STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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April 22, 2015

COPY

Mr. Donald Loeb
Alaska Distributors
2000 Fairview Avenue East
Seattle, WA 98102

**Re: Opinion pursuant to WAC 173-340-515(5) regarding the following Hazardous Waste Site:**

- **Name:** Mobile Service Brakes
- **Address:** 1728 4th Avenue South, Seattle, Washington
- **Facility/Site No.:** 9463150
- **VCP No.:** NW2923
- **Cleanup Site ID No.:** 5487

Dear Mr. Loeb:

Thank you for submitting documents regarding remedial actions implemented for the Mobile Service Brakes facility (Site) for review by the Washington State 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 a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Petroleum hydrocarbons as gasoline, benzene, diesel, and motor oil in Soil
- Gasoline, diesel, motor oil, and arsenic in Ground Water

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

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 and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your remedial actions:

1. Kane Environmental Inc., Remedial Investigation Report, July 30, 2014.
2. Washington State Dept. of Ecology, Site Hazard Assessment, August 8, 2013.
3. Washington State Dept. of Ecology, E-Mail, Re: VCP review of Mobile Service Brakes Property, January 2008.
4. Environmental Associates, Inc., Groundwater Sampling and Testing June 2006, July 25, 2006.
5. Washington State Dept. of Ecology, Letter, Re: Independent Remedial Action with Restrictive Covenant, December 15, 2003.
6. Environmental Associates, Inc., Limited Independent Cleanup Action Report, October 7, 2003.
7. Environmental Associates, Inc., Supplemental Subsurface Investigation, June 30, 2003
8. Environmental Associates, Inc., Tank Removal, Site Assessment & Cleanup Report, June 26, 2003.

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 at (425) 649-7235 or by e-mail to nwro_public_request@ecy.wa.gov.

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 documents listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing the contamination at the Property, Ecology has determined:**

- After an initial remedial investigation (RI), soil contaminated with petroleum hydrocarbons above Method A cleanup levels was excavated from two locations (eastern and western) and removed from the Property during 2003. A total of 225 cubic yards of soil was transported to the Waste Management Seattle facility. An unknown volume of inaccessible contaminated soil remained beneath the building foundation at the southwest corner of the Property.

The off-Property extent of the contaminated soil was not determined. Diesel and oil-range petroleum hydrocarbons remained in ground water on the Property following the soil cleanup at concentrations significantly above Method A cleanup levels in the four monitoring wells. Arsenic was detected in one well (MW-1) slightly above the Method A cleanup level in groundwater (5 ppb).

- Ecology provided a determination letter (December 15, 2003) that stated no further action (NFA) was required regarding cleanup of petroleum hydrocarbons in the soil. However, a Restrictive Covenant (RC) was placed on the Property to document the inaccessible contaminated soil that remained at the southwest corner of the Property. Ecology's determination letter stipulated that ground water had to be monitored and treated to decrease the contaminant levels; otherwise the NFA determination for the soil would be withdrawn. The RC also prevented use of the ground water.

- Subsequent remediation of ground water was accomplished by applications of oxygen release compound (ORC). ORC was placed in the base of one excavation before it was filled in, and then applied twice at an interval of seven months through infiltration galleries installed in both excavations. ORC was later applied twice at an interval of three months in the monitoring wells. The wells were sampled eight times from October 2003 through June 2006, and concentrations of diesel and oil were below the Method A cleanup level (500 ppb) during the last four sampling events in each well. The sampling intervals were irregular however, and did not consist of consecutive quarters. Concentrations of arsenic (dissolved) in MW-1 did not drop consistently below the 5 ppb Method A cleanup level during this monitoring period.

- A request was made to Ecology through the VCP during September 2007 to review the cleanup actions and data regarding ground water at the Site, and to consider an NFA determination for the entire Site (soil and ground water). Ecology declined to provide an NFA because (1) the concentration of arsenic remained elevated in MW-1, and (2) the compliance sampling for diesel and oil range hydrocarbons in ground water had not taken place through four consecutive quarters. Ecology recommended that monitoring for both arsenic and petroleum hydrocarbons should resume. The remedial actions accomplished for ground water did comply with the stipulation in Ecology's determination letter (December 15, 2003) to monitor and treat the ground water to decrease the contaminant levels, and the NFA determination for the soil remains in place.

- Investigations to determine the concentrations and extent of arsenic in soil and ground water on the Property took place during 2011-2014. Twenty hand-auger borings were completed and three additional monitoring wells were installed in the west-central area of the Property north of the former excavations. Thirty soil samples were taken during these actions, mostly from one to five feet below ground surface (bgs).

Concentrations of arsenic in soil ranged from 1.8 ppm to 11.6 ppm (average of 5.1 ppm), below the Method A cleanup level of arsenic in soil (20 ppm). The new wells were installed to 15 feet bgs as were the older wells, and depth to ground water was ~seven feet bgs in each well. These wells were sampled once during 2012 and once during 2014. Both total and dissolved concentrations of arsenic in ground water were above the Method A cleanup level (5 ppb) in all three wells during each sampling event. The original four wells were sampled once during 2014. Total and dissolved concentrations of arsenic were also above the Method A cleanup level for ground water in one well (MW-3) nearest the three newer wells.

- The characterization work described above identified an area of arsenic in ground water in the west-central area of the Property, but the full extent of the contamination was not determined. There was no arsenic contamination in soil identified that required cleanup. The Method A cleanup level of arsenic in soil (20 ppm) however, is based on a perceived background concentration of arsenic, and that level of arsenic in soil is not necessarily protective of the 5 ppb cleanup level for arsenic in ground water. The elevated levels of arsenic in ground water could be caused by lower levels of arsenic and/or organic materials in the fill material placed on the Property during its original development.

- A request was made to Ecology through the VCP during September 2014 to consider an NFA determination for the Site (soil and ground water), and to remove the Restrictive Covenant on the Property. The concentrations of petroleum hydrocarbons in the soil left in place at the southwest corner of the Property in 2003 have likely attenuated to some degree, but the current concentrations are unknown. Unless it is demonstrated that the soil left in place is now below cleanup levels, the Restrictive Covenant must remain in place. Concentrations of arsenic in ground water above the Method A cleanup level of 5 ppm are present on the Property. The source of the arsenic is likely the fill material, which is an anthropogenic source (not natural), and the levels of arsenic in ground water above the cleanup level therefore must be addressed before an NFA for the Site can be considered.

- In order to move towards a possible NFA determination for the Site, Ecology recommends the following: (1) The current concentrations of diesel and oil range hydrocarbons in the unknown volume of soil left in place in 2003 should be determined. (2) The three former wells on the western edge of the Property and the three newer wells should be sampled to confirm that concentrations of diesel and oil range hydrocarbons currently remain below cleanup levels. (3) The extent of the arsenic contamination in ground water should be further determined to evaluate possible remedies for the elevated levels. It may be helpful to analyze the ground water for dissolved oxygen, pH, oxidation-reduction potential, and iron (ferrous and ferric) to determine if biodegradation of organics is a factor.

**This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action.** To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

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.

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 conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-7251, or by e-mail at rnyc461@ecy.wa.gov.

Sincerely,

Roger K. Nye

Roger K. Nye
NWRO Toxics Cleanup Program

Enclosure: (1) A - Site Description and Diagrams

By Certified Mail [7011 0470 0003 3682 6121]

cc: Eric Nassau, Kane Environmental, Inc.
Sonia Fernandez, VCP Coordinator, NWRO Ecology

**Enclosure A**
**Site Description and Diagrams**

*This section provides Ecology's understanding and interpretation of Site conditions and is the basis for the opinion expressed in the body of the letter.*

**Site:** The Site is comprised of soil contaminated with gasoline, diesel, and oil range hydrocarbons; and ground water contaminated with diesel and oil range hydrocarbons; and arsenic. The Site is situated in the southwest portion of Property located at 1728 4th Ave. South in Seattle.

**Property and Area Description:** The Property is rectangular and 0.74 acres in size (King County Tax Parcel# 766620-4545). It is located ~1.3 miles south of downtown Seattle (1,500 feet southeast of Safeco Field). Fourth Avenue South is adjacent to the west, and the railroad corridor and SODO Busway are adjacent to the east. The land surrounding the Property is developed with industrial / commercial facilities, and is covered by buildings and pavement.

**Property History and Current Use:** The Property was undeveloped prior to 1945. Between 1945 and 1976, four single-story buildings were constructed which in total covered ~ 60% of the Property. The buildings have been utilized for various commercial business and storage activities. The building (#3) in the southwest portion of the Property was utilized historically for the service, fueling, and maintenance of trucks and automobiles. Currently, three buildings remain on the Property (one burned down in 2004) which are used for office space, and for automobile and other storage purposes. The Property is also used for events parking.

**Sources of Contamination:** Two underground storage tanks were associated with building #3, and also a sump and drainline. The imported fill material itself was a source of contamination, especially a wedge of fill contaminated with hydrocarbons prior to being placed on the Property.

**Physiographic Setting:** The Property is flat and at an elevation of 15 feet above mean sea level.

**Ecological Setting:** There are no ecological considerations in this commercial / industrial area.

**Geology:** The general area consists of reclaimed tidelands. The subsurface at the Site is a collage of materials to the depth of exploration (15 feet), which may include tideland deposits and dredgings, alluvium, and imported fill with construction debris (brick, wood, asphalt, metal).

**Ground Water:** Ground water occurs six to eight feet below ground surface, and flows to the northwest as determined from elevations in the monitoring wells.

**Extent of Soil and Ground Water Contamination:** The eastern area of soil contamination covered an area of ~200 square feet and extended to ~eight feet bgs. The excavation in the western area of soil contamination covered an area of ~ 350 square feet and extended to 11 feet bgs. Contaminated soil left in place in this area extended an unknown (but possibly limited) distance to the west and south. The extent of petroleum hydrocarbon contamination in ground water prior to remediation is unknown and may have extended off- Property to the northwest. The extent of arsenic in the ground water is unknown.

Google

Mobile Service Brakes Site Location, 1728 4th Avenue South, Seattle, WA

Sign in


bing
Mobile Service Brakes. Approximate extent of the Site
Sign in
Road
Aerial
Traffic
Fullscreen
Print
Share
World - United States - WA - King Co. - Seattle - Greater Duwamish
N
http://www.bing.com/?FORM=HDRHME&cq=
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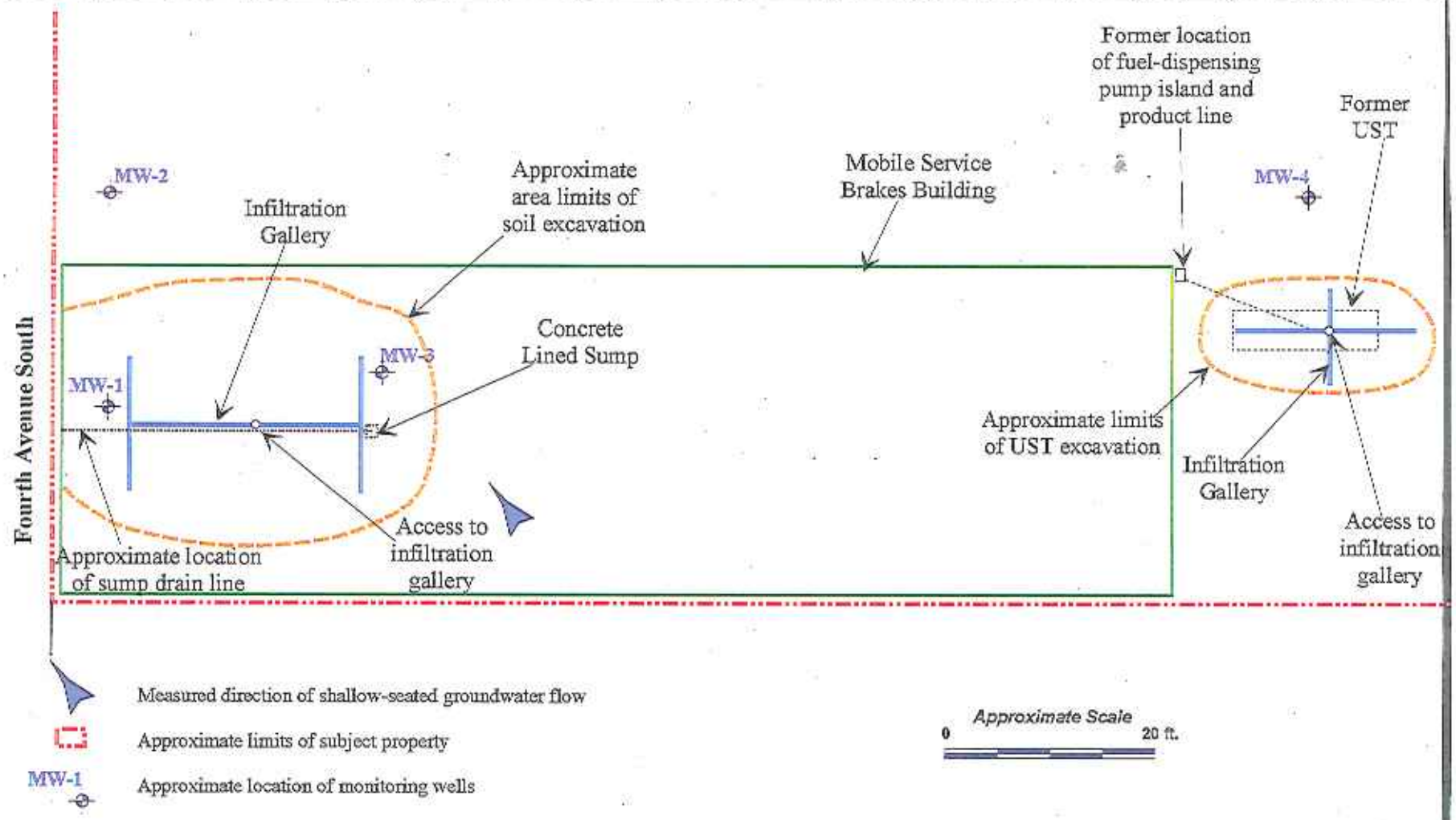



ENVIRONMENTAL ASSOCIATES, INC.

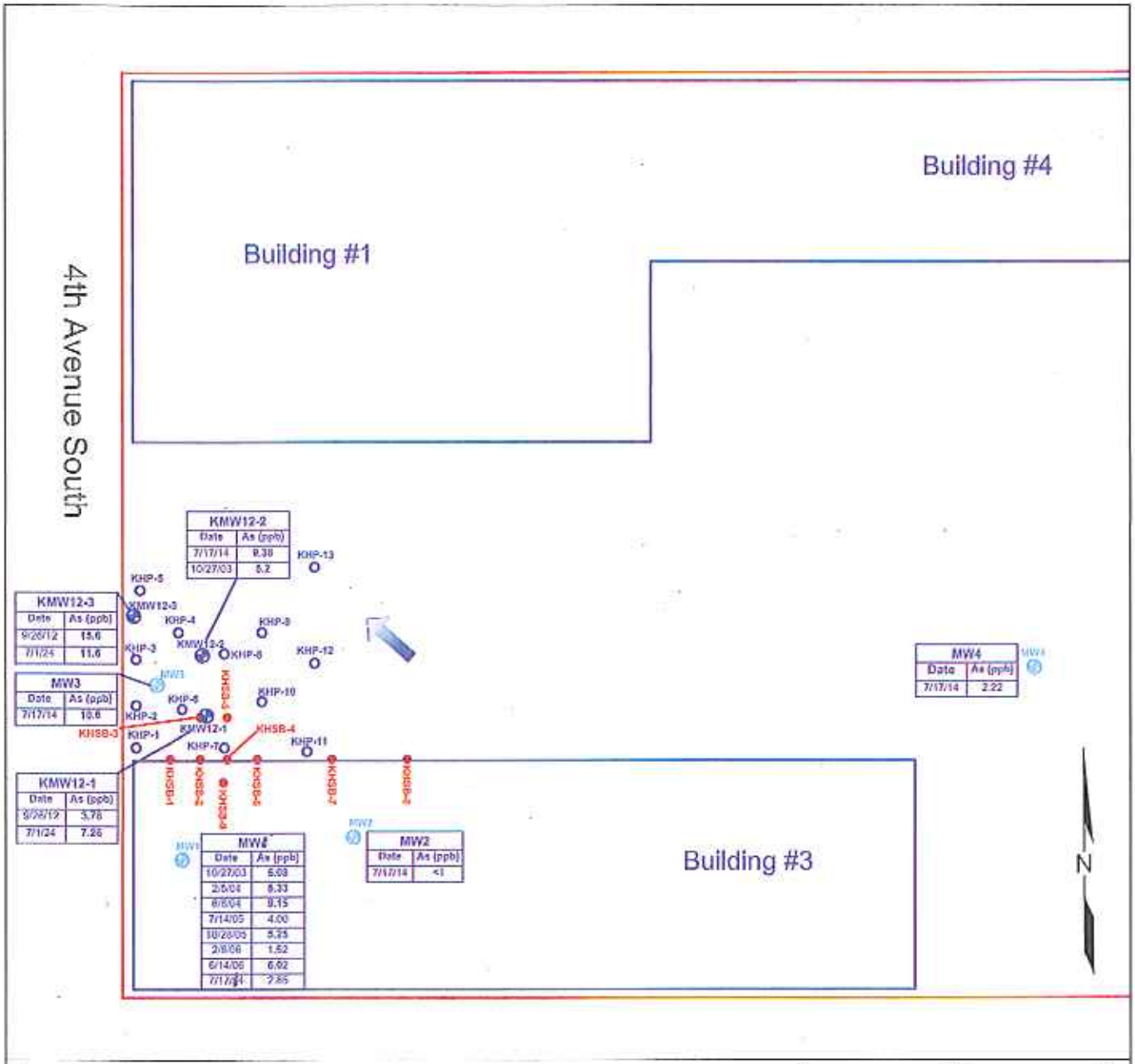
1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

# EXPLORATION MAP

**Mobile Service Brakes Property**
**1728 Fourth Avenue South**
**Seattle, Washington**

N

| Job Number: | Date: | | Plate: |
|---|---|---|---|
| JN-22391-4A | December 2003 | | 3 |




## Legend

0 20 40

Approximate Scale in Feet

| | |
|---|---|
| | Approximate Location of Property Boundary |
| MW1 | Approximate Location of Groundwater Monitoring Wells (EAI 2003) |
| KHSB-1 | Approximate Location of Hand Probes for Soil Collection (Kane Environmental 2011) |
| KMW12-1 | Approximate Location of Groundwater Monitoring Wells (Kane Environmental 2012) |
| KHP-1 | Approximate Location of Hand Probes for Soil Collection (Kane Environmental 2014) |
| | Approximate Direction of Groundwater Flow |

Dissolved Arsenic Results Reported in ug/L (ppb)

KANE ENVIRONMENTAL INC

Columbia 1720 Partners, LLC
1728 4th Avenue South
Seattle, Washington

Figure 3
Monitoring Well
and Hand Probe Location Map