



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

August 1, 2006

A. Lon Brown, Chuck Brown and Scott Brown  
Fox Cleaners  
339 Kirkland Avenue  
Kirkland, WA 98033

**Re: Further Action Determination under WAC 173-340-515(5) for the following  
Hazardous Waste Site:**

- Name: Fox Cleaners
- Address: 339 Kirkland Avenue
- Facility/Site No.: 55877753
- VCP No.: NW1349

Dear Messrs. Brown:

Thank you for submitting your independent remedial action report for the Fox Cleaners facility (Site) for review by the State of Washington Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding whether further remedial action is necessary at the Site to meet the substantive requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC. Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5). Note that this letter supersedes Ecology's opinion letter of October 24, 2005, referenced below.

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.



Ecology's Toxics Cleanup Program has reviewed the following information regarding the Site:

1. July 10, 2006, *Barrier Wall Installation, Fox Cleaners Property*, memorandum by Pinnacle GeoSciences
2. March 10, 2006, *Fox Cleaners*, memorandum from Pinnacle GeoSciences
3. November 16, 2005, *Fox Cleaners Site*, letter from Hillis Clark Martin & Peterson
4. November 15, 2005, *Final Report, Soil Remediation Activities, Fox Cleaners*, Pinnacle GeoSciences
5. October 24, 2005, *Opinion under WAC 173-340-515 (5) on Remedial Action for the following Hazardous Waste Site. Fox Cleaners*, Washington State Department of Ecology
6. May 18, 2005, *Characterization and Cleanup Plan Update*, memorandum from Pinnacle GeoSciences
7. December 16, 2004, *Final Report, Subsurface Investigation, Fox Cleaners*, from Pinnacle GeoSciences
8. October 27, 2004, *Remediation Plan, Fox Cleaners*, memorandum from Pinnacle GeoSciences
9. October 19, 2004, *Cleanup Action Plan, 355 Kirkland Avenue*, Environmental Partners, Inc.

The documents listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact, Sally Perkins, at (425) 649-7190.

The Site is defined by the extent of contamination caused by the following release(s):

- Tetrachloroethene and its breakdown products in Soil, Ground Water, and Air;

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of the independent remedial action report and supporting documentation listed above, Ecology has determined that the independent remedial action(s) performed at the Site are not sufficient to meet the substantive requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing any of the contamination at the Site. Therefore, pursuant to

WAC 173-340-515(5), Ecology is issuing this opinion that **further remedial action is necessary** at the Site under MTCA. Specifically, Ecology finds the following:

The Site comprises two separate properties, and possibly a third. The first property ("Fox property") has an address of 339 Kirkland Avenue, and is the location of a cleaning business, Fox Cleaners. This business has been in operation at this location for more than 35 years. The second property is adjacent to the Fox property at 355 Kirkland Avenue ("355 property"). The 355 property was formerly used as a grocery store, and more recently a thrift store. New condominiums are currently being constructed on this property. The third property is City of Kirkland right-of-way ("City ROW") bordering the north edge of the other two properties.

Various environmental investigations have taken place at the Site beginning in 2003. These investigations have shown that PCE, and its breakdown products trichloroethene (TCE), 1,2 dichloroethene (DCE), and vinyl chloride (VC), are present in soil and ground water beneath the Site. These compounds are collectively termed "Solvent" for purposes of this letter. The Solvent was released on the Fox property and migrated onto the 355 property. They may have also migrated onto the adjoining City ROW.

Surficial deposits of fill and weathered native soil are present at the Site overlying a thick deposit of hard silts and clays ("hard silt"). The surficial deposits are looser than the underlying hard silt and contain a small volume of shallow ground water. The hard silt contains essentially no ground water and has acted as a barrier to contaminant migration. Subsurface excavations associated with construction projects downhill from the Site have shown no evidence of the shallow ground water, implying that the water is either trapped within the Fox property fill or is intercepted and drained by utility trenches or other discontinuities within soil beneath the City ROW. Recharge to the on-Site shallow water-bearing zone is currently very limited, appearing to consist solely of rainfall infiltrating landscape strips along the back and western side of the Fox Cleaners building.

Soil remediation activities took place at the Site in May and June, 2005. These activities consisted of excavating contaminated soils from both the Fox and 355 properties, disposing of the soil at an off-property location, removing the primary source of shallow ground water recharge, and installing a partial subsurface barrier wall between the Fox property and the 355 property. The subsurface barrier wall was completed in June, 2006. The results of the remediation for each of the properties comprising the Site are outlined below:

#### Fox Property and City ROW

- The areal and vertical distribution of Solvent has been adequately defined in soil and ground water on the Fox property. The Solvent impact, if any, within the City ROW remains unconfirmed.

- Soil with Solvent concentrations above MTCA cleanup levels has been partially removed from the Fox property. Further soil remediation work remains to be completed in areas with confirmed MTCA cleanup level exceedances.
- The volume of shallow ground water beneath the Fox property has declined since the 2005 remediation due to removal of the primary source of recharge. However, some recharge continues and shallow ground water continues to move from the Fox property toward the City ROW at a slow rate. Ground water quality sampling completed in 2004, 2005, and more recently in January, 2006 showed Solvent concentrations higher than applicable MTCA cleanup levels beneath the Fox property.
- There may be a potential indoor air quality risk associated with Solvent volatilization at the Fox property from soils below the Fox Cleaners building. Ecology recommends further evaluation of this transport pathway.

### 355 Property

- The areal and vertical distribution of Solvent has been adequately defined in soil and ground water on this property.
- Soils with Solvent concentrations above MTCA cleanup levels have been removed to a depth of 15 feet on this property, thus reducing the potential for exposure through the direct contact pathway.
- The entire shallow water-bearing zone (both soil and ground water) was removed during property development, and no ground water was present within the Solvent-impacted area on this property at the conclusion of the 2005 remediation. Shallow ground water is not expected to re-accumulate in this area, due to the property being covered with buildings and pavement.
- Shallow ground water currently present on the adjacent Fox property is prevented from migrating back onto the 355 property by the subsurface barrier wall constructed between the two properties. The barrier wall extends from the ground surface downward into the hard silt, eliminating potential migration of contaminants from the Fox property to the 355 property.
- Indoor air quality has not been specifically studied at the 355 property, but such studies do not appear warranted because no detectable soil impacts were ever observed beneath the current buildings, and Solvent contamination remaining outside the buildings is present at a depth of 15 or more feet below ground surface.

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

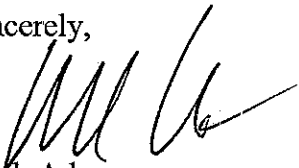
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The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or performed at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-7107.

Sincerely,



Mark Adams  
NWRO Toxics Cleanup Program

MA:nr

Enclosure

cc: Steve Perrigo, Pinnacle GeoSciences  
Thom Morin, Environmental Partners Inc

# Key

- PCE and/or TCE present at concentrations exceeding two times the MTCA Method A Cleanup Levels
- PCE and/or TCE present at concentrations between one and two times the MTCA Method A Cleanup Levels, OR Vinyl chloride and/or 1,2-dichloroethene present at concentrations in excess of Method B Cleanup Levels
- Chlorinated solvents not detected or present at concentrations below MTCA Method A Cleanup Levels (PCE and TCE only).
- Chlorinated solvents not tested in this exploration.

Note: the color designation refers to the sample or samples at each exploration location with the highest concentrations observed. There may be additional samples that were tested at any exploration location that had lower chlorinated solvent concentrations.

Kirkland Avenue

APPROXIMATE  
SITE BOUNDARY

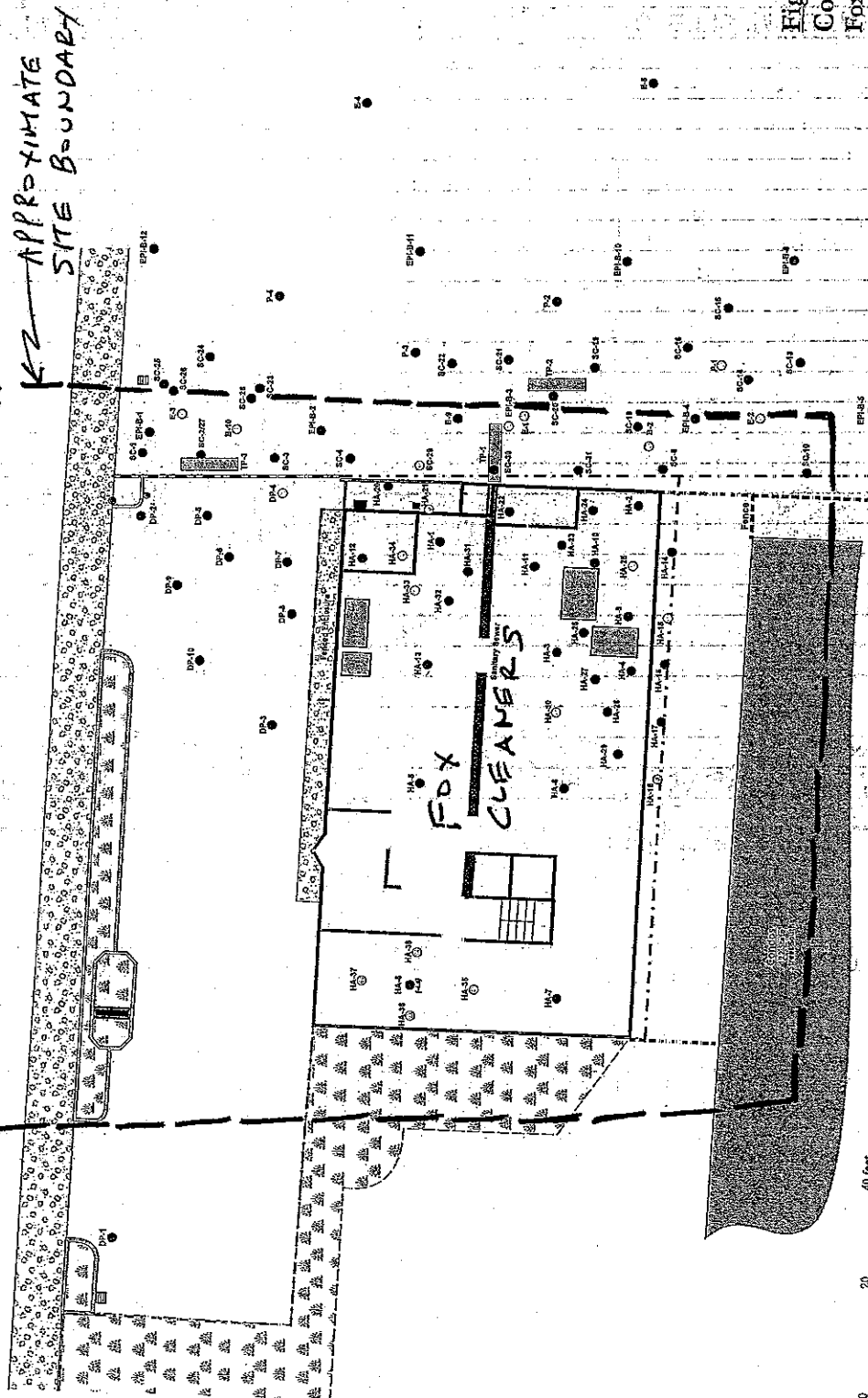


Figure B  
Contamination Distribution

Fox Cleaners

339 Kirkland Avenue

Kirkland, Washington

Pinnacle GeoSciences

0 20 40 feet

Scale: 1 inch = 20 feet

The locations of all features are approximate.