SITE CHARACTERIZATION

WORK PLAN

FOR WORK ASSIGNMENT D009803-48

FORMER KAPLAN CONTAINER SITE NO. 828222
EAST ROCHESTER/MONROE COUNTY, NY

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

Basil Seggos, Commissioner

DIVISION OF ENVIRONMENTAL REMEDIATION
Remedial Bureau E

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October 2023

AECOM

October 20, 2023

Ms. Kaleigh Zappia
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Region 8 Office
6274 East Avon-Lima Road
Avon, NY 14414

RE: Contract No. D009803, WA-48
Site Characterization Work Plan
Former Kaplan Container Site No. 828222

Dear Ms. Zappia:

AECOM USA, Inc. (AECOM) is pleased to submit this Site Characterization Work Plan (Work Plan) for the Former Kaplan Container Site (Site). The Site is located at 130 Despatch Drive in the Village of East Rochester, Monroe County, New York (Tax ID: 139.77-4-1). Figure 1 presents the Site Location Map and Figure 2 presents the Site Plan.

The purpose of this Work Plan is to define the elements of the scope of work (SOW) intended to characterize the Site as requested by the New York State Department of Environmental Conservation (NYSDEC) per Work Authorization No. D00983-48 issued to AECOM on April 24, 2023. The SOW elements described in this Work Plan include:

- Soil sample collection via direct-push soil borings;
- Surface soil sampling;
- Indoor air and sub-slab vapor sampling;
- Water level measurement and non-aqueous phase liquid (NAPL) thickness measurement, if present; and,
- Groundwater sampling.

Locations of the proposed soil borings and surface soil samples are shown on Figure 3 (locations may change based on physical access constraints and observations made while advancing the soil borings). NYSDEC will be notified prior to any changes to the sampling locations. The groundwater monitoring wells included in this sampling program are shown on Figure 3.

This Work Plan will be used in conjunction with the Site-specific *Health and Safety Plan* (HASP) and *Generic Field Activity Plan* (FAP) for Work Assignments under Standby Engineering Services Contract D009803-48. Refer to these plans for descriptions of routine field procedures, field forms, and quality assurance procedures.

SITE DESCRIPTION

The 3.8-acre Site is on Despatch Drive, a commercial/industrial street located in a suburban area approximately 10 miles east of the City of Rochester. The Site is bound to the north by Despatch Drive, and West Maple Avenue to the south. Conrail Railroad, an active railroad track, adjoins the Site to the south and southwest. A motor vehicle collision repair center lies to the west of the Site, and a custom milling facility, which shares a covered parking area, lies to the east. The Site topography is generally flat and is occupied by a 65,110 square foot building (main building), a small office building, and a garage (See Figure 2). The main building is one story except for one section that has an unfinished basement; it is mostly open space used for storage and automobile repair. A covered parking area lies to the east of the main building and adjoins it to the neighboring business. The office building (at the southern end of the Site) is three stories, and incudes office space and storage space. The garage to the west of the office building is used for storage.

The outside portion of the Site that surrounds the main building contains both vegetated and paved areas. The west end of the site is used primarily for vehicle storage. Currently the Site is being used by Custom Truck Creations, Krown Rust Control, Fairport Auto Services LLC, motor vehicle service companies; and a U-Haul rental office. The zoning for the Site is industrial. The surrounding parcels are zoned residential to the south and southwest, and commercial and industrial to the east, north and west.

GEOLOGY/HYDROGEOLOGY

Site soils generally consist of fine to medium sand with varying amounts of silt. During previous investigations, saturated soils, indicative of the presence of groundwater, have been encountered at depths ranging from 8.0 to 13.5 ft. feet below ground surface (bgs). Overburden thickness is at least 28 feet. Bedrock was not encountered during previous investigations.

SITE HISTORY

The Site has been used for industrial purposes throughout its history. The Site was used by the Merchant's Despatch Transportation Co. Railroad Carshops (Carshops), which operated under the names Merchant's Despatch Transportation Co. and Despatch Shops Inc. and later owned by New York Central Railroad, then Penn Central Railroad for the manufacturing and repair of rail cars from the late 1800s to approximately 1970. Kaplan Container purchased the property in 1972 and operated at the property through 2013. The Site was used for reconditing steel, plastic and drums for re-sale until operations were re-located in 2013.From 1976-2001, six (6) spills were reported at 130 Despatch Drive (Spill #7680915, 7881111, 7980226, 8080326, 9307042,and 0170350).In 2012, limited soil and groundwater sampling was performed at the Site on behalf of a potential purchaser. The investigation revealed light non-aqueous phase liquid (LNAPL) was present. NYSDEC was notified of the findings and assigned Spill #1304087. Following the issuance of the spill number, additional investigations were conducted in an effort to identify and locate the source of the LNAPL. In 2013, the Site was leased to Custom Truck Creations (LJ Cooper Enterprises LLC), who is now the current owner.

Groundwater and Environmental Services, Inc. (GES) conducted two (2) sets of site investigations. The first investigation was conducted was from July 2015 through February 2016, with the second conducted in March 2018. The first investigation was documented in a Site Characterization Report that was submitted to the NYSDEC in June 2016, with the March 2018 supplemental investigation documented in a Supplemental Site Investigation Report (SSIR) submitted to the NYSDEC in November 2018. The intent of these investigations was to further identify and delineate subsurface contamination at the site. In summary, the supplemental investigation revealed chlorinated volatile organic compounds (CVOCs) in excess of CP-51 Soil Cleanup Levels (SCLs) in soil samples, and in excess of TOGS 1.1.1 groundwater quality standards (GWQS) in groundwater samples. Soil sample and monitoring well locations are shown on Figure 2. As a result of the discovery of CVOCs, the Site was transferred from the NYSDEC Spills to the NYSDEC Division of Environmental Remediation.

REMAINING CONTAMINATION

Reports documenting previous Site investigations indicate that much of the remaining contamination at the Site is volatile organic compounds (VOCs), namely benzene, toluene, ethylbenzene and xylenes (BTEX) compounds. More recent investigations have revealed the presence of CVOC contamination at the Site (tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE] and vinyl chloride [VC]). It should be noted that samples were only analyzed for VOCs and semi-volatile organic compounds (SVOCs) because the Site was previously in the NYSDEC Spills program. A brief summary of remaining contamination for environmental media is provided below.

Soil

Historical subsurface investigations at the Site revealed VOCs and SVOCs exceeding CP-51 unrestricted use standards. Most of the exceedances were located beneath the building footprint (See Figure 2).

Groundwater

Site investigations conducted from 2013 to 2022 revealed LNAPL thicknesses at the Site ranging from non-detect (ND) to 20 feet. The largest LNAPL plume is on the central portion of the Site, with smaller plume

areas existing southeast of the building and along the western end of the Site. During the more recent investigations, As shown in Figure 2, CVOCs were detected in groundwater exceeding TOGS 1.1.1 Class GA standards. PCE concentrations in groundwater range from ND to 200 parts per billion (ppb) (State standard, 5 ppb). TCE concentrations in groundwater range from ND to 490 ppb (State standard, 5 ppb). Cis-1,2-DCE concentrations in groundwater range from ND to 320 ppb (State standard, 5 ppb). VC concentrations in groundwater range from ND to 0.32 ppb (State standard, 2 ppb).

Surface Water

Surface water is not present at the Site. The nearest surface water body is Irondequoit Creek, approximately 1,900 feet east of the Site.

Soil Vapor

VOCs in the groundwater beneath the Site have the potential to migrate into void spaces within the unsaturated zone and vadose zone in the soil. From the upper unsaturated zone, VOCs can potentially migrate into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because the site is occupied, the inhalation of site-related contaminants due to soil vapor intrusion is a concern. Soil vapor/indoor air sampling was not conducted at this Site.

SITE CHARACTERIZATION

Purpose

The purpose of this SC is comprised of the following:

- Refine the current understanding of the lateral and vertical extent of soil and groundwater contamination within the overburden;
- Re-evaluate the surface and subsurface characteristics of the Site, including topography, stratigraphy, hydrogeology, and depth to groundwater;
- Assess potential contaminant migration pathways, and identify actual or potential receptors of contaminants; and
- Determine whether the Site meets the State's definition of a hazardous waste site by confirming or denying the presence of hazardous waste, and whether the site meets the criteria for placement on the New York State Registry of Inactive Hazardous Waste Disposal Sites (the Registry).

Pre-Investigation Activities

Property Access was granted to NYSDEC on May 24, 2023 by the current site owner, LJ Cooper Enterprises LLC. This enables AECOM to enter the site to perform Site Characterization work.

A meeting was held on Site on Friday June 16, 2023 prior to the development of this Work Plan, representatives of NYSDEC and AECOM attended the meeting, and were escorted by an employee of the facility. The purpose of the meeting was to introduce team members and gather site layout and operational information to assist with the development of the Work Plan for site characterization activities, any permit requirements, and the site meeting

Scope of Work

The scope of work consists of the following tasks:

- Task 1 – Underground Utility Clearance
- Task 2 - Advancement of Soil Borings and Subsurface Soil Sampling by direct push methods
- Task 3 – Surface Soil Sample Collection
- Task 3 - Indoor Air and Sub-Slab Soil Vapor Sampling
- Task 4 – Monitoring Well Inspection, Water Level Measurement and NAPL Thickness Measurement (if present)
- Task 5 - Groundwater Sample Collection

- Task 6 – Site Survey
- Task 7 - Investigation Derived Waste (IDW) Handling
- Task 8 - Report Preparation

The work tasks are further described below.

Task 1 –Underground Utility Clearance

Prior to intrusive work described in Task 2, utility clearance will be conducted by Radar Solutions International, Inc. in the vicinity of the proposed soil boring locations. This will be done using geophysical methods (i.e., ground penetrating radar, etc.).

In addition, at each proposed soil boring location, the direct push subcontractor will hand clear/soft dig with a bucket auger down to 5-feet bgs. If necessary, air knifing or Vac-Tron® will be used to clear the first 5-feet.

The procedures for this task are described in Sections 2.4 and 2.5 of the Contract D009803 Generic Field Activities Plan (FAP).

Task 2 –Advancement of Soil Borings and Subsurface Soil Sampling

Soil borings will be advanced by Nothnagle Drilling, Inc. at approximately ten (10) locations at the Site, as shown on Figure 3 using a direct push technology (DPT) drill rig (e.g., Geoprobe®). DPT soil borings will be advanced to 30 feet bgs or the saturated zone; whichever is encountered first. The proposed soil borings and associated subsurface soil samples are located where limited or no soil contamination data is available, or in locations where the lateral extent of the plume has not been well-defined.

Soil sampling will be conducted continuously to classify subsurface material. All soil samples will be visually described and classified, inspected for signs of contamination (i.e., odor/ vapors, soil discoloration, NAPL, etc.), and screened with a photoionization detector (PID) for the presence of organic vapors by an AECOM geologist. Soil cuttings will be contained in New York State Department of Transportation (NYSDOT) approved 55-gallon drums.

Up to two soil samples will be collected from each direct push soil boring location for as many as 20 soil samples. The soil samples will be collected from the depth with the highest PID reading and/or at the top of the water table if no elevated PID readings are observed. Additional samples may be collected if additional evidence indicates the possible presence of contamination, and/or if NAPL if found. All soil samples will be analyzed for Target Compound List (TCL) VOCs, SVOCs including 1,4-Dioxane, TCL pesticides, TCL polychlorinated biphenyls (PCBs), Target Analyte List (TAL) Metals, Mercury, and of Per- and Polyfluoroalkyl Substances (PFAS) (as listed in Table 1).

The procedures for this task are described in Section 5.2 of the Contract D009803 Generic FAP. Community air monitoring will be performed as described in Section 2.6 of the FAP and will consist of one upwind and one downwind unit.

Task 3 - Surface Soil Sampling

Five surface soil samples will be collected at the locations proposed on Figure 3. Samples will be analyzed for TCL VOCs + 10 TICs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals + Mercury, 1,4-dioxane, and PFAS (Table 1). These samples will be collected from the top 0-2 inches in accordance with New York NYSDEC Technical Guidance for Site Investigation and Remediation DER-10. Sample locations may be modified in the field and in consultation with NYSDEC. These sampling locations are proposed for areas with the highest potential for occupant exposure, if disturbed (i.e., high traffic areas, etc.).

The procedures for this task are described in Section 5.1 of the Contract D009803 Generic FAP. Community air monitoring will be performed as described in Section 2.6 of the FAP and will consist of one upwind and one downwind unit. Additionally, PFAS procedures will follow *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (NYSDEC, April 2023).

Task 4 – Indoor Air and Sub-Slab Soil Vapor Sampling

AECOM will conduct one round of soil vapor intrusion sampling in the building at the Site collected during the week of November 6, 2023. This is typically done during the heating season (November 15, 2023, to

March 31, 2024). However NYSDOH has indicated that the sampling may be completed during the currently-scheduled time as long as the local temperature is not unseasonably warm. AECOM is prepared to adjust the schedule in the event that the conditions are not favorable for properly performing the soil vapor intrusion investigation work.

To perform this work:

- AECOM will contact building management personnel as necessary prior to the field investigation to discuss the procedures for SVI sampling and to schedule the sampling appointment.
- AECOM will complete the New York State Department of Health (NYSDOH) Structure Sampling Questionnaire and Building Inventory forms.
- It is anticipated that AECOM will collect nine total indoor air and nine sub-slab vapor samples from the building. One field duplicate sample and one outdoor air sample will also be collected. Sampling will be conducted using Summa® canisters following the procedures described in Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, (NYSDOH, October 2006).
- All samples will be analyzed for the TCL VOCs following United States Environmental Protection Agency (USEPA) Compendium Method TO-15, Determination of VOCs in Air Collected in Specially Prepared Canisters and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS) (Table 1).

The procedures for this task are described in Section 7.4 of the Contract D009803 Generic FAP.

The proposed sampling locations shown in Figure 3 are bias towards occupied areas, (i.e., office spaces, break rooms, etc.). Since this is a commercial property, 8-hour regulators will be applied to the Summa® canisters, and sampling will occur during a typical 8-hour shift to reflect worker exposure.

Task 5 – Monitoring Well Inspection, Water Level Measurement and NAPL Thickness Measurement

A comprehensive round of water levels will be collected from 30 existing monitoring wells (Figure 3). If present, NAPL thickness will be measured. During this event, each well will be inspected, and any issues that require repairs will be noted and addressed during subsequent work assignments. The procedures for this task are described in Sections 4.1, 4.2 and 4.3 of the Contract D009803 Generic FAP.

Task 6 – Groundwater Sample Collection

Groundwater samples will be collected by AECOM personnel using low-flow sampling procedures from the 30 existing monitoring wells and submitted for analysis of TCL VOCs as indicated on Table 1. Additionally, groundwater samples will be analyzed from eight (8) of the existing monitoring wells for SVOCs including 1,4-Dioxane, TCL pesticides, TCL PCBs, TAL Metals, Mercury, and PFAS as indicated on Table 1.

Groundwater samples will be collected using the procedures described in Section 4.7.1 through 4.7.3 of the Contract D009803 Generic FAP. Additionally, *PFAS procedures will follow Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (NYSDEC, April 2023).

Task 7 – Site Survey

Upon completion of the sampling activities described in Tasks 2 through 5, location and elevation survey of the Site boundary, buildings, Site features, new soil borings, surface soil sample locations, indoor air/ sub-slab soil vapor sampling locations, and existing monitoring wells will be performed by Ravi Engineering (AECOM subcontractor), a New York State Licensed Surveyor.

The site survey will be conducted using the procedures described in Section 2.7 of the Contract D009803 Generic FAP.

Task 8 – IDW Handling

IDW generated (i.e., soil cuttings, purgewater, spent consumables, etc.) during the SC field activities will be handled using the procedures described in Section 8.2 of the Contract D009803 Generic FAP.

One soil and one aqueous sample from IDW will be collected and submitted for laboratory analysis of waste characterization parameters as indicated on Table 1.

Task 9 – Site Characterization Report Preparation

The SC Report will be submitted as a draft report within 90 days after all fieldwork has been completed and

data has been received and validated. Data will be validated in accordance with *Division of Environmental Remediation (DER)-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports* (NYSDEC, 2010).

A final version of the report will be submitted within 10 business days after NYSDEC's comments on the draft report are received by AECOM.

The report for this task will include the following:

a. A description of field activities conducted. along with background, and physical setting;

b. A summary of previous investigations;

c. A Site map depicting relevant Site features;

d. Figure(s) depicting soil borings, soil vapor sampling locations, monitoring wells, and key Site features;

e. Figures depicting sample locations and NYS standards, criteria, guidance (SCG) non-compliance values from the soil and groundwater analytical data collected during Site work;

f. A discussion of analytical results;

g. Figure depicting groundwater elevation contours;

h. Data summary tables of detected compounds with SCGs listed and non-compliance values highlighted;

i. Field notes and/or daily activity logs;

j. Photographs taken during field activities, displayed in a photo log;

k. Boring logs;

l. Piezometer/monitoring well purging and sampling logs with water quality measurements (as applicable);

m. Manifests and/or bills of lading signed by the disposal facility documenting the proper disposal of IDW;

n. Survey field notes and site sketches;

o. A revised survey drawing;

p. A Data Usability Summary Report (DUSR) (including Form 1s) containing only data from the fieldwork;

q. Recommendations.

This task includes EquIS submittals to the NYSDEC for all analytical data collected during the SC.

General Notes

All samples will be analyzed by ALS Environmental, an ELAP certified lab. Proper QA/QC will be collected in accordance with Table 1. Category B deliverables are required for all soil and groundwater analytical data. DUSRs will be prepared for all analyses. AECOM will prepare the DUSRs for PFAs, and Validata (AECOM's data validation subcontractor) will validate all other data.

Schedule

The following is the anticipated schedule for this work:

- Fieldwork Start: October 23, 2023.
- Fieldwork End: November 09, 2023.
- Submit Site Characterization Report Draft: February 09, 2024 (or 90 days after completion of fieldwork and receipt of data).
- Submit Site Characterization Report Final: February 23, 2024 (or 2 weeks after comments received from Department).

Figures

Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Proposed Investigation Location Map

Tables

Table 1 – Summary of Analytical Parameters

Attachments

Attachment 1 – NYSDOH Generic Community Air Monitoring Program

Closing

AECOM appreciates serving NYSDEC with this challenging and interesting project. If you have any questions or comments, please call me at (716) 903-6500.

Sincerely,

AECOM USA, Inc.

Dan McDaid
Project Manager

Enc.
cc: Michael Gutmann, PG – AECOM
Kevin McGovern, PG – AECOM
Sean Connelly, AECOM
60707871

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AECOM	AECOM USA, Inc.
Bgs	below ground surface
cis-1,2-DCE	cis-1,2-dichloroethene
DER	Division of Environmental Remediation
DPT	direct push technology
DUSR	Data Usability Summary Reports
FAP	Generic Field Activity Plan
FWIRA	Fish and Wildlife Resource Impact Analysis
GC/MS	Gas Chromatography/Mass Spectrometry
GES	Groundwater & Environmental Services, Inc.
HASP	Health and Safety Plan
IDW	investigation derived waste
LNAPL	light non-aqueous phase liquid
NAPL	non-aqueous phase liquid
ND	non-detect
NYSDEC	New York Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
PCBs	polychlorinated biphenyls
PCE	Tetrachloroethene
PFAS	per- and polyfluoroalkyl substances
PID	photoionization detector
ppb	parts per billion
ppm	parts per million
SC	Site Characterization
Site	Former Kaplan Container
SCG	Standards, Criteria, or Guidance
SVOC	semivolatile organic compounds
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
Unicorn	Unicorn Management Consultants, LLC
VOC	volatile organic compound
VC	Vinyl Chloride

REFERENCES

Groundwater & Environmental Services, Inc. (GES), 2016. Site Characterization Report, Former Kaplan Container, 130 Despatch Drive, East Rochester, New York, NYSDEC Spill No. 13-04087. June.

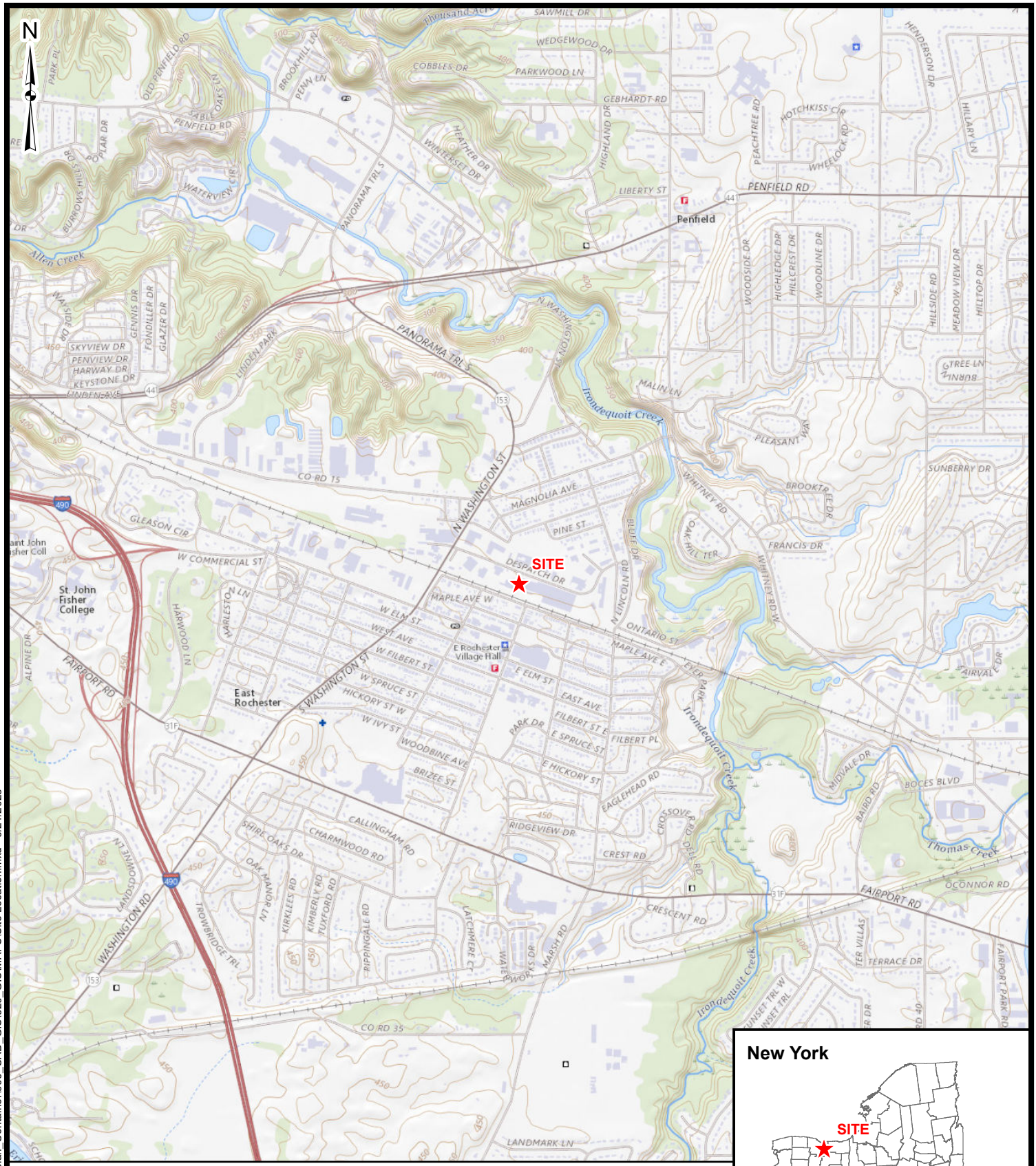
GES, 2018. Supplemental Site Investigation Report, Former Kaplan Container, 130 Despatch Drive, East Rochester, New York, NYSDEC Spill No. 13-04087. November.

New York State Department of Environmental Conservation (NYSDEC), 2010. DER-10 / Technical Guidance for Site Investigation and Remediation, Issued May 3, 2010.

NYSDEC, 2023. Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs, Issued April 2023.

Unicorn Management Consultants, LLC (Unicorn), 2014. Subsurface Investigation Report. Former Kaplan Container, 130 Despatch Drive, East Rochester, New York. June

FIGURES



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FORMER KAPLAN CONTAINER
NYSDEC SITE NO. 828222

SITE LOCATION

EAST ROCHESTER, NEW YORK

FIGURE 1

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FORMER KAPLAN CONTAINER
NYSDEC SITE NO. 828222

SITE PLAN

EAST ROCHESTER, NEW YORK

AECOM

FIGURE 2

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N

Despatch Dr

W Maple Ave

MW-4
SS-02
MW-119
MW-106
SB-06
MW-116
MW-117
SS-03
SB-05
SS-04
MW-120
MW-115
MW-3
MW-118
SS-01
MW-127
MW-107
MW-125
MW-2
MW-114
SB-04
MW-101
MW-121
SB-01
SB-02
SB-07
SB-10
MW-105
MW-113
MW-122
SB-03
MW-102
MW-126
SB-08
MW-108
MW-129
MW-103
MW-128
MW-103D
SS-05
MW-104
MW-109
MW-123
MW-111
MW-1
SB-09

Legend

- Proposed Soil Boring Sampling Location
- Proposed Surface Soil Sampling Location
- Proposed Indoor Air/Sub-slab Soil Vapor Pair Sampling Location
- Proposed Ambient Air Sampling Location
- Monitoring Well To Be Sampled
- Estimated Extent of BTEX in Soil
- Estimated Extent of CVOCs in Soil
- Parcel Boundary

Source: NYSGIS GPO Orthoimagery Map Service, 2020

60 0 60 Feet

FORMER KAPLAN CONTAINER
NYSDEC SITE NO. 828222

PROPOSED SAMPLE LOCATION MAP

EAST ROCHESTER, NEW YORK

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FIGURE 3

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TABLE

TABLE 1
FORMER KAPLAN CONTAINER SITE - SITE CHARACTERIZATION - SITE NO. 828222
NYSDEC WA D009803-48
SAMPLE ANALYTICAL PROGRAM

Analytical Methods*	Samples	QC						Total No of Samples
		Field Dup	MS	MSD	Equipment/ Rinse Blank	Field Blank	Trip Blank	
Surface Soils (QA/QC samples included with subsurface soils)								
TCL Volatiles + 10 TICs by 8260C	5	1	1	1	0	0	0	8
TCL Semiolatiles including 1,4-Dioxane + 20 TICs by 8270D	5	1	1	1	0	0	0	8
TCL Pesticides by 8081B	5	1	1	1	0	0	0	8
TCL PCBs by 8082A	5	1	1	1	0	0	0	8
TAL Metals (except Hg) by 6010C	5	1	1	1	0	0	0	8
Mercury (Hg) by 7471A	5	1	1	1	0	0	0	8
PFAS by 1633	5	1	1	1	1	1	0	10
Subsurface Soils								
TCL Volatiles + 10 TICs by 8260C	20	1	1	1	0	0	0	23
TCL Semiolatiles including 1,4-Dioxane + 20 TICs by 8270D	20	1	1	1	0	0	0	23
TCL Pesticides by 8081B	10	1	1	1	0	0	0	13
TCL PCBs by 8082A	10	1	1	1	0	0	0	13
TAL Metals (except Hg) by 6010B	10	1	1	1	0	0	0	13
Mercury (Hg) by 7471A	10	1	1	1	0	0	0	13
PFAS by 1633	10	1	1	1	1	1	0	15
Groundwaters								
TCL Volatiles + 10 TICs by 8260C	30	2	2	2	0	0	2	38
TCL Semiolatiles + 20 TICs by 8270D	30	1	1	1	0	0	0	33
1,4-Dioxane by 8270D SIM	8	1	1	1	0	0	0	11
TCL Pesticides by 8081B	8	1	1	1	0	0	0	11
TCL PCBs by 8082A	8	1	1	1	0	0	0	11
TAL Metals (except Hg) by 6010C	8	1	1	1	0	0	0	11
Mercury (Hg) by 7470B	8	1	1	1	0	0	0	11
PFAS by 1633	8	1	1	1	2	5	0	18
Soil Vapor Intrusion								
Indoor Air Volatiles by TO-15	9	1	0	0	0	0	0	10
Subslab Soil-Vapor Volatiles by TO-15	9	1	0	0	0	0	0	10
Outdoor Air Volatiles by TO-15	1	0	0	0	0	0	0	1
Summa Canister	20	2	0	0	0	0	0	22
Flow Regulator	20	2	0	0	0	0	0	22
Waste Characterization								
Full TCLP	2	0	0	0	0	0	0	2
Ignitability	2	0	0	0	0	0	0	2
Corrosivity (pH)	2	0	0	0	0	0	0	2
Reactivity	2	0	0	0	0	0	0	2

MS - Matrix Spike
MSD - Matrix Spike Duplicate
PCBs - Polychlorinated biphenyls
PFAS - Per- and polyfluoroalkyl substances
SIM - Selected Ion Monitoring
TCL - Target compound List
TCLP - Toxicity Characteristics Leaching Procedure
TICs - Tentatively Identified Compounds

ATTACHMENT 1

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

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Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.