Floor Coating and Post Construction Sampling Interim Remedial Measure Workplan (IRMWP)

Location:

11075 Walden Avenue
Alden, New York
NYSDEC BCP No. C915333

Prepared for:

Walden Realty Limited Partnership
c/o Mr. James J. Doro (Doritex Corp)
11980 Walden Avenue
Alden, New York

LaBella Project No. 2180345

August 16, 2021 – Draft

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CERTIFICATION

I Adam Zebrowski certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this IRMWP was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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Adam Zebrowski

Date: August 16, 2021

1.0 INTRODUCTION

Walden Realty Limited Partnership and J&M Walden Holdings Corp. (formerly named Doritex Corp.) entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) on January 19, 2018, to investigate and remediate an approximately 2.94-acre property located at 11075 Walden Avenue in the Town of Alden, Erie County, New York (hereinafter referred to as "Site"). A site location map is presented in Figure 1.

2.0 BACKGROUND

2.1 Site Description

The Site consists of one tax parcel (SBL #96.00-4-6.2) totaling 2.94 acres. The Site is located in a suburban area south of Walden Avenue and west of Commerce Drive. Figure 2 illustrates the location and boundaries of the current tax parcel configuration associated with the Site. Current Site features include one, single-story 34,858 square foot vacant commercial building (Site Building) on the central portion of the Site. Exterior areas of the Site include green space to the north, west and south of the Site Building, asphalt-paved parking areas to the east and south of the Site Building, and commercial buildings further to the east across Commerce Drive.

2.2 Site History

The Site consisted of undeveloped land from at least 1880 to at least 1951 and agricultural land from at least 1938 to at least 1951. The Site appears to have been developed with the original portion of the Site Building in at least 1964. The Site was historically utilized as a commercial laundry facility, including dry cleaning, from at least 1988 (potentially as early as the 1970s by others) through 2006. It should be noted that the Site was listed within the Federal Drycleaners, Resource Conservation and Recovery Act Generator, and Aerometric Information Retrieval System's programs associated with the dry cleaning operations. The Site also reportedly utilized a septic system prior to the mid-1980s. Floor drains noted throughout the Site Building may have previously discharged to an on-site septic system. Furthermore, former on-site operations reportedly included printing. Although available resources to date were consulted, the use of the Site Building in the 1960s is unknown. Adjacent properties have been historically utilized agriculturally and commercially.

2.3 Site Geology and Hydrogeology

According to the United States Department of Agriculture Erie County Soil Survey, soils at the Site consist mainly of Kendaia silt loam. Soils of this type are characterized by silt loam, gravelly silt loam and gravelly loam and are generally considered to be somewhat poorly drained soil. Based on the collective subsurface information obtained thus far associated with the investigation and remediation at the Site, the concrete slab of the Site Building was encountered from 0.0 to 0.6 feet below the ground surface (ft bgs), and there was a gravel sub-base to a depth of 1.0 ft bgs. Non-native materials, including asphalt-paved surface material and sub-base gravel to depths ranging from 0.3 to 0.6 ft bgs, were encountered in select exterior areas of the Site. In addition, a fill layer consisting of brown silty clay intermingled with trace gravel, rock and concrete was encountered to depths ranging from 1.0 to 2.0 ft bgs proximate the Site Building foundation areas. Native soils generally consisted of brown-red to brown-gray clayey silts and clays (some laminated at greater

depth) typical of outwash plains and alluvial fans to a depth of 35 ft bgs throughout the Site. Depth to groundwater has been measured at the Site between 1.0 and 31.5 ft bgs. Groundwater flow at the Site is generally to the west-northwest. Bedrock beneath the Site is reported to consist of Marcellus Formation black shale, limestone and sandstone, dating from the Middle Devonian period.

2.4 Previous Investigations

Lender Consulting Services, Inc. prepared a Transaction Screen Environmental Assessment Report dated May 4, 2017 which concluded that further investigation of the Site was warranted due to historical use of the Site as an industrial laundry and dry cleaning facility. Walden Realty Limited Partnership retained LaBella to perform that investigation. Based on the results of LaBella's December 4, 2017 Supplemental Phase II ESA Report, chlorinated solvent volatile organic compound (cVOC)-impacted soil, soil vapor, and groundwater were identified at the Site. Solvent type odors were encountered within soil borings advanced beneath the reported former location of a dry cleaning machine which was historically located within the west-central portion of the Site Building (i.e. Central Warehouse). As such, investigation and remediation of the Site was pursued through entrance of the Site into the NYSDEC Brownfield Cleanup Program (BCP).

2.5 BCP Remedial Investigation and Remedial Measures

Brownfield Cleanup Program Interim Remedial Measures (IRM) and Remedial Investigation (RI) tasks have been completed at the Site as generally summarized below. For complete detail regarding the IRM and RI tasks completed at the Site thus far, please refer to LaBella's Draft Interim Remedial Measures, Remedial Investigation & Alternatives Analysis Report dated November 18, 2020.

An IRM excavation was completed between May 29 and June 5, 2019 to remove cVOC impacted soil from beneath the reported former location of a dry cleaning machine which was historically located within the west portion of the Central Warehouse of the Site Building. The IRM Excavation consisted of a 1,176 square-foot area and was advanced to a maximum depth of approximately 10 ft bgs beneath the previous dry cleaner machine location and four ft bgs in the remainder of the excavation. Approximately 117.46 tons of hazardous soil and 99.34 tons of nonhazardous soils were removed from the Site and disposed of properly.

As initial assessment of the Site in 2017 revealed the presence of a cVOC impact to indoor air and sub-slab soil vapor. IRM activities included installation and subsequent activation of an SSDS within the Site Building on March 24, 2020. Performance evaluation of the SSDS system confirmed that the 20 sub-slab monitoring locations achieved negative pressures of between 0.009 and 0.885 inches of water column (wci) all exceeding the New York State Department of Health (NYSDOH) minimum negative pressure goal of 0.004 wci. Five post SSDS construction indoor air samples (ID1-A through ID5-A) were collected within the Site Building on September 11, 2020 to establish the indoor air conditions subsequent activation and continuous operation of the SSDS. Based on the laboratory results from the post SSDS construction indoor air samples, indoor air samples collected from ID2-A, ID3-A, and ID4-A identified trichloroethene (TCE) at concentrations of 3.27 micrograms per cubic meter (µg/m^3), 2.56 µg/m^3, and 2.81 µg/m^3 respectively, slightly exceeding the NYSDOH Table 3.1, August 2015 revision guidance value of 2 µg/m^3. No other analytes were detected exceeding their respective NYSDOH guidance values in the air samples collected from ID2-A, ID3-A, and ID4-A. Furthermore, no analytes were detected at concentrations exceeding NYSDOH guidance

values in the post SSDS construction indoor air samples collected from ID1-A or ID5-A. It should be noted that the post SSDS construction indoor air samples (ID2-A, ID3-A, and ID4-A) which identified TCE at concentrations exceeding the NYSDOH guidance value were all located within the northernmost portion of the Site Building within the Office portion of the Site Building (ID3-A and ID4-A) and immediately south adjacent the office portion of the Site Building (ID2-A) within the Central Warehouse of the Site Building. Evaluation of the source of the elevated concentrations of TCE identified within post SSDS construction indoor air samples ID2-A, ID3-A, and ID-4A are described in Section 2.6 below.

A RI was completed at the Site to further evaluate the surface soil, subsurface soil, groundwater, and soil vapor conditions at the Site. Soil and groundwater samples were generally collected from the Site and submitted for laboratory analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides and herbicides, perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and, 1,4-dioxane. Of note, groundwater samples collected from MW-12 immediately west of the IRM excavation in March 2019 and July 2019 identified tetrachloroethylene (PCE) concentrations of 1,000 micrograms per liter (µg/l) and 2,500 µg/l, respectively. To improve subsurface conditions proximate to and downgradient of the IRM Excavation and retard potential future migration of contaminants towards the western Site boundary, a Supplemental IRM was performed which included enhanced reductive dechlorination injections at 33 locations within the footprint of the IRM Excavation and proximate the west exterior of the Site Building. Post injection groundwater samples revealed a general decrease in cVOC concentrations within MW-12.

Subsequent submittal of LaBella's Draft Interim Remedial Measures, Remedial Investigation, & Alternatives Analysis Report dated November 18, 2020 to the NYSDEC, the NYSDOH provided a comment letter dated January 7, 2021. Comment #8 contained within the January 7, 2021 letter generally indicated that further indoor air monitoring and/or additional mitigation efforts were required due to the presence of TCE detected at concentrations exceeding NYSDOH Table 3.1, August 2015 revision guidance value of 2 µg/m^3 within post SSDS construction indoor air samples collected from ID2-A, ID3-A, and ID4-A. As such, additional assessment was conducted as is detailed within Section 2.6 below to evaluate the source of the TCE detected within post SSDS construction indoor air samples ID2-A, ID3-A, and ID4-A.

2.6 TCE Indoor Air Source Evaluation

In March and April 2021, additional assessment was conducted to further evaluate the source of the elevated TCE concentrations identified within the post SSDS construction indoor air samples collected from ID2-A, ID3-A, and ID4-A. It should be noted that the following was considered during evaluation of the source of the elevated TCE concentrations.

1. The concentrations of TCE detected within ID2-A (3.27 µg/m^3), ID3-A (2.56 µg/m^3), and ID4-A (2.8 µg/m^3) marginally exceeded the NYSDOH Table 3.1, August 2015 revision TCE guidance value of 2 µg/m^3.
2. The post SSDS construction indoor air samples which exceeded the NYSDOH Table 3.1, August 2015 revision TCE guidance value were all collected from the north most interior portions of the Site Building.

3. Post SSDS construction indoor air samples ID3-A and ID4-A were located within the Office portion of the Site Building. The Office has a tight building envelope, is heated by a celling mounted forced air unit that is in operation year round, and contains several interior restrooms and sinks as are summarized below.
    a. Office Women's Room - contains one bathroom toilet, one bathroom sink, and one floor drain.
    b. Office Men's Room - contains one bathroom toilet, one urinal, one bathroom sink, and one floor drain.
    c. West Office/Bathroom Shower - contains one bathroom toilet, one bathroom sink, one bathroom shower and two floor drains.
    d. Office Utility Closet – contains one sink.
    e. Office Kitchen/Breakroom – contains one sink.
    f. Production Women's Room – contains two bathroom toilet stalls, two bathroom sinks, and one floor drain.
    g. Production Men's Room – contains two bathroom toilet stalls, two urinals, two bathroom sinks, and one floor drain.

    In addition to the above, it should be noted that all interior office portions of the Site Building contain a dropped ceiling that allows for air exchange between spaces within the greater office portion of the Site Building.
4. A "Utility Room" is located immediately southwest of the greater office portion of the Site Building. It appears that the Utility Room shares a foundation with the greater office portion of the Site Building, however, interior concrete block walls and high ceilings segregate the Utility Room from the remainder of the office portion of the Site Building. The Utility Room houses the water main service to the Site Building, and a sump associated with the water main. In addition, a floor drain is located within the central portion of the Utility Room. It is further worth noting that a wall mounted "vent" is present allowing for free air exchange between the Utility Room and the immediately adjacent Office Kitchen/Breakroom located within the office portion of the Site Building. With the exception of the wall vent located between the Utility Room and adjacent Office Kitchen/Breakroom, and typical entrance and egress between the office the central warehouse, free air exchange between the office portion of the Site Building and the central warehouse of the Site Building is anticipated to be limited.
5. The sump located within the Utility Room contains water. Should the water within the sump contain cVOCs, there is the potential that the water within the sump could be contributing to TCE concentrations detected within the post SSDS construction indoor air samples collected.
6. Post SSDS construction indoor air sample ID2-A was collected immediately south of the Utility Room and immediately southwest of the greater office portion of the Site Building within the Central Warehouse.
7. One trench drain is located south of the Utility Room within the Central Warehouse, and within 10-20 feet post SSDS construction indoor air sample ID2-A.

8. Post SSDS construction indoor air samples ID1-A did not identify any analytes exceeding NYSDOH guidance values despite being located immediately above the IRM Excavation and areas of remaining residual subsurface cVOC impact. It should be noted that the original concrete floor over the IRM Excavation had been demolished, removed, and replaced with a new concrete floor as part of the IRM Excavation work/Site restoration.
9. The existing epoxy floor coating within the Central Warehouse of the Site Building is heavily damaged and in poor condition. As it has been established that a release of cVOCs had occurred proximate the IRM excavation, and there is the potential the cVOCs were handled adjacent to the IRM Excavation or other portions of the Site Building, there is the potential that the concrete floor within the Central Warehouse could contain residual concentrations of cVOCs, and that any cVOCs present within the concrete floor could potentially volatilize and influence cVOC indoor air concentrations within the Site Building.
10. All 20 SSDS monitoring locations achieved negative pressures in excess of the NYSDOH minimum negative pressure goal of 0.004 wci. Subsequent inspection of the SSDS system components in March 2021 indicated the SSDS was operating properly.

Considering the above, additional assessment of the Site was completed to evaluate a source, or factors that could be contributing to the TCE impact identified within the post SSDS construction indoor air samples ID2-A, ID3-A, and ID4-A.

2.6.1 Initial TCE Source Evaluation

On March 18, 2021 a FROG 4000 handheld gas chromatograph system was utilized to evaluate the interior spaces of the Site Building for the presence of PCE and TCE. The FROG 4000 miniaturizes components used for analytical chemistry and is capable of providing reliable data to evaluate concentrations of various analytes within soil, groundwater, and air matrices; however, was specifically factory calibrated for this project to evaluate PCE and TCE air concentrations. The FROG 4000 operates by placing a sampling probe at the desired sampling location. The FROG 4000 is then activated and an air sample is drawn into the FROG 4000 unit over a period of between five and 10 minutes. Once the sample is collected, the FROG 4000 analyzes the sample and provides a concentration for the factory calibrated analytes (in this case PCE and TCE). While a properly calibrated FROG 4000 unit is a useful tool in evaluating field conditions, it is not intended to replace laboratory analysis.

The FROG 4000 was utilized to screen various locations within the north portion of the Site Building (i.e. Office, Utility Room, north portion of Central Warehouse) with an emphasis placed on obtaining PCE and TCE concentrations within specific interior spaces and features that could potentially represent soil vapor preferential pathways such as floor drain penetrations, floor cracks/joints, etc. In addition, to evaluate whether historic handling cVOC containing chemicals within the Site Building had resulted in the presence of cVOCs within the warehouse building foundation (i.e. concrete floor), the existing epoxy floor finish was manually abraded, or chipped, using a hammer and chisel to expose a fresh concrete surface, and subsequently screened using the FROG 4000 for the presence of PCE and TCE. Figure 4 depicts the each FROG 4000 screening location and the corresponding FROG 4000 screening ID. In addition, Table 1 summarizes the concentrations of PCE and TCE detected by the FROG 4000.

To evaluate whether the water within the sump located within the Utility Room was a potential source or contributor of TCE within indoor air, one water sample (Sump 1) was collected from the sump and submitted to Alpha Analytical, Inc. for laboratory analyses for target compound list VOCs using United States Department of Environmental Protection (USEPA) method 8260. A copy of the laboratory report is included in Appendix 5.

Initial TCE Source Evaluation Results Summary

1. Ambient Indoor Air 1 collected from the east office identified TCE at a concentration of 5.37 µg/m^3 exceeding the NYSDOH guidance value of 2 µg/m^3, and is relatively consistent with the concentration of TCE detected within ID4-A of 2.81 µg/m^3.
2. Ambient Indoor Air 3 collected from the office/kitchen breakroom identified TCE at a concentration of 6.6 µg/m^3, exceeding the NYSDOH guidance value of 2 µg/m^3.
3. Ambient Indoor Air 4 collected from within the north most portion of the Central Warehouse (proximate the vending area) identified a concentration of TCE at a concentration of 1.72 µg/m^3 which does not exceed the NYSDOH guidance value of 2 µg/m^3, and is a slightly reduced concentration when compared to the TCE concentration detected within ID2-A of 3.27 µg/m^3.
4. Generally, air samples collected from Floor Drain 1, Floor Drain 2, Floor Drain 3, Floor Drain 6, located within the office women's room, office men's room, west office/bathroom shower, and the production men's room detected concentrations of TCE between 1.24 µg/m^3 and 6.34 µg/m^3. Although not all the concentrations of TCE detected from the floor drains exceed the NYSDOH guidance value of 2 µg/m^3, there is the potential that the TCE present within floor drains may be contributing to indoor air TCE concentrations within Office. It should be noted, that although the configuration of the interior sewer lines has not been confirmed, and not all interior sewer penetrations (i.e. sinks, urinals, toilet stalls) were screened with the FROG 4000, there is the potential that the sewer lines are interconnected, and for the TCE concentrations within the collective sewer penetrations to be similar and collectively contributing to indoor air TCE concentrations within the Office.
5. Floor samples collected within the north portion of the Central Warehouse and Utility Room from Floor 1, Floor 2, Floor 5, and Floor 6 detected concentrations of TCE between 4.29 µg/m^3 and 16.20 µg/m^3. In addition, PCE was detected within these floor samples at concentrations between 31.86 µg/m^3 and 1,343.46 µg/m^3. As such, it appears that the concrete within the areas tested contains residual concentrations of TCE and PCE, and it appears likely that volatilization of the residual TCE and PCE is a contributor or source of indoor air impact within the north portion of the Site Building.
6. Based on the laboratory results, with the exception of acetone detected at a concentration of 2.2 µg/l, no VOCs were detected within the water sample collected from the sump (Sump 1) within the Utility Room. It should be noted that acetone is a common laboratory contaminant and the concentration of acetone was detected below the laboratory quantitation limit. As such, the water contained within the sump does not appear to represent a potential source or act as a contributor to TCE within the indoor air.

2.6.2 Floor Drain Inspection

On April 20, 2021 a licensed plumber, Petschke Plumbing, Heating, and Air Conditioning (Petschke), mobilized to the Site to clear and inspect five floor drains located within the Office restrooms (Floor Drains 1, 2, 3, 6 and 7). The goal was to evaluate whether the floor drains contained P-traps which are typically installed as a prevention mechanism to stop the backflow of gases from a drainage system, such as a sewer line, into interior spaces. It should be noted that in order for a P-trap to function properly, the P-trap must receive water regularly (the Site Building has been vacant for several years), as the presence of water within the trap physically prevents the backflow of gasses from the sewer into the interior space. Based on the results of Petschke's assessment, it was determined that all five floor drains did contain P-traps; however, all the p-traps were dry. Each P-trap was tested for operation by pouring water into it and monitoring to ensure the water seal was maintained inside the p-trap. No leaks were discovered and the system was filled with water. In addition to the floor drains, all fixtures (toilets, sinks, urinals detailed within Section 2.6) within the Office portion of the Site Building were also filled with water to "wet" the system and fill each P-trap. LaBella remobilized to the Site in April 27, 2021 and re-wet all floor drains and fixtures by pouring several gallons of water down each fixture.

2.6.3 Vent Closure

To further inhibit air exchange between the Utility Room and south adjacent central warehouse, on April 27, 2021, the vent between the Utility Room and the immediately adjacent Office Kitchen/Breakroom located within the office portion of the Site Building was temporarily closed using a plastic contractors garbage bag and duct tape. While temporarily closing the vent, significant air exchange was observed entering the Office Kitchen/Breakroom from the Utility Room.

2.6.4 Supplemental TCE Source Evaluation

On April 30, 2021, LaBella completed a supplemental TCE source evaluation. The goals of the supplemental TCE indoor air evaluation are described below.

1. Re-evaluate the ambient indoor air within the Office and floor drains for the presence of TCE and PCE subsequent "wetting' of the interior fixture P-traps and sealing the vent present between the Utility Room and the immediately adjacent Office Kitchen/Breakroom.
2. Evaluate the horizontal extent of the TCE and PCE impact identified within the concrete floor of the north portion of the Central Warehouse (Floor 1, Floor 2, Floor 5, and Floor 6).
3. Evaluate the office foundation concrete floor for residual concentrations of TCE and PCE.

It should be noted that the methods utilized to implement the supplemental TCE source evaluation were generally consistent with the methods implemented during the March 18, 2021 initial TCE source evaluation. Due to the presence of various floor finishes within the Office (i.e. carpet and vinyl tile), a hammer drill equipped with a ½ inch diameter drill bit was utilized to perforate the floor finish, and into the concrete beneath the floor finish. Each Office floor location was subsequently screened using the FROG 4000 for the presence of PCE and TCE. Figure 4 depicts each FROG 4000 screening location and the corresponding FROG 4000 screening ID. In addition, Table 1 summarizes the concentrations of PCE and TCE detected by the FROG 4000.

Initial TCE Source Evaluation Results Summary

1. None of the ambient indoor air locations screened within the Site Building identified detectable concentrations of PCE of TCE.
2. None of the floor drain locations screened within the Site Building identified detectable concentrations of PCE of TCE.
3. Of the five additional floor samples collected from the central warehouse, only Floor 7 and Floor 8 identified detectable concentrations of PCE and TCE. Concentrations of PCE detected within Floor 7 and Floor 8 were 2.64 µg/m^3 and 2.92 µg/m^3 respectively. Concentrations of TCE detected within Floor 7 and Floor 8 were 3.97 µg/m^3 and 1.88 µg/m^3 respectively.
4. With the exception of Floor 16, none of the floor locations screened within the Office identified detectable concentrations of PCE or TCE. PCE was detected within Floor 16 at a concentration of 2.71 µg/m^3; however, below the NYSDOH guidance value of 30 µg/m^3.

2.6.5 TCE Indoor Air Source Evaluation Conclusions

Based on the collective TCE indoor air source evaluation results, Labella concludes the following.

Office

1. Subsequent "wetting" of the floor drain P-traps and fixtures (toilets, sinks, urinals) located within the Office, no detectable concentrations of PCE or TCE were identified within the floor drain or ambient indoor air samples collected from the Office. Although the source of the TCE impact as identified within post SSDS construction indoor air samples ID3-A and ID4-A cannot be confirmed, it appears that there is the potential that the floor drains and fixtures were a source or contributor to TCE within the Office indoor air, and further, that 'wetting" the floor drain P-traps and fixtures has reduced infiltration of TCE from the sewer penetrations within the Office.
2. Subsequent temporary closure of the vent present between the Utility Room and the immediately adjacent Office Kitchen/Breakroom, no detectable concentrations of PCE or TCE were identified within ambient indoor air samples collected from the Office. Although the source of the TCE impact as identified within post SSDS construction indoor air samples ID3-A and ID4-A cannot be confirmed, it appears that there is the potential that residual PCE and TCE present within the Utility Room and south adjacent Central Warehouse (as discussed in greater detail below) floor, and previous free air exchange between Utility Room and the immediately adjacent Office Kitchen/Breakroom was a source or contributor to TCE within the Office indoor air.
3. None of the floor locations screened within the Office identified detectable concentrations of TCE. As such, the presence of significant concentrations of cVOCs within the Office foundation is not suspected.

Central Warehouse & Utility Room

Detectable concentrations of PCE (maximum concentration of 1,343.46 µg/m^3) and/or TCE (maximum concentration of 16.20 µg/m^3) were generally detected within seven of the 11 floor samples collected from within the Central Warehouse and Utility Room. Although the source of the TCE impact as identified within post SSDS construction indoor air sample ID2-A cannot be confirmed, it appears that there is the potential that residual PCE and TCE present within the Utility Room and

Central Warehouse floor is a source or contributor to TCE within the Central Warehouse air. In addition, there is the potential residual PCE and TCE present within the Utility Room and Central Warehouse floor may have been contributing to indoor air concentrations of TCE detected within the Office prior to temporary closure of the vent. It should be noted that post SSDS construction indoor air sample ID2-A was collected in close proximity to floor samples Floor 1, Floor 2, and Floor 6 which exhibited the highest concentrations of PCE and TCE of the floor samples collected.

2.7 Areas of Concern

The following areas of concern have been identified associated with the Site.

AOC #1: Impacted Indoor Ambient Air

Previous assessment of the Site revealed a soil vapor intrusion concern within the Site Building and an SSDS system was installed within the Site Building. Subsequent installation of the SSDS, as is detailed within Section 2.5 above, post SSDS construction indoor air samples ID2-A, ID3-A, and ID-4A located within the north portion of the Site Building (i.e. Office and Central Warehouse) identified TCE at concentrations slightly exceeding the NYSDOH guidance value. Based on the results of the TCE Indoor Air Source Evaluation as detailed within Section 2.6 above, implementation of an IRM is desired at this time to mitigate potential sources of TCE impact within the north portion of the Site Building.

AOC #2: Impacted Soil

An IRM excavation was advanced between May 29 and June 5, 2019 to remove cVOC impacted soil from beneath the reported former location of a dry cleaning machine which was historically located within the west-central portion of the Site Building. The IRM Excavation consisted of a 1,176 square-foot area and was advanced to a maximum depth of approximately 10 ft bgs beneath the previous dry cleaner machine location and four ft bgs in the remainder of the excavation. Approximately 117.46 tons of hazardous soil and 99.34 tons of nonhazardous soils were removed from the Site and disposed of properly. Further assessment and or remediation of AOC#2 is not being pursued at this time.

AOC #3: Impacted Groundwater

A RI was completed at the Site to further evaluate the surface soil, subsurface soil, groundwater, and soil vapor conditions at the Site. Soil and groundwater samples were generally collected from the Site and submitted for laboratory analysis for VOCs, SVOCs, metals, PCBs, pesticides and herbicides, PFOA, PFOS, and, 1,4-dioxane. Of note, groundwater samples collected from MW-12 immediately west of the IRM excavation in March 2019 and July 2019 identified PCE concentrations of 1,000 µg/l and 2,500 µg/l, respectively. To improve subsurface conditions proximate to and downgradient of the IRM Excavation and retard potential future migration of contaminants towards the west Site boundary, a Supplemental IRM was performed which included enhanced reductive dechlorination injections at 33 locations within the footprint of the IRM Excavation and proximate the west exterior of the Site Building. Post injection monitoring revealed a decrease in PCE and TCE concentrations within MW-12. Further assessment and or remediation of AOC#3 is not being pursued at this time.

2.8 *Standards, Criteria, and Guidance*

This section identifies the Standards, Criteria and Guidance (SCG) being applied for work associated within this IRMWP.

Soil Vapor SCGs

NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006, Table 3.1, August 2015 revision.

3.0 OBJECTIVES OF IRM

The objective is to implement IRMs in attempt to reduce the indoor air TCE concentrations within the north portion of the Site Building (i.e. Office and Central Warehouse) proximate previous sampling locations ID2-A, ID3-A, and ID4-A exhibiting TCE concentrations exceeding the NYSDOH guidelines. Remedial actions proposed include removal and replacement of the existing damaged epoxy floor coating to reduce volatilization of PCE and TCE present within the concrete floor, and achieve the Soil Vapor SCGs within indoor air within the Office and Central Warehouse. To permanently inhibit air exchange between the Utility Room and south adjacent central warehouse, permanent removal and closure of the vent present between the Utility Room and the immediately adjacent Office Kitchen/Breakroom located within the Office will be completed. In addition, "wet" conditions will be maintained within the floor drains and fixtures (i.e. toilets, sinks, urinals) located within the Office. Subsequent implementation of the IRM's, the effectiveness of the IRM's will be evaluated by sampling for TCE proximate the locations (ID2-A, ID3-A and ID4-A) which previously identified concentrations of TCE exceeding the Soil Vapor SCG.

4.0 SUMMARY OF REMEDIAL ACTIVITIES

4.1 *Governing Documents*

The IRM will be completed in accordance with the Site Health and Safety Plan (HASP) and the Site-Specific Community Air Monitoring Plan (CAMP). The HASP and CAMP are included within this IRMWP. All remedial work performed under this IRM was designed to be in compliance with governmental requirements, including site worker requirements mandated by Federal Occupational Safety and Health Administration (OSHA), and NYSDEC Division of Environmental Remediation-10 (DER-10) Technical Guidance for Site Investigation and Remediation, May 2010, herein referred to as DER-10. Post IRM indoor air sampling will be completed in general conformance with NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

4.2 *Site Controls & Safety*

The tasks associated with this IRM will primarily be limited to interior areas of the Site Building, which will be properly secured at the end of each day by locking all doors and openings. Site workers will wear safety glasses and steel toe boots as appropriate. Personnel will don modified level C PPE to include a half face VOC rated respirator during diamond grinding activities associated with removal of the existing damaged epoxy floor coating and anytime an indoor fugitive dust hazard exists. A daily health and safety meeting will be held to review planned activities for the day, discuss

lessons learned from the previous day and address any site specific concerns.

4.3 Community Air Monitoring Plan (CAMP)

Continuous community air monitoring will be performed during the resurfacing and preparation of the existing building floor surface. During the resurfacing phase of the floor coating work, building doors will be opened to improve ventilation. A dust monitor will be placed upwind and downwind of the Site to monitor for volatile organic vapors and fugitive dust emissions. If the dust monitors detect fugitive dust or organic vapors in exceedance of NYSDEC action levels, work will be stopped and mitigation techniques immediately implemented. Mitigation techniques may include but are not limited to closing off certain building openings, changing work techniques and methods, or wetting works areas to reduce dust and vapors. LaBella will have a qualified air monitor onsite for the duration of the floor resurfacing work; however, dust monitoring is not expected to be required during application of the new epoxy floor covering. The air monitor will also serve in a construction oversight capacity to document the floor resurfacing and application of the epoxy floor covering to ensure the work is being conducted in accordance with best industry practices.

4.4 Epoxy Floor Covering

Removal and replacement of the of the existing damaged epoxy floor covering will include an area of approximately 3,100 square feet (ft^2) to include the north portion of the Central Warehouse and Utility Room. The area for the concrete floor to be treated is detailed within Figure 3 and Figure 4. The area of the floor to be treated was established based on the results of the TCE Indoor Air Source Evaluation as is detailed within Section 2.6, while also extending the footprint of the epoxy floor to the south and east to match existing concrete floor expansion joints. Removal of the existing epoxy floor and application of the new epoxy floor will be completed by a qualified floor coating contractor. The scope of work will include removal of an existing floor coating by diamond grinding and installation of a high quality two part epoxy floor coating.

Preparation of the existing floor is necessary to remove the damaged existing epoxy coating and provide a clean substrate capable of properly bonding with the new two layer epoxy coating. A diamond grinder will be utilized to remove the existing epoxy coating and smooth any irregularities in the existing floor. During the removal of the existing floor coating, dust will be managed with a collection unit attached to the grinding machine. Every effort to efficiently collect and minimize dust will be made. Dust will be handled as general construction waste and disposed of by the contractor. Cracks and large surface deviations will be filled and leveled with an epoxy mortar to ensure the new floor coating is level and will resist cracking under normal conditions. A two-step coating process will be implemented and consist of coating the floor with one coat of Sherwin Williams resuprime 3830 and one coat of Sherwin Williams resuflor 3569. Resuprime 3830 coating is a two part fast curing epoxy resin engineered to withstand vapor emissions. The topcoat will consist of Resuflor 3569 which is a low VOC LEED compliant two part multipurpose epoxy coating. The Resuflor 3569 is a low VOC epoxy that is suitable for use in USDA facilities. Product information sheets for Resuprime 3830 and Resuflor 3569 can be found in Appendix 4. Effort will be made to seal around any penetrations in the floor surface (i.e. utility, ect.). It is anticipated that one utility trench located within the Utility Room and one trench drain located within the Central Warehouse will be cleaned, filled, and covered with the epoxy coating. It is anticipated that removal and replacement of the epoxy floor coating will

take approximately five business days, and full curing of the products will take an additional seven business days.

It is anticipated that replacement of the of the existing damaged epoxy floor covering will reduce PCE and TCE indoor air concentrations within the north portion of the Central Warehouse, and reduce the likelihood of migration of PCE and TCE to other portions of the Site Building including the Office. The process of sealing joints, cracks, and penetrations in the floor will strengthen the impermeable barrier between the atmosphere and the sub-slab environment. This positive separation may improve the performance of the SSDS beneath the Site Building.

4.5 Permanent Vent Closure

A qualified contractor will be retained to remove the vent and permanently close the opening between the Utility Room and the adjacent Office Kitchen/Breakroom located within the office portion of the Site Building.

4.6 P-Trap Wetting

Prior to sampling the P-Traps will be maintained in a wet condition. Approximately one week prior to sampling the indoor air, all P-Traps will be checked for a wet condition. If dry conditions are observed during the pre-sampling inspection, water will be added to fill the appropriate P-Traps.

4.7 Post Construction Sampling

Following successful installation of the new epoxy floor covering, permanent closure of the vent, and wetting of the P-Traps, post IRM indoor air sampling will be completed to evaluate the effectiveness of the IRMs. After waiting a minimum of 14 days post construction, accessible exterior doors and windows will be opened for ventilation for a period of approximately 24 hour to ventilate fugitive VOC remaining in the Site Building or originating from the epoxy floor coating, and also to establish a new baseline indoor air condition. Following the successful 24 hour ventilation period, the Site Building will be closed and normal conditions resumed for a 24 hour period.

Three indoor air post IRM samples will be collected from locations consistent with indoor air samples ID2-A, ID3-A and ID4-A, and one ambient outdoor air sample will be collected from location upwind of the Site Building using a summa canister fitted with an eight hour flow regulator and submitted for laboratory analysis for TCE using USEPA Method TO-15.

5.0 IRM SCHEDULE AND REPORTING – DELIVERABLES

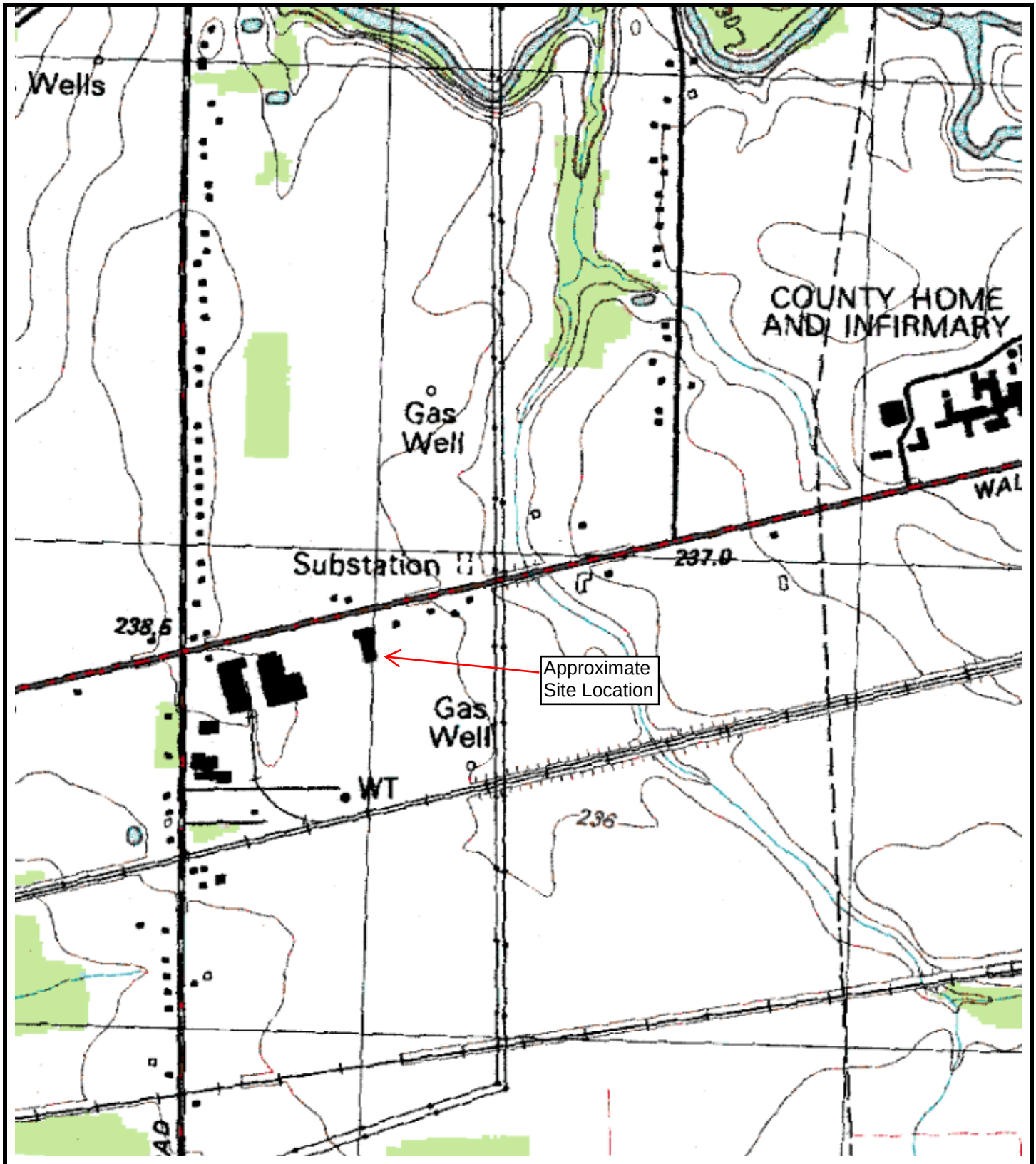
The information and laboratory analytical data obtained during the IRM will be included in a revised Interim Remedial Measures, Remedial Investigation, and Alternatives Analysis report (IRM/RI/AA). The revised IRM/RI/AA report will be completed in accordance with NYSDEC DER-10 Section 5.8.

It is anticipated that implementation of the IRMWP will begin within 30 days after NYSDEC-approval. Completion of the field work is anticipated to require approximately four weeks subsequent to implementation of the IRMWP *(Note: this timeframe does not include laboratory analysis).* A revised IRM/RI/AA report will be submitted within one month of receipt of laboratory analytical results.

The above schedule assumes that an addendum to the IRMWP will not be required. If an IRMWP addendum is required, it will be submitted as the need is identified and it will include a revised schedule.

In addition to the revised IRM/RI/AA report, all data will also be submitted in the NYSDEC-approved EDD format. The data will be submitted within two months of receipt from the laboratory. It is not anticipated that data validation will be required for this IRMWP sampling

FIGURES



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NOT TO SCALE

FIGURE 1
SITE LOCATION MAP

11075 Walden Avenue
Alden, New York

LaBella
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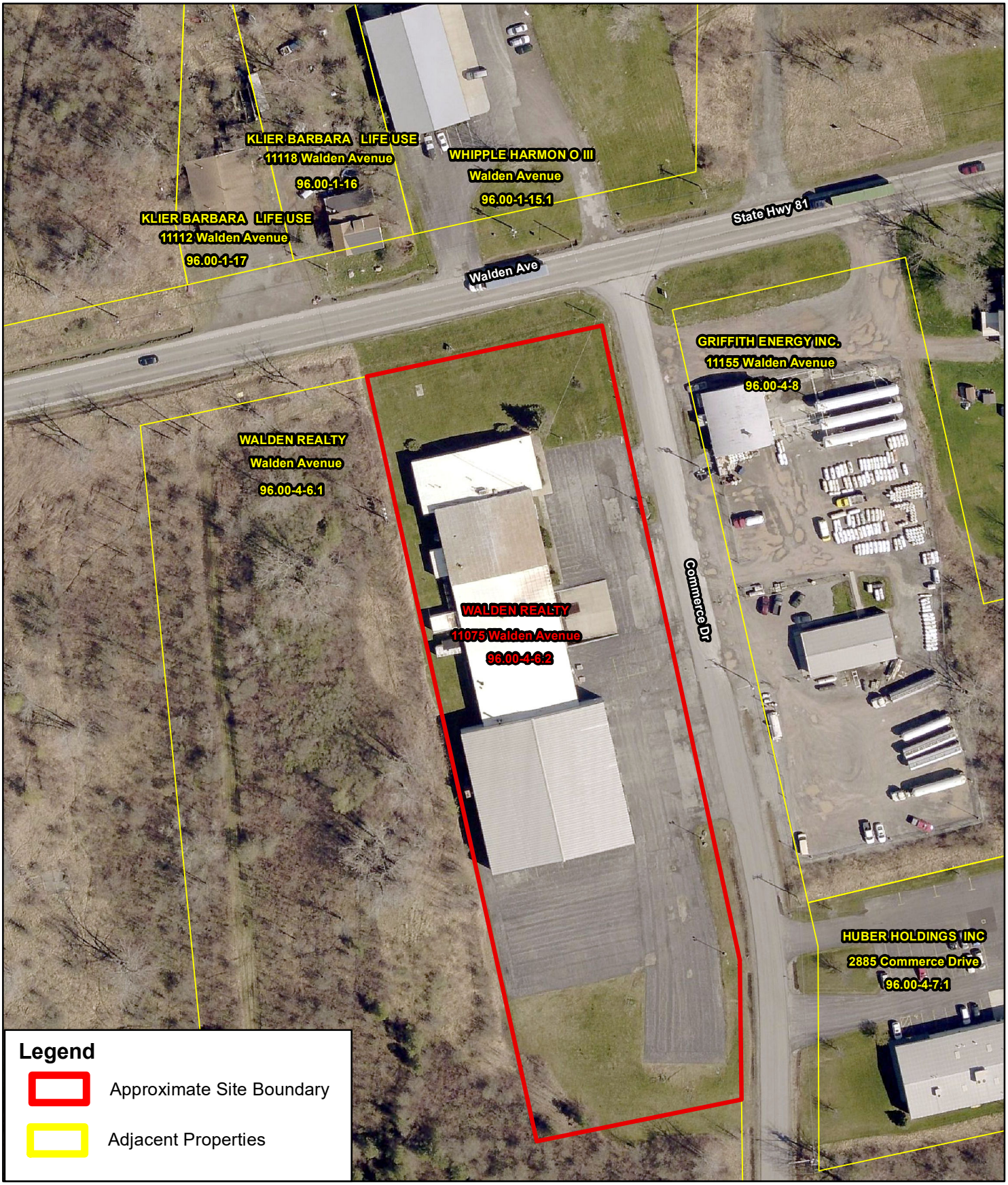
PROJECT NO. 2180605



Path: J:\Walden Realty\2180605 - 11075 Walden Ave BCP\Reports\IRM Report\Figures\Map.2019.6.11.Fig2.SiteBaseMap.mxd

PROJECT #/DRAWING #/DATE:
2180605
FIGURE 2
7/26/2021

DRAWING TITLE
SITE BASE MAP

PROJECT:
INTERIM REMEDIAL MEASURES REPORT
11075 WALDEN AVENUE
ALDEN, NEW YORK

N
W E
S
0 30 60
Feet
1 inch = 108 feet
INTENDED TO PRINT AS: 8.5" X 11"

LaBella
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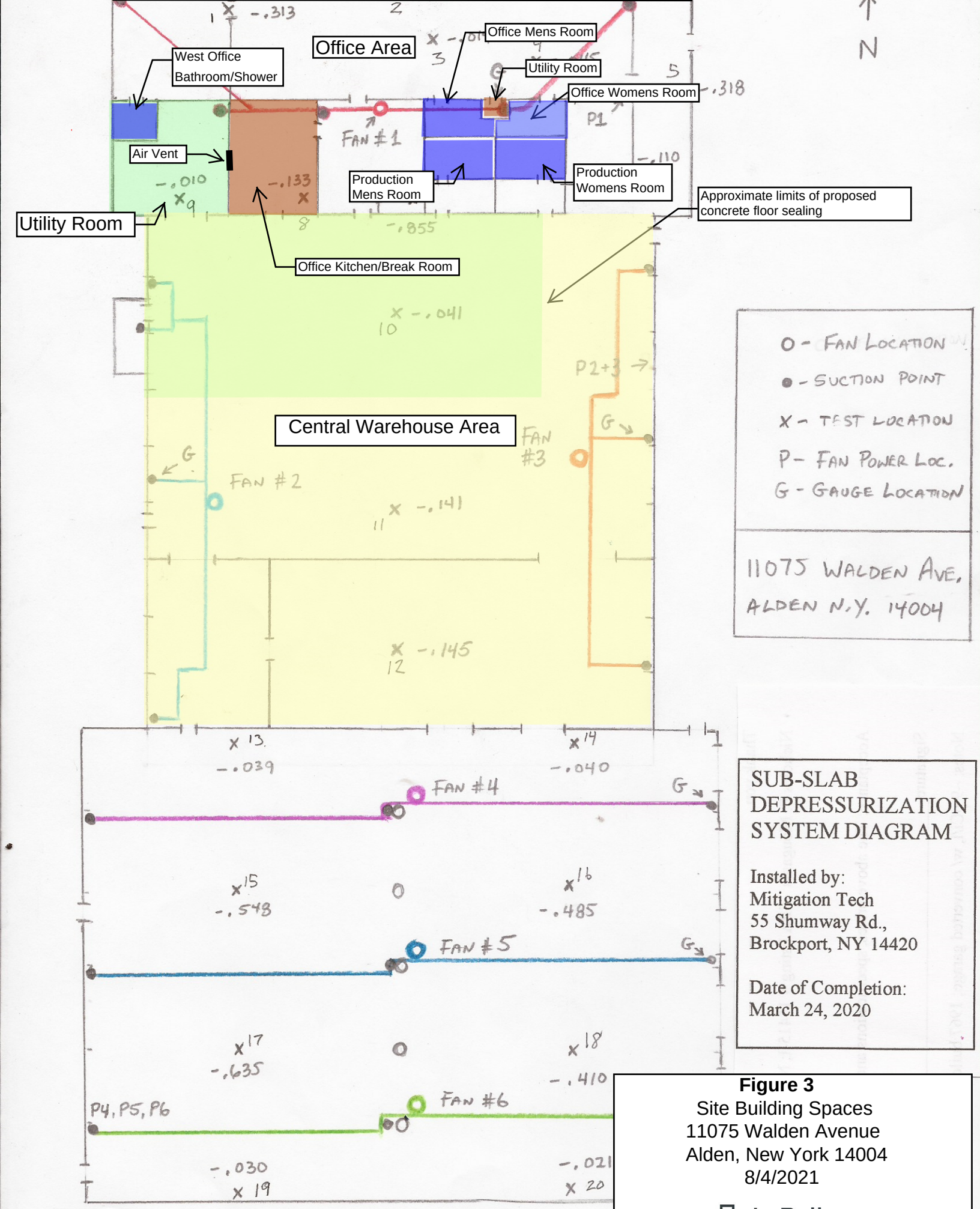

Figure 3
Site Building Spaces
11075 Walden Avenue
Alden, New York 14004
8/4/2021

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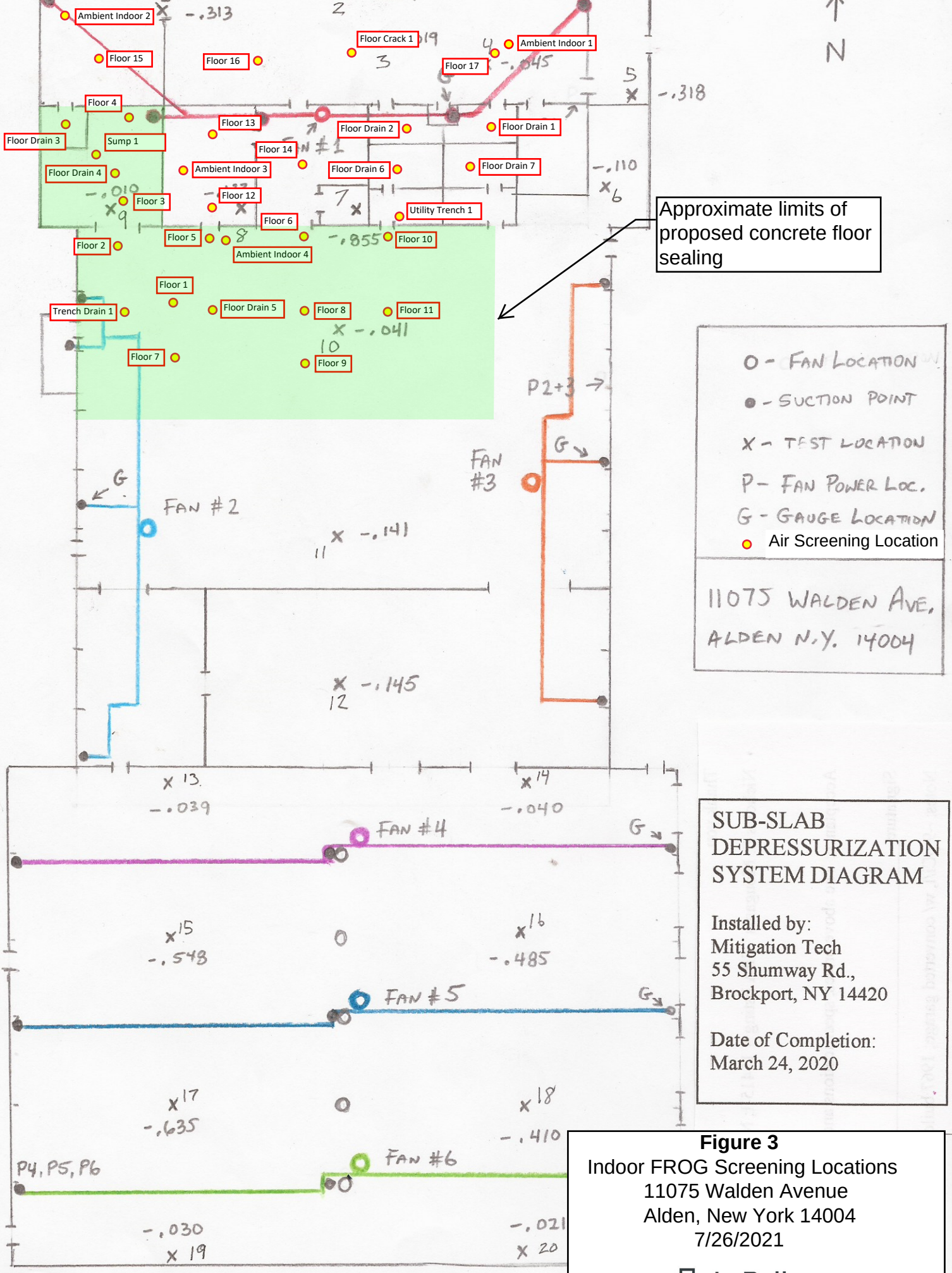

Figure 3
Indoor FROG Screening Locations
11075 Walden Avenue
Alden, New York 14004
7/26/2021

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TABLES

Table 1

11075 Walden Avenue

Alden, New York

Summary of FROG Screening Results

(TCE and PCE Only)

Sample ID	Location	Air Sample Date	LOG ID	Approximate Sample Time	TCE Concentration (µg/m³)	PCE Concentration (µg/m³)
Ambient Indoor Air 1	East Office	3/18/2021	221	9:20am	5.37	8.54
Ambient Indoor Air 1	East Office	4/30/2021	786	9:27am	ND	ND
Ambient Indoor Air 2	West Office	3/18/2021	222	9:33am	ND	ND
Ambient Indoor Air 2	West Office	4/30/2021	787	9:38am	ND	ND
Ambeint Indoor Air 3	Office Kitchen/Break Room	3/18/2021	231	12:38pm	6.6	ND
Ambient Indoot Air 3	Office Kitchen/Break Room	4/30/2021	788	9:51am	ND	ND
Ambient Indoor Air 4	North of IRM Excation/Vending Area	3/18/2021	232	12:51pm	1.72	ND
Ambient Indoor Air 4	North of IRM Excation/Vending Area	4/30/2021	789	10:03am	ND	ND
Floor Crack 1	Center Office	3/18/2021	233	1:03pm	ND	ND
Floor Drain 1	Office Womens Room	3/18/2021	234	1:17pm	2.2	ND
Floor Drain 1	Office Womens Room	4/23/2021	790	10:15am	ND	ND
Floor Drain 2	Office Mens Room	3/18/2021	236	1:45pm	6.34	9.22
Floor Drain 2	Office Mens Room	4/30/2021	791	10:39am	ND	ND
Floor Drain 3	West Office Bathroom/Shower	3/18/2021	237	2:00pm	1.24	ND
Floor Drain 3	West Office Bathroom/Shower	4/30/2021	792	10:53am	ND	ND
Floor Drain 4	Mechanical/Water Main Room	3/18/2021	239	2:29pm	ND	ND
Floor Drain 5	Northeast of IRM Excation/South of Vending Area	3/18/2021	240	2:48pm	ND	ND
Floor Drain 6	Production Mens Room	3/18/2021	243	3:27pm	1.87	ND
Floor Drain 6	Production Mens Room	4/30/2021	793	11:07am	ND	ND
Floor Drain 7	Production Womens Room	3/18/2021	244	3:40pm	ND	ND
Floor Drain 7	Production Womens Room	4/30/2021	794	11:17am	ND	ND
Sump 1	Mechanical/Water Main Room	3/18/2021	238	2:17pm	ND	ND
Trench Drain 1	North of IRM/South of Mechanical/Water Main Room	3/18/2021	241	3:01pm	ND	ND
Utility Trench 1	Production Mens Room	3/18/2021	242	3:15pm	ND	ND
Floor 1	South of Vending Area	3/18/2021	245	3:53pm	4.29	49.02
Floor 2	South of Utility/Water Main Room	3/18/2021	246	4:12pm	12.83	1,343.46
Floor 3	Center Utility/Water Main Room	3/18/2021	247	4:25pm	ND	8.54
Floor 4	Northeast Mechanical/Water Main Room	3/18/2021	248	4:38pm	ND	ND
Floor 5	South of Kitchen/Brake Room	3/18/2021	249	4:50pm	16.20	189.43
Floor 6	South of Middle Office	3/18/2021	250	5:04pm	4.88	31.86
Floor 7	15 Feet South of Floor 1	4/30/2021	795	11:31am	3.97	2.64
Floor 8	15 Feet South of Floor 6	4/30/2021	797	11:56am	1.88	2.92
Floor 9	15 Feet South of Floor 8	4/30/2021	798	12:06pm	ND	ND
Floor 10	South of Production Mens Room	4/30/2021	799	12:14pm	ND	ND
Floor 11	15 Feet South of Floor 10	4/30/2021	800	12:36pm	ND	ND
Floor 12	South Kitchen/Break Room	4/30/2021	801	12:48pm	ND	ND
Floor 13	North Kitchen/Break Room	4/30/2021	802	1:00pm	ND	ND
Floor 14	South Office	4/30/2021	803	1:15pm	ND	ND
Floor 15	West Office	4/30/2021	804	1:24pm	ND	ND
Floor 16	Center Office	4/30/2021	805	1:36pm	ND	2.71
Floor 17	East Office	4/30/2021	806	1:47pm	ND	ND

Concentrations of trichloroethylene (TCE) and tetrachloroethylene (PCE) reported above are based on FROG-4000 results and are reported in micrograms per cubic meter (µg/m³)

ND = Not detected

APPENDIX 1

Health and Safety Plan
(HASP)

Site Health and Safety Plan

Location:

11075 Walden Avenue
Alden, New York 14004

Prepared For:

Mr. Jim Doro
Walden Realty Limited Partnership/Doritex Corp.
11980 Walden Avenue
Alden, New York

LaBella Project No. 2180605

July 2021

Olympic Towers, 300 Pearl Street, Suite 130 | Buffalo, NY 14202 | p 716-551-6281 | f 716-551-6282
www.labellapc.com

Table of Contents

Tables

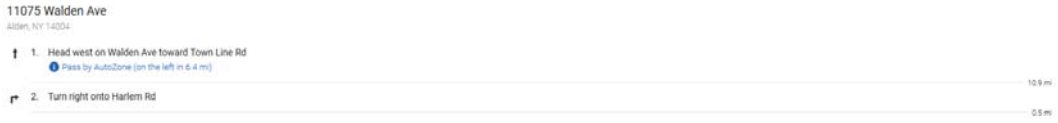
SITE HEALTH AND SAFETY PLAN

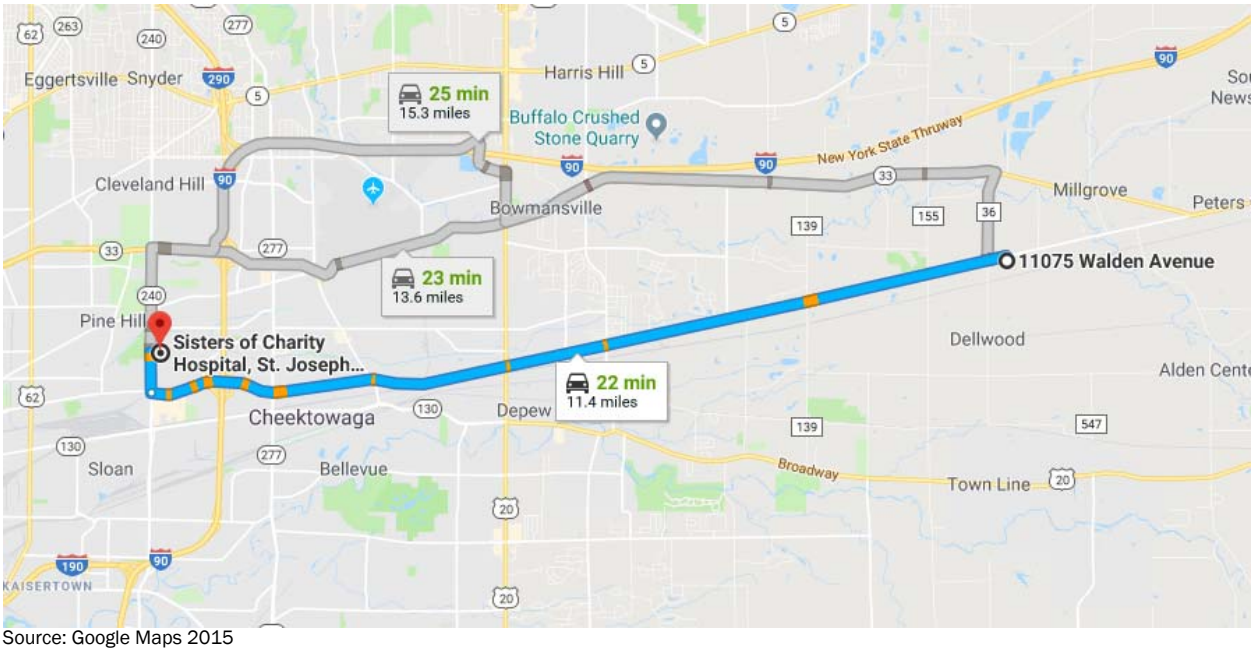
Project Title:	11075 Walden Avenue - Brownfield Cleanup Program
Project Number:	2180605
Project Location (Site):	11075 Walden Avenue, Alden, New York 14004
Environmental Director:	Rob Napieralski
Project Manager:	Adam Zebrowski
Plan Review Date:	_____
Plan Approval Date:	_____
Plan Approved By:	_____ Mr. Richard Rote, CIH
Site Safety Supervisor:	Chris Kibler
Site Contact:	Jim Doro, Doritex Corp.
Safety Director:	Rick Rote, CIH
Proposed Date(s) of Field Activities:	To Be Determined
Site Conditions:	2.6± acres; Current Site features include green space to the north, west and south of the Site Building and asphalt-paved parking areas to the east and south of the Site Building.
Site Environmental Information Provided By:	❑ Limited Environmental Due Diligence: Transaction Screen report, 11075 Walden Avenue, Alden, New York, prepared by Lender Consulting Services, Inc. dated May 4, 2017 ❑ Supplemental Phase II Environmental Site Assessment report, 11075 Walden Avenue, Alden, New York, prepared by LaBella Associates, D.P.C. dated December 4, 2017
Air Monitoring Provided By:	LaBella Associates, D.P.C.
Site Control Provided By:	LaBella Environmental, LLC

EMERGENCY CONTACTS

	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	St. Joseph's Hospital	716-891-2606
Poison Control Center:	National Poison Control Center (serving Buffalo Area)	800-222-1222
Police (local, state):	Erie County Sheriff's Department	716-937-7675
Fire Department:	Alden Village Fire Department	716-937-9319
Site Contact:	Jim Doro, Doritex Corp.	716-684-6600
Agency Contact:	NYSDEC – Anthony Lopes NYSDOH – To Be Determined	716-851-7220 To Be Determined
Environmental Director:	Rob Napieralski	Direct: 716-551-6283
Project Manager:	Adam Zebrowski	Direct: 716-840-2548
Site Safety Supervisor:	Brandon Mikolin	Direct: 716-422-2815
Safety Director	Rick Rote, CIH (LaBella)	Direct: 704-941-2123

MAP AND DIRECTIONS TO THE MEDICAL FACILITY
- ST. JOSEPH'S HOSPITAL





Source: Google Maps 2015

1.0 INTRODUCTION

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered during the Interim Remedial Measure (IRM) at 11075 Walden Avenue in the Town of Alden, Erie County, New York (Site). This HASP only reflects the policies of LaBella Associates, D.P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work Site. This document's project specifications, and the Community Air Monitoring Plan (CAMP), are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any regulatory requirements of the United States Environmental Protection Agency, New York State Department of Environmental Conservation, Occupational Safety and Health Administration or other regulatory bodies.

2.0 RESPONSIBILITIES

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 ACTIVITIES COVERED

The activities covered under this HASP are limited to the following:

- Management of environmental investigation and remediation activities
- Environmental Monitoring
- Collection of samples
- Management of excavated soil and liquid waste (groundwater)

4.0 WORK AREA ACCESS AND SITE CONTROL

The contractor(s) will have primary responsibility for work area access and Site control.

5.0 POTENTIAL HEALTH AND SAFETY HAZARDS

This section lists some potential health and safety hazards that project personnel may encounter at the project Site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as Site environmental and Site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for Site safety and his instructions must be followed.

5.1 *Hazards Due to Heavy Machinery*

Potential Hazard:

Heavy machinery including drilling rigs, excavators, trailers, etc. will be in operation at the Site. The presence of such equipment presents the danger of being struck or crushed and can also create noise pollution. Use caution when working near heavy machinery.

Protective Action:

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses, steel toe shoes and ear protection are required.

5.2 *Excavation Hazards*

Potential Hazard:

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:

Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

While shoring is planned for the proposed excavation, personnel should exercise caution near all excavations at the Site as excavation sidewalls may become unstable. Do not proceed closer than 3 feet to an unsupported or non-sloped excavation side wall. The contractor will be responsible to ensure that all excavations are left in a safe condition.

Excavations shall be backfilled immediately following completion. If this is not possible, fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 *Cuts, Punctures and Other Injuries*

Potential Hazard:

In any excavation and construction work Site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:

The Project Manager is responsible for making First Aid supplies available at the work Site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to

the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer.

5.4 Injury Due to Exposure of Chemical Hazards

Potential Hazards:

Contaminants identified in testing locations at the Site include various chlorinated solvent volatile organic compounds (VOCs). Volatile organic vapors, chlorinated solvents or other chemicals may be encountered during subsurface activities at the project work Site. Inhalation of high concentrations of volatile organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis. In addition, as subsurface activities will take place within the Site Building, there is the potential for carbon monoxide build-up to occur as a result of machinery operation. Inhalation of high concentrations of carbon monoxide can cause headache, stupor, drowsiness, confusion and other health effects including death.

Protective Action:

The use of properly selected Personal Protective Equipment (PPE), adherence to standard health and safety pre-cautions (e.g., no smoking or eating within work area or prior to personal decontamination), and implementation of routine dust suppression methods will effectively minimize exposure to the known contaminants on-site.

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 parts per million (ppm) consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

As the potential for Carbon monoxide build-up exists during subsurface activities, the work area will be properly ventilated in real-time. Carbon monoxide concentrations will also be evaluated at least every 60 minutes or more often using a Carbon Monoxide detector. If concentrations of carbon monoxide are identified in exceedance of 10 ppm during subsurface activities, additional ventilation of the work area will be required prior to commencing with such.

5.5 Injuries due to extreme hot or cold weather conditions

Potential Hazards:

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:

Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

5.6 Injuries due to Saw Cutting of Concrete Surfaces

Potential Hazards:

As saw cutting of the interior concrete slab will be required in order to proceed with the excavation of chlorinated solvent VOC-impacted soils beneath the Site Building, there is the potential for worker exposure to silica dust.

Protective Action:

It is recommended that approved personnel conducting saw cutting activities wear at a minimum a ½ face respirator with organic vapor cartridges. On-site personnel not associated with saw cutting activities should remain a safe distance and (if applicable) upwind from the work area during such to avoid exposure to potential silica dust.

6.0 WORK ZONES

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.0), the following work zones should be established:

Exclusion Zone (EZ):

The EZ will be established in the immediate vicinity and adjacent downwind direction of Site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These Site activities include contaminated soil excavation and soil sampling activities. If access to the Site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 DECONTAMINATION PROCEDURES

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on Site.

Personnel will use the contractor's disposal container for disposal of PPE.

8.0 PERSONAL PROTECTIVE EQUIPMENT

Generally, Site conditions at this work Site require level of protection of Level D or modified Level D; however, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.*]

9.0 AIR MONITORING

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications.

The Air Monitor will utilize a PID to screen the ambient air in the work areas (drilling, excavation, soil staging, and soil grading areas) for total VOCs, DustTrak tm Model 8520 aerosol monitors or equivalent for measuring particulates and a carbon monoxide detector for total carbon monoxide concentrations. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the work areas and downwind of the work areas will be performed at least every 60 minutes using a PID, the DustTrak meter and a carbon monoxide detector.

If sustained PID readings of greater than 25 ppm are recorded in the breathing zone, either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hour use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 50 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

As the potential for Carbon monoxide build-up exists during subsurface activities, the work area will be properly ventilated in real-time. If concentrations of carbon monoxide are identified in exceedance of 10 ppm during subsurface activities, additional ventilation of the work area will be required prior to commencing with such.

10.0 EMERGENCY ACTION PLAN

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible, wait at the assigned "safe area" and follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 MEDICAL SURVEILLANCE

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this Site.

12.0 EMPLOYEE TRAINING

Personnel who are not familiar with this Site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

Table 1
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100	100	NA	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl Alcohol	400	200	500	2.0	12.7	2,000	Rubbing alcohol	3	10.10
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphoric Acid	1	1	3	NA	NA	10,000	NA	NA	NA
Polychlorinated Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium Hydroxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals									
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	NA	NA	NA
Cadmium	0.2	0.5	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1	0.5	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.05	0.15	NA	NA	NA	700	NA	NA	NA
Mercury	0.05	0.05	NA	NA	NA	28	NA	NA	NA
Selenium	0.2	0.02	NA	NA	NA	Unknown	NA	NA	NA

(a) Skin = Skin Absorption
(b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990
(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.
(d) Metal compounds in mg/m3
(e) Lower Exposure Limit (%)
(f) Upper Exposure Limit (%)
(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

Notes:
1. All values are given in parts per million (PPM) unless otherwise indicated.
2. Ca = Possible Human Carcinogen, no IDLH information.

APPENDIX 2

Community Air Monitoring Plan
(CAMP)

Site Community Air Monitoring Plan

Location:

11075 Walden Avenue
Alden, New York 14004

Prepared for:

Mr. Jim Doro
Walden Realty Limited Partnership/Doritex Corp.
11980 Walden Avenue
Alden, New York

LaBella Project No. 2180605

July 2020

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List of Attachments

Attachment 1: NYSDOH Community Air Monitoring Plan
Attachment 2: NYSDEC Fugitive Dust and Particulate Monitoring Plan

1.0 INTRODUCTION

The purpose of this Site Community Air Monitoring Plan (CAMP) 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 remedial work activities at the Site located at 11075 Walden Avenue in the Town of Alden, Erie County, New York. This Site-Specific Air Monitoring Program (SSAMP) is not intended for use in establishing action levels for worker respiratory protection.

This SSAMP 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 the Site. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the SSAMP will help to confirm that work activities have not spread contamination off-site through the air.

2.0 RESPONSIBILITIES

This SSAMP is applicable to the remedial activities of contractors, engineers, consultants, facility employees, and their authorized visitors. The Project Manager shall implement the provisions of this SSAMP for the duration of the project. It is the responsibility of all remedial workers to follow the requirements of this SSAMP, and all applicable air safety procedures.

3.0 ACTIVITIES COVERED

The activities covered under this SSAMP include the following:

- Management of environmental investigation and remediation activities
- Environmental monitoring
- Collection of samples
- Management of excavated soil and liquid waste (groundwater)

4.0 WORK AREA ACCESS AND SITE CONTROLS

The contractor(s) will have primary responsibility for work area access and site control.

5.0 VOLATILE ORGANIC COMPOUND MONITORING

Monitoring for VOCs will be implemented in accordance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan, which is included in Attachment 1.

6.0 PARTICULATE MONITORING

Monitoring for dust will be implemented in accordance with the NYSDOH Generic Community Air Monitoring Plan (Attachment 1) as well as New York State Department of Environmental Conservation's Fugitive Dust and Particulate Monitoring (Attachment 2).

J:\WALDEN REALTY\2180605 - 11075 WALDEN AVE BCP\REPORTS\IRMWP\CAMP\SITE SPECIFIC CAMP_11075 WALDEN AVE..DOCX

Attachment 1
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.

December 2009

ATTACHMENT 2

NYSDEC Fugitive Dust and Particulate Monitoring Plan

Attachment 2
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.

APPENDIX 3

Floor Coating Information Sheets

Protective & Marine Coatings

RESUPRIME™ 3830/3835

PART A	GP3830A01	STANDARD CLEAR
PART B	GP3830B01	STANDARD HARDENER
PART A	GP3835A01	LOW TEMP CLEAR
PART B	GP3835B01	LOW TEMP HARDENER

Revised: March 17, 2021

PRODUCT INFORMATION

PRODUCT DESCRIPTION

RESUPRIME 3830/3835 is a fast curing, two-component, epoxy resin that is tolerant of residual moisture in concrete floors and walls. This enables earlier access onto new concrete substrates for the application of Sherwin-Williams flooring systems. Resuprime 3830/3835 is formulated to prevent moisture related disbondment of non-permeable resinous systems.

ADVANTAGES

- Moisture insensitive to 15 lbs or 97% RH
- Withstands vapor emissions
- Low odor
- Suitable for use in USDA inspected facilities
- Excellent adhesion
- During installation and initial cure cycle substrate and ambient air temperature must be at a minimum of 50ºF (10ºC) for standard cure and 40ºF (4ºC) for the low temp (for lower temperature installation contact your Sherwin-Williams representative).

TYPICAL USES

- For impermeable flooring and wall systems
- Use when moisture readings are less than 15 lbs, as measured by ASTM F1869 or less than 97% relative humidity as measured by ASTM F2170
- Can be applied to saturated surface dry (SSD) concrete

LIMITATIONS

- Do not apply to wet surfaces
- Substrate must be structurally sound and free of bond inhibiting contaminants
- Concrete must have an effective vapor barrier

SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical.

Concrete should have a profile of CSP 3-4.

Read and follow the “Instructions for Concrete Surface Preparation” (Form G-1) for complete details.

PRODUCT CHARACTERISTICS

Color:	Clear
Volume Solids:	100%, mixed
Weight Solids:	100%, mixed
Mix Ratio:	2:1 (standard), 1.28:1 (low temp)
VOC (EPA Method 24):	<100 g/L; 0.83 lbs/gal (as applied)

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	**8.0** (200)	**20.0** (500)
Coverage sq ft/gal (m^2/L):	**80** (2.0)	**200** (4.9)

PRODUCT CHARACTERISTICS (CONT'D)

Drying Schedule @ 8.0 mils wet (200 microns):

	@ 72°F/22°C
Standard:	50% RH
To touch:	6 hours
To recoat:	
minimum:	6 hours
maximum:	18 hours
Foot traffic:	24 hours
Heavy traffic:	72 hours
Full cure:	7 days
Low Temp:	
To touch:	4-5 hours
To recoat:	
minimum:	4 hours
maximum:	18 hours
Foot traffic:	24 hours
Heavy traffic:	48 hours
Full cure:	7 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: gallon mass 15 minutes

Shelf Life: 12 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C)

APPLICATION

Option #1 (< 8 lbs moisture reading or <85% RH)

Mixing and Application

1. Add resin to hardener. Mix with low speed drill and Jiffy blade until uniform. To insure proper system cure and performance, do not deviate from the pre-packaged quantities.
2. Apply using a tight squeegee coat and backroll with a high quality 3/8” nap roller. Apply at a spread rate of 8-10 mils evenly with no puddles making sure of uniform coverage.
3. Allow to cure 6* hours minimum for standard cure and 4* hours for low temp.
4. Proceed with resinous system installation.

Option #2 (< 15 lbs moisture reading or <97% RH)

Mixing and Application

1. Add resin to hardener. Mix with low speed drill and Jiffy blade until uniform. To insure proper system cure and performance, do not deviate from the pre-packaged quantities.
2. Apply using a tight squeegee coat and backroll with a high quality 3/8” nap roller. Apply at a spread rate of 16-20 mils evenly with no puddles making sure of uniform coverage.
3. Allow to cure 6* hours minimum for standard cure and 4* hours for low temp.
4. Proceed with resinous system installation.

*Cure times vary depending on environmental conditions.

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Protective & Marine Coatings

RESUPRIME™ 3830/3835

PART A	GP3830A01	STANDARD CLEAR
PART B	GP3830B01	STANDARD HARDENER
PART A	GP3835A01	LOW TEMP CLEAR
PART B	GP3835B01	LOW TEMP HARDENER

Revised: March 17, 2021

PRODUCT INFORMATION

CHEMICAL RESISTANCE

For comprehensive chemical resistance information, contact your Sherwin-Williams representative.

CLEANUP

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

SAFETY

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

MAINTENANCE

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact your Sherwin-Williams representative.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Protective & Marine Coatings

RESUFLOR™ 3569
MULTI-PURPOSE EPOXY

PART A	GP3569	SERIES
PART B	GP3569B01	STANDARD HARDENER
PART B	GP3569B02	FAST CURE HARDENER

Revised: March 15, 2021

PRODUCT INFORMATION

PRODUCT DESCRIPTION

RESUFLOR 3569 Multi-Purpose Epoxy is a high solids, multi-purpose epoxy resin formulated to function as a primer, binder for aggregate or as a topcoat. Available in clear or pigmented this versatile resin allows for one product functionality in aggregate filled or coating applications where high chemical and UV resistance are not requirements.

ADVANTAGES

- Acceptable for use in USDA inspected facilities
- LEED compliant (<50 g/L VOC)
- Low viscosity
- One product on job site
- Good chemical & abrasion resistance
- Economical

TYPICAL USES

RESUFLOR 3569 Multi-Purpose Epoxy can be used as the primer, binder and topcoat in decorative quartz and paint chip floors or in solid color slurry or mortar floor systems. Typical installations include manufacturing, warehouses, bathrooms, aisles, docks, food & beverage facilities, kitchens, slope to drain and many others. Resuflor 3569 is the ideal choice when a general purpose epoxy floor material is required.

LIMITATIONS

- Do not expose to water for a minimum of 72 hours, or can stain
- Slab on grade requires vapor/moisture barrier
- Substrate must be structurally sound, dry and free of bond inhibiting contaminants
- During installation and initial cure cycle substrate and ambient air temperature must be at a minimum of 50ºF (10ºC). Substrate temperature must be at least 5ºF (3ºC) above the Dew point (for lower temperature installation contact your Sherwin-Williams representative).

SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical. Read and follow the “Instructions for Concrete Surface Preparation” (Form G-1) for complete details.

PRODUCT CHARACTERISTICS

Color:	Clear, Steel Gray, Silver Gray
Mix Ratio:	4:1
Volume Solids:	91% ± 2%, mixed
Weight Solids:	97% ± 2%, mixed
VOC (EPA Method 24):	<50 g/L ; 0.41 lb/gal, mixed
Viscosity, mixed:	500 cps

Recommended Spreading Rate as a coating:

	Minimum		Maximum	
Wet mils (microns):	**10**	(250)	**20**	(500)
~Coverage sq ft/gal (m^2/L):	**80**	(2.0)	**160**	(4.1)

Drying Schedule @ 10 mils (250 microns) wet:

Standard Cure Hardener:	**@ 77°F (25ºC)**
To touch:	6-8 hours
To recoat:	10-24 hours
Light traffic:	24 hours minimum
Full cure:	7 days

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Pot Life: gallon mass 20 minutes @ 77°F (25ºC)

Fast Cure Hardener:	**@ 77°F (25ºC)**
To touch:	6 hours
To recoat:	8-16 hours
Light traffic:	18-24 hours
Full cure:	7 days

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Pot Life: gallon mass 12 minutes

Shelf Life: Part A: 36 months, unopened
Part B (Standard): 36 months, unopened
Part B (Fast Cure): 18 months, unopened
Store indoors at 50°F (10°C) to 90°F (32°C)

Flash Point: 265°F (129°C), ASTM D 93, mixed

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D 4060, CS17 wheel, 1,000 cycles	80 mg loss
Adhesion	ACI 503R	400 psi concrete failure
Compressive Strength	ASTM D 695 ASTM C 579	10,000 psi 12,000 psi with aggregate
Flammability		Self-extinguishing over concrete
Hardness, Shore D	ASTM D 2040	80
Resistance to Elevated Temperature	MIL-D-3134J Section 4.7.5	No slip or flow at required temperature of 158ºF (70ºC)
Tensile Strength	ASTM D 638 ASTM C 307	5,000 psi 1,800 pis with aggregate

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Protective & Marine Coatings

RESUFLOR™ 3569
MULTI-PURPOSE EPOXY

PART A	GP3569	SERIES
PART B	GP3569B01	STANDARD HARDENER
PART B	GP3569B02	FAST CURE HARDENER

Revised: March 15, 2021

PRODUCT INFORMATION

APPLICATION

APPLICATION INSTRUCTIONS:

As Primer

1. Premix 3569A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the materials.

2. Add 4 parts 3569A (resin) to 1 part 3569B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. Apply material using a 3/8" nap roller at a spread rate of 200-250 sq. ft. per gallon as a primer. Back roll with a spiked roller if necessary to help release entrapped air created from the mixing or application process.

NOTE* After 20-30 minutes setup time, if required, spike roll coating to remove any entrapped air. Do not spike roll after 40 minutes.

As Topcoat

1. Premix 3569A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the materials.

2. Add 4 parts 3569A (resin) to 1 part 3569B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. Apply material using a 3/8" nap roller at a spread rate of 80-160 sq. ft. per gallon as a topcoat. Back roll with a spiked roller if necessary to help release entrapped air created from the mixing or application process.

NOTE* After 20-30 minutes setup time, if required, spike roll coating to remove any entrapped air. Do not spike roll after 40 minutes.

As Binder Resin for Mortar systems

1. Premix 3569A (resin) using a low speed drill and Jiffy mixer. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 4 parts 3569 A (resin) to 1 part 3569B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. Place mixed 3569 into mortar mixer. Slowly add 70 pounds of 5115 aggregate. Mix until aggregate is thoroughly "wet out". Immediately dump mortar onto substrate and screed to desired thickness.

3. Compact and smooth the mortar using a hand or power trowel. Allow to cure (cure times vary depending on environmental conditions). Coverage rate is 32-34 sq, feet at 1/4".

As Binder Resin for Self-Leveling systems for opaque self-leveling systems or could use solid color

1. Premix 3569A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 4 parts 3569A (resin) to 1 part 3569B (hardener). Mix with low speed drill and Jiffy blade for three minutes and until uniform. Slowly add up to 6 lbs 5350 Trafficote Filler and up to 13 lbs. of 5310 Dry Silica per 1.25 gallons of mixed epoxy. Mix with low speed drill and Jiffy blade for three minutes and until uniform and no lumps remain.

NOTE: 1 gallon of unpacked 5350 is approximately 6 lbs.
1 gallon of unpacked 5310 is approximately 13 lbs.

3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched trowel or 1/4" v-votched rubber squeegee. Mix will cover 53-55 square feet at 1/16", for non-skid broadcast to refusal with aggregate at a rate of 0.5 lbs per sq. foot to achieve 1/8".

ORDERING INFORMATION

Packaging:
Part A: 4 gallon (15.1L) container
Part B: 1 gallon (3.78L) container

Weight: 10.8 ± 0.2 lb/gal; 1.29 Kg/L mixed, may vary by color

CHEMICAL RESISTANCE

For comprehensive chemical resistance information, consult the Chemical Resistant Guide and contact the your Sherwin-Williams representative.

CLEANUP

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

SAFETY

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

MAINTENANCE

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact your Sherwin-Williams representative.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

APPENDIX 4

Floor Coating SDS Sheets

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
May 17, 2021

03 00 [0788]

PRODUCT NUMBER

GP3569A01

PRODUCT NAME

Resuflor™ 3569 Multi-Purpose Epoxy (Part A), Clear

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Hazard Category (for SARA 311.312)

GP3569A01 = | Acute | Chronic | Fire |

Product Weight	Specific Gravity	FLASH POINT
9.12 lb/gal	1.10	178 °F PMCC

AS MIXED (as per product data sheet): Catalyzed 4 parts GP3569A01 to 1 part GP3569B01

AS MIXED

Product Weight	Specific Gravity	FLASH POINT
8.94 lb/gal	1.08	-3 °F TCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Acetone 67-64-1	N	Y	N	N	5	7

Volatile Ingredients AS MIXED

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Acetone 67-64-1	N	Y	N	N	4	6
Diethylenetriamine 111-40-0	N	N	N	N	3	4

Non-Volatile Ingredients AS MIXED

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
4,4'-Isopropylidenediphenol 80-05-7	N	N	Y	N	2	2

Volatile Organic Compounds - U.S. EPA / Canada

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	LB/Gal	g/L	LB/Gal	g/L
Coating Density	9.12	1093	8.94	1071
	By wt	By vol	By wt	By vol
Total Volatiles	5.4%	7.5%	7.2%	9.5%
Federally exempt solvents				
Water	0.0%	0.0%	0.0%	0.0%
Acetone	5.2%	7.2%	4.2%	5.7%
Organic Volatiles	0.2%	0.3%	3.0%	3.8%
Percent Non-Volatile	94.6%	92.5%	92.8%	90.5%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.02	2	0.26	32
Less exempt solvents	0.02	2	0.28	34
Of solids	0.02	2	0.29	35
Of solids	0.00 lb/lb	0.00 kg/kg	0.03 lb/lb	0.03 kg/kg
	By wt		By wt	
By wt LVP-VOC	0.2%		3.0%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.06**
AS MIXED Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.41**

Volatile Organic Compounds - California

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	LB/Gal	g/L	LB/Gal	g/L
Coating Density	9.12	1093	8.94	1071
	By wt	By vol	By wt	By vol
Total Volatiles	5.4%	7.5%	7.2%	9.5%
Exempt solvents				
Water	0.0%	0.0%	0.0%	0.0%
Acetone	5.2%	7.2%	4.2%	5.7%
Organic Volatiles	0.2%	0.3%	3.0%	3.8%
Percent Non-Volatile	94.6%	92.5%	92.8%	90.5%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.02	2	0.26	32
Less exempt solvents	0.02	2	0.28	34
Of solids	0.02	2	0.29	35
Of solids	0.00 lb/lb	0.00 kg/kg	0.03 lb/lb	0.03 kg/kg
	By wt		By wt	
By wt LVP-VOC	0.2%		3.0%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.03**
AS MIXED Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.46**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	LB/Gal	g/L	LB/Gal	g/L
Coating Density	9.12	1093	8.94	1071
	By wt	By vol	By wt	By vol
Total Volatiles	5.4%	7.5%	7.2%	9.5%
Exempt solvents				
Water	0.0%	0.0%	0.0%	0.0%
Acetone	5.2%	7.2%	4.2%	5.7%
Organic Volatiles	0.2%	0.3%	3.0%	3.8%
Percent Non-Volatile	94.6%	92.5%	92.8%	90.5%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.02	2	0.26	32
Less exempt solvents	0.02	2	0.28	34
Of solids	0.02	2	0.29	35
Of solids	0.00 lb/lb	0.00 kg/kg	0.03 lb/lb	0.03 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	By wt	By vol	By wt	By vol
Total Volatiles	5.9%	8.1%	7.6%	10.0%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.54	64	0.68	81

Volatile Organic Compounds - EU Directive 2010/75/EU

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	By wt	By vol	By wt	By vol
Total Volatiles	5.4%	7.5%	7.2%	9.5%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.49	59	0.64	77

Volatile Organic Compounds - Mexico

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	LB/Gal	g/L	LB/Gal	g/L
Coating Density	9.12	1093	8.94	1071
	By wt	By vol	By wt	By vol
Total Volatiles	5.4%	7.5%	7.2%	9.5%
Exempt solvents				
Water	0.0%	0.0%	0.0%	0.0%
Acetone	5.2%	7.2%	4.2%	5.7%
Organic Volatiles	0.2%	0.3%	3.0%	3.8%
Percent Non-Volatile	94.6%	92.5%	92.8%	90.5%
VOC Content	LB/Gal	g/L	LB/Gal	g/L
Total	0.02	2	0.26	32
Less exempt solvents	0.02	2	0.28	34
Of solids	0.02	2	0.29	35
Of solids	0.00 lb/lb	0.00 kg/kg	0.03 lb/lb	0.03 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	GP3569A01		AS MIXED Catalyzed 4 parts GP3569A01 to 1 part GP3569B01	
	LB/Gal	kg/L	LB/Gal	kg/L
Volatile HAPS	0.00	0.000	0.00	0.000
Of solids	0.00	0.000	0.00	0.000
Of solids	0.00 lb/lb	0.00 kg/kg	0.00 lb/lb	0.00 kg/kg

Air Quality Data

Density of Organic Solvent Blend

6.59 lb/gal

Photochemically Reactive

No

Density of Organic Solvent Blend AS MIXED

6.78 lb/gal

Photochemically Reactive AS MIXED

No

Additional Regulatory Information

US EPA TSCA:

Not Applicable

Relevant identified uses of the substance or mixture and uses advised against:

Not Applicable

US EPA TSCA: AS MIXED

Not Applicable

Relevant identified uses of the substance or mixture and uses advised against: AS MIXED

Not Applicable

Waste Disposal

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SAFETY DATA SHEET

GP3569A01

Section 1. Identification

Product name : Resuflor™ 3569 Multi-Purpose Epoxy (Part A)
Clear

Product code : GP3569A01

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: 1-800-524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
SKIN CORROSION/IRRITATION - Category 1B
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Combustible liquid.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Section 2. Hazards identification

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from flames and hot surfaces. No smoking. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Epoxy Polymer	≥75 - ≤90	1675-54-3
4-Nonylphenol	≤10	84852-15-3
Acetone	≤10	67-64-1
Alkyl Glycidyl Ether	≤5	68609-97-2
Phenol, 2-nonyl-, branched	<1	91672-41-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Section 4. First aid measures

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	None.
4-Nonylphenol	84852-15-3	None.
Acetone	67-64-1	**ACGIH TLV (United States, 3/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Alkyl Glycidyl Ether	68609-97-2	None.
Phenol, 2-nonyl-, branched	91672-41-2	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 1/2020).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 6/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point/boiling range : 55°C (131°F)

Flash point : Closed cup: 81°C (177.8°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 2.6%
Upper: 12.8%

Vapor pressure : 24 kPa (180 mm Hg) [at 20°C]

Vapor density : 2 [Air = 1]

Relative density : 1.09

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Section 9. Physical and chemical properties

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 7.186 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxi) phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
4-Nonylphenol	LD50 Oral	Rat	1300 mg/kg	-
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Alkyl Glycidyl Ether	LD50 Oral	Rat	17100 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
4-Nonylphenol	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-

Alkyl Glycidyl Ether	Skin - Moderate irritant	Rabbit	-	24 hours 500 uL	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
bis-[4-(2,3-epoxipropoxi) phenyl]propane	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Section 11. Toxicological information

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	16332.71 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
4-Nonylphenol	Acute EC50 0.03 mg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 0.027 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 0.044 mg/l	Crustaceans - Moina macrocopa	48 hours
	Acute LC50 17 µg/l Marine water	Fish - Pleuronectes americanus - Larvae	96 hours
	Chronic EC10 0.012 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Chronic NOEC 5 µg/l Fresh water	Crustaceans - Gammarus fossarum - Adult	21 days
	Chronic NOEC 7.4 µg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - Acartia tonsa - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
4-Nonylphenol	-	740	high
Alkyl Glycidyl Ether	-	160 to 263	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere

Section 13. Disposal considerations

inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN3066	UN3066	UN3066	UN3066	UN3066
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (4-Nonylphenol, Phenol, 2-nonyl-, branched)
Transport hazard class(es)	8 	8 	8 	8 	8 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	- **ERG No.** 153	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8). **ERG No.** 153	- **ERG No.** 153	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules** F-A, S-B

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Section 14. Transport information

Proper shipping name : Not available.

Section 15. Regulatory information

TSCA 5(a)2 proposed significant new use rules: 4-Nonylphenol; Phenol, 2-nonyl-, branched

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

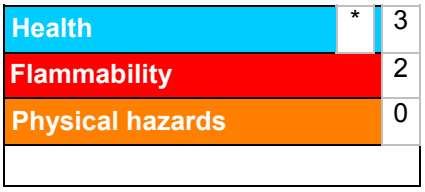
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4	On basis of test data
SKIN CORROSION/IRRITATION - Category 1B	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

Date of printing : 5/17/2021

Date of issue/Date of revision : 5/17/2021

Date of previous issue : 4/13/2021

Section 16. Other information

Version : 16

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation
May 19, 2021

01 00 [2970]

PRODUCT NUMBER

GP3830A01

PRODUCT NAME

Resuprime™ 3830/3835 Standard (Part A), Clear

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Hazard Category (for SARA 311.312)

GP3830A01 = | Acute | Chronic |

Product Weight	Specific Gravity	FLASH POINT
9.31 lb/gal	1.12	> 200 °F PMCC

Volatile Ingredients

Not Applicable

Volatile Organic Compounds - U.S. EPA / Canada

	GP3830A01	
	LB/Gal	**g/L**
Coating Density	9.31	1115
	By wt	**By vol**
Total Volatiles	0.0%	0.0%
Federally exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	0.0%	0.0%
Percent Non-Volatile	100.0%	100.0%
VOC Content	**LB/Gal**	**g/L**
Total	0.00	0
Less exempt solvents	0.00	0
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg
	By wt	
By wt LVP-VOC	0.0%	

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) **0.00**

Volatile Organic Compounds - California

	GP3830A01	
	LB/Gal	g/L
Coating Density	9.31	1115
	By wt	By vol
Total Volatiles	0.0%	0.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	0.0%	0.0%
Percent Non-Volatile	100.0%	100.0%
VOC Content	LB/Gal	g/L
Total	0.00	0
Less exempt solvents	0.00	0
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg
	By wt	
By wt LVP-VOC	0.0%	

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) **0.00**

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	GP3830A01	
	LB/Gal	g/L
Coating Density	9.31	1115
	By wt	By vol
Total Volatiles	0.0%	0.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	0.0%	0.0%
Percent Non-Volatile	100.0%	100.0%
VOC Content	LB/Gal	g/L
Total	0.00	0
Less exempt solvents	0.00	0
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg

Volatile Organic Compounds - EU Directive 2004/42/EC

	GP3830A01	
	By wt	By vol
Total Volatiles	0.0%	0.0%
VOC Content	LB/Gal	g/L
Total	0.00	0

Volatile Organic Compounds - EU Directive 2010/75/EU

	GP3830A01	
	By wt	By vol
Total Volatiles	0.0%	0.0%
VOC Content	LB/Gal	g/L
Total	0.00	0

Volatile Organic Compounds - Mexico

	GP3830A01	
	LB/Gal	g/L
Coating Density	9.31	1115
	By wt	By vol
Total Volatiles	0.0%	0.0%
Exempt solvents		
Water	0.0%	0.0%
Organic Volatiles	0.0%	0.0%
Percent Non-Volatile	100.0%	100.0%
VOC Content	LB/Gal	g/L
Total	0.00	0
Less exempt solvents	0.00	0
Of solids	0.00	0
Of solids	0.00 lb/lb	0.00 kg/kg

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	GP3830A01	
	LB/Gal	kg/L
Volatile HAPS	0.00	0.000
Of solids	0.00	0.000
Of solids	0.00 lb/lb	0.00 kg/kg

Air Quality Data

Density of Organic Solvent Blend

Not Applicable

Photochemically Reactive

No

Additional Regulatory Information

US EPA TSCA:

Not Applicable

Relevant identified uses of the substance or mixture and uses advised against:

Not Applicable

Waste Disposal

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SAFETY DATA SHEET

GP3830A01

Section 1. Identification

Product name : Resuprime™ 3830/3835 Standard (Part A)
Clear

Product code : GP3830A01

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: 1-800-524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 30% (oral), 30% (dermal), 30% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

Response : Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Epoxy Polymer	≥50 - ≤75	1675-54-3
Phenol-Formaldehyde Polymer	≥25 - ≤50	9003-36-5
Alkyl Glycidyl Ether	≥10 - ≤25	68609-97-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	None.
Phenol-Formaldehyde Polymer	9003-36-5	None.
Alkyl Glycidyl Ether	68609-97-2	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
None.		

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
None.		

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: 100°C (212°F) [Pensky-Martens Closed Cup]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not relevant/applicable due to nature of the product.

Vapor density : Not available.

Relative density : 1.11

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 0 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxi) phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
Alkyl Glycidyl Ether	LD50 Oral	Rat	17100 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Phenol-Formaldehyde Polymer	Skin - Mild irritant	Rabbit	-	24 hours 500 uL	-
Alkyl Glycidyl Ether	Skin - Moderate irritant	Rabbit	-	24 hours 500 uL	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
bis-[4-(2,3-epoxipropoxi) phenyl]propane	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 11. Toxicological information

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Alkyl Glycidyl Ether	-	160 to 263	low

Mobility in soil

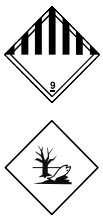
Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	UN3082	UN3082
UN proper shipping name	-	-	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Polymer, Phenol-Formaldehyde Polymer)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Polymer, Phenol-Formaldehyde Polymer). Marine pollutant (Epoxy Polymer, Phenol-Formaldehyde Polymer)
Transport hazard class(es)	-	-	-	9 	9 
Packing group	-	-	-	III	III

Section 14. Transport information

Environmental hazards	No.	No.	No.	Yes.	Yes.
Additional information	-	-	-	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists :
Australia inventory (AIIC): Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		1
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1	Calculation method Calculation method Calculation method

History

Date of printing : 5/19/2021

Date of issue/Date of revision : 5/19/2021

Date of previous issue : 4/17/2021

Version : 7.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of

Section 16. Other information

sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

APPENDIX 5

Laboratory Analytical Reports

ANALYTICAL REPORT

Lab Number:	L2110231
Client:	LaBella Associates, P.C. 300 Pearl Street Suite 252 Buffalo, NY 14202
ATTN:	Adam Zebrowski
Phone:	(716) 551-6281
Project Name:	DORITEX
Project Number:	2180605
Report Date:	03/09/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DORITEX
Project Number: 2180605

Lab Number: L2110231
Report Date: 03/09/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2110231-01	SUMP 1	WATER	11075 WALDEN AVENUE	03/02/21 11:01	03/02/21

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 03/09/21

ORGANICS

VOLATILES

Project Name: DORITEX
Project Number: 2180605
Lab Number: L2110231
Report Date: 03/09/21

SAMPLE RESULTS

Lab ID: L2110231-01
Client ID: SUMP 1
Sample Location: 11075 WALDEN AVENUE
Date Collected: 03/02/21 11:01
Date Received: 03/02/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 03/05/21 15:18
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DORITEX **Lab Number:** L2110231

Project Number: 2180605 **Report Date:** 03/09/21

SAMPLE RESULTS

Lab ID: L2110231-01 Date Collected: 03/02/21 11:01

Client ID: SUMP 1 Date Received: 03/02/21

Sample Location: 11075 WALDEN AVENUE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: DORITEX
Project Number: 2180605
Lab Number: L2110231
Report Date: 03/09/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/05/21 09:50
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1471338-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DORITEX
Project Number: 2180605
Lab Number: L2110231
Report Date: 03/09/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/05/21 09:50
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1471338-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: DORITEX
Project Number: 2180605
Lab Number: L2110231
Report Date: 03/09/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/05/21 09:50
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1471338-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: DORITEX

Project Number: 2180605

Lab Number: L2110231

Report Date: 03/09/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1471338-3 WG1471338-4								
Methylene chloride	98		100		70-130	2		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	120		100		70-130	18		20
Carbon tetrachloride	99		110		63-132	11		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	95		100		63-130	5		20
1,1,2-Trichloroethane	98		110		70-130	12		20
Tetrachloroethene	96		100		70-130	4		20
Chlorobenzene	99		110		75-130	11		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	100		110		67-130	10		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	96		110		70-130	14		20
cis-1,3-Dichloropropene	98		100		70-130	2		20
Bromoform	90		93		54-136	3		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		110		70-130	10		20
Toluene	96		100		70-130	4		20
Ethylbenzene	93		100		70-130	7		20
Chloromethane	87		92		64-130	6		20
Bromomethane	46		54		39-139	16		20
Vinyl chloride	98		100		55-140	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DORITEX

Project Number: 2180605

Lab Number: L2110231

Report Date: 03/09/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1471338-3 WG1471338-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	94		100		70-130	6		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	95		105		70-130	10		20
o-Xylene	95		105		70-130	10		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	120		100		58-148	18		20
Carbon disulfide	99		100		51-130	1		20
2-Butanone	95		99		63-138	4		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	96		110		57-130	14		20
Bromochloromethane	110		120		70-130	9		20
1,2-Dibromoethane	99		110		70-130	11		20
1,2-Dibromo-3-chloropropane	90		100		41-144	11		20
Isopropylbenzene	93		100		70-130	7		20
1,2,3-Trichlorobenzene	89		100		70-130	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DORITEX
Project Number: 2180605

Lab Number: L2110231
Report Date: 03/09/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1471338-3 WG1471338-4								
1,2,4-Trichlorobenzene	93		110		70-130	17		20
Methyl Acetate	96		100		70-130	4		20
Cyclohexane	100		110		70-130	10		20
1,4-Dioxane	112		128		56-162	13		20
Freon-113	110		120		70-130	9		20
Methyl cyclohexane	100		110		70-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		105		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	99		95		70-130
Dibromofluoromethane	102		98		70-130

Project Name: DORITEX
Project Number: 2180605

Lab Number: L2110231
Report Date: 03/09/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2110231-01A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2110231-01B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260-R2(14)
L2110231-01C	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	DORITEX	**Lab Number:**	L2110231
Project Number:	2180605	**Report Date:**	03/09/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 3/3/21

ALPHA Job #: L2110231

Client Information
Client: LaBella Associates D.P.C.
Address: 300 Pearl Street Suite 120
Phone: 716-840-2545
Fax:
Email: azebrowski; plabellapc.com

Project Information
Project Name: Dorsey
Project Location: 11075 Walden Avenue
Project #: 2180005
(Use Project name as Project #) ☐
Project Manager: A. Zebrowski
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days: 5 business days

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOCs 8260	Sample Specific Comments	Total Bottle
10231-01	Swmp 1	3/2/2021	11:01	GW	AZ	✓		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	3/2/21 1335		3/02/21 13:55
	3/02/21 14:45		3/3/21 01:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)