STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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February 12, 2012

Charles R. Lie Terra Associates, Inc. 12525 Willows Road, Suite 101 Kirkland, WA 98034

Re: Further Action At The Following Site:

Site Name: Cowman Campbell Paints

• Site Address: 5221 Ballard Ave NW, Seattle, WA

Facility/Site No.: 30774595VCP Project No.: NW2496

Dear Mr. Lie:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Cowman Campbell Paints facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

YES. Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Total Petroleum Hydrocarbon-Gasoline (TPHg) in Soil and Ground Water;
- Benzene in Soil and Groundwater;
- Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAH) in soil.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Please note that the Cowman Campbell Paint property is comprised of several parcels. A second parcel is known to Ecology to have a separate release (parcel 276770-2620 (current address known as 5232 Shilshole Avenue NW, Seattle, WA)). This opinion does not apply to any contamination associated with parcel 276770-2620.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

- 1. April 17, 1991. Letter from Ms. Susan Kunimatsu with Ballard Avenue Landmark District Board to Mr. Robert Campbell with Cowman Campbell Paints.
- 2. April 19, 1991. Letter from Mr. Charles E. Kitchin, P.E. with Pacific Testing Laboratory to Mr. E. Arthur Cowman with Cowman Campbell Paints.
- 3. November 19, 1992. Notice of Confirmed Release at 5221 Ballard Avenue NW from Mr. Ken Beaulaurier with Bison Environmental to Department of Ecology NWRO.
- 4. November 1992. Underground Storage Tank Closure In Place Site Assessment Report Cowman Campbell Paint Company, 5221 Ballard Avenue NW, Seattle, Washington, 98107. Bison Environmental Northwest, Inc.
- 5. February 10, 1998. UST Closure In Place-Site Assessment Report, C&C Paints Ecology Site ID 004806, 5121 (5221) Ballard Avenue NW, Seattle, Washington. Nowicki & Associates, Inc.
- 6. July 29, 2011. Phase II Environmental Site Assessment, 5221 Ballard Avenue NW, Seattle, Washington, Project No. T-6552. Terra Associates, Inc.
- 7. September 2, 2011. Underground Injection Control Well Registration Form for Voluntary Cleanup Sites and Groundwater Technical Memo 5221 Ballard Avenue NW, Seattle, Washington. Terra Associates, Inc.

- 8. October 12, 2011. Technical Memo Fall 2011 Quarterly Sampling, 5221 Ballard Avenue NW, Seattle, Washington. Terra Associates, Inc.
- 9. December 1, 2011. Technical Memo November Groundwater Sampling, 5221 Ballard Avenue NW, Seattle, Washington. Terra Associates, Inc.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at 425.649.7190.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

Based on the information submitted to Ecology to date, sufficient analysis of the lateral and vertical extent of contamination in soil and groundwater has not been completed.

Soil

TPHg, benzene, and cPAHs were detected at concentrations at or above MTCA Method A soil cleanup levels. Soil samples collected and analyzed to date are not sufficient to determine the lateral and vertical extent of soil contamination at this Site.

Further definition is necessary to the north, east, south, and west of the tank nest and along any piping associated with the USTs. Since the area of contamination is in a well developed area, a good description and diagram of subsurface structures, including the UST system (including piping) and subsurface utilities (e.g. water lines, storm water lines, basements, etc.) is necessary to understand the potential influence of those structures on contaminant migration.

Groundwater

Ground water samples collected and analyzed to date are not sufficient to determine the areal extent of ground water contamination at this Site. Further definition is necessary

south and southeast of the tank nest, and along any UST piping corridors since piping has not been previously sampled and many UST system releases originate from piping.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

a. Cleanup levels.

Soil

A terrestrial ecological evaluation (TEE) to determine whether soil cleanup levels protective of terrestrial species are needed has not been completed. Therefore, soil cleanup standards protective of terrestrial species may be needed.

The Site does not meet the MTCA definition of an industrial property; therefore soil cleanup levels suitable for unrestricted land use are appropriate. Soil cleanup levels based on leaching (protection of ground water) and protection of direct contact are appropriate. MTCA Method A cleanup levels for TPHg, Benzene, and cPAHs were selected for soils at the Site.

Ground Water

The ground water at this Site is classified as potable to protect drinking water beneficial uses. For potable ground water either Method A or Method B cleanup levels could be used. MTCA Method A was the cleanup method used to establish cleanup levels for the Site.

b. Points of compliance.

Soil

The point of compliance based on the protection of ground water is Site-wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.

Ground Water

The standard point of compliance for ground water is throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected.

3. Selection of cleanup action.

No cleanup action was identified or selected in the document submitted for review. It is noted that the document submitted for this opinion listed several cleanup action alternatives and indicated a detailed cleanup plan will be required to execute many of the active cleanup options.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet the cleanup standards at the Site.

Cleanup actions at this Site include closing three USTs in place by filling with inert material. Demonstration of compliance with the environmental sampling and UST system closure requirements of Washington's Administrative Code 173-360-390 and *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* - February 1991, Publication # 90-52 (Revised April, 2003) is necessary to ensure adequate investigation into possible releases from the UST system at the Property.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at 425.649.7109 or e-mail at audrey.heisey@ecy.wa.gov.

Sincerely,

Audrey McIvor

Toxics Cleanup Program

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Enclosures (1): A – Description and Diagram of the Site

cc: Janice A. Cowman, Manager, Halco Properties LLC Sonia Fernandez, Voluntary Cleanup Program Coordinator, Ecology

Enclosure A Description and Diagram of the Site

Site Description

This section provides Ecology's understanding and interpretation of site conditions, and forms the basis for the opinions expressed in the body of the letter.

Site: The Site is associated with Cowman Campbell Paints located at 5221 Ballard Avenue Northwest, in Seattle, Washington and tax parcel 276770-2565 (the Property). Paint solvents were released to the soil and groundwater from an underground storage tank (UST) system at the Property and comprises the Site, as shown on the attached figure. The Cowman Campbell Paints property includes three additional parcels located southwest of the Property. There is a separate release associated with parcel 276770-2620 that is not addressed in this opinion letter or Site Description.

Area Description: The Property is situated within a Neighborhood Commercial 3 zone in of Seattle in the Ballard neighborhood. The Property is bordered by Ballard Avenue Northwest on the northeast, commercial properties to the northwest and southeast, and warehouse and light industrial properties to the south and southwest. Salmon Bay is located approximately 900 feet southwest of the Site.

Property History and Current Use: The Property operated as a paint manufacturing facility from 1946-1947 to approximately 2000. Three underground storage tanks (UST) are reported at the Property. Below is a table with the basic UST characteristics:

Capacity (gal.)	Substance Stored	Date Installed	Date Closed
6,000	Petroleum solvent (Chevron 350B)	1962	1992
8,000	Petroleum solvent (Chevron 410B(140))	1962	1992
7,000	Alkyd resin	1964	1998

The USTs are located in a small parking lot between two registered historical buildings and were closed in place because removing them might undermine the foundations of the historical buildings. Manufacturing operations were discontinued in 2000 and the Property is currently vacant. Portions of the Property not covered by buildings are asphalt paved.

Sources of Contamination: The only known source of contamination relates to spills and leaks associated with the Property's former UST systems. In 1992, analytical results from a soil sample collected during closure of two USTs containing petroleum solvents indicated TPH above the MTCA Method A cleanup level.

Physiographic Setting: The Site and surrounding area are situated on lowlands on the north side of Salmon Bay, part of the dredged Lake Washington ship canal. Salmon Bay extends west from the Site for about 1.5 miles before entering Puget Sound. Water levels are maintained in the Lake Washington ship canal by the Chittenden Locks, a constructed system that regulates natural water flow between Lake Washington and Puget Sound. Ground surface elevations are about 30-50 feet above mean sea level (msl) in the vicinity of the Property. Surface water elevations on Salmon Bay directly south of the Property are about 20 feet above msl.

The Property is situated on a land surface elevation of about 36 feet with a concrete retaining wall bordering the west side. On the other side of the retaining wall, the surface elevation drops to an elevation of about 28 feet. The Property building includes a basement with the same floor elevation observed on the west side of the retaining wall, about 28 feet. The Property slopes from the north to the south toward Salmon Bay.

Surface/Storm Water System: Surface water runoff in the area is collected in municipal storm drains and eventually reaches Puget Sound. At the Property, surface water runoff flows via sheet flow south toward Shilshole Avenue Northwest and Salmon Bay.

Ecological Setting: The area around the Site provides minimal terrestrial habitat because it is well developed with buildings. There is terrestrial habitat nearby (5 or 6 blocks) associated with residential landscaping.

Geology: Conditions at the Site have been explored to a depth of about 20 feet below ground surface (bgs). Bedrock was not encountered in the explorations. The geology consists of fill from 0-2 feet below ground surface (bgs) and from 0-10 feet bgs in the areas near the USTs, with weathered till from 10-14 feet bgs with increasing density, and till (coarser grained sand and gravel interlayed with the sand and silt) below 14 feet bgs.

Ground Water: The uppermost ground water beneath the Site occurs as an unconfined (water table) perched water bearing zone within the weathered till and lower part of the fill. The water table is at a depth of about 10 feet below ground surface in the vicinity of the UST system. The water table is at a depth of about 3 feet on the west side of the concrete retaining wall. Ground water flow in the perched zone should mimic topography, and be from higher elevation areas on the north-northeast towards lower areas on the south-southwest. Data from the monitoring wells at the Site confirm this flow pattern.

Release and Extent of Contamination - Soil: The Site is defined by the extent of gasoline, benzene, and carcinogenic polynuclear aromatic hydrocarbon (cPAH) contamination in soil. The maximum TPHg concentration detected was 3,900 mg/kg. Benzene was not detected above laboratory detection limits; however the laboratory detection limit was above the MTCA Method A Cleanup Level in the sample that detected TPHg at 3,900. The maximum cPAH concentration detected was 0.261 mg/kg.

The known soil contamination extends from a depth of 10 feet to 14 feet in the vicinity of the USTs. Surface to a depth of 10 feet soil contamination characteristics are undefined. One soil sample has been analyzed near the surface (B-104 @ 2.5 feet) and was collected approximately 15 feet to the northwest on the opposite side of a concrete retainer wall, instead of near the UST fill ports and along UST piping where a shallow release, if present, would likely be detected. Further characterization of soil to the north of the center UST, and to the east, south, southeast, and west of the UST cluster, including characterization of soil near any UST associated piping, is necessary to determine the areal vertical and lateral extent of contamination.

Extent of Contamination – Ground Water: Four monitoring wells have been installed at the Site in locations near and down to crossgradient of potentially impacted soil. Analytical results from collected

groundwater samples indicated TPHg above MTCA Method A cleanup levels. Benzene, toluene, ethylbenzene, and xylenes were not detected above MTCA Method A cleanup levels. Analysis for cPAHs in groundwater has not been conducted. The extent of the contaminant plume has not been defined.

Site Diagram

