area; wild foods are not likely to be harvested near the area.
Exposure to Ecological Receptors	Pathway Incomplete	Site located in industrial area. Ecological receptors are not a concern.

Notes to Table 1: “De-minimis exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. “Pathway incomplete” means that in ADEC’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.

ADEC Decision

The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, ADEC 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, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 75.325(i). However, since this site has met the most conservative soil cleanup levels, this letter will serve as your approval for future off-site movement and disposal of soil associated with this release. 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.

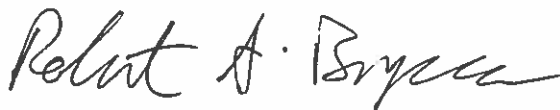
This determination is in accordance with 18 AAC 75.360(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

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 closure decision, please contact me at (907) 451-2153.

Sincerely,



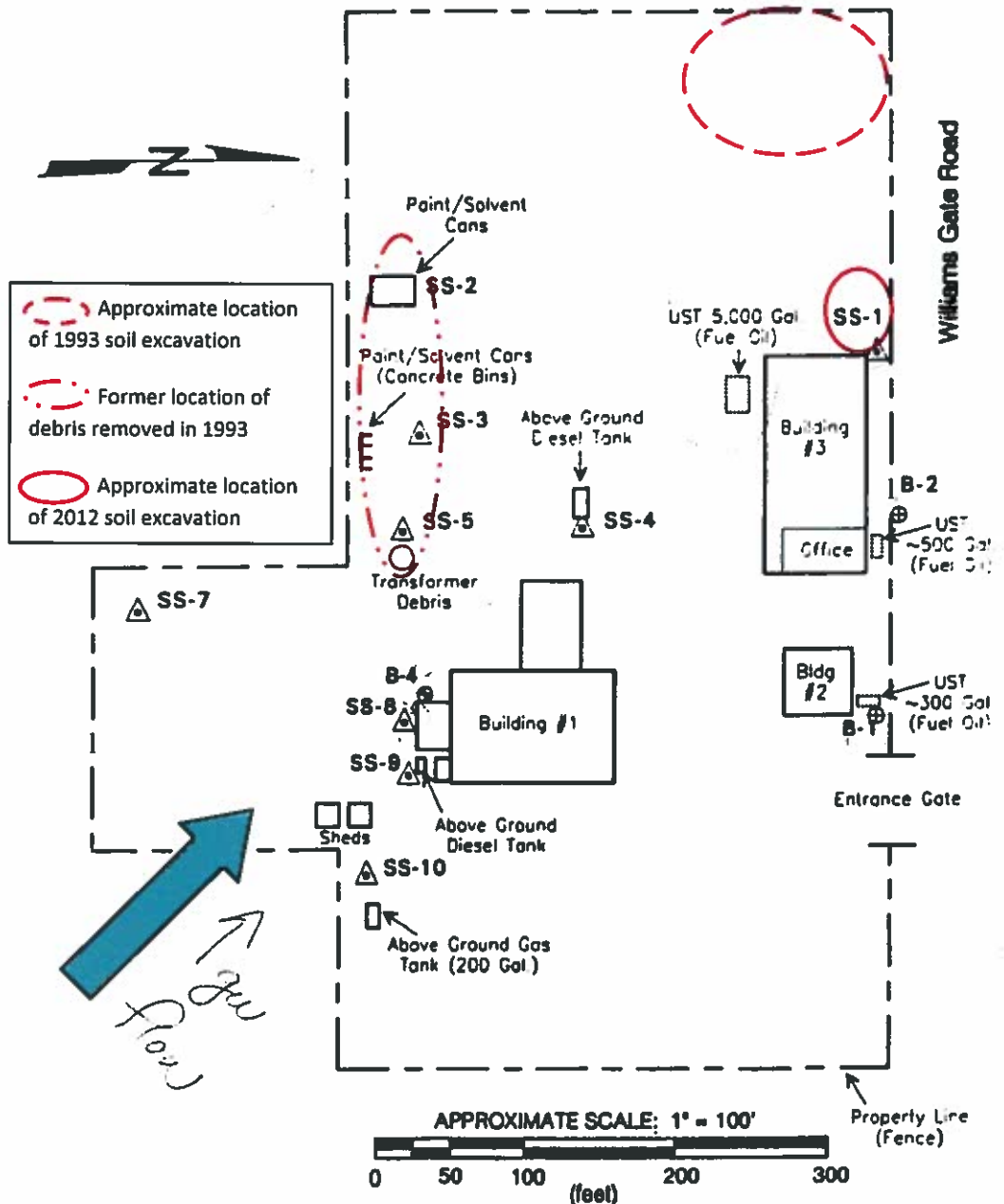
Robert Burgess
Environmental Program Specialist

Enclosure: Figure 1
Figure 2
Figure 3

Figure 1. Aerial photo of Giant Tire taken in 2012 (Bing maps). The solid line indicates the approximate property boundary. The dashed circle shows the approximate area of the 1993 soil excavation that included removal of debris. The arrow indicates the regional groundwater flow direction.



Figure 2. Soil sample and soil boring locations from 1991 site assessment for Giant Tire site (copied from Groundwater Sampling and Monitoring Well Repair Report; Shannon and Wilson, 2008).



LEGEND

- SS-1 Surface Soil Sample Designation and Approximate Location
- B-1 Boring Designation and Approximate Location
- B-2 Boring/Monitoring Well Designation and Approximate Location

751 Williams Gate Road Fairbanks, Alaska	
SAMPLING LOCATIONS AND SITE PLAN	
X-0464-1	April 1992
SHANNON & WILSON, INC. Geotechnical Consultants	Fig. 2

Figure 3. Monitoring well and soil excavation locations from 2012 Phase II site assessment for Giant Tire site. Soil borings SB-1 and SB-2 are in the same location as TMW-1 and TMW-2, respectively. The dashed circle outlines the approximate location of the 1993 soil excavation and debris removal. The arrow indicates the regional groundwater flow direction.

