

PERIODIC REVIEW

Columbia Chrome Facility/Site ID #: 35244355

4501 East Trent Avenue Spokane, Washington 99212

Eastern Regional Office

TOXICS CLEANUP PROGRAM

February 2010

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1.0 INTRODUCTION

This document is the Department of Ecology's review of post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the former Columbia Chrome site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in residual concentrations of total petroleum hydrocarbons (TPH) and metals in soil that exceed MTCA Method A cleanup levels established under WAC 173-340-740 (2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action.
- Whenever the department approves a cleanup action under an order, agreed order, or consent decree.
- Or, as resources permit, whenever the department issues a no further action opinion and one of the following conditions exists:
 - a. Institutional controls or financial assurance are required as part of the cleanup.
 - b. Where the cleanup level is based on a practical quantitation limit.
 - c. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to ensure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Columbia Chrome Site is located on East Trent Avenue in the City of Spokane in Spokane County, Washington. A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2. Following remedial activities in 2000, a restrictive covenant was recorded for the property and the Site received a No Further Action determination.

The property includes one building and associated exterior parking/storage area. The Site is zoned Business (B-2), although the Site use is industrial. Surrounding properties are commercial/industrial. To the north and east of the Site is a mini-storage facility. To the west is an automotive tire store, and to the south are truck service and supply businesses.

Prior to 1978 the subject property was residential, farming, or commercial. In 1978 the property was sold to Westmont Tractor. In 1981, the property was sold to GAA Partnership and the Site had two occupants/operators - General Truck Equipment (1981 - 1986) and Columbia Chrome (1990 - 1998).

Chrome was used at the Site in a liquid form for chrome plating. Petroleum products were used in hydraulic repair and lathe operations. Lubricating and hydraulic oils were the primary petroleum products abandoned on Site.

Site soils consist of gravel, cobbles, and silt with occasional boulders. Groundwater is located approximately 45 feet below ground surface (bgs).

2.2 Site Investigations and Remedial Actions

While Columbia Chrome operated at the Site, Ecology received several complaints of chromic acid dumping. Ecology conducted a Site visit in the late 1990s and made the following observations:

- The only area where there was an apparent intentional chrome release was by the truck bumper area. The area had both liquid chrome and sandblast residuals. Chrome contamination was evident by orange tints in the soil. Records also indicated that a large quantity chromic acid spill occurred from an outside dipping operation or chromic acid loading/transfer overfill.
- Assorted oils and lubricants were stored outside at the rear of the building. Drums were closed, but stacked within an unpaved area with inadequate secondary containment. Visual staining of the soil was evident in this area.
- There were a series of floor sumps in the shop area. Both the shop floor and floor sumps were concrete lined.

- A sewer pipe cleanout line ran along the east side of the shop area. The line emptied into a septic tank.
- A partially filled 10-gallon container of industrial cleaning solvent was present at the Site. No other solvents were present. Paperwork indicated that solvents had been sent off Site while Columbia Chrome was in operation.

During an Initial Investigation in 1999, the septic tank was located east of the building. The septic system was still in operation at the time. The wastewater outfall pipe between the building and the septic tank was cut and connected to a new line that ran to the city sewer system in 1999. The contents of the tank were sampled and disposed of at a regional landfill.

Following the Initial Investigation, a limited Site characterization was conducted which consisted of focused sampling followed by area wide sampling. Initially, the sampling focused on the multiple visually contaminated areas and included excavation of contaminated soil. The remaining unexcavated areas were sampled on a grid system. In June 2000, ten areas were excavated and seven of these were sampled. The remaining three areas required additional excavation to determine the extent of contamination.

Following initial remedial excavation activities, an area wide grid-sampling program was conducted to identify any other potential releases at the Site. The remaining unpaved storage area and active use areas of the property were included, as well as the septic system located under the asphalt pavement. The truck bumper area was also included to determine if additional areas of chromium contamination were present. A hollow stem auger was used to collect shallow soil samples (1.5 to 3 feet bgs). Deeper samples were collected from 3.5 to 5 feet bgs; however, these deeper samples were not analyzed unless the shallow samples indicated the presence of contamination. All shallow samples were analyzed for total petroleum hydrocarbons (TPH), chrome, and lead.

Of the 79 samples collected, one sample had a chromium concentration (942 mg/kg) exceeding the cleanup level. Eight samples had lead concentrations exceeding the cleanup level (263 – 686 mg/kg). Four samples had TPH concentrations exceeding the cleanup level (205 - 3770 mg/kg).

Based on these results, deeper soil samples were analyzed at those locations where contamination exceeded cleanup levels. The chromium concentration from the deeper sample (collected at the location of the shallow chromium exceedance) was 117 mg/kg. Deep TPH concentrations at all four locations of shallow TPH exceedance were below the cleanup level. No deep samples were analyzed since lead concentrations exceeded the Method A residential cleanup level (250 mg/kg), but were below the industrial cleanup level (1000 mg/kg).

A backhoe was used to expose the septic tank leachate lines located approximately 4 feet bgs. Concrete plugs were found at the ends of two of the lateral lines. The north/south line was solid PVC and the east/west lines were perforated. Soil samples were collected at each of the PVC pipe connection and termination points in September 2000. Samples were analyzed for total cadmium, chromium, mercury, lead, total petroleum hydrocarbons diesel extended (TPH-D), and total petroleum hydrocarbons oil range (TPH-O). Lead was elevated in two samples at 1330 mg/kg and 497 mg/kg. An additional 6 to 12 inches of soil were removed from those areas and resampled. Results were below Method A cleanup levels for both locations at 132 mg/kg and 53.8 mg/kg.

In December 2000, additional samples were core drilled in a grid pattern through the pavement to evaluate the soil under the perforated PVC leachate lines. TPH-O concentrations were above the cleanup level of 200 mg/kg at several locations, ranging from 232 mg/kg to 559 mg/kg. A lead concentration of 1,040 mg/kg was identified at a sample point just under the plastic pipe. This sample exceeded the industrial cleanup level for lead in soil.

Three dry wells (designated A, B, and C) were located on the property. Dry well A was adjacent to storage areas and downgradient of the shop area. Dry wells B and C were located in parking lots upgradient of any contaminated areas, and no staining was observed in these locations. All three dry wells were plugged and not draining at the time of the assessment. In July 2000, a grab sample was collected from the sludge contents of drywell A, and the sample was analyzed for cadmium, chromium and lead TCLP, benzene, toluene, ethylbenzene, TPH gasoline (TPH-G), TPH-D, and TPH-O. All metals were below Toxicity Characteristic Leaching Procedure (TCLP) limits. Toluene was detected at a concentration of 1.72 mg/kg; TPH-D and TPH-O were detected at concentrations of 607 mg/kg and 7,230 mg/kg, respectively. A vacuum truck was used to remove the contents of all three dry wells. The dry well perforations were power washed with water, and the wash water was also vacuumed out. A sample was collected from the bottom of dry well A after cleaning and was analyzed for total chrome, total lead, TPH-D, and TPH-O. None of the samples contained contamination above laboratory detection limits.

Final confirmational sampling results from the Site show that total chrome values range from 7 to 117 mg/kg. Only one sample exceeds the cleanup level for chromium of 100 mg/kg (117 mg/kg). Total lead values range from 20.6 to 1040 mg/kg. Of these, 10 locations have lead concentrations exceeding the Method A residential cleanup level of 250 mg/kg (ranging from 263 to 329). Only one sample exceeds the industrial cleanup level of 1000 mg/kg. TPH -O values range from non-detect to 348 mg/kg. Only five locations have concentrations exceeding the cleanup level of 200 mg/kg (ranging from 215 to 348 mg/kg).

At the time the cleanup was conducted, the cleanup level for TPH-D and TPH-O was 200 mg/kg. The cleanup levels were revised in 2001, and the current cleanup level for TPH-D and TPH-O is 2000 mg/kg. Although the TPH concentrations are now below the cleanup level, the metals concentrations still exceed cleanup levels, and the restrictive covenant is still required.

All excavated soils were temporarily stockpiled and stored on 6 millimeter HDPE plastic. A total of 157 tons of contaminated soil were sent to Graham Road Landfill for disposal.

2.3 Restrictive Covenant

The Restrictive Covenant recorded for the Site in 2000 imposes the following limitations:

- 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing, or earthwork.
- 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
- 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.
- 4. The Owner of the property must give thirty (30) days advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.
- 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.
- 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.
- 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.
- 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

A copy of the Restrictive Covenant for the Site is available as Appendix 6.3.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based on a Site visit conducted by Ecology on February 4, 2010, the building at the Site is currently occupied by Exactrix Global Solutions, a specialty agricultural company. The Site is partially enclosed by security fencing, though the southern portion of the property that borders Trent Avenue is accessible to the public. A combination of asphalt and compacted gravel surface serve as a cap for the Site and eliminate the human exposure pathways (ingestion, contact) to contaminated soils. The asphalt surface is in acceptable condition, but holes in the asphalt remain where excavation took place during remedial activities. No repair, maintenance, or contingency actions have been required. A photo log is available as Appendix 6.4.

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the surface cover.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new pertinent scientific information for the contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the Site was governed by Chapter 173-340 WAC (1996 ed.). WAC 173-340-702(12) (c) [2001 ed.] provides that,

"A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment."

Contamination remains at the Site above MTCA Method A cleanup levels and the cleanup action is still protective of human health and the environment.

3.4 Current and projected Site use

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous materials, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection well below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- The cleanup actions completed at the Site are protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, the cleanup action is determined to comply with cleanup standards at the time of the action, since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being met. No additional actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to ensure that the integrity of the surface cover is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 **REFERENCES**

Hoy Environmental Inc. Site Cleanup- Sampling and Data Analysis Report. December 2000.

Ecology. VCP Review of Columbia Chrome. March 20, 2001.

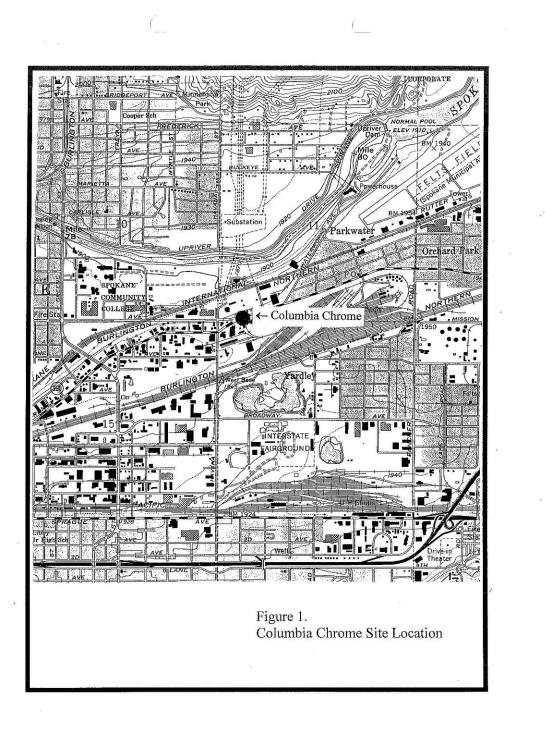
Ecology. Restrictive Covenant. November 5, 2001.

Ecology. No Further Action Determination. November 20, 2001.

Ecology February 2010 Site Visit

6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Plan

Columbia Chrome



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MODEL RESTRICTIVE COVENANT Page 1

RESTRICTIVE COVENANT

Property Owner: G.A.A. Partnership Name of Property: Formerly Columbia Chrome 4501 E. Trent

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by G.A.A. Partnership, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following document[s]: "Site Cleanup Sampling and Data Analysis Report," Prepared in December, 2000 by HOY Environmental, Inc. This document is on file at Ecology's Eastern Regional Office (ERO).

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of lead and chromium which exceed the Model Toxics Control Act Method A OR B Residential Cleanup Levels for soil established under WAC 173-340-740.

The undersigned, G.A.A. Partnership, is the fee owner of real property (hereafter "Property") in the County of Spokane, State of Washington, that is subject to this Restrictive Covenant. 2.5





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MODEL RESTRICTIVE COVENANT Page 2

The affected Property is legally described as follows:

PARKWATER, That portion of blocks 69 and 72 DAF: Lots 7, and 8, block 72. S.18' of lots 17 and 18, block 69, and Vacated Commerce St. between lots 7, 8, block 72, and lots 17, 18, block 69, County of Spokane, state of Washington, and being that Northwest portion of parcel number 35113.1316.

G.A.A. Partnership makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner"). Section 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.

Section 2. Any activity on the Property that may interfere with

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MODEL RESTRICTIVE COVENANT Page 3

the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

<u>Section 3</u>. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

<u>Section 4</u>. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action. <u>Section 5</u>. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

<u>Section 6</u>. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment. <u>Section 7</u>. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for





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MODEL RESTRICTIVE COVENANT Page 4

the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

101 G.A.A. Partnership a

[DATE SIGNED]

[NOTE: The Property Owner must have this Restrictive Covenant notarized.]

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6.4 Photo log

Photo 1: Former Columbia Chrome Building - from the east



Photo 2: Columbia Chrome Gravel Lot – from the south





Photo 3: Columbia Chrome Parking Lot - from the south

Photo 4: Columbia Chrome Front Lot - from south

