



February 24, 2015

Ms. Tricia Edwards
On-Scene Coordinator
U.S. Environmental Protection Agency Region 5
9311 Groh Road
Grosse Ile, MI 48138

**Subject: Stark Ceramics –Removal Site
600 West Church Street, East Canton, Ohio
EPA Contract No. EP-S5-13-01
Technical Direction Document No. S05-0001-1405-204
Document Tracking No. 0152**

Dear Ms. Edwards:

Tetra Tech, Inc. (Tetra Tech) is submitting this Final Removal Summary Report for the Stark Ceramics Fund Lead Removal Activity conducted at 600 West Church Street in East Canton, Stark County, Ohio. Work activities began in July 2014 and were completed in November 2014. This report summarizes the work completed and data generated during the course of this time-critical removal action. The report has been revised to address your comments on the draft report submitted on February 13, 2015.

If you have any questions regarding this report, please contact me at (440) 781-7944.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Malone'.

Brian Malone
Project Manager



**FINAL REMOVAL SUMMARY REPORT
FOR THE
Stark Ceramics
600 West Church Street, East Canton, Ohio**

U.S. Environmental Protection Agency
Emergency Response Branch
Region 5
9311 Groh Road
Grosse Ile, MI 48138

Submitted by

Tetra Tech Inc.
1 South Wacker Drive, 37th Floor
Chicago, IL 60606

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ATTACHMENTS

- A – Figures
- B – Photographic Documentation Log
- C – Tables
- D – Data Verification Report and Analytical Data

1.0 REMOVAL ACTION ACTIVITIES

This report summarizes the activities completed as part of the time-critical removal action at the Stark Ceramics, Inc. (Stark Ceramics) site. Specifically, the report includes the following sections:

- **Site Description**
- **Site History**
- **Background Air Monitoring**
- **Removal, Transportation, and Disposal of Asbestos-Containing Waste Materials (ACWM)** (Asbestos-related activities included ACWM removal, air monitoring and air sampling during the removal activities, final visual inspection(s), decontamination and recycling of scrap metal within the ACWM demolition debris, asbestos assessment of the partially demolished kiln building, x-ray fluorescence (XRF) screening of stockpiled soil, backfilling subsurface structures, stabilization and disposal of wastes inside totes, and stabilizing unsafe and unstable areas of the site.)
- **Covered Shed Hazardous Solids Removal** (Hazardous materials-related activities included removal of hazardous solids, air monitoring during the removal activities, XRF screening of suspect soil piles outside the covered shed building, and a final inspection of the covered shed.)
- **Hazardous Waste/Containers** (Characterization and disposal activities included the removal, crushing, and disposal of Resource Conservation and Recovery Act (RCRA) empty containers identified throughout the site; categorization of all containerized hazardous waste located throughout the site; and consolidation, transportation, and disposal of hazardous and non-hazardous containerized wastes.)
- **Summary**

In addition, this time-critical removal action report contains four attachments. **Attachment A** includes site figures including a site location map, site layout map, air sampling and air monitoring location map, and site features map. **Attachment B** provides the photographic documentation log of site conditions during the time-critical removal action. **Attachment C** provides tables that summarize the organization of the removal action as well as the screening, monitoring, and laboratory data collected during the removal action. **Attachment D** provides the laboratory analytical report for samples collected by Tetra Tech and the data verification report. Table 1 in **Attachment C** presents the organization of the removal action.



2.0 SITE DESCRIPTION

The Stark Ceramics site is located in a rural area at 600 West Church Street in East Canton, Stark County, Ohio (Figure 1 in **Attachment A**). The site coordinates are 41.1426° north latitude and 81.3600° west longitude. The site currently is abandoned and unsecured, and utilities to the buildings are inactive.

According to data from the Stark County Auditor's Office and the Stark County Geographic Information Systems (GIS) Department, Stark Ceramics, Inc. (Stark Ceramics) is the listed deed owner of 85 parcels of land in and around the site. Of these 85 parcels, 56 parcels (totaling 473.89 acres) are part of the contiguous site property. An additional 29 parcels (totaling 12.14 acres) are located separately north of the site. The activities conducted during the time-critical removal action were limited to the former manufacturing area, the covered shed, and stockpiles of raw material, or soil used to manufacture the ceramic blocks (Figure 4 in **Attachment A**).

The site once contained two rows of large manufacturing buildings surrounded by several smaller support buildings. The manufacturing buildings were conglomerates of numerous adjoining buildings and structural additions that vary in composition, age, and condition. The southern row of manufacturing buildings, formerly named Plant A, occupied approximately 73,000 square feet in combined area, and housed machinery formerly used to grind and mix raw materials, gas-fired tunnel kilns, glaze spray booths, a boiler room, and office spaces. The northern row of manufacturing buildings, formerly named Plant D, occupied approximately 176,000 square feet in combined area and contained former product drying, cutting, storage, and shipping areas. Large quantities of finished ceramic products are stacked on pallets in open and partially covered areas north and south of the manufacturing buildings.

Koch Knight, LLC (Koch Knight), owns and operates ceramic manufacturing buildings located on the adjoining property directly southwest of the former Stark Ceramics manufacturing buildings (Figure 2 in **Attachment A**). The buildings and parcels were named Plant B and Plant C when they were part of the site property, and were sold by Stark Ceramics to Koch Knight in 1997.

A small creek, Osnaburg Ditch, flows northeast to southwest through the center of the site along the northern edge of the manufacturing buildings (Figure 2 in **Attachment A**). Osnaburg Ditch discharges to Sherrick Run approximately 1.5 mile downstream of the site. Sherrick Run is a tributary of Nimishillin



Creek in the Tuscarawas River Basin. Site topography is lowest in elevation near Osnaburg Ditch and highest in elevation near former mining and open dump areas to the southeast. Overland runoff and stormwater near the manufacturing buildings flows downhill to the northwest and into Osnaburg Ditch.

The manufacturing and support buildings were surrounded by large areas of undeveloped land occupied by woodland, grassland, former clay strip mines, a former hazardous waste lagoon, stockpiles, and an open dump of discarded waste ceramic products. The open dump occupies approximately 1.5 acres. The closest residence is located 495 feet north of the open dump.

3.0 SITE HISTORY

The site assessment report (dated December 19, 2011) briefly summarizes the site's manufacturing history from 1909 through October 2011 and outlines the environmental enforcement actions taken by the U.S. Environmental Protection Agency (EPA) Region 5 RCRA group and the Ohio Environmental Protection Agency (OEPA). The site history summarized below focuses on known activities at the site since the previous site assessment by the EPA and Superfund Technical Assessment and Response Team (START) contractor in October 2011.

On October 24, 2011, an asbestos consultant to the potentially responsible party (PRP) conducted an asbestos survey prior to the demolition of the buildings. A notification of asbestos hazard abatement project, Revision #4, was submitted to the Ohio Department of Health (ODH) for the removal of approximately 1,120 linear feet of asbestos-containing pipe insulation, and 1,880 square feet of asbestos-containing Thermal System Insulation (TSI). Based on the lack of information garnered from the actual asbestos abatement activities, and the visual observations recorded by EPA START from the asbestos assessment conducted in June 2013, all the friable asbestos-containing material (ACM) listed in the ODH notification was assumed to have been removed prior to demolition. The ODH notification did not include the removal of approximately 130,805 square feet of asbestos-containing cement board (transite) identified in the pre-demolition asbestos survey dated October 24, 2011.

In March and April 2012, EPA attended conference calls and received updates from a PRP contact regarding judge-facilitated mediation between the PRP and the bank lien holder of the site property. Both parties voluntarily agreed that environmental concerns at the site should be addressed before the sale or transfer of



the site property and assets. An EPA enforcement specialist began preparing an Administrative Order on Consent (AOC) as a contingency.

On April 3, 2012, EPA and the START contractor at the time inspected the site and found that the PRP had hired contractors to begin gathering and bulking containerized wastes for disposal and demolishing portions of the manufacturing buildings and the former office building.

On May 3, 2012, a START and ODH-certified Asbestos Hazard Evaluation Specialist (AHES) reviewed the asbestos survey report prepared by Pioneer Environmental Systems, Inc., and mobilized to the site to document the condition of ACM in the partially demolished buildings. Damaged transite panels were observed on and around the former office building, and small fragments of transite were observed in soil in vehicle pathways around the building. It was unknown whether ACM was removed from the former office building before it was completely razed. Observations from the inspection were communicated to the EPA On-Scene Coordinator (OSC) in a letter report dated June 5, 2012.

On June 7, 2012, EPA and the START contractor at the time returned to the site to document site conditions. Voluntary activities by the lead PRP contractor, Chemstruction, had been temporarily halted due to the lack of payment by the PRP. The conditions of site buildings and containerized wastes were much the same as conditions documented in April and May 2012.

In October 2012, the Canton City Health Department issued a notice of violation to Chemstruction and the PRP regarding public complaints and inspection observations of improper work practices during the abatement of regulated ACM (RACM) during demolition activities at the site, lack of dust suppression controls, and failure to notify the Canton City Health Department of demolition activities. According to the Canton City Health Department, the contractor responsible for the razing of the buildings informed the City of Canton that the transite would be removed prior to demolition of the building(s). An inspection by the City of Canton revealed the demolition contractor razing the building(s) with the transite intact. It is assumed that the demolition contractor tried to demolish the building(s) with the transite intact, removed the transite from the demolition debris, and disposed of the broken transite as if it was removed prior to razing the building.



On April 22, 2013, EPA Region 5 Emergency Response Branch (ERB) management staff inspected the site and found that PRP contractors had razed most of the former manufacturing buildings at the site and salvaged the scrap metal, leaving the remainder of the demolition debris and other wastes at the site. In May 2013, EPA issued a new Technical Directive Document (TDD) for the site. Under this TDD, START was tasked with creating a container inventory of abandoned wastes in drums and totes, collecting waste samples from containers inventoried, collecting sediment and surface water samples upstream, downstream and from an outfall at the site, conducting asbestos surveys and collect samples of suspect asbestos containing materials from debris piles for analysis, and documenting and summarizing the potential for imminent and substantial threats to the public health or welfare of the United States or the environment posed by the site in a Site Assessment Report.

During the last week of July 2014, representatives from EPA, ERRS contractor, Tetra Tech (current START contractor), and U.S. Coast Guard (USCG) Atlantic Strike Team (AST) mobilized to the site to conduct a fund lead, time-critical removal action to mitigate the potential for imminent and substantial threats to public health and welfare or the environment.

4.0 BACKGROUND AIR MONITORING

Tetra Tech conducted background air monitoring for 1 day prior to the start of time-critical removal activities at the Stark Ceramics site to establish baseline air quality levels and an action level for total airborne particulates. Action levels for ambient air concentrations around the perimeter of the former manufacturing area were set at 3 times the background readings.

On July 25, 2014, two DataRam4 units recorded background concentrations of airborne particulates at asbestos stations ASB-2 (just south of the project trailers) and ASB-3 (open area between the asbestos exclusion zone and the residences north of the site) (Figure 3 in **Attachment A**). These two units were operational from 1100 and 1114 hours, and stopped at 1534 and 1538 hours, respectively. Background concentrations for total particulates are listed below:

- Station ASB-2 Readings
 - Maximum Total Particulate Concentration = 43.20 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
 - Average Total Particulate Concentration = 4.60 $\mu\text{g}/\text{m}^3$
- Station ASB-3 Readings

- Maximum Total Particulate Concentration = 71.20 $\mu\text{g}/\text{m}^3$
- Average Total Particulate Concentration = 6.70 $\mu\text{g}/\text{m}^3$

The maximum airborne concentration logged was 71.20 $\mu\text{g}/\text{m}^3$. The higher of the two Dataram4 average concentrations was 6.70 $\mu\text{g}/\text{m}^3$. Using the highest total particulate reading from Station ASB-3, and the higher average total particulate concentration from Station ASB-3, the calculated airborne particulate concentrations at 3 times background were:

- Maximum Total Particulate Concentration (71.20 $\mu\text{g}/\text{m}^3$) $\times 3 = 213.60 \mu\text{g}/\text{m}^3$
- Average Total Particulate Concentration (6.70 $\mu\text{g}/\text{m}^3$) $\times 3 = 20.10 \mu\text{g}/\text{m}^3$

The background concentrations and 3 times background concentrations were used for comparison against the airborne particulate concentrations generated during the removal of the asbestos-contaminated debris in the former manufacturing area and the hazardous solids in the covered shed.

5.0 REMOVAL, TRANSPORTATION, AND DISPOSAL OF ACWM

This section summarizes the removal, transportation, and disposal of ACWM

ACWM removal activities began on July 29, 2014, and were completed when the last truckload of ACWM was transported off site for disposal on October 10, 2014. One last load of friable ACWM was transported off site on October 24, 2014. During the removal of the ACWM, Tetra Tech START monitored the Emergency and Rapid Response Service (ERRS) work activities for visible emissions and surface water runoff. Tetra Tech START also monitored weather conditions, conducted real-time air monitoring for total particulates, and collected perimeter air samples for laboratory analysis for asbestos to ensure that work activities did not release asbestos fibers.

The aerial extent of friable and non-friable ACWM that was removed is delineated in Figure 4 in **Attachment A**. The approximate extent of ACWM to be removed was determined as part of the site assessment conducted in June 2013. However, a limited amount of asbestos-contaminated debris was identified (through non-intrusive investigative methods) during the site assessment, and additional ACWM was discovered during the course of the removal action.



Heavy equipment used in the removal of the ACWM included the use of an excavator, front-end wheel loader, articulated dump truck, and a skid steer. All ACWM was removed from its original location within the debris piles and was relocated to the truck load-out area identified in Figure 4 in **Attachment A**. Once ACWM was staged at the load-out area, scrap metal was segregated into a separate pile. During the removal, handling, and loading of ACWM, water from a 2-inch diameter fire hose was used to suppress dust emissions.

The composition of the ground surface for most of the ACWM removal area consisted of concrete pavement. Pits, trenches, and sumps existed within the ACWM removal area concrete paved areas. A few non-paved surface areas within the ACWM removal area were also present. Surface soil scraping of non-paved areas was conducted within the railroad spur, the gravel surface area on the northeast portion of the asbestos exclusion zone, and the surface soil at the base of the outcrop along the northeast perimeter of the asbestos removal area. ACWM was also removed from pits, trenches, and sumps. The ACWM removal area and other site features are identified on Figure 4 in **Attachment A**.

The transportation and disposal of the friable ACWM was conducted in accordance with State rules and regulations. The cargo area for each truck loaded with friable ACWM was lined with 2 layers of 6-mil plastic liners. See Figure 4 for the location of the truck lining station. Prior to leaving the site, each friable ACWM load was sealed and labeled with asbestos danger stickers and generator information. Figure 4 in **Attachment A** shows the location of the truck sealing and labeling station. Asbestos signs and Class 9 Other Regulated Material (ORM) 2212 placards were fastened to the cargo area for each truck.

Two separate ACWM waste streams were transported off site for disposal. Waste Management Profile #490042OH included the friable ACWM, and Waste Management Profile # 489967OH included non-friable ACWM. Both waste streams were transported to American Landfill in Waynesburg, Ohio. A total 395 truckloads of friable ACWM (approximately 7,439 tons) and 169 truckloads of non-friable ACWM (approximately 3,491 tons) was transported off site for disposal. Tables 2 and 3 in **Attachment C** lists details from each load of ACWM transported off site for disposal.

This section describes the following activities conducted during the time-critical removal action the Stark Ceramics site:

- Total particulate monitoring during asbestos removal activities
- Air sampling during asbestos removal activities
- Final visual inspections
- Decontamination and recycling of scrap steel
- Hazardous waste within the ACWM debris piles
- Stabilization of unsafe, partially demolished building
- Backfill soil XRF screening
- Postage of asbestos signs

5.1 Asbestos - Total Particulate Monitoring during the Asbestos Removal Activity

Tetra Tech conducted air monitoring for total particulates to confirm the adequacy of dust control measures used to prevent fugitive dust emissions from ACWM removal work activities within the former manufacturing area. This air monitoring activity was designed to provide periodic, real-time monitoring data for total particulates around the perimeter and inside of the asbestos exclusion zone.

Along with the perimeter dust monitoring, Tetra Tech observed ERRS removal work activities. Tetra Tech oversaw and documented specific work practices including adequately wet dust suppression work practices. Tetra Tech observed asbestos removal work activities to ensure they were consistent with the no-visible-emissions standard provided by the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulations (CFR) CFR Part 61.150 (a). The Thermo-Anderson DataRam4 (Model DR-4000) and Thermo Scientific 1500 dust meters were used to supplement the visible emission regulatory requirement. The collection of these total particulate concentrations provided quantitative data that was compared against the background concentrations collected prior to the start of the removal activities.

An on-site weather station was operational during the entire asbestos removal. The meteorological monitoring component of the air monitoring and air sampling program consisted of weather station equipment and instrumentation designed to record wind speed, wind direction, and air temperature. Meteorological monitoring and data logging of weather information was conducted throughout the duration of the air monitoring program.



Three different types of air monitoring were conducted during the ACWM removal activities. Two types of air monitoring were conducted around the perimeter of the asbestos exclusion zone. The third type of air monitoring was conducted inside the asbestos exclusion zone.

The first type of air monitoring was conducted at designated locations outside the asbestos exclusion zone to identify dust concentrations for receptors on and off site. Thermo-Anderson DataRam4 (Model DR-4000) aerosol monitor/data loggers were used to collect these airborne particulate concentrations. Dust readings were collected in the following three locations (shown in Figure 3 in **Attachment A**):

1. Southwest property boundary at the Koch Knight, LLC facility, or asbestos sampling location ASB-1
2. Location of the project office trailers, or asbestos sampling location ASB-2
3. Open area half way between the former manufacturing area and the nearby residences on the northeast portion of the site, or asbestos sampling location ASB-3

Tetra Tech and USCG AST personnel conducted continuous air monitoring for total particulates (dust) at these three designated monitoring locations during the ACWM removal activities. During this continuous monitoring activity, data points were collected every 60 seconds. Air monitoring was conducted for 39 days from August 4, 2014 to October 1, 2014. Tetra Tech collected a total of 52,582 dust readings during the ACWM removal activities; 7 of those 52,582 readings exceeded 3 times the maximum background action level. The highest maximum airborne concentration for total particulates for the DataRam4 units was 760.38 $\mu\text{g}/\text{m}^3$ at ASB-1 on September 11, 2014. The highest average airborne concentration for particulates was 55.33 $\mu\text{g}/\text{m}^3$ at ASB-3 on September 30, 2014. Tables 4, 5, and 6 in **Attachment C** summarize the total particulate airborne concentrations collected at the three stationary monitoring locations.

The second type of air monitoring was conducted to identify dust concentrations upwind and downwind of the work activities at the perimeter of the asbestos exclusion zone. A Thermo Scientific (personal DataRam) PDR-1500 personal dust meter was used to collect dust readings around the perimeter of this work area. Tetra Tech personnel walked around the perimeter of the asbestos exclusion zone collecting dust readings at a minimum of three times per day. Wind direction and wind speed was documented prior to each round of dust monitoring. The locations of these perimeter dust readings were dependent upon wind direction and the specific location in which the ERRS contractor was working in the asbestos exclusion zone. Figure 3 in **Attachment A** shows perimeter air monitoring locations ASB-AM-1 to ASB-AM-9.



Tetra Tech and USCG AST personnel conducted periodic air monitoring for total particulates (dust) around the perimeter of the asbestos exclusion zone during the ACWM removal activities. Air monitoring was conducted for 41 days from July 29 to October 2, 2014. Tetra Tech collected a total of 316 dust readings, one of which exceeded 3 times the background action level. The highest maximum airborne concentration for total particulates for the PDR-1500 was 214.60 $\mu\text{g}/\text{m}^3$ at ASB-AM-1 on August 1, 2014. The highest average airborne concentration for particulates was 48.2 $\mu\text{g}/\text{m}^3$ at ASB-AM-1 on August 1, 2014. A haul truck drove past the ASB-AM-1 air monitoring station at the time the only exceedance dust reading was collected. Table 7 in **Attachment C** summarizes the total particulate airborne concentrations collected around the perimeter of the asbestos exclusion zone.

In conjunction with this perimeter air monitoring activity, removal activities and work areas were observed for visible emissions resulting from the work practices and site conditions. OSC Ms. Tricia Edwards and Tetra Tech project manager Mr. Andrew Kiel observed three separate instances of visible emissions during the collection of these periodic perimeter dust readings. Dust readings that exceeded the action level were brought to the attention of the OSC or ERRS Response Manager (RM) for corrective actions to the work practices. All visible emission instances were immediately addressed.

The third type of dust monitoring included the use of the Thermo Scientific PDR-1500 personal dust meter. Tetra Tech personnel conducted periodic air monitoring for total particulates (dust) inside the perimeter of the asbestos exclusion zone during the ACWM removal activities. Air monitoring was conducted within the asbestos exclusion zone in proximity to the various work activities. Air monitoring was conducted for 14 days from August 10 to October 9, 2014. Tetra Tech continuously monitored the personal DataRam (pDR) while in the asbestos exclusion zone and documented the highest particulate concentration and the average particulate concentration. Tetra Tech collected a total 14 dust readings during the ACWM removal activities, two of which exceeded 3 times background action level. The highest maximum airborne concentration for total particulates inside the asbestos exclusion zone was 609 $\mu\text{g}/\text{m}^3$ on August 19, 2014. The highest average airborne concentration for particulates inside the asbestos exclusion zone was 58 $\mu\text{g}/\text{m}^3$ on September 9, 2014. Table 8 in **Attachment C** summarizes for the total particulate airborne concentrations measured inside the asbestos exclusion zone. In conjunction with the air monitoring conducted inside the exclusion zone, removal activities and work areas were observed for visible emissions resulting from the work practices and site conditions. The EPA OSC and Tetra Tech observed two separate

instances of visible emissions during the collection of these periodic dust readings. Dust readings that exceeded the action level were brought to the attention of the RM for corrective actions to the work practices.

5.2 Asbestos - Air Sampling During the Asbestos Removal Activity

Tetra Tech and USCG AST personnel conducted perimeter air sampling during the ACWM removal activities using Gillian Aircon II high-volume air samplers. Air sampling was conducted at designated locations to identify airborne fiber (and possibly asbestos fiber) concentrations for receptors on and off the Site. Ambient air samples were collected in the following three locations (shown on Figure 3 in **Attachment A**):

1. Southwest property boundary at the Koch Knight, LLC facility, or asbestos sampling location ASB-1
2. Location of the project office trailers, or asbestos sampling location ASB-2
3. Open area half way between the former manufacturing area and the nearby residences on the northeast portion of the site, or asbestos sampling location ASB-3

Air sampling activities began on July 29, 2014, and were completed on October 8, 2014. Tetra Tech collected a total of 165 air samples during the ACWM removal activities. Of the 165 samples collected, 56 were submitted to EML Laboratory P&K in San Bruno, California Laboratories, for analysis using phase contrast microscopy (PCM) in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7400. As per the Air Sampling Plan, air samples were collected on a daily basis. However, only 1 day's samples per week were submitted to the laboratory for analysis. The air samples not submitted for analysis were archived. If total particulate concentrations exceeded 3 times background concentrations, air samples collected that day were submitted for analysis by PCM.

Of the 56 samples collected and submitted for PCM analysis, 33 were perimeter air samples, 20 were field blanks, and 3 were field duplicate samples. The detection limits for the air samples submitted for analysis ranged from 0.001 fibers per cubic centimeter (f/cc) to 0.002 f/cc. All 33 air samples were reported as below the detection limit. Of these 165 air samples, 88 samples were not submitted to the laboratory for analysis. These 88 samples were archived for later analysis in the event additional laboratory analytical data is



required to supplement the existing air sample data and further characterize the air quality during the ACWM removal activities. Of the 165 total air samples, 21 samples were classified as voided.

Because PCM analysis identifies all fibers (not just asbestos fibers), PCM air sampling data primarily were used as a screening tool to detect potential releases of airborne fibers resulting from the asbestos removal activities. As per the Air Sampling Plan, perimeter air samples analyzed by PCM that exceeded the site-specific action level of 0.005 f/cc would be re-analyzed by transmission electron microscopy (TEM) in accordance with NIOSH Method 7402. TEM analysis determines the actual concentration of airborne asbestos fibers for air samples. Because no air samples analyzed by PCM exceeded the 0.005 f/cc action level, none of the air samples were submitted for TEM analysis.

Figure 3 in **Attachment A** shows the asbestos perimeter air sampling locations, and Table 9 in **Attachment C** summarizes the PCM sampling results. The data validation report for these air samples is included in **Attachment D**. No analytical results were qualified; therefore, all results may be used, as reported, for any purpose.

5.3 Asbestos - Final Visual Inspections

Final clearance requirements were limited to a visual inspection of the asbestos exclusion zone to confirm that all visual ACWM had been removed. This clearance criterion is consistent with the removal action scope of work to remove all gross ACWM that may pose an imminent and substantial threat to human health, human welfare, and the environment. The removal of ACWM included washing paved surfaces and removing surface soil from non-paved areas at the site. EPA OSC Ms. Edwards and Mr. Kiel of Tetra Tech conducted final visual inspections of the former manufacturing area on October 10, 15, 17, and 24, 2014. These final visual inspections indicated all visual ACWM was removed from the asbestos exclusion zone.

5.4 Asbestos - Decontamination and Recycling of Scrap Steel

As part of the ACWM removal activity, scrap metal was segregated from the asbestos-contaminated demolition debris. Prior to loading and removal from the site, scrap metal was decontaminated using high pressure water. Scrap steel was transported to the Philip Services Corporation (PSC) Metals, Inc., facility in Canton, Ohio, for recycling. A total of 10 truckloads of scrap steel was transported off site from



September 9 through November 3, 2014. A total of 61.2 tons of scrap steel was transported off site for recycling. The ERRS RM indicated a credit of \$14,135 was issued to the site based on the recycled steel.

5.5 Asbestos - Hazardous Waste within the ACWM Debris Piles

During ACWM removal activities, some hazardous and potentially hazardous wastes were discovered within the debris piles of the asbestos exclusion zone.

At 1410 hours on August 19, 2014, Tetra Tech and U.S. Coast Guard (USCG) personnel entered the asbestos exclusion zone to observe the removal activities. The inspection team observed three 2-liter glass jugs of acid (assuming sulfuric) that were broken and leaking into puddles caused by the ERRS crew using water to suppress dust. The acid was reacting with the water. Tetra Tech and USCG vacated the area and immediately informed the ERRS personnel of the reacting acid. The ERRS RM and Health and Safety (H&S) officer entered the asbestos exclusion zone to neutralize the acid and the acid spill. The acid waste was neutralized with a mild base to a pH of 7, and then the non-hazardous liquid was absorbed and disposed of with the ACWM debris.

On September 26, 2014, ERRS uncovered a primarily white, wet chalky powder material during the removal of the non-friable ACWM. Partially intact bags containing powders and granular material were also observed in the debris. Most of the saturated powder and granular material was mixed in with the asbestos-contaminated demolition debris. Information on container labels (pieces of paper bags) included Nickel Chloride, Pemco Frit, and Owens-Illinois. These substances are normally used to provide color to the glazed ceramic blocks. ERRS conducted hazardous characterization of several different substances observed in the debris. Testing in the field indicated all substances were non-hazardous. Therefore, this material was mixed in totes and was disposed of with the ACWM debris.

On September 29, 2014, the waste in the totes was stabilized and subsequently incorporated into the asbestos contaminated debris piles for transportation and disposal as non-friable ACWM. The oily liquid waste in these totes were stabilized using Safe T Oil Absorbent. Hazardous characterization was performed on site after the waste was stabilized. ERRS collected a sample of the stabilized waste and submitted this sample for laboratory waste characterization analysis. Liquid wastes were packaged accordingly and transported by Nortru, LLC, for ultimate acceptance and disposal at Petro-Chem Processing Group, 421 Lycaste Street, Detroit, Michigan. Wastes were shipped under Uniform Hazardous Waste Manifest



tracking number 012481323 JJK. A copy of the waste manifest is maintained with the site project files for reference.

5.6 Asbestos – Stabilization of Unsafe, Partially Demolished Building

During the course of the ACWM removal activities, an assessment was conducted on the partially demolished structures within the former manufacturing area and asbestos exclusion zone. (It is assumed that some structures or portions of structures were not completely demolished because these non-demolished portions of buildings did not provide any scrap metal value.) The assessment was to identify unsafe portions of the partially demolished structures.

Based on the findings from this assessment, limited demolition was conducted on some of the partially intact structures within the former manufacturing area due to safety concern of overhead hazards. Limited demolition was conducted on the demolished kiln building in the center of the former manufacturing area, the partially demolished kiln building on the northeast portion of the manufacturing area, and the lean-to located along the west perimeter of the former manufacturing area (Figure 4 in **Attachment A**).

During the final visual inspection of the former manufacturing area, suspect ACM was observed inside the partially demolished kiln building. White, friable TSI material was observed on the ground inside some of the kiln ovens. Gray, loose granular insulation was also observed on the ground and between some of the interior and exterior walls of this partially demolished kiln building. Based on these observations, nine bulks samples were collected and submitted to the laboratory for analysis. On October 15, 2014, Tetra Tech collected bulk samples SC-Bulk-01, SC-Bulk-02, and SC-Bulk-03 from the gray, loose granular material. Bulk samples SC-Bulk-04, SC-Bulk-05, and SC-Bulk-06 were collected from pieces of white/gray TSI on the ground. Bulk samples SC-Bulk-07, SC-Bulk-08, and SC-Bulk-09 were collected from slightly different pieces of white/gray, TSI on the ground. All bulk samples were analyzed in accordance with EPA Method 600/R-93/116 using Polarized Light Microscopy (PLM). The analytical results for the bulk samples collected during the site assessment are presented in **Attachment D**.

Samples SC-Bulk-04 through SC-Bulk-06, and SC-Bulk-07 through SC-Bulk-09 were analyzed based on a stop after first positive for each respective homogeneous area. Laboratory analytical results of these bulk samples listed below:



- Samples SC-Bulk-01, SC-Bulk-02, and SC-Bulk-03 consisting of the gray granular material from between the building walls tested positive for asbestos (<1% Actinolite).
- Samples SC-Bulk-04 consisting of the white/gray friable TSI on the ground tested positive for asbestos (10% Chrysotile). Samples SC-Bulk-05 and SC-Bulk-06 were not analyzed.
- Samples SC-Bulk-07 consisting of the white/gray friable TSI on the ground tested positive for asbestos (10% Chrysotile). Samples SC-Bulk-08 and SC-Bulk-09 were not analyzed.

Based on the analytical results, the visible and accessible ACWM in the partially demolished kiln building was removed, and the ground was washed down. Removal and clean-up activities were conducted from October 17 to 20, 2014. On October 23, 2014, additional and limited demolition was conducted on the northeast exterior wall of the partially demolished building. The demolition debris generated from this activity was transported and disposed as friable ACWM.

According to the pre-demolition asbestos survey, some asbestos still may be present inside the partially demolished kiln building. Tetra Tech observed damaged and partially intact transite panels on the northeast corner of the partially demolished kiln building.

Upon the completion of the ACWM removal activity, additional work was conducted on the demolished kiln oven building located in the center of the former manufacturing area. Demolition debris was moved to block the openings to the below-grade ovens of this demolished structure to eliminate a safety hazard.

On October 24, 2014, approximately 50 feet of the northern end of the lean-to located along the western perimeter of the former manufacturing area was demolished. Some transite fragments were observed inside this portion of the lean-to, and the structural integrity of this portion of the lean-to was questionable due to a fallen tree. Therefore, to remove the transite fragments and potentially asbestos impacted debris, and to mitigate a safety hazard on site, approximately 50 feet of the lean-to was demolished and disposed as non-friable ACWM.

5.7 Asbestos - Backfill Soil XRF Screening

Upon the completion of the ACWM removal activities, the subsurface areas within the footprint of the asbestos exclusion zone were backfilled with fill material. This activity was completed to eliminate slip, trip, and fall hazards for unauthorized personnel accessing the site after the EPA and its contractors

demobilize. Prior to the removal of the ACWM, the former manufacturing area consisted of mounds of demolition debris that was mostly inaccessible for personnel, and completely inaccessible for vehicles. After the removal of the ACWM, most of the former manufacturing area consisted of a relatively flat, open, concrete-paved area. This open concrete area consisted of numerous open trenches, pits, sumps, subgrade conveyor systems, and sanitary and storm sewer basins. A subgrade railroad spur is also present on site and within the footprint of the asbestos exclusion zone.

On October 24, 2014, Tetra Tech conducted screenings of the backfill borrow material for concentrations of metals using a hand-held XRF instrument. Surface soil was screened at 12 locations within the lateral extent of the soil to be used as backfill. Metal concentrations were compared against applicable EPA Regional Screening Levels (RSL) industrial standards and the OEPA Voluntary Action Program (VAP) Generic Direct Contact Soil Standards in accordance with Ohio Administrative Code (OAC) 3745-300-08 for commercial and industrial standards. The detectable metal concentrations at the 12 screening locations were below, or just above, the industrial standards. XRF screening was conducted to detect excessive metals concentrations. Table 10 in **Attachment C** presents metal concentrations in the backfill soil. Visual characterization of the borrow material consisted of a gray silty, clay composition. The borrow pile on site is assumed to be raw product for the manufacturing of ceramics bricks.

The location of the backfill material is identified in Figure 4 in **Attachment A**. Some of the soil from this borrow area was used to backfill the pits, sumps, and trenches within the former asbestos exclusion zone. The railroad spur was partially backfilled. Broken ceramic blocks, gathered from various locations on site, were added to open sanitary and storm sewers to allow for water to flow through the sewer system. This backfill activity was conducted to eliminate safety hazards after EPA demobilizes from the site.

5.8 Asbestos - Postage of Asbestos Signs

The final objective to the ACWM removal activity included the installation of asbestos signs on site. Asbestos signs were posted around the perimeter of the former asbestos exclusion zone and on the partially demolished kiln building located within the footprint of the former manufacturing area. The purpose of these signs were to inform individuals of an asbestos hazard within the former manufacturing area on site. Information on these asbestos signs included contact information for the National Response Center (NRC), OEPA Emergency Response Center, and City of Canton Health Department.



Along with the installation of these asbestos signs, physical barriers were also installed to prohibit vehicle access to the site by unauthorized personnel. An earthen berm was constructed on the southeast perimeter of the site to prohibit vehicle access to the site from Berger Road. Borrow soil used to backfill the pits and trenches within the former asbestos exclusion zone was also used to construct this earthen berm.

Concrete barriers, chains, and locks were used to prohibit vehicle access on West Church Road on the northeast perimeter of the site. The City of Canton closed this section of West Church Road on August 20, 2014, when heavy rains undermined some of the asphalt roadway at the culvert bisecting West Church Road.

A locked gate prohibits vehicle access to the site on West Church Road along the southwest perimeter of the site. This gate is locked and controlled by Koch Knight.

6.0 COVERED SHED HAZARDOUS SOLIDS REMOVAL ACTIVITY

The stockpiled material within the covered shed was believed to be hazardous sediments precipitated from the glazing-process wastewater that discharged into the former on-site lagoons. In 1998, the OEPA issued orders to remove the hazardous sludge. This hazardous lagoon sludge was removed and staged in the covered shed.

The October 2011 site assessment included XRF screening, sampling, and laboratory analysis of stockpiled material in the covered shed. Laboratory analytical results for toxicity characteristic leaching procedure (TCLP) for metals ranged up to 300 milligrams per liter (mg/L) for barium and 210 mg/L for lead, indicating that the materials associated with these samples are characteristic D005 and D008 hazardous wastes. The highest concentration of lead is 42 times higher than the land disposal limit of 5.0 mg/L (40 CFR 261.24[b]).

6.1 Hazardous Solids - Removal Activities

The removal of the hazardous solids began on October 3, 2014, and was completed on October 29, 2014. A total of 131 loads, or approximately 3,594 tons, of hazardous solids was transported off site for disposal. Truck beds were lined with 6-millimeter plastic sheeting prior to loading. The hazardous solids consisted of a gray, medium-to-very fine powder material. ERRS continuously added water to the hazardous solids to reduce the airborne emissions during the loading operations. Tractor-trailer haul trucks were backed into the covered shed for loading. ERRS placed plastic sheeting under the trucks during loading and



continuously cleaned the concrete floor between trucks to eliminate any track-out outside the covered shed. ERRS workers donned Level C personal protective equipment (PPE) during all work activities conducted inside the covered shed. After each truck was loaded, ERRS workers installed the truck bed aluminum crossbars for the tarp to protect truck drivers from coming into contact with the hazardous waste.

During the asbestos removal activities, fiber drums containing color dye powders were discovered in the southwest end of the former manufacturing building. Approximately 35 various-sized fiber drums totaling approximately 2 cubic yards of dye powders were present in the building. On September 18, 2014, Tetra Tech conducted screening for concentrations of metals using a hand-held XRF instrument. XRF screening was conducted to detect excessive metals concentrations. Screening was conducted on each different color dye observed. Metal concentrations were compared against applicable EPA RSL industrial standards and the OEPA VAP Generic Direct Contact Soil Standards in accordance with OAC 3745-300-08 for commercial and industrial standards. Detectable metal concentrations for antimony, arsenic, cadmium, cobalt and nickel in some samples exceeded both the OEPA VAP Generic Direct Contact Soil Standards and EPA RSLs. Detectable metal concentrations for copper, iron, lead, manganese, molybdenum, selenium, tin, zinc, and zirconium in some samples exceeded the EPA RSL. The concentrations for metals for these color dye powders are presented in Table 11 in **Attachment C**.

U.S. Bulk transported the hazardous solids to Envirite of Ohio, Inc. (EQ), located at 2050 Central Avenue, S.E., in Canton, Ohio. The waste was categorized as a reportable quantity (RQ), NA3077, Hazardous Solid, Solid n.o.s. (lead, barium) 9, PGIII, Waste Codes D005 and D008, ERG#171. The waste was discharged into the EQ mixing bins for stabilization. After stabilization, the waste was placed into roll-off boxes and transported to Countywide Recycling and Disposal Facility in East Sparta, Ohio (ID# OHN 000510155, Cell# 8) for disposal. Table 12 in **Attachment C** lists hazardous waste shipment information.

Several small piles of gray solid material, similar to the hazardous solids staged inside the covered shed, were stockpiled adjacent to the south side of the covered shed. On October 28, 2014, Tetra Tech was tasked to screen these piles of solids for concentrations of metals using an XRF instrument. Tetra Tech selected five separate sample areas. Because these stockpiled solids were wet from being exposed to the rain, Tetra Tech collected grab samples of surface solids and placed the samples in cellophane bags. The bags were exposed to the sun to dry prior to XRF screening. Two cellophane bags of solids were filled from each of the five sample screening areas. Metal concentrations were compared against applicable EPA RSL

industrial standards and the OEPA VAP Generic Direct Contact Soil Standards in accordance with OAC 3745-300-08 for commercial and industrial standards. The detectable metal concentrations for the solids samples were either below or just above the industrial standards. XRF screening was conducted to detect excessive metals concentrations. The concentrations for metals for these outside solids piles are presented in Table 13 in **Attachment C**.

ERRS progressively cleaned the sidewalls and floor within the covered shed as more hazardous solids were loaded and transported off site for disposal. The cleaning of the sidewalls and concrete floor was completed the last day the hazardous solids were transported off site on October 29, 2014. Tetra Tech conducted a final visual inspection to ensure all solids were removed and the floor and walls were adequately cleaned. The concrete floor appeared to be in very good condition after all the waste was removed and the floor was cleaned.

6.2 Hazardous Solids - Action Levels

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Level (PEL) for non-contaminated nuisance dust is 5 milligrams per cubic meter (mg/m^3). However, the stockpiled materials within the covered shed are impacted with inorganic contaminants. Samples collected during the site assessment from the stockpiles were submitted to the laboratory for analysis. The analysis for total analyte list (TAL) metals indicated excessive concentrations of inorganic contaminants present within the stockpiled materials. Total metal concentrations detected above the detection limit included:

- Barium = 11,000 milligrams per kilogram (mg/kg)
- Cadmium = 31 mg/kg
- Chromium = 22 mg/kg
- Lead = 23,000 mg/kg

The action level (AL) for worker protection for this work activity was revised to accommodate for the presence of metals contaminants within the stockpiled material. The AL has been revised in accordance with the following equation:

$$AL = \frac{10^6 \text{ mg/kg}}{\left[\sum \left(\frac{C_n}{EL_n} \right) \right] (SF)}$$

AL = Action level

C_n = Concentration of each contaminant in soil (in mg/kg)

EL_n = Exposure limit of each contaminant (in mg/m³)

SF = Safety factor (usually use 2)

Based on the concentrations of metals contamination within the stockpiled material, the worker exposure AL for this removal activity was 1.0 mg/m³.

Tetra Tech conducted two types of air monitoring during this removal activity. One Thermo Scientific (personal DataRam) PDR-1500 personal dust meter to conduct air monitoring inside the covered shed to determine airborne concentrations of total particulates for worker exposure. Three Thermo-Anderson DataRam4 (Model DR-4000) aerosol monitor/data loggers were used to collect airborne particulate concentrations around the outside perimeter of the covered shed. The objective of the perimeter air monitoring activity is to record meteorological conditions and monitor total particulate concentrations using continuous real-time monitoring instruments for comparison against ALs and background levels and the AL. The covered shed has a complete, intact roof and partial exterior walls. Figure 3 in **Attachment A** shows the perimeter air monitoring locations CS-North, CS-West and CS-South.

6.3 Hazardous Solids - Air Monitoring

Air monitoring was conducted for 16 days from October 2 to 29, 2014. The DataRam4 units were not operational at monitoring locations CS-North and CS-West on the north and west perimeters of the covered shed on October 16, 2014. Additional equipment problems included data-logging problems with the Thermo Scientific 1500 personnel dust meter from October 2 to 20, 2014. Also, after the first couple days into the removal activity, the weather station stopped transmitting meteorological data back to the project office trailer.

The highest maximum airborne concentration for total particulates for the DataRam4 units around the perimeter of the covered shed was 590.32 µg/m³ at CS-North on October 27, 2014. The highest average airborne concentration for particulates for the perimeter monitoring was 40.13 µg/m³ at CS-West on October 24, 2014. None of the airborne concentrations recorded exceeded the 1,000 µg/m³ AL. Tables 14,

15 and 16 in **Attachment C** summarize the total particulate airborne concentrations detected around the perimeter of the covered shed.

Maximum concentrations for the Thermo Scientific 1500 pDR inside the covered shed ranged from 325.80 to 2,965.86 $\mu\text{g}/\text{m}^3$. The average total particulate concentrations ranged from 16.99 to 40.95 $\mu\text{g}/\text{m}^3$. Three maximum particulate concentrations exceeded the 1,000 $\mu\text{g}/\text{m}^3$ action level. In each instance of action level exceedances, ERRS was notified and additional water suppression measures were conducted to mitigate particulate concentration exceedances. Table 17 in **Attachment C** presents a summary of the total particulate airborne concentrations detected inside the covered shed.

7.0 HAZARDOUS WASTE/CONTAINERS

7.1 Container Waste - Original Site Assessments

Drums that were located throughout the manufacturing buildings during the October 2011 site assessment had been moved to the metal clad building in the center of the former manufacturing area by PRP contractors in 2012 for the bulking of waste streams. On June 7, 2012, EPA and their START contractor at the time returned to the site to document site conditions. Voluntary activities by the lead PRP contractor had been temporarily halted due to the lack of payment by the PRP. The conditions of site buildings and containerized wastes were much the same as those documented in April and May 2012.

During the most recent site assessment in August 2013, an inventory of the drums, totes and containers included:

- One steel drum and one damaged fiber drum of unknown solids observed in the southwest portion of the site
- A total of 18 empty polyethylene totes stored by PRP contractors sometime in 2012
- Intact metal clad building in the center of the former manufacturing area containing 28 drums with labeled or unknown contents
- An additional 18 polyethylene drums piled outside the northeast wall of metal clad building
- One damaged drum formerly containing oil documented amongst the piles of building debris

- Four totes with unknown oily contents located within the vicinity of the metal clad building in the center of the former manufacturing area (All four totes were unlabeled, but two had markings indicating the contents were used or waste oil.)
- Two 1-cubic yard fabric laboratory packs containing empty steel paint containers; and an estimated 80 empty totes and various 5-gallon buckets and small containers with flammable or corrosive labeling

7.2 Container Waste – Empty Totes and Disposal of Waste in Totes

On September 25, 26 and 29, 2014, the waste in the totes were stabilized and subsequently incorporated into the asbestos contaminated debris piles for transportation and disposal with the non-friable ACWM. The oily liquid waste in these totes were stabilized using “Safe T Oil Absorbent”. Hazardous characterization was performed on site after the waste was stabilized. ERRS collected a sample of the stabilized waste and submitted this sample to the lab for waste characterization analysis. RCRA empty totes, containers and drums were crushed and loaded into roll-off boxes for transportation and disposal. Approximately 60 cubic yards, or 7.2 tons, of crushed containers were transported off site for disposal as solid waste at the American Landfill, 7916 Chapel Street SE, Waynesburg, Ohio. A copy of the waste manifest is maintained with the site project files for reference.

7.3 Container Waste - Hazardous Categorizing, Containerizing, Consolidating, and Over-Packing

On August 26 and 27, 2014, ERRS workers and the OSC entered the metal clad building near the center of the former manufacturing area in Level B PPE to open drums, totes, and containers for sampling and on-site hazardous categorization. The ERRS chemist completed hazardous classification data sheets and container inventory forms for all of the wastes in totes, drums, and containers.

Based on the hazardous characterization results and laboratory sampling results, ERRS consolidated, bulked, and lab-packed the containerized wastes into appropriate waste streams. These consolidation activities were conducted on September 30, October 2, and October 7, 2014.



7.4 Container Waste - Transportation and Disposal of Laboratory Packs

On October 29, 2014, all 31 laboratory packs staged at the metal clad building in the center of the former manufacturing area were relocated within the covered shed. An inventory of the laboratory-packed waste included 10 drums containing grease, 2 drums containing flammable waste, 8 drums containing acidic waste, 3 cubic yard boxes containing paint cans, and 8 drums containing corrosive wastes.

One Philip Services Corporation Metals, Inc. (PSC), tractor-trailer transported all 31 lab-packs off site for disposal on October 30, 2014. All containers were transported to the Petro-Chem Processing Group facility at 421 Lyncaste, in Detroit, Michigan for disposal. Table 18 in **Attachment C** summarizes transportation and disposal information from the over-packed waste containers.

8.0 SUMMARY

The time-critical removal action performed at the site successfully addressed immediate hazards identified at the site and mitigated imminent and substantial threats to human health and the environment posed by demolition debris containing ACWM; stockpiled hazardous waste in the covered shed; and uncontrolled hazardous wastes and oils in drums, totes, and containers. All uncontrolled hazardous waste has been removed from the site, thus mitigating the immediate threat of a release to the environment, and the potential exposure to humans, animals, and sensitive ecosystems to site-related contaminants.

ACWM, wastewater, fuel oil, and uncontrolled hazardous wastes have been removed from the site. However, the extent of the removal activities was limited to the restrictions of Comprehensive Environmental Response and Compensation Liability Act (CERCLA) regulations. The identification and removal of all ACM and ACWM at the site was not conducted as part of this removal action. Only gross contamination that created an imminent and substantial threat to the public health or welfare of the United States or the environment was addressed.

The removal of the hazardous solids and containers of hazardous wastes and oils from inside and outside the on-site buildings has reduced the risk of human and animal receptors from coming into direct contact with site-related chemicals.



On November 17, 2014, EPA communicated to the City of Canton, City Council, that efforts to restrict site access should continue for health and safety reasons, to ensure that vandals salvaging scrap steel do not release asbestos fibers at the site, and to ensure that no illegal dumping occurs.

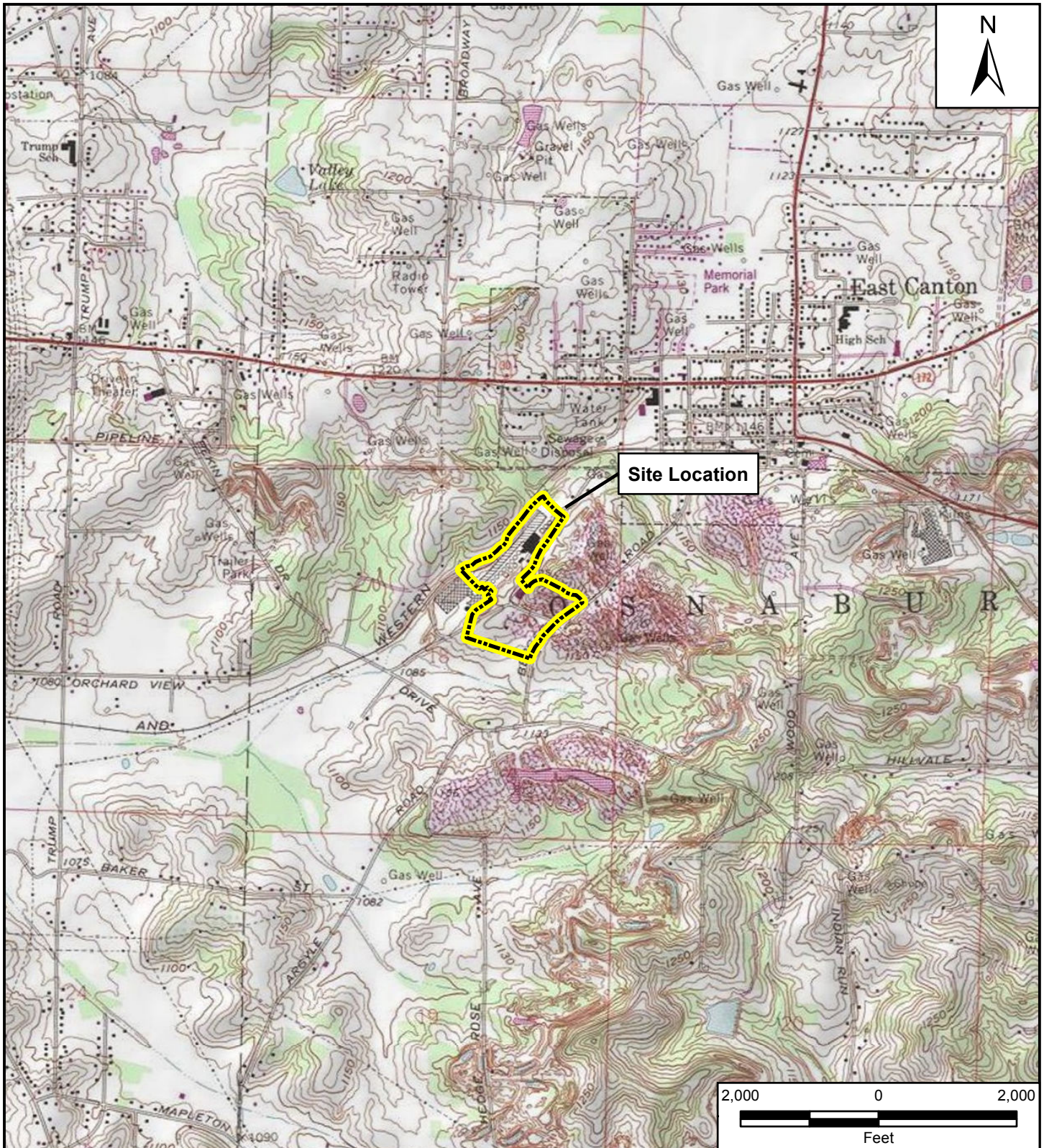
The scope of work for this removal action was to mitigate the gross asbestos contamination within the former manufacturing area, remove hazardous solids from within the covered shed, and remove other hazardous waste located throughout the site that presented a threat to human health, human welfare, and the environment. Total quantities of waste removed from site included:

- 395 truckloads (7,452 tons) of friable ACWM transported to the landfill for disposal
- 169 truckloads (3,491 tons) of non-friable ACWM transported to the landfill for disposal
- 131 truckloads (3,594 tons) of hazardous solids stabilized and transported to the landfill for disposal
- 39 empty propane cylinders returned to AmeriGas for recycling
- 31 over-packed containers of hazardous waste, oil, and paints for recycling and disposal
- 113.34 pounds of plastic waste recycled
- 7.5 pounds of aluminum cans recycled
- 111.12 pounds of paper recycled
- 4 roll-off boxes containing 7.2 tons of solid waste (mostly RCRA empty crushed containers) transported off site for disposal as non-hazardous waste
- 10 truckloads (61.2 tons) of scrap steel transported off site for recycling



ATTACHMENT A

Figures

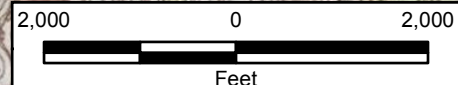


Site Location



Reference Map

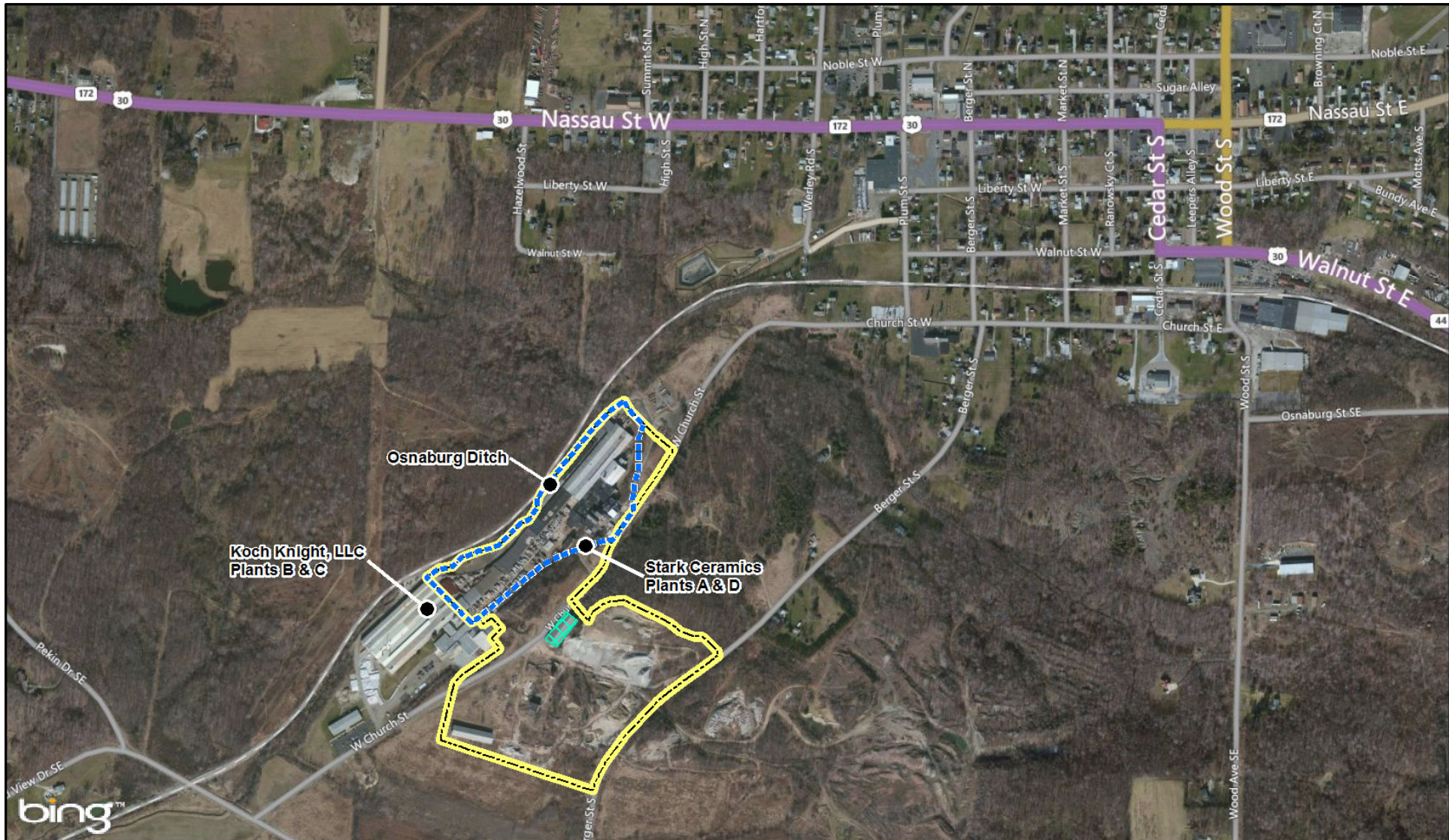
Legend
 Site Boundary






Stark Ceramics Removal Site
 600 West Church Street
 East Canton, Stark County, Ohio

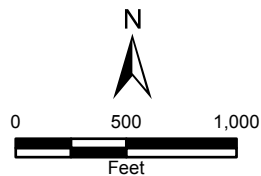
Figure 1
Site Location Map





Legend

-  Covered Shed
-  Stark Ceramics Plants A & D – Former Manufacturing Area
-  Site Boundary



Stark Ceramics Removal Site
600 West Church Street
East Canton, Stark County, Ohio

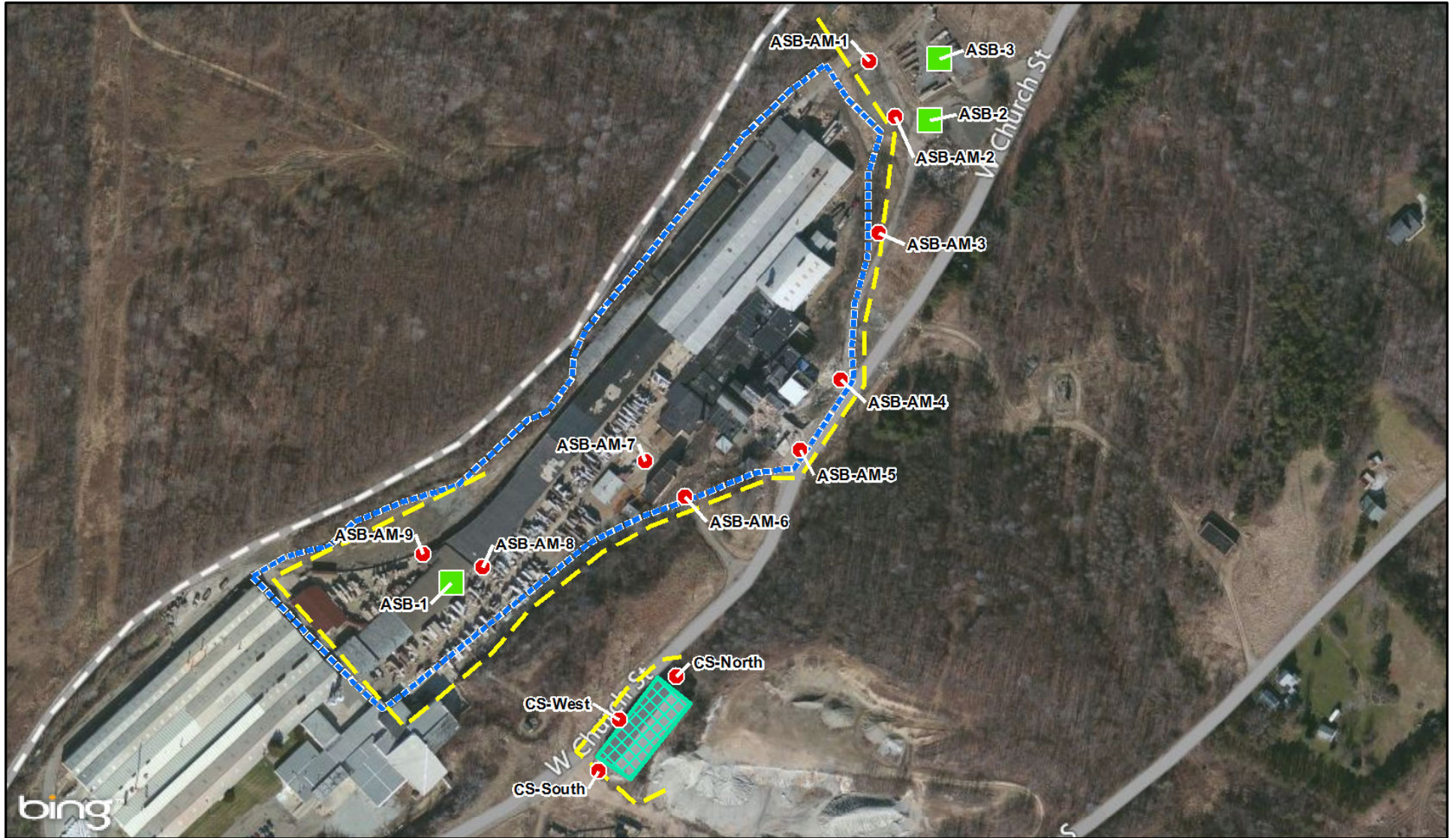
Figure 2
Site Layout Map



Prepared For: EPA

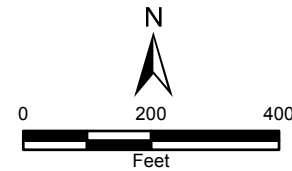
Prepared By: Tetra Tech Inc.

Source: Bing Maps Hybrid 2011 -2012



Legend

- Air Monitoring Location
- Air Sampling Location
- Air Monitoring Boundary
- Stark Ceramics Plants A & D – Former Manufacturing Area
- Covered Shed



Stark Ceramics Removal Site
 600 West Church Street
 East Canton, Stark County, Ohio

Figure 3
Air Sampling and
Air Monitoring Location Map







Prepared For: US EPA

Prepared By: Tetra Tech

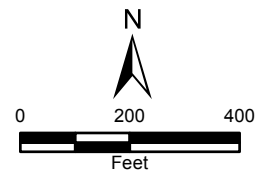
Source: Bing Maps Hybrid 2011 -2012



Legend

-  Covered Shed
-  Stark Ceramics Plants A & D – Former Manufacturing Area
-  Asbestos Removal Area
-  Asbestos Exclusion Area

ACWM = Asbestos Containing Waste Material
 ERRS = Emergency and Rapid Response Services



Stark Ceramics Removal Site
 600 West Church Street
 East Canton, Stark County, Ohio

Figure 4
Site Features Map



Prepared For: EPA

Prepared By: Tetra Tech Inc.

Source: Bing Maps Hybrid 2011 -2012

Coordinate System: GCS WGS 1984
 Datum: WGS 1984
 Units: Degree



ATTACHMENT B

Photographic Documentation Log

Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 1

Direction: Southwest

Date: 07/28/14

Photographer:
Andy Kiel

Description:
Asbestos-contaminated demolition debris prior to the start of the removal activities.



Photograph: 2

Direction: West

Date: 07/28/14

Photographer:
Andy Kiel

Description:
Asbestos-contaminated demolition debris prior to the start of the removal activities.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 3

Direction: Northwest

Date: 07/28/14

Photographer:
Andy Kiel

Description:
Solidification and empty
container crushing
activity.



Photograph: 4

Direction: Southwest

Date: 07/30/14

Photographer:
Andy Kiel

Description:
Cleanup of asbestos-
contaminated demolition
debris.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 5

Direction: West

Date: 07/31/14

Photographer:
Andy Kiel

Description:
Sealing and labelling station for friable asbestos containing waste material (ACWM) prior to transporting waste off site for disposal.



Photograph: 6

Direction: Northeast

Date: 07/31/14

Photographer:
Andy Kiel

Description:
Lining trailers with plastic sheeting prior to loading ACWM.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 7

Direction: West

Date: 8/1/14

Photographer:
Andy Kiel

Description:
Loading ACWM into lined trailer for transportation off site.



Photograph: 8

Direction: Southwest

Date: 8/1/14

Photographer:
Andy Kiel

Description:
Asbestos-containing cement board panels (transite) mixed in with the demolition debris.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 9

Direction: East

Date: 8/1/14

Photographer:
Andy Kiel

Description:
Sealed and labelled friable ACWM in trailer prior to transporting off site for disposal.



Photograph: 10

Direction: Northwest

Date: 8/1/14

Photographer:
Andy Kiel

Description:
Asbestos contamination reduction zone, which includes ERRS personal decontamination trailer and break area.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 11

Direction: North

Date: 8/5/14

Photographer:
Andy Kiel

Description:
Water truck used for dust suppression of the truck loading area and haul roads on site.



Photograph: 12

Direction: Northeast

Date: 8/12/14

Photographer:
Andy Kiel

Description:
Asbestos-containing cement board panels (transite) mixed in with the demolition debris.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 13

Direction: Northeast

Date: 8/15/14

Photographer:
Andy Kiel

Description:
ERRS workers removing
ACWM within the pits
and trenches within the
asbestos exclusion
zone/regulated area.



Photograph: 14

Direction: Southwest

Date: 8/26/14

Photographer:
Andy Kiel

Description:
ERRS workers on site in
Level B personal
protective equipment
(PPE) to begin collecting
samples from containers.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 15

Direction: Northeast

Date: 8/207/14

Photographer:
Andy Kiel

Description:
Air sampling and air monitoring station ASB-2 operational during the removal of the friable ACWM.



Photograph: 16

Direction: Southwest

Date: 8/207/14

Photographer:
Andy Kiel

Description:
ERRS worker conducting hazardous categorization of waste from containers on site.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 17

Direction: Northeast

Date: 9/5/14

Photographer:
Andy Kiel

Description:
Dust suppression activities during the removal of ACWM.



Photograph: 18

Direction: Southeast

Date: 9/18/14

Photographer:
Andy Kiel

Description:
Fiber drums containing color dye powders observed inside the southwestern most building inside the former manufacturing area.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 19

Direction: Southwest

Date: 9/18/14

Photographer:
Andy Kiel

Description:
On-Scene Coordinator (OSC) Ms. Tricia Edwards inspects demolition debris pile for asbestos debris and potential safety hazards.



Photograph: 20

Direction: North

Date: 9/19/14

Photographer:
Andy Kiel

Description:
Excavation of transite fragments embedded in the surface soil along the northeast perimeter of the asbestos exclusion zone.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 21

Direction: Southwest

Date: 9/25/14

Photographer:
Andy Kiel

Description:
Removal of ACWM
from the pits and
trenches and final
cleaning inside the
asbestos exclusion zone.



Photograph: 22

Direction: West

Date: 9/25/14

Photographer:
Andy Kiel

Description:
Removal of ACWM
from the pits and
trenches and final
cleaning inside the
asbestos exclusion zone.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 23

Direction: Northwest

Date: 9/26/14

Photographer:
Andy Kiel

Description:
ERRS crew conducting removal of non-friable ACWM from the eastern portion inside the asbestos exclusion zone.



Photograph: 24

Direction: Southwest

Date: 9/26/14

Photographer:
Andy Kiel

Description:
ERRS workers conducting transfer and consolidation of containerized waste.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 25

Direction: Southwest

Date: 9/30/14

Photographer:
Andy Kiel

Description:
ERRS workers
conducting transfer and
consolidation of
containerized waste.



Photograph: 26

Direction: South

Date: 10/2/14

Photographer:
Andy Kiel

Description:
Covered shed containing
hazardous solids.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 27

Direction: Northeast

Date: 10/2/14

Photographer:
Andy Kiel

Description:
Dust suppression and removal of hazardous solids inside the covered shed.



Photograph: 28

Direction: Northwest

Date: 10/15/14

Photographer:
Andy Kiel

Description:
Building insulation containing asbestos observed between the walls of the partially demolished kiln building.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 29

Direction: South

Date: 10/27/14

Photographer:
Andy Kiel

Description:
Air monitoring station around the perimeter of the covered shed during the removal of the hazardous solids.



Photograph: 30

Direction: Southwest

Date: 10/28/14

Photographer:
Andy Kiel

Description:
Removal of final hazardous solids and cleaning activity inside the covered shed.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 31

Direction: South

Date: 10/29/14

Photographer:
Andy Kiel

Description:
Backfilling pits and
trenches inside the
former asbestos
exclusion zone.



Photograph: 32

Direction: East

Date: 10/29/14

Photographer:
Andy Kiel

Description:
Removal of final
hazardous solids and
cleaning activity inside
the covered shed.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 33

Direction: North

Date: 10/30/14

Photographer:
Andy Kiel

Description:
Inside the covered shed
after final cleaning
activity was completed.



Photograph: 34

Direction: Southwest

Date: 10/30/14

Photographer:
Andy Kiel

Description:
Hazardous and non-
hazardous waste inside
the trailer prior to
transportation off site.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 35

Direction: Southwest

Date: 11/5/14

Photographer:
Andy Kiel

Description:
Former asbestos exclusion zone in the former manufacturing area prior to demobilization from site.



Photograph: 36

Direction: South

Date: 11/5/14

Photographer:
Andy Kiel

Description:
Former asbestos exclusion zone in the former manufacturing area prior to demobilization from site.



Photographic Documentation Log

Client: U.S. Environmental Protection Agency Region 5
Site Name: Stark Ceramics Removal Site
Location: East Canton, Stark County, Ohio

Prepared By: Tetra Tech, Inc.
TDD: S05-0001-1405-204

Photograph: 37

Direction: Northwest

Date: 11/5/14

Photographer:
Andy Kiel

Description:
Former asbestos exclusion zone in the former manufacturing area prior to demobilization from site.



Photograph: 38

Direction: Southwest

Date: 11/6/14

Photographer:
Andy Kiel

Description:
Asbestos warning signs posted at several locations within and around the former asbestos exclusion zone.





ATTACHMENT C

Tables

**TABLE 1
STARK CERAMICS REMOVAL SITE
ORGANIZATION OF THE REMOVAL ACTION**

Agency or Organization	Contact Person	Description of Participation
EPA Region 5 - Division of Superfund Emergency Response Branch 9311 Groh Road Grosse Ile, MI 48138 Telephone No.: (734) 692-7687	Tricia Edwards	Federal OSC responsible for overall project oversight and success.
USCG Atlantic Strike Team Bldg. 5614, Doughbly Loop Fort Dix, NJ 08640 Telephone No.: (609) 724-0008	Various Representatives	USCG Atlantic Strike Team on-site personnel responsible for health and safety, documentation, project oversight assistance and compliance.
Tetra Tech, Inc. 6777 Engle Road, Suites K and L Middleburg Heights, OH 44130 Telephone No.: (440) 297-2123	Andy Kiel	Tetra Tech, Inc., project manager responsible for removal oversight support, documentation, air monitoring, air sampling, asbestos consultation, and START-related cost-tracking.
Environmental Restoration LLC 6812 Nineteen 1/2 Mile Road Sterling Heights, MI 48314 Telephone No.: (586) 254-6547	Ed Kiernicki	Response manager responsible for directing daily ERRS activities, providing personnel and equipment necessary for the removal action, coordinating transportation and disposal of waste streams, and tracking ERRS-related costs.
Canton City Health District 420 Market Avenue N Canton, OH 44702 Telephone No.: (330) 489-3385	Jaclyn Hupp	Local regulatory agency responsible for tracking project progress and responding to complaints.
Ohio Environmental Protection Agency 2110 East Aurora Road Twinsburg, OH 44087 Telephone No.: (330) 650-1787	Paul Koval	State regulatory agency responsible for tracking project progress and responding to complaints.

Notes:

EPA= U.S. Environmental Protection Agency

ERRS = Emergency and Response Response Services

OSC = On-Scene Coordinator

START = Superfund Technical Assessment and Response Team

USCG = U.S. Coast Guard

**TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
1	7/31/14	2718098	Dump Trailer	Demolition Debris	19.32	American Landfill
2	7/31/14	2718099	Dump Trailer	Demolition Debris	21.43	American Landfill
3	7/31/14	2718100	Dump Trailer	Demolition Debris	19.38	American Landfill
4	7/31/14	2718101	Dump Trailer	Demolition Debris	16.80	American Landfill
5	7/31/14	2718102	Dump Trailer	Demolition Debris	18.70	American Landfill
6	7/31/14	2718103	Dump Trailer	Demolition Debris	17.71	American Landfill
7	7/31/14	2718104	Dump Trailer	Demolition Debris	19.53	American Landfill
8	7/31/14	2718105	Dump Trailer	Demolition Debris	18.33	American Landfill
9	7/31/14	2718106	Dump Trailer	Demolition Debris	15.36	American Landfill
10	7/31/14	2718107	Dump Trailer	Demolition Debris	14.19	American Landfill
11	7/31/14	2718108	Dump Trailer	Demolition Debris	16.60	American Landfill
12	8/1/14	2719197	Dump Trailer	Demolition Debris	17.94	American Landfill
13	8/1/14	2719198	Dump Trailer	Demolition Debris	18.39	American Landfill
14	8/1/14	2719199	Dump Trailer	Demolition Debris	16.57	American Landfill
15	8/1/14	2719200	Dump Trailer	Demolition Debris	15.12	American Landfill
16	8/1/14	2719201	Dump Trailer	Demolition Debris	16.39	American Landfill
17	8/1/14	2719202	Dump Trailer	Demolition Debris	20.15	American Landfill
18	8/1/14	2719203	Dump Trailer	Demolition Debris	18.58	American Landfill
19	8/1/14	2719204	Dump Trailer	Demolition Debris	21.81	American Landfill
20	VOID	2719205	VOID	Demolition Debris		American Landfill
21	8/1/14	2719206	Dump Trailer	Demolition Debris	21.13	American Landfill
22	8/1/14	2719207	Dump Trailer	Demolition Debris	20.72	American Landfill
23	8/1/14	2719208	Dump Trailer	Demolition Debris	23.72	American Landfill
24	8/1/14	2719209	Dump Trailer	Demolition Debris	25.20	American Landfill
25	8/1/14	2719210	Dump Trailer	Demolition Debris	22.72	American Landfill
26	VOID	2719211	VOID	Demolition Debris		American Landfill
27	VOID	2719212	VOID	Demolition Debris		American Landfill
28	8/1/14	2719213	Dump Trailer	Demolition Debris	21.37	American Landfill
29	8/1/14	2719214	Dump Trailer	Demolition Debris	18.45	American Landfill
30	8/1/14	2719215	Dump Trailer	Demolition Debris	20.14	American Landfill
31	8/1/14	2719216	Dump Trailer	Demolition Debris	20.33	American Landfill
32	8/1/14	2719217	Dump Trailer	Demolition Debris	21.31	American Landfill
33	8/1/14	2719218	Dump Trailer	Demolition Debris	21.21	American Landfill
34	8/1/14	2719219	Dump Trailer	Demolition Debris	23.41	American Landfill
35	8/4/14	2719220	Dump Trailer	Demolition Debris	21.02	American Landfill
36	8/4/14	2719221	Dump Trailer	Demolition Debris	18.18	American Landfill
37	8/4/14	2719222	Dump Trailer	Demolition Debris	20.14	American Landfill
38	8/4/14	2719223	Dump Trailer	Demolition Debris	22.27	American Landfill
39	8/4/14	2719224	Dump Trailer	Demolition Debris	19.05	American Landfill
40	8/4/14	2719225	Dump Trailer	Demolition Debris	19.88	American Landfill
41	8/4/14	2719226	Dump Trailer	Demolition Debris	20.63	American Landfill
42	8/4/14	2719227	Dump Trailer	Demolition Debris	22.92	American Landfill
43	8/4/14	2719228	Dump Trailer	Demolition Debris	24.93	American Landfill
44	8/4/14	2719229	Dump Trailer	Demolition Debris	27.86	American Landfill
45	8/4/14	2719230	Dump Trailer	Demolition Debris	24.33	American Landfill
46	8/4/14	2719231	Dump Trailer	Demolition Debris	24.24	American Landfill
47	8/4/14	2719232	Dump Trailer	Demolition Debris	22.01	American Landfill
48	8/4/14	2719233	Dump Trailer	Demolition Debris	25.34	American Landfill
49	8/4/14	2719234	Dump Trailer	Demolition Debris	22.90	American Landfill
50	8/4/14	2719235	Dump Trailer	Demolition Debris	24.18	American Landfill
51	8/5/14	2719236	Dump Trailer	Demolition Debris	22.26	American Landfill
52	8/5/14	2719237	Dump Trailer	Demolition Debris	18.23	American Landfill
53	8/5/14	2719238	Dump Trailer	Demolition Debris	22.63	American Landfill
54	8/5/14	2719239	Dump Trailer	Demolition Debris	18.91	American Landfill
55	8/5/14	2719240	Dump Trailer	Demolition Debris	21.81	American Landfill
56	8/5/14	2719241	Dump Trailer	Demolition Debris	18.74	American Landfill
57	8/5/14	2719242	Dump Trailer	Demolition Debris	17.45	American Landfill
58	8/5/14	2719243	Dump Trailer	Demolition Debris	19.31	American Landfill
59	8/5/14	2719244	Dump Trailer	Demolition Debris	21.24	American Landfill
60	8/5/14	2719245	Dump Trailer	Demolition Debris	23.49	American Landfill
61	8/5/14	2719246	Dump Trailer	Demolition Debris	19.47	American Landfill
62	8/5/14	2719247	Dump Trailer	Demolition Debris	21.27	American Landfill
63	8/5/14	2719248	Dump Trailer	Demolition Debris	19.66	American Landfill
64	8/5/14	2719249	Dump Trailer	Demolition Debris	19.89	American Landfill
65	8/5/14	2719250	Dump Trailer	Demolition Debris	19.46	American Landfill
66	8/5/14	2719251	Dump Trailer	Demolition Debris	19.83	American Landfill
67	8/5/14	2719252	Dump Trailer	Demolition Debris	21.99	American Landfill
68	8/7/14	2719253	Dump Trailer	Demolition Debris	23.84	American Landfill
69	8/7/14	2719254	Dump Trailer	Demolition Debris	14.64	American Landfill
70	8/7/14	2719255	Dump Trailer	Demolition Debris	18.08	American Landfill
71	8/7/14	2719256	Dump Trailer	Demolition Debris	13.69	American Landfill

**TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
72	8/7/14	2719257	Dump Trailer	Demolition Debris	18.22	American Landfill
73	8/7/14	2719258	Dump Trailer	Demolition Debris	18.14	American Landfill
74	8/7/14	2719259	Dump Trailer	Demolition Debris	19.54	American Landfill
75	8/7/14	2719260	Dump Trailer	Demolition Debris	19.00	American Landfill
76	8/7/14	2719261	Dump Trailer	Demolition Debris	19.79	American Landfill
77	8/7/14	2719262	Dump Trailer	Demolition Debris	22.63	American Landfill
78	8/7/14	2719263	Dump Trailer	Demolition Debris	24.70	American Landfill
79	8/7/14	2719264	Dump Trailer	Demolition Debris	23.53	American Landfill
80	8/7/14	2719265	Dump Trailer	Demolition Debris	19.62	American Landfill
81	8/7/14	2719266	Dump Trailer	Demolition Debris	18.38	American Landfill
82	8/7/14	2719267	Dump Trailer	Demolition Debris	17.48	American Landfill
83	8/7/14	2719268	Dump Trailer	Demolition Debris	20.33	American Landfill
84	8/7/14	2719269	Dump Trailer	Demolition Debris	20.88	American Landfill
85	8/7/14	2719270	Dump Trailer	Demolition Debris	19.37	American Landfill
86	8/7/14	2719271	Dump Trailer	Demolition Debris	18.74	American Landfill
87	8/8/14	2719272	Dump Trailer	Demolition Debris	21.65	American Landfill
88	8/8/14	2719273	Dump Trailer	Demolition Debris	24.95	American Landfill
89	8/8/14	2719274	Dump Trailer	Demolition Debris	24.57	American Landfill
90	8/8/14	2719275	Dump Trailer	Demolition Debris	25.44	American Landfill
91	8/8/14	2719276	Dump Trailer	Demolition Debris	29.66	American Landfill
92	8/8/14	2719277	Dump Trailer	Demolition Debris	28.43	American Landfill
93	8/8/14	2719278	Dump Trailer	Demolition Debris	25.05	American Landfill
94	8/8/14	2719279	Dump Trailer	Demolition Debris	25.74	American Landfill
95	8/8/14	2719280	Dump Trailer	Demolition Debris	25.28	American Landfill
96	8/8/14	2719281	Dump Trailer	Demolition Debris	28.25	American Landfill
97	8/8/14	2719282	Dump Trailer	Demolition Debris	28.25	American Landfill
98	8/8/14	2719283	Dump Trailer	Demolition Debris	25.61	American Landfill
99	8/8/14	2719284	Dump Trailer	Demolition Debris	25.75	American Landfill
100	8/11/14	2719285	Dump Trailer	Demolition Debris	21.66	American Landfill
101	8/11/14	2719286	Dump Trailer	Demolition Debris	24.81	American Landfill
102	8/11/14	2719287	Dump Trailer	Demolition Debris	22.13	American Landfill
103	8/11/14	2719288	Dump Trailer	Demolition Debris	21.50	American Landfill
104	8/11/14	2719289	Dump Trailer	Demolition Debris	21.73	American Landfill
105	8/11/14	2719290	Dump Trailer	Demolition Debris	19.16	American Landfill
106	8/11/14	2719291	Dump Trailer	Demolition Debris	17.33	American Landfill
107	8/12/14	2719292	Dump Trailer	Demolition Debris	19.66	American Landfill
108	8/12/14	2719293	Dump Trailer	Demolition Debris	15.98	American Landfill
109	8/12/14	2719294	Dump Trailer	Demolition Debris	16.30	American Landfill
110	8/12/14	2719295	Dump Trailer	Demolition Debris	19.01	American Landfill
111	8/12/14	2719296	Dump Trailer	Demolition Debris	21.00	American Landfill
112	8/12/14	2719297	Dump Trailer	Demolition Debris	16.12	American Landfill
113	8/12/14	2719298	Dump Trailer	Demolition Debris	19.97	American Landfill
114	8/12/14	2719299	Dump Trailer	Demolition Debris	21.37	American Landfill
115	8/12/14	2719300	Dump Trailer	Demolition Debris	20.83	American Landfill
116	8/12/14	2719301	Dump Trailer	Demolition Debris	21.57	American Landfill
117	8/12/14	2719302	Dump Trailer	Demolition Debris	20.37	American Landfill
118	8/12/14	2719303	Dump Trailer	Demolition Debris	21.76	American Landfill
119	8/12/14	2719304	Dump Trailer	Demolition Debris	19.41	American Landfill
120	8/12/14	2719305	Dump Trailer	Demolition Debris	19.41	American Landfill
121	8/12/14	2719306	Dump Trailer	Demolition Debris	19.59	American Landfill
122	8/12/14	2719307	Dump Trailer	Demolition Debris	19.90	American Landfill
123	8/12/14	2719308	Dump Trailer	Demolition Debris	21.52	American Landfill
124	8/13/14	2719309	Dump Trailer	Demolition Debris	18.07	American Landfill
125	8/13/14	2719310	Dump Trailer	Demolition Debris	20.15	American Landfill
126	8/13/14	2719311	Dump Trailer	Demolition Debris	16.97	American Landfill
127	8/13/14	2719312	Dump Trailer	Demolition Debris	20.41	American Landfill
128	8/13/14	2719313	Dump Trailer	Demolition Debris	20.46	American Landfill
129	8/13/14	2719314	Dump Trailer	Demolition Debris	19.13	American Landfill
130	8/13/14	2719315	Dump Trailer	Demolition Debris	17.13	American Landfill
131	8/14/14	2719316	Dump Trailer	Demolition Debris	18.50	American Landfill
132	8/14/14	2719317	Dump Trailer	Demolition Debris	16.84	American Landfill
133	8/14/14	2719318	Dump Trailer	Demolition Debris	17.35	American Landfill
134	8/14/14	2719319	Dump Trailer	Demolition Debris	17.94	American Landfill
135	8/14/14	2719320	Dump Trailer	Demolition Debris	15.24	American Landfill
136	8/14/14	2719321	Dump Trailer	Demolition Debris	14.77	American Landfill
137	8/14/14	2719322	Dump Trailer	Demolition Debris	14.08	American Landfill
138	8/14/14	2719323	Dump Trailer	Demolition Debris	16.97	American Landfill
139	8/14/14	2719324	Dump Trailer	Demolition Debris	15.12	American Landfill
140	VOID	2719325	VOID	Demolition Debris		American Landfill
141	8/14/14	2719326	Dump Trailer	Demolition Debris	13.53	American Landfill
142	8/13/14	2719327	Dump Trailer	Demolition Debris	23.32	American Landfill

**TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
143	8/13/14	2719328	Dump Trailer	Demolition Debris	20.50	American Landfill
144	8/13/14	2719329	Dump Trailer	Demolition Debris	18.96	American Landfill
145	8/13/14	2719330	Dump Trailer	Demolition Debris	15.86	American Landfill
146	8/13/14	2719331	Dump Trailer	Demolition Debris	18.14	American Landfill
147	8/13/14	2719332	Dump Trailer	Demolition Debris	18.78	American Landfill
148	8/13/14	2719333	Dump Trailer	Demolition Debris	17.61	American Landfill
149	8/14/14	2719334	Dump Trailer	Demolition Debris	13.46	American Landfill
150	8/14/14	2719335	Dump Trailer	Demolition Debris	16.46	American Landfill
151	8/14/14	2719336	Dump Trailer	Demolition Debris	15.02	American Landfill
152	8/14/14	2719337	Dump Trailer	Demolition Debris	15.32	American Landfill
153	8/14/14	2719338	Dump Trailer	Demolition Debris	17.69	American Landfill
154	8/14/14	2719339	Dump Trailer	Demolition Debris	17.31	American Landfill
155	8/18/14	2719340	Dump Trailer	Demolition Debris	17.09	American Landfill
156	8/18/14	2719341	Dump Trailer	Demolition Debris	15.58	American Landfill
157	8/18/14	2719342	Dump Trailer	Demolition Debris	18.34	American Landfill
158	8/18/14	2719343	Dump Trailer	Demolition Debris	15.69	American Landfill
159	8/18/14	2719344	Dump Trailer	Demolition Debris	20.05	American Landfill
160	8/18/14	2719345	Dump Trailer	Demolition Debris	20.29	American Landfill
161	8/18/14	2719346	Dump Trailer	Demolition Debris	19.65	American Landfill
162	8/18/14	2719347	Dump Trailer	Demolition Debris	19.64	American Landfill
163	8/18/14	2719348	Dump Trailer	Demolition Debris	20.54	American Landfill
164	8/18/14	2719349	Dump Trailer	Demolition Debris	15.85	American Landfill
165	8/18/14	2719350	Dump Trailer	Demolition Debris	19.56	American Landfill
166	8/18/14	2719351	Dump Trailer	Demolition Debris	18.84	American Landfill
167	8/18/14	2719352	Dump Trailer	Demolition Debris	19.21	American Landfill
168	8/18/14	2719353	Dump Trailer	Demolition Debris	18.90	American Landfill
169	8/18/14	2719354	Dump Trailer	Demolition Debris	19.13	American Landfill
170	8/18/14	2719355	Dump Trailer	Demolition Debris	20.10	American Landfill
171	8/18/14	2719356	Dump Trailer	Demolition Debris	18.53	American Landfill
172	8/18/14	2719357	Dump Trailer	Demolition Debris	18.01	American Landfill
173	8/18/14	2719358	Dump Trailer	Demolition Debris	21.18	American Landfill
174	8/19/14	2719359	Dump Trailer	Demolition Debris	19.66	American Landfill
175	8/19/14	2719360	Dump Trailer	Demolition Debris	14.36	American Landfill
176	8/19/14	2719361	Dump Trailer	Demolition Debris	16.04	American Landfill
177	8/19/14	2719362	Dump Trailer	Demolition Debris	15.63	American Landfill
178	8/19/14	2719363	Dump Trailer	Demolition Debris	17.83	American Landfill
179	8/19/14	2719364	Dump Trailer	Demolition Debris	16.68	American Landfill
180	8/19/14	2719365	Dump Trailer	Demolition Debris	17.36	American Landfill
181	8/19/14	2719366	Dump Trailer	Demolition Debris	16.75	American Landfill
182	8/19/14	2719367	Dump Trailer	Demolition Debris	15.61	American Landfill
183	8/19/14	2719368	Dump Trailer	Demolition Debris	16.35	American Landfill
184	8/19/14	2719369	Dump Trailer	Demolition Debris	17.17	American Landfill
185	8/19/14	2719370	Dump Trailer	Demolition Debris	19.63	American Landfill
186	8/19/14	2719371	Dump Trailer	Demolition Debris	19.02	American Landfill
187	8/19/14	2719372	Dump Trailer	Demolition Debris	19.43	American Landfill
188	8/19/14	2719373	Dump Trailer	Demolition Debris	17.59	American Landfill
189	8/19/14	2719374	Dump Trailer	Demolition Debris	17.44	American Landfill
190	8/19/14	2719375	Dump Trailer	Demolition Debris	19.47	American Landfill
191	8/20/14	2719376	Dump Trailer	Demolition Debris	17.90	American Landfill
192	8/20/14	2719377	Dump Trailer	Demolition Debris	15.67	American Landfill
193	8/20/14	2719378	Dump Trailer	Demolition Debris	17.85	American Landfill
194	8/20/14	2719379	Dump Trailer	Demolition Debris	17.83	American Landfill
195	8/20/14	2719380	Dump Trailer	Demolition Debris	18.04	American Landfill
196	8/20/14	2719381	Dump Trailer	Demolition Debris	20.31	American Landfill
197	8/20/14	2719382	Dump Trailer	Demolition Debris	20.27	American Landfill
198	8/20/14	2719383	Dump Trailer	Demolition Debris	18.46	American Landfill
199	8/20/14	2719384	Dump Trailer	Demolition Debris	19.96	American Landfill
200	8/20/14	2719385	Dump Trailer	Demolition Debris	18.81	American Landfill
201	8/20/14	2719386	Dump Trailer	Demolition Debris	18.15	American Landfill
202	8/20/14	2719387	Dump Trailer	Demolition Debris	19.95	American Landfill
203	8/20/14	2719388	Dump Trailer	Demolition Debris	18.88	American Landfill
204	8/20/14	2719389	Dump Trailer	Demolition Debris	19.89	American Landfill
205	8/20/14	2719390	Dump Trailer	Demolition Debris	17.63	American Landfill
206	8/21/14	2719391	Dump Trailer	Demolition Debris	18.63	American Landfill
207	8/21/14	2719392	Dump Trailer	Demolition Debris	17.57	American Landfill
208	8/21/14	2719393	Dump Trailer	Demolition Debris	22.88	American Landfill
209	8/21/14	2719394	Dump Trailer	Demolition Debris	21.51	American Landfill
210	8/21/14	2719395	Dump Trailer	Demolition Debris	21.00	American Landfill
211	8/21/14	2719396	Dump Trailer	Demolition Debris	19.50	American Landfill
212	8/21/14	2719397	Dump Trailer	Demolition Debris	19.61	American Landfill
213	8/21/14	2719398	Dump Trailer	Demolition Debris	20.06	American Landfill

**TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
214	8/21/14	2719399	Dump Trailer	Demolition Debris	19.43	American Landfill
215	8/21/14	2719400	Dump Trailer	Demolition Debris	18.36	American Landfill
216	8/21/14	2719401	Dump Trailer	Demolition Debris	17.69	American Landfill
217	8/21/14	2719402	Dump Trailer	Demolition Debris	19.43	American Landfill
218	8/21/14	2719403	Dump Trailer	Demolition Debris	19.13	American Landfill
219	8/21/14	2719404	Dump Trailer	Demolition Debris	17.39	American Landfill
220	8/21/14	2719405	Dump Trailer	Demolition Debris	19.01	American Landfill
221	8/21/14	2719406	Dump Trailer	Demolition Debris	20.65	American Landfill
222	8/22/14	2719407	Dump Trailer	Demolition Debris	17.24	American Landfill
223	8/22/14	2719408	Dump Trailer	Demolition Debris	15.53	American Landfill
224	8/22/14	2719409	Dump Trailer	Demolition Debris	18.76	American Landfill
225	8/22/14	2719410	Dump Trailer	Demolition Debris	18.54	American Landfill
226	8/22/14	2719411	Dump Trailer	Demolition Debris	16.50	American Landfill
227	8/22/14	2719412	Dump Trailer	Demolition Debris	13.53	American Landfill
228	8/22/14	2719413	Dump Trailer	Demolition Debris	15.59	American Landfill
229	8/22/14	2719414	Dump Trailer	Demolition Debris	14.58	American Landfill
230	8/22/14	2719415	Dump Trailer	Demolition Debris	16.13	American Landfill
231	8/22/14	2719416	Dump Trailer	Demolition Debris	14.68	American Landfill
232	8/22/14	2719417	Dump Trailer	Demolition Debris	17.82	American Landfill
233	8/22/14	2719418	Dump Trailer	Demolition Debris	15.39	American Landfill
234	8/22/14	2719419	Dump Trailer	Demolition Debris	16.05	American Landfill
235	8/22/14	2719420	Dump Trailer	Demolition Debris	15.37	American Landfill
236	8/25/14	2719421	Dump Trailer	Demolition Debris	14.62	American Landfill
237	8/25/14	2719422	Dump Trailer	Demolition Debris	15.13	American Landfill
238	8/25/14	2719423	Dump Trailer	Demolition Debris	15.24	American Landfill
239	8/25/14	2719424	Dump Trailer	Demolition Debris	14.01	American Landfill
240	8/25/14	2719425	Dump Trailer	Demolition Debris	14.16	American Landfill
241	8/25/14	2719426	Dump Trailer	Demolition Debris	13.27	American Landfill
242	8/25/14	2719427	Dump Trailer	Demolition Debris	15.91	American Landfill
243	8/25/14	2719428	Dump Trailer	Demolition Debris	15.64	American Landfill
244	8/25/14	2719429	Dump Trailer	Demolition Debris	14.93	American Landfill
245	8/25/14	2719430	Dump Trailer	Demolition Debris	15.95	American Landfill
246	8/25/14	2719431	Dump Trailer	Demolition Debris	15.23	American Landfill
247	8/25/14	2719432	Dump Trailer	Demolition Debris	17.91	American Landfill
248	8/25/14	2719433	Dump Trailer	Demolition Debris	16.18	American Landfill
249	8/25/14	2719434	Dump Trailer	Demolition Debris	14.99	American Landfill
250	8/25/14	2719435	Dump Trailer	Demolition Debris	15.27	American Landfill
251	8/26/14	2719436	Dump Trailer	Demolition Debris	15.83	American Landfill
252	8/26/14	2719437	Dump Trailer	Demolition Debris	15.77	American Landfill
253	8/26/14	2719438	Dump Trailer	Demolition Debris	18.18	American Landfill
254	8/26/14	2719439	Dump Trailer	Demolition Debris	19.52	American Landfill
255	8/26/14	2719440	Dump Trailer	Demolition Debris	17.28	American Landfill
256	8/26/14	2719441	Dump Trailer	Demolition Debris	19.14	American Landfill
257	8/26/14	2719442	Dump Trailer	Demolition Debris	18.56	American Landfill
258	8/26/14	2719443	Dump Trailer	Demolition Debris	18.19	American Landfill
259	8/26/14	2719444	Dump Trailer	Demolition Debris	16.55	American Landfill
260	8/26/14	2719445	Dump Trailer	Demolition Debris	18.48	American Landfill
261	8/26/14	2719446	Dump Trailer	Demolition Debris	16.75	American Landfill
262	8/26/14	2719447	Dump Trailer	Demolition Debris	16.15	American Landfill
263	8/26/14	2719448	Dump Trailer	Demolition Debris	13.99	American Landfill
264	8/26/14	2719449	Dump Trailer	Demolition Debris	16.12	American Landfill
265	8/26/14	2719450	Dump Trailer	Demolition Debris	14.81	American Landfill
266	8/26/14	2719451	Dump Trailer	Demolition Debris	15.94	American Landfill
267	8/27/14	2719452	Dump Trailer	Demolition Debris	15.53	American Landfill
268	8/27/14	2719453	Dump Trailer	Demolition Debris	14.58	American Landfill
269	8/27/14	2719454	Dump Trailer	Demolition Debris	16.02	American Landfill
270	8/27/14	2719455	Dump Trailer	Demolition Debris	15.17	American Landfill
271	8/27/14	2719456	Dump Trailer	Demolition Debris	15.60	American Landfill
272	8/27/14	2719457	Dump Trailer	Demolition Debris	14.41	American Landfill
273	8/27/14	2719458	Dump Trailer	Demolition Debris	15.91	American Landfill
274	8/27/14	2719459	Dump Trailer	Demolition Debris	16.18	American Landfill
275	8/27/14	2719460	Dump Trailer	Demolition Debris	16.89	American Landfill
276	8/27/14	2719461	Dump Trailer	Demolition Debris	17.23	American Landfill
277	8/27/14	2719462	Dump Trailer	Demolition Debris	18.71	American Landfill
278	8/27/14	2719463	Dump Trailer	Demolition Debris	16.71	American Landfill
279	8/27/14	2719464	Dump Trailer	Demolition Debris	17.32	American Landfill
280	8/27/14	2719465	Dump Trailer	Demolition Debris	17.05	American Landfill
281	8/27/14	2719466	Dump Trailer	Demolition Debris	18.24	American Landfill
282	8/27/14	2719467	Dump Trailer	Demolition Debris	17.23	American Landfill
283	9/3/14	2719468	Dump Trailer	Demolition Debris	17.08	American Landfill
284	9/3/14	2719469	Dump Trailer	Demolition Debris	17.95	American Landfill

**TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
285	9/3/14	2719470	Dump Trailer	Demolition Debris	17.03	American Landfill
286	9/3/14	2719471	Dump Trailer	Demolition Debris	17.55	American Landfill
287	9/3/14	2719472	Dump Trailer	Demolition Debris	17.22	American Landfill
288	9/3/14	2719473	Dump Trailer	Demolition Debris	17.75	American Landfill
289	9/3/14	2719474	Dump Trailer	Demolition Debris	18.57	American Landfill
290	9/3/14	2719475	Dump Trailer	Demolition Debris	18.90	American Landfill
291	9/3/14	2719476	Dump Trailer	Demolition Debris	18.95	American Landfill
292	9/3/14	2719477	Dump Trailer	Demolition Debris	17.05	American Landfill
293	9/3/14	2719478	Dump Trailer	Demolition Debris	17.27	American Landfill
294	9/3/14	2719479	Dump Trailer	Demolition Debris	18.94	American Landfill
295	9/3/14	2719480	Dump Trailer	Demolition Debris	16.88	American Landfill
296	9/3/14	2719481	Dump Trailer	Demolition Debris	18.76	American Landfill
297	9/3/14	2719482	Dump Trailer	Demolition Debris	18.25	American Landfill
298	9/4/14	2719483	Dump Trailer	Demolition Debris	17.71	American Landfill
299	9/4/14	2719484	Dump Trailer	Demolition Debris	18.26	American Landfill
300	9/4/14	2719485	Dump Trailer	Demolition Debris	20.77	American Landfill
301	9/4/14	2719486	Dump Trailer	Demolition Debris	18.06	American Landfill
302	9/4/14	2719487	Dump Trailer	Demolition Debris	18.56	American Landfill
303	9/4/14	2719488	Dump Trailer	Demolition Debris	19.59	American Landfill
304	9/4/14	2719489	Dump Trailer	Demolition Debris	21.33	American Landfill
305	9/4/14	2719490	Dump Trailer	Demolition Debris	19.01	American Landfill
306	9/4/14	2719491	Dump Trailer	Demolition Debris	19.28	American Landfill
307	9/4/14	2719492	Dump Trailer	Demolition Debris	18.24	American Landfill
308	9/4/14	2719493	Dump Trailer	Demolition Debris	20.04	American Landfill
309	9/4/14	2719494	Dump Trailer	Demolition Debris	20.00	American Landfill
310	9/4/14	2719495	Dump Trailer	Demolition Debris	18.62	American Landfill
311	9/4/14	2719496	Dump Trailer	Demolition Debris	21.49	American Landfill
312	9/4/14	329698	Dump Trailer	Demolition Debris	20.55	American Landfill
313	9/5/14	329699	Dump Trailer	Demolition Debris	20.96	American Landfill
314	9/5/14	329700	Dump Trailer	Demolition Debris	19.83	American Landfill
315	9/5/14	329701	Dump Trailer	Demolition Debris	20.27	American Landfill
316	9/5/14	329702	Dump Trailer	Demolition Debris	20.65	American Landfill
317	9/5/14	329703	Dump Trailer	Demolition Debris	21.55	American Landfill
318	9/5/14	329704	Dump Trailer	Demolition Debris	18.68	American Landfill
319	9/5/14	329705	Dump Trailer	Demolition Debris	20.57	American Landfill
320	9/5/14	329706	Dump Trailer	Demolition Debris	20.06	American Landfill
321	9/5/14	329707	Dump Trailer	Demolition Debris	18.69	American Landfill
322	9/5/14	329708	Dump Trailer	Demolition Debris	18.95	American Landfill
323	9/5/14	329709	Dump Trailer	Demolition Debris	18.27	American Landfill
324	9/5/14	329710	Dump Trailer	Demolition Debris	18.98	American Landfill
325	9/5/14	329711	Dump Trailer	Demolition Debris	18.00	American Landfill
326	9/5/14	329712	Dump Trailer	Demolition Debris	19.01	American Landfill
327	9/5/14	329713	Dump Trailer	Demolition Debris	19.61	American Landfill
328	9/5/14	329714	Dump Trailer	Demolition Debris	19.54	American Landfill
329	9/8/14	329715	Dump Trailer	Demolition Debris	21.37	American Landfill
330	9/8/14	329716	Dump Trailer	Demolition Debris	17.63	American Landfill
331	9/8/14	329717	Dump Trailer	Demolition Debris	17.57	American Landfill
332	9/8/14	329718	Dump Trailer	Demolition Debris	19.83	American Landfill
333	9/8/14	329719	Dump Trailer	Demolition Debris	19.64	American Landfill
334	9/8/14	329720	Dump Trailer	Demolition Debris	19.63	American Landfill
335	9/8/14	329721	Dump Trailer	Demolition Debris	18.90	American Landfill
336	9/8/14	329722	Dump Trailer	Demolition Debris	17.82	American Landfill
337	9/8/14	329723	Dump Trailer	Demolition Debris	17.52	American Landfill
338	9/8/14	329724	Dump Trailer	Demolition Debris	20.23	American Landfill
339	9/8/14	329725	Dump Trailer	Demolition Debris	21.42	American Landfill
340	9/8/14	329726	Dump Trailer	Demolition Debris	20.78	American Landfill
341	9/8/14	329727	Dump Trailer	Demolition Debris	17.67	American Landfill
342	9/8/14	329728	Dump Trailer	Demolition Debris	21.16	American Landfill
343	9/8/14	329729	Dump Trailer	Demolition Debris	21.49	American Landfill
344	9/9/14	329730	Dump Trailer	Demolition Debris	18.98	American Landfill
345	9/9/14	329731	Dump Trailer	Demolition Debris	18.89	American Landfill
346	9/9/14	329732	Dump Trailer	Demolition Debris	19.03	American Landfill
347	9/9/14	329733	Dump Trailer	Demolition Debris	17.86	American Landfill
348	9/9/14	329734	Dump Trailer	Demolition Debris	17.31	American Landfill
349	9/9/14	329735	Dump Trailer	Demolition Debris	18.99	American Landfill
350	9/9/14	329736	Dump Trailer	Demolition Debris	21.18	American Landfill
351	9/9/14	329737	Dump Trailer	Demolition Debris	18.19	American Landfill
352	9/9/14	329738	Dump Trailer	Demolition Debris	18.02	American Landfill
353	9/9/14	329739	Dump Trailer	Demolition Debris	20.04	American Landfill
354	9/9/14	329740	Dump Trailer	Demolition Debris	20.83	American Landfill
355	9/9/14	329741	Dump Trailer	Demolition Debris	20.10	American Landfill

TABLE 2
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE FRIABLE ASBESTOS WASTE

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
356	9/9/14	329742	Dump Trailer	Demolition Debris	20.49	American Landfill
357	9/9/14	329743	Dump Trailer	Demolition Debris	21.48	American Landfill
358	9/10/14	329744	Dump Trailer	Demolition Debris	18.79	American Landfill
359	9/10/14	329745	Dump Trailer	Demolition Debris	18.91	American Landfill
360	9/10/14	329746	Dump Trailer	Demolition Debris	20.75	American Landfill
361	9/10/14	329747	Dump Trailer	Demolition Debris	17.92	American Landfill
362	9/10/14	329748	Dump Trailer	Demolition Debris	20.20	American Landfill
363	9/10/14	329749	Dump Trailer	Demolition Debris	20.40	American Landfill
364	9/10/14	329750	Dump Trailer	Demolition Debris	15.95	American Landfill
365	9/10/14	2738022	Dump Trailer	Demolition Debris	20.20	American Landfill
366	9/10/14	2738023	Dump Trailer	Demolition Debris	17.58	American Landfill
367	9/10/14	2738024	Dump Trailer	Demolition Debris	16.66	American Landfill
368	9/10/14	2738025	Dump Trailer	Demolition Debris	20.52	American Landfill
369	9/10/14	2738026	Dump Trailer	Demolition Debris	19.72	American Landfill
370	9/12/14	2738027	Dump Trailer	Demolition Debris	17.29	American Landfill
371	9/12/14	2738028	Dump Trailer	Demolition Debris	17.75	American Landfill
372	9/12/14	2738029	Dump Trailer	Demolition Debris	17.76	American Landfill
373	9/12/14	2738030	Dump Trailer	Demolition Debris	17.37	American Landfill
374	9/12/14	2738031	Dump Trailer	Demolition Debris	19.18	American Landfill
375	9/12/14	2738032	Dump Trailer	Demolition Debris	19.23	American Landfill
376	9/12/14	2738033	Dump Trailer	Demolition Debris	19.58	American Landfill
377	9/12/14	2738034	Dump Trailer	Demolition Debris	19.19	American Landfill
378	9/12/14	2738035	Dump Trailer	Demolition Debris	23.27	American Landfill
379	9/12/14	2738036	Dump Trailer	Demolition Debris	17.84	American Landfill
380	9/12/14	2738037	Dump Trailer	Demolition Debris	21.31	American Landfill
381	9/22/14	2738038	Dump Trailer	Demolition Debris	21.86	American Landfill
382	9/22/14	2738039	Dump Trailer	Demolition Debris	21.39	American Landfill
383	9/22/14	2738040	Dump Trailer	Demolition Debris	22.17	American Landfill
384	9/22/14	2738041	Dump Trailer	Demolition Debris	21.46	American Landfill
385	9/22/14	2738042	Dump Trailer	Demolition Debris	22.52	American Landfill
386	9/22/14	2738043	Dump Trailer	Demolition Debris	21.54	American Landfill
387	9/22/14	2738044	Dump Trailer	Demolition Debris	23.12	American Landfill
388	9/22/14	2738045	Dump Trailer	Demolition Debris	23.89	American Landfill
389	9/22/14	2738046	Dump Trailer	Demolition Debris	23.50	American Landfill
390	9/22/14	2738047	Dump Trailer	Demolition Debris	23.42	American Landfill
391	9/22/14	2738048	Dump Trailer	Demolition Debris	23.33	American Landfill
392	9/22/14	2738049	Dump Trailer	Demolition Debris	20.30	American Landfill
393	9/22/14	2738050	Dump Trailer	Demolition Debris	21.97	American Landfill
394	9/22/14	2738051	Dump Trailer	Demolition Debris	22.00	American Landfill
395	10/24/14	2738052	Dump Trailer	Demolition Debris	13.09	American Landfill

**TABLE 3
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE NON-FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
1	9/23/14	2738102	Dump Trailer	Demolition Debris	23.72	American Landfill
2	9/23/14	2738103	Dump Trailer	Demolition Debris	21.14	American Landfill
3	9/23/14	2738104	Dump Trailer	Demolition Debris	21.46	American Landfill
4	9/23/14	2738105	Dump Trailer	Demolition Debris	22.66	American Landfill
5	9/23/14	2738106	Dump Trailer	Demolition Debris	20.60	American Landfill
6	9/23/14	2738107	Dump Trailer	Demolition Debris	21.72	American Landfill
7	9/23/14	2738108	Dump Trailer	Demolition Debris	22.54	American Landfill
8	9/23/14	2738109	Dump Trailer	Demolition Debris	21.94	American Landfill
9	9/23/14	2738110	Dump Trailer	Demolition Debris	22.97	American Landfill
10	9/23/14	2738111	Dump Trailer	Demolition Debris	23.10	American Landfill
11	9/23/14	2738112	Dump Trailer	Demolition Debris	20.75	American Landfill
12	9/23/14	2738113	Dump Trailer	Demolition Debris	20.23	American Landfill
13	9/23/14	2738114	Dump Trailer	Demolition Debris	21.52	American Landfill
14	9/23/14	2738115	Dump Trailer	Demolition Debris	23.37	American Landfill
15	9/23/14	2738116	Dump Trailer	Demolition Debris	21.92	American Landfill
16	9/23/14	2738117	Dump Trailer	Demolition Debris	20.17	American Landfill
17	9/23/14	2738118	Dump Trailer	Demolition Debris	22.78	American Landfill
18	9/23/14	2738119	Dump Trailer	Demolition Debris	24.41	American Landfill
19	9/24/14	2738120	Dump Trailer	Demolition Debris	22.72	American Landfill
20	9/24/14	2738121	Dump Trailer	Demolition Debris	22.52	American Landfill
21	9/24/14	2738122	Dump Trailer	Demolition Debris	22.00	American Landfill
22	9/24/14	2738123	Dump Trailer	Demolition Debris	20.62	American Landfill
23	9/24/14	2738124	Dump Trailer	Demolition Debris	22.58	American Landfill
24	9/24/14	2738125	Dump Trailer	Demolition Debris	20.19	American Landfill
25	9/24/14	2738126	Dump Trailer	Demolition Debris	21.02	American Landfill
26	9/24/14	2738127	Dump Trailer	Demolition Debris	22.02	American Landfill
27	9/24/14	2738128	Dump Trailer	Demolition Debris	22.36	American Landfill
28	9/24/14	2738129	Dump Trailer	Demolition Debris	19.70	American Landfill
29	9/24/14	2738130	Dump Trailer	Demolition Debris	23.58	American Landfill
30	9/24/14	2738131	Dump Trailer	Demolition Debris	22.82	American Landfill
31	9/24/14	2738132	Dump Trailer	Demolition Debris	21.52	American Landfill
32	9/24/14	2738133	Dump Trailer	Demolition Debris	20.42	American Landfill
33	9/24/14	2738134	Dump Trailer	Demolition Debris	23.91	American Landfill
34	9/24/14	2738135	Dump Trailer	Demolition Debris	24.03	American Landfill
35	9/24/14	2738136	Dump Trailer	Demolition Debris	23.73	American Landfill
36	9/24/14	2738137	Dump Trailer	Demolition Debris	21.95	American Landfill
37	9/24/14	2738138	Dump Trailer	Demolition Debris	21.47	American Landfill
38	9/24/14	2738139	Dump Trailer	Demolition Debris	22.36	American Landfill
39	9/24/14	2738140	Dump Trailer	Demolition Debris	22.18	American Landfill
40	9/25/14	2738141	Dump Trailer	Demolition Debris	21.07	American Landfill
41	9/25/14	2738142	Dump Trailer	Demolition Debris	21.53	American Landfill
42	9/25/14	2738143	Dump Trailer	Demolition Debris	21.39	American Landfill
43	9/25/14	2738144	Dump Trailer	Demolition Debris	21.34	American Landfill
44	9/25/14	2738145	Dump Trailer	Demolition Debris	23.26	American Landfill
45	9/25/14	2738146	Dump Trailer	Demolition Debris	22.14	American Landfill
46	9/25/14	2738147	Dump Trailer	Demolition Debris	21.35	American Landfill
47	9/25/14	2738148	Dump Trailer	Demolition Debris	22.68	American Landfill
48	9/25/14	2738149	Dump Trailer	Demolition Debris	21.25	American Landfill
49	9/25/14	2738150	Dump Trailer	Demolition Debris	25.15	American Landfill
50	9/25/14	2738151	Dump Trailer	Demolition Debris	19.43	American Landfill
51	9/25/14	2738152	Dump Trailer	Demolition Debris	22.76	American Landfill
52	9/25/14	2738153	Dump Trailer	Demolition Debris	22.65	American Landfill
53	9/25/14	2738154	Dump Trailer	Demolition Debris	21.36	American Landfill
54	9/25/14	2738155	Dump Trailer	Demolition Debris	18.93	American Landfill
55	9/25/14	2738156	Dump Trailer	Demolition Debris	22.00	American Landfill
56	9/25/14	2738157	Dump Trailer	Demolition Debris	19.64	American Landfill
57	9/25/14	2738158	Dump Trailer	Demolition Debris	18.98	American Landfill
58	9/25/14	2738159	Dump Trailer	Demolition Debris	18.34	American Landfill
59	9/25/14	2738160	Dump Trailer	Demolition Debris	21.06	American Landfill
60	9/29/14	2738161	Dump Trailer	Demolition Debris	20.71	American Landfill
61	9/29/14	2738162	Dump Trailer	Demolition Debris	17.54	American Landfill
62	9/29/14	2738163	Dump Trailer	Demolition Debris	18.94	American Landfill
63	9/29/14	2738164	Dump Trailer	Demolition Debris	19.12	American Landfill
64	9/29/14	2738165	Dump Trailer	Demolition Debris	18.87	American Landfill
65	9/29/14	2738166	Dump Trailer	Demolition Debris	18.39	American Landfill
66	9/29/14	2738167	Dump Trailer	Demolition Debris	18.92	American Landfill
67	9/29/14	2738168	Dump Trailer	Demolition Debris	19.04	American Landfill
68	9/29/14	2738169	Dump Trailer	Demolition Debris	20.18	American Landfill
69	9/29/14	2738170	Dump Trailer	Demolition Debris	16.48	American Landfill
70	9/29/14	2738171	Dump Trailer	Demolition Debris	19.80	American Landfill
71	9/29/14	2738172	Dump Trailer	Demolition Debris	19.05	American Landfill
72	9/29/14	2738173	Dump Trailer	Demolition Debris	20.10	American Landfill

**TABLE 3
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE NON-FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
73	9/29/14	2738174	Dump Trailer	Demolition Debris	18.01	American Landfill
74	9/29/14	2738175	Dump Trailer	Demolition Debris	21.53	American Landfill
75	9/29/14	2738176	Dump Trailer	Demolition Debris	18.45	American Landfill
76	9/29/14	2738177	Dump Trailer	Demolition Debris	15.77	American Landfill
77	9/30/14	2738178	Dump Trailer	Demolition Debris	17.29	American Landfill
78	9/30/14	2738179	Dump Trailer	Demolition Debris	20.14	American Landfill
79	9/30/14	2738180	Dump Trailer	Demolition Debris	19.50	American Landfill
80	9/30/14	2738181	Dump Trailer	Demolition Debris	19.74	American Landfill
81	9/30/14	2738182	Dump Trailer	Demolition Debris	16.96	American Landfill
82	9/30/14	2738183	Dump Trailer	Demolition Debris	20.49	American Landfill
83	9/30/14	2738184	Dump Trailer	Demolition Debris	18.74	American Landfill
84	9/30/14	2738185	Dump Trailer	Demolition Debris	17.72	American Landfill
85	9/30/14	2738186	Dump Trailer	Demolition Debris	18.67	American Landfill
86	9/30/14	2738187	Dump Trailer	Demolition Debris	18.16	American Landfill
87	9/30/14	2738188	Dump Trailer	Demolition Debris	16.92	American Landfill
88	9/30/14	2738189	Dump Trailer	Demolition Debris	21.12	American Landfill
89	9/30/14	2738190	Dump Trailer	Demolition Debris	19.01	American Landfill
90	9/30/14	2738191	Dump Trailer	Demolition Debris	18.10	American Landfill
91	9/30/14	2738192	Dump Trailer	Demolition Debris	17.95	American Landfill
92	9/30/14	2738193	Dump Trailer	Demolition Debris	17.90	American Landfill
93	9/30/14	2738194	Dump Trailer	Demolition Debris	18.64	American Landfill
94	9/30/14	2738195	Dump Trailer	Demolition Debris	15.49	American Landfill
95	9/30/14	2738196	Dump Trailer	Demolition Debris	16.97	American Landfill
96	9/30/14	2738197	Dump Trailer	Demolition Debris	17.59	American Landfill
97	10/1/14	2738198	Dump Trailer	Demolition Debris	17.66	American Landfill
98	10/1/14	2738199	Dump Trailer	Demolition Debris	17.06	American Landfill
99	10/1/14	2738200	Dump Trailer	Demolition Debris	18.58	American Landfill
100	10/1/14	2738201	Dump Trailer	Demolition Debris	19.36	American Landfill
101	10/1/14	2738202	Dump Trailer	Demolition Debris	19.90	American Landfill
102	10/1/14	2738203	Dump Trailer	Demolition Debris	19.72	American Landfill
103	10/1/14	2738204	Dump Trailer	Demolition Debris	19.01	American Landfill
104	10/1/14	2738205	Dump Trailer	Demolition Debris	19.48	American Landfill
105	10/1/14	2738206	Dump Trailer	Demolition Debris	21.25	American Landfill
106	10/1/14	2738207	Dump Trailer	Demolition Debris	19.60	American Landfill
107	10/1/14	2738208	Dump Trailer	Demolition Debris	19.80	American Landfill
108	10/1/14	2738209	Dump Trailer	Demolition Debris	18.86	American Landfill
109	10/1/14	2738210	Dump Trailer	Demolition Debris	20.84	American Landfill
110	10/1/14	2738211	Dump Trailer	Demolition Debris	19.21	American Landfill
111	10/1/14	2738212	Dump Trailer	Demolition Debris	21.55	American Landfill
112	10/1/14	2738213	Dump Trailer	Demolition Debris	20.95	American Landfill
113	10/1/14	2738214	Dump Trailer	Demolition Debris	21.88	American Landfill
114	10/2/14	2738215	Dump Trailer	Demolition Debris	20.07	American Landfill
115	10/2/14	2738216	Dump Trailer	Demolition Debris	19.94	American Landfill
116	10/2/14	2738217	Dump Trailer	Demolition Debris	22.37	American Landfill
117	10/2/14	2738218	Dump Trailer	Demolition Debris	19.23	American Landfill
118	10/2/14	2738219	Dump Trailer	Demolition Debris	20.91	American Landfill
119	10/2/14	2738220	Dump Trailer	Demolition Debris	25.76	American Landfill
120	10/2/14	2738221	Dump Trailer	Demolition Debris	24.13	American Landfill
121	10/2/14	2738222	Dump Trailer	Demolition Debris	23.70	American Landfill
122	10/2/14	2738223	Dump Trailer	Demolition Debris	22.67	American Landfill
123	10/2/14	2738224	Dump Trailer	Demolition Debris	28.07	American Landfill
124	10/2/14	2738225	Dump Trailer	Demolition Debris	27.45	American Landfill
125	10/2/14	2738226	Dump Trailer	Demolition Debris	26.54	American Landfill
126	10/7/14	2738227	Dump Trailer	Demolition Debris	18.79	American Landfill
127	10/7/14	2738228	Dump Trailer	Demolition Debris	21.23	American Landfill
128	10/7/14	2738229	Dump Trailer	Demolition Debris	23.25	American Landfill
129	10/7/14	2738230	Dump Trailer	Demolition Debris	21.21	American Landfill
130	10/7/14	2738231	Dump Trailer	Demolition Debris	20.23	American Landfill
131	10/7/14	2738232	Dump Trailer	Demolition Debris	21.94	American Landfill
132	10/7/14	2738233	Dump Trailer	Demolition Debris	20.46	American Landfill
133	10/7/14	2738234	Dump Trailer	Demolition Debris	19.25	American Landfill
134	10/7/14	2738235	Dump Trailer	Demolition Debris	21.14	American Landfill
135	10/7/14	2738236	Dump Trailer	Demolition Debris	18.59	American Landfill
136	10/7/14	2738237	Dump Trailer	Demolition Debris	19.14	American Landfill
137	10/7/14	2738238	Dump Trailer	Demolition Debris	19.03	American Landfill
138	10/7/14	2738239	Dump Trailer	Demolition Debris	22.75	American Landfill
139	10/7/14	2738240	Dump Trailer	Demolition Debris	16.54	American Landfill
140	10/7/14	2738241	Dump Trailer	Demolition Debris	22.11	American Landfill
141	10/7/14	2738242	Dump Trailer	Demolition Debris	19.23	American Landfill
142	10/7/14	2738243	Dump Trailer	Demolition Debris	21.94	American Landfill
143	10/8/14	2738244	Dump Trailer	Demolition Debris	18.69	American Landfill
144	10/8/14	2738245	Dump Trailer	Demolition Debris	18.78	American Landfill

**TABLE 3
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE NON-FRIABLE ASBESTOS WASTE**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
145	10/8/14	2738246	Dump Trailer	Demolition Debris	22.21	American Landfill
146	10/8/14	2738247	Dump Trailer	Demolition Debris	19.22	American Landfill
147	10/8/14	2738248	Dump Trailer	Demolition Debris	22.32	American Landfill
148	10/8/14	2738249	Dump Trailer	Demolition Debris	22.70	American Landfill
149	10/8/14	2738250	Dump Trailer	Demolition Debris	18.27	American Landfill
150	10/8/14	2738251	Dump Trailer	Demolition Debris	21.22	American Landfill
151	10/8/14	2738252	Dump Trailer	Demolition Debris	20.57	American Landfill
152	10/8/14	2738253	Dump Trailer	Demolition Debris	18.82	American Landfill
153	10/8/14	2738254	Dump Trailer	Demolition Debris	19.70	American Landfill
154	10/8/14	2738255	Dump Trailer	Demolition Debris	22.27	American Landfill
155	10/8/14	2738256	Dump Trailer	Demolition Debris	20.04	American Landfill
156	10/8/14	2738257	Dump Trailer	Demolition Debris	21.66	American Landfill
157	10/8/14	2738258	Dump Trailer	Demolition Debris	22.70	American Landfill
158	10/8/14	2738259	Dump Trailer	Demolition Debris	19.07	American Landfill
159	10/9/14	2738260	Dump Trailer	Demolition Debris	16.81	American Landfill
160	10/9/14	2738261	Dump Trailer	Demolition Debris	18.01	American Landfill
161	10/9/14	2738262	Dump Trailer	Demolition Debris	17.95	American Landfill
162	10/9/14	2738263	Dump Trailer	Demolition Debris	17.52	American Landfill
163	10/9/14	2738264	Dump Trailer	Demolition Debris	18.72	American Landfill
164	10/9/14	2738265	Dump Trailer	Demolition Debris	18.96	American Landfill
165	10/9/14	2738266	Dump Trailer	Demolition Debris	20.94	American Landfill
166	10/9/14	2738267	Dump Trailer	Demolition Debris	22.43	American Landfill
167	10/9/14	2738268	Dump Trailer	Demolition Debris	24.80	American Landfill
168	10/9/14	2738269	Dump Trailer	Demolition Debris	24.40	American Landfill
169	10/9/14	2738270	Dump Trailer	Demolition Debris	25.05	American Landfill

TABLE 4
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
AIR SAMPLING LOCATION ASB-1

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Maximum Background Conc. ($\mu\text{g}/\text{m}^3$)	Average Background Conc. ($\mu\text{g}/\text{m}^3$)	Maximum Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)	Average Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)
1	8/4/2014	9:17:11	16:53:11	2.0	438	78.62485	45.8105	0.90707	0.603038	71.20	6.70	213.60	20.10
2	8/6/2014	8:34:31	16:08:31	2.0	454	139.7452	38.80108	1.568245	0.876546	71.20	6.70	213.60	20.10
3	8/7/2014	8:27:09	16:16:09	2.0	469	38.8184	17.39547	1.091302	1.091302	71.20	6.70	213.60	20.10
4	8/8/2014	8:07:11	16:12:11	2.0	485	111.2492	23.52445	1.183023	0.603317	71.20	6.70	213.60	20.10
5	8/11/2014	8:48:33	14:46:33	2.0	358	28.0464	17.04022	1.106755	0.672124	71.20	6.70	213.60	20.10
6	8/12/2014	8:30:23	16:16:23	2.0	466	37.84119	21.98786	1.359995	0.649828	71.20	6.70	213.60	20.10
7	8/13/2014	8:19:14	15:57:14	2.0	458	39.67553	16.53991	1.652836	0.66819	71.20	6.70	213.60	20.10
8	8/14/2014	8:16:12	16:17:12	2.0	481	57.97693	8.201423	4.127007	0.799521	71.20	6.70	213.60	20.10
9	8/15/2014	9:25:12	16:22:12	2.0	417	15.2573	4.676075	2.593022	0.652083	71.20	6.70	213.60	20.10
10	8/18/2014	8:18:43	16:00:43	2.0	462	19.27806	12.13617	1.393805	0.635634	71.20	6.70	213.60	20.10
11	8/19/2014	8:15:00	15:54:00	2.0	459	27.95074	14.16847	1.384059	0.597896	71.20	6.70	213.60	20.10
12	8/20/2014	8:38:08	15:42:08	2.0	424	41.21593	9.008592	2.034056	0.55639	71.20	6.70	213.60	20.10
13	8/21/2014	8:01:49	15:57:49	2.0	476	56.6359	18.05655	0.675078	0.473621	71.20	6.70	213.60	20.10
14	8/22/2014	8:28:23	16:14:23	2.0	466	63.75898	27.28693	2.342803	0.910866	71.20	6.70	213.60	20.10
15	8/25/2014	8:01:13	16:00:13	2.0	479	43.88514	7.985695	1.374799	0.586674	71.20	6.70	213.60	20.10
16	8/26/2014	8:02:24	16:12:24	2.0	490	30.30276	13.6711	0.832797	0.470857	71.20	6.70	213.60	20.10
17	8/27/2014	8:00:00	16:02:00	2.0	482	60.70148	29.95555	1.023597	0.659577	71.20	6.70	213.60	20.10
18	8/28/2014	7:57:07	14:39:07	2.0	402	14.45472	3.597687	1.790686	0.457165	71.20	6.70	213.60	20.10
19	9/3/2014	8:37:16	16:06:16	2.0	449	38.27352	8.326283	0.812075	0.240709	71.20	6.70	213.60	20.10
20	9/4/2014	8:11:53	16:03:53	2.0	472	40.53395	14.41736	0.702574	0.377459	71.20	6.70	213.60	20.10
21	9/5/2014	8:06:20	15:30:20	2.0	444	49.57126	25.43609	0.837008	0.625183	71.20	6.70	213.60	20.10
22	9/8/2014	8:07:11	16:12:11	2.0	485	111.2492	23.52445	1.183023	0.603317	71.20	6.70	213.60	20.10
23	9/9/2014	8:08:09	15:36:09	2.0	448	19.44455	8.953665	2.937208	0.730294	71.20	6.70	213.60	20.10
24	9/10/2014	7:57:09	16:12:09	2.0	495	26.35434	15.20449	1.283585	0.581904	71.20	6.70	213.60	20.10
25	9/11/2014	8:14:08	15:16:08	2.0	422	760.3739	19.50131	4.127007	0.58388	71.20	6.70	213.60	20.10
26	9/12/2014	8:43:11	15:24:11	2.0	401	4.349505	0.215951	0.77981	0.34864	71.20	6.70	213.60	20.10
27	9/15/2014	8:32:25	15:19:25	2.0	407	12.16651	4.026727	1.727553	0.446022	71.20	6.70	213.60	20.10
28	9/16/2014	8:16:19	15:31:19	2.0	435	45.03062	19.84291	1.088127	0.430612	71.20	6.70	213.60	20.10
29	9/17/2014	8:09:16	16:14:16	2.0	485	17.1264	5.130775	0.767769	0.370241	71.20	6.70	213.60	20.10
30	9/18/2014	7:54:44	15:08:44	2.0	434	92.15517	12.74139	0.523772	0.324123	71.20	6.70	213.60	20.10
31	9/19/2014	8:02:26	15:59:26	2.0	477	66.41451	11.15073	1.499533	0.341675	71.20	6.70	213.60	20.10
32	9/22/2014	9:12:18	15:27:18	2.0	375	7.421121	2.579727	2.229733	0.490947	71.20	6.70	213.60	20.10
33	9/23/2014	8:37:46	15:39:46	2.0	422	16.28506	5.290503	0.679869	0.376906	71.20	6.70	213.60	20.10
34	9/24/2014	7:58:23	15:53:23	2.0	475	28.24056	7.182388	2.41794	0.559742	71.20	6.70	213.60	20.10
35	9/25/2014	7:59:44	15:09:44	2.0	430	29.90216	8.189759	2.11076	0.553205	71.20	6.70	213.60	20.10
36	9/26/2014	8:04:33	14:52:33	2.0	408	42.35829	10.47675	2.192671	0.56754	71.20	6.70	213.60	20.10
37	9/29/2014	8:02:27	14:55:27	2.0	413	148.238	21.2405	3.847355	0.648877	71.20	6.70	213.60	20.10
38	9/30/2014	8:01:14	9:39:14	2.0	98	72.08507	41.48593	0.524832	0.371456	71.20	6.70	213.60	20.10
39	10/1/2014	7:55:37	14:56:37	2.0	421	44.81265	30.4256	3.794839	1.326712	71.20	6.70	213.60	20.10

Notes:

μ = Micron

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

x = Times

ASB = Asbestos

Conc. = Concentration

L/min = Liters per minute

TWA = Time-weighted average

**TABLE 5
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
AIR SAMPLING LOCATION ASB-2**

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Maximum Background Conc. ($\mu\text{g}/\text{m}^3$)	Average Background Conc. ($\mu\text{g}/\text{m}^3$)	Maximum Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)	Average Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)
1	8/4/2014	8:28:09	16:23:09	2.0	475	168.0814	35.02758	2.411142	0.669078	71.20	6.70	213.60	20.10
2	8/6/2014	8:16:42	15:19:42	2.0	423	216.2157	35.11728	2.095726	0.645877	71.20	6.70	213.60	20.10
3	8/7/2014	8:41:37	16:15:37	2.0	454	289.8462	31.38617	1.208997	0.689015	71.20	6.70	213.60	20.10
4	8/8/2014	8:44:53	16:28:53	2.0	464	23.50768	14.94791	1.00578	0.616421	71.20	6.70	213.60	20.10
5	8/11/2014	8:04:25	16:18:25	2.0	494	37.90005	20.08078	0.864734	0.541327	71.20	6.70	213.60	20.10
6	8/12/2014	8:37:45	14:56:45	2.0	379	44.18009	16.51856	1.033701	0.608905	71.20	6.70	213.60	20.10
7	8/13/2014	8:18:03	16:26:03	2.0	488	63.53293	19.81093	1.909207	0.637167	71.20	6.70	213.60	20.10
8	8/14/2014	7:38:46	16:28:46	2.0	530	24.67891	6.077021	1.733538	0.527249	71.20	6.70	213.60	20.10
9	8/15/2014	8:03:21	16:14:21	2.0	491	78.83883	7.196366	3.139863	0.64986	71.20	6.70	213.60	20.10
10	8/18/2014	8:10:44	16:10:44	2.0	480	17.56574	10.61339	0.868354	0.495292	71.20	6.70	213.60	20.10
11	8/19/2014	7:56:37	16:03:37	2.0	487	150.242	13.66129	1.220889	0.456634	71.20	6.70	213.60	20.10
12	8/20/2014	8:24:30	8:05:57	2.0	449	19.09609	8.055758	1.692635	0.533985	71.20	6.70	213.60	20.10
13	8/21/2014	7:48:45	16:08:45	2.0	500	29.15072	15.86808	0.757328	0.471482	71.20	6.70	213.60	20.10
14	8/22/2014	7:49:52	16:11:52	2.0	502	240.2202	24.25298	3.615799	0.806466	71.20	6.70	213.60	20.10
15	8/25/2014	7:50:10	16:09:10	2.0	499	33.40497	8.581984	1.764247	0.497842	71.20	6.70	213.60	20.10
16	8/26/2014	7:40:58	16:01:58	2.0	501	112.1618	13.08573	1.524652	0.432016	71.20	6.70	213.60	20.10
17	8/27/2014	7:48:40	15:55:40	2.0	487	95.41979	15:55:40	1.242503	0.619445	71.20	6.70	213.60	20.10
18	8/28/2014	7:43:30	14:38:30	2.0	415	28.83601	4.125616	2.229935	0.604753	71.20	6.70	213.60	20.10
19	9/3/2014	8:26:43	16:12:43	2.0	466	71.82251	13.72592	2.029523	0.524429	71.20	6.70	213.60	20.10
20	9/4/2014	8:19:11	15:40:11	2.0	441	71.02356	13.6589	1.151668	0.390948	71.20	6.70	213.60	20.10
21	9/5/2014	7:52:16	15:29:16	2.0	457	81.65323	21.6172	1.53348	0.557195	71.20	6.70	213.60	20.10
22	9/8/2014	8:01:17	16:26:17	2.0	505	10.16196	4.736459	1.239577	0.517177	71.20	6.70	213.60	20.10
23	9/9/2014	8:00:24	15:47:24	2.0	467	24.34715	9.132573	1.436062	0.655866	71.20	6.70	213.60	20.10
24	9/10/2014	7:45:47	15:56:47	2.0	491	53.21678	13.81497	1.538167	0.530742	71.20	6.70	213.60	20.10
25	9/11/2014	8:01:05	15:33:05	2.0	452	15.54279	6.140645	0.769891	0.403757	71.20	6.70	213.60	20.10
26	9/12/2014	8:32:27	15:33:27	2.0	421	2.975667	0.901219	1.476816	0.474613	71.20	6.70	213.60	20.10
27	9/15/2014	7:56:30	15:18:30	2.0	442	36.12609	6.9838	2.711405	0.522757	71.20	6.70	213.60	20.10
28	9/16/2014	8:02:03	15:40:03	2.0	458	45.03884	17.06586	0.763884	0.416444	71.20	6.70	213.60	20.10
29	9/17/2014	7:37:09	16:10:09	2.0	513	214.1989	7.101085	1.390977	0.440984	71.20	6.70	213.60	20.10
30	9/18/2014	7:38:00	16:00:00	2.0	502	31.84507	11.04323	0.525863	0.352687	71.20	6.70	213.60	20.10
31	9/19/2014	8:13:28	15:57:28	2.0	464	33.78799	9.906007	0.66064	0.377828	71.20	6.70	213.60	20.10
32	9/22/2014	8:06:36	15:42:36	2.0	456	84.71479	5.724653	3.611278	0.782918	71.20	6.70	213.60	20.10
33	9/23/2014	7:48:53	15:51:53	2.0	483	224.5594	10.37692	3.882347	0.598427	71.20	6.70	213.60	20.10
34	9/24/2014	8:06:15	16:08:15	2.0	482	91.45971	9.281391	2.996801	0.614423	71.20	6.70	213.60	20.10
35	9/25/2014	8:20:57	15:18:57	2.0	418	89.31595	8.457753	2.440357	0.560633	71.20	6.70	213.60	20.10
36	9/26/2014	8:01:20	14:59:20	2.0	418	44.22304	10.57133	1.371041	0.55863	71.20	6.70	213.60	20.10
37	9/29/2014	8:00:33	15:07:33	2.0	427	78.49103	14.03125	1.782895	0.487787	71.20	6.70	213.60	20.10
38	9/30/2014	8:16:23	9:38:23	2.0	82	249.7012	52.50864	1.436497	0.465348	71.20	6.70	213.60	20.10
39	10/1/2014	8:10:13	14:54:13	2.0	404	57.05552	25.57519	2.63097	0.964517	71.20	6.70	213.60	20.10

Notes:

μ = Micron

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

x = Times

ASB = Asbestos

Conc. = Concentration

L/min = Liters per minute

TWA = Time-weighted average

TABLE 6
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
AIR SAMPLING LOCATION ASB-3

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Maximum Background Conc. ($\mu\text{g}/\text{m}^3$)	Average Background Conc. ($\mu\text{g}/\text{m}^3$)	Maximum Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)	Average Background Conc. x 3 ($\mu\text{g}/\text{m}^3$)
1	8/4/2014	8:28:07	16:18:07	2.0	470	62.66997	32.79547	0.815211	0.465474	71.20	6.70	213.60	20.10
2	8/6/2014	8:17:22	15:19:22	2.0	422	86.15172	34.7716	0.983987	0.494424	71.20	6.70	213.60	20.10
3	8/7/2014	8:42:37	16:19:37	2.0	457	80.52809	31.81134	1.028497	0.498777	71.20	6.70	213.60	20.10
4	8/8/2014	8:46:23	16:30:23	2.0	464	22.03727	13.53204	0.571371	0.372792	71.20	6.70	213.60	20.10
5	8/11/2014	8:04:14	16:20:14	2.0	496	29.44694	20.12979	0.704324	0.395459	71.20	6.70	213.60	20.10
6	8/12/2014	8:38:41	15:02:41	2.0	384	49.79999	17.40957	0.753841	0.487541	71.20	6.70	213.60	20.10
7	8/13/2014	8:19:08	16:27:08	2.0	488	39.4494	18.79115	1.057627	0.452281	71.20	6.70	213.60	20.10
8	8/14/2014	7:40:07	16:30:07	2.0	530	14.68359	4.706987	0.798994	0.341135	71.20	6.70	213.60	20.10
9	8/15/2014	8:09:08	16:12:08	2.0	483	17.70083	4.667748	0.794987	0.416085	71.20	6.70	213.60	20.10
10	8/18/2014	8:10:15	16:13:15	2.0	483	15.59734	9.947807	0.506927	0.318375	71.20	6.70	213.60	20.10
11	8/19/2014	7:54:30	16:06:30	2.0	492	46.43661	12.4751	1.046383	0.291012	71.20	6.70	213.60	20.10
12	8/20/2014	8:22:54	15:50:54	2.0	448	19.93215	7.608025	0.940731	0.367908	71.20	6.70	213.60	20.10
13	8/21/2014	7:46:02	16:12:02	2.0	506	35.87484	16.62648	0.667912	0.319834	71.20	6.70	213.60	20.10
14	8/22/2014	7:48:49	16:10:49	2.0	502	53.64758	24.86209	1.421228	0.591998	71.20	6.70	213.60	20.10
15	8/25/2014	7:48:36	16:09:36	2.0	501	18.7462	7.384594	0.684276	0.328196	71.20	6.70	213.60	20.10
16	8/26/2014	7:41:49	16:01:49	2.0	500	24.66956	11.61996	0.456167	0.246017	71.20	6.70	213.60	20.10
17	8/27/2014	7:48:48	15:53:48	2.0	485	165.8202	31.05489	1.154299	0.419214	71.20	6.70	213.60	20.10
18	8/28/2014	7:41:13	14:35:13	2.0	414	5.167572	1.667755	0.484177	0.3378	71.20	6.70	213.60	20.10
19	9/3/2014	8:20:23	16:13:23	2.0	473	38.79466	12.65459	0.996454	0.330648	71.20	6.70	213.60	20.10
20	9/4/2014	8:18:30	16:10:30	2.0	472	49.46368	12.62945	0.6298	0.234142	71.20	6.70	213.60	20.10
21	9/5/2014	7:51:13	15:28:13	2.0	457	77.58373	22.57201	1.100062	0.402933	71.20	6.70	213.60	20.10
22	9/8/2014	8:02:59	16:24:59	2.0	502	10.16623	3.069343	0.666322	0.370181	71.20	6.70	213.60	20.10
23	9/9/2014	7:59:50	15:37:50	2.0	458	16.90193	7.926633	0.754696	0.423261	71.20	6.70	213.60	20.10
24	9/10/2014	7:49:01	15:57:01	2.0	488	53.6735	13.002	0.587125	0.318523	71.20	6.70	213.60	20.10
25	9/11/2014	8:05:43	15:23:43	2.0	438	12.21938	6.181976	0.5359	0.328023	71.20	6.70	213.60	20.10
26	9/12/2014	8:26:13	15:21:13	2.0	415	3.172572	0.06915	0.342296	0.336525	71.20	6.70	213.60	20.10
27	9/15/2014	7:54:21	15:16:21	2.0	442	42.32267	5.849112	1.140504	0.372866	71.20	6.70	213.60	20.10
28	9/16/2014	8:08:25	15:40:25	2.0	452	48.39663	18.9102	0.720243	0.350099	71.20	6.70	213.60	20.10
29	9/17/2014	7:37:25	16:08:25	2.0	511	20.56513	5.942189	0.526159	0.34131	71.20	6.70	213.60	20.10
30	9/18/2014	7:36:23	15:58:23	2.0	502	45.03912	12.62798	0.495167	0.277492	71.20	6.70	213.60	20.10
31	9/19/2014	8:13:03	15:56:03	2.0	463	51.3794	15.56:03	0.721365	0.276129	71.20	6.70	213.60	20.10
32	9/22/2014	8:06:00	15:41:00	2.0	455	25.03617	3.40728	1.985256	0.444791	71.20	6.70	213.60	20.10
33	9/23/2014	7:49:38	15:51:38	2.0	482	53.26858	6.065904	1.914601	0.372662	71.20	6.70	213.60	20.10
34	9/24/2014	8:06:25	16:09:25	2.0	483	43.29234	6.090602	0.983236	0.389867	71.20	6.70	213.60	20.10
35	9/25/2014	8:19:27	15:01:27	2.0	402	45.34756	7.086044	0.797174	0.371905	71.20	6.70	213.60	20.10
36	9/26/2014	7:59:13	14:57:13	2.0	418	67.78445	10.10697	0.765295	0.389784	71.20	6.70	213.60	20.10
37	9/29/2014	7:58:43	15:09:43	2.0	431	35.44333	11.71181	0.816152	0.274694	71.20	6.70	213.60	20.10
38	9/30/2014	8:16:21	9:37:21	2.0	81	76.06923	55.33191	0.518442	0.366077	71.20	6.70	213.60	20.10
39	10/1/2014	8:10:19	14:53:19	2.0	403	38.4728	28.54874	3.426906	0.951947	71.20	6.70	213.60	20.10

Notes:

μ = Micron
 $\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter
x = times
ASB = Asbestos
Conc. = Concentration
L/min = Liters per minute
TWA = Time-weighted average

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 65°F, RH = 52%, Wind = 4 mph W							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone clearing pavement for haul trucks.							
7/29/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	1410	10.5	5.6	11	good	Upwind - No visible emissions
	ASB-AM-3	420	9.8	4.7	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1430	8.6	3.6	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 62°F, RH = 70%, Wind = 2.9 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone clearing pavement for haul trucks.							
7/30/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	0936	12.3	11.3	11	good	Upwind - No visible emissions
	ASB-AM-1	1000	11.2	10.8	NA	NA	Downwind - No visible emissions
	ASB-2	1006	14.0	11.8	9	good	Downwind - No visible emissions
	ASB-3	1010	15.2	11.6	11	good	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 64.2°F, RH = 80%, Wind = 3.4 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
7/31/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	0908	25.4	23.7	11	good	Upwind - No visible emissions
	ASB-AM-7	0914	26.6	23.7	NA	NA	Upwind - No visible emissions
	ASB-AM-1	0925	24.7	22.7	NA	NA	Downwind - No visible emissions
	ASB-2	0931	24.1	19.4	11	good	Downwind - No visible emissions
	ASB-3	0937	21.2	19.2	11.5	good	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 75.9°F, RH = 48%, Wind = 4.0 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone decontaminating and removing palletized bricks from the hot zone.							
7/31/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	1307	23.1	20.1	9.5	good	Upwind - No visible emissions
	ASB-AM-7	1315	25.3	21.4	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1321	40.0	24.6	NA	NA	Downwind - No visible emissions
	ASB-2	1330	62.4	31.9	5	good	Downwind - No visible emissions
	ASB-3	1335	25.4	21.4	5	good	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 69.1°F, RH = 72%, Wind = 1.8 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
7/31/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-4	1505	18.6	17.1	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1505	26.9	20.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1515	29.3	22.0	NA	NA	Downwind - No visible emissions
	ASB-2	1521	25.1	22.7	NA	NA	Downwind - No visible emissions
	ASB-3	1526	25.5	21.3	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 77.5°F, RH = 43%, Wind = 3.1 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/1/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	0902	35.4	32.5	11	good	Upwind - No visible emissions
	ASB-AM-2	0917	33.6	29.0	NA	NA	Downwind - No visible emissions
	ASB-AM-1	0922	40.0	37.6	NA	NA	Downwind - No visible emissions
	ASB-2	0927	33.1	27.3	2 to 3	good	Downwind - No visible emissions - void sample
	ASB-3	0932	27.9	26.2	2 to 3	good	Downwind - No visible emissions - void sample
Weather Temp./RH/Wind Conditions Temp. = 78.1°F, RH = 55%, Wind = 1.1 mph WNW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/1/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-1	1050	26.5	23.9	2 to 3	good	Upwind - No visible emissions - void sample
	ASB-AM-7	1059	23.6	21.9	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1108	26.1	23.3	NA	NA	Downwind - No visible emissions
	ASB-2	1114	30.0	23.0	NA	NA	Downwind - No visible emissions
	ASB-3	1117	25.0	22.1	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 82.0°F, RH = 38%, Wind = 1.8 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/1/2014	ASB-1	1314	26.0	23.1	NA	NA	Upwind - No visible emissions
	ASB-AM-7	1329	24.0	21.9	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1336	214.6	48.2	NA	NA	Downwind - No visible emissions - Haul truck drove passed
	ASB-2	1341	28.8	22.3	NA	NA	Downwind - No visible emissions
	ASB-3	1345	23.0	21.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 70.2°F, RH = 75%, Wind = 1.6 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/4/2014	ASB-1	0930	47.6	45.5	10.5	good	Upwind - No visible emissions
	ASB-AM-6	0938	43.3	41.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	0945	41.9	39.6	NA	NA	Downwind - No visible emissions
	ASB-2	0950	34.1	40.0	11	good	Downwind - No visible emissions
	ASB-3	0955	34.5	35.0	11	good	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 77.0°F, RH = 61%, Wind = 1.6 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/4/2014	ASB-1	1050	34.8	32.3	11	good	Upwind - No visible emissions
	ASB-AM-7	1057	34.4	31.3	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1109	70.3	48.8	NA	NA	Downwind - No visible emissions
	ASB-2	1113	33.3	30.4	9	good	Downwind - No visible emissions
	ASB-3	1117	34.1	30.4	11	good	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 82.4°F, RH = 42%, Wind = 1.8 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/4/2014	ASB-1	1323	32.1	30.1	NA	NA	Upwind - No visible emissions
	ASB AM7	1334	31.1	28.0	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1344	29.1	27.8	NA	NA	Downwind - No visible emissions
	ASB-2	1349	29.1	26.9	NA	NA	Downwind - No visible emissions
	ASB-3	1354	29.2	26.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 70.2°F, RH = 75%, Wind = 1.6 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/5/2014	ASB-AM-7	0930	45.4	43.2	NA	NA	Wind calm - No visible emissions
	ASB-AM-2	0938	50.9	45.1	NA	NA	Wind Calm - No visible emissions
	ASB-AM-1	0945	39.4	36.3	NA	NA	Wind calm - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 81.9°F, RH = 41%, Wind = 4.9 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/5/2014	ASB-AM-6	1336	29.3	27.3	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1354	27.1	26.4	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1359	34.1	31.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 70.0°F, RH = 79%, Wind = 0.8 mph ENE							
Work Activity and Area Inside asbestos north end of asbestos exclusion relocating ACWM to the haul truck loading zone.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/6/2014	ASB-AM-7	947	74.5	68.4	NA	NA	Downwind - No visible emissions
	ASB-AM-6	953	72.2	69.0	NA	NA	Downwind - No visible emissions
	ASB-AM-3	959	74.4	72.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1005	70.5	68.0	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 78.1°F, RH = 52%, Wind = 2.9 mph NNE							
Work Activity and Area Inside asbestos north end of asbestos exclusion relocating ACWM to the haul truck loading zone.							
	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
8/6/2014	ASB-AM-7	1521	17.3	14.8	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1526	17.2	13.1	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1531	10.8	10.3	NA	NA	Upwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions		Temp. = 60.8°F, RH = 77%, Wind = 0.2 mph WSW					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/7/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0830	32.4	29.0	NA	NA	Upwind - No visible emissions
	ASB-AM-6	0835	25.4	23.1	NA	NA	Upwind - No visible emissions
	ASB-AM-2	0848	21.5	19.3	NA	NA	Downwind - No visible emissions
	ASB-AM-1	0853	21.1	18.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 78.1°F, RH = 52%, Wind = 2.9 mph NNE					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/7/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1001	18.2	16.8	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1009	25.3	16.5	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1019	21.0	17.3	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1024	21.0	26.7	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 78.1°F, RH = 52%, Wind = 2.9 mph NNE					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/7/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1310	13.2	10.8	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1316	11.6	10.6	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1326	12.4	11.1	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1331	11.4	10.2	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 78.4°F, RH = 35%, Wind = 1.8 mph E					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/7/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1506	13.1	12.3	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1512	13.2	12.1	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1522	14.1	12.3	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1530	42.1	14.5	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 68.9°F, RH = 56%, Wind = 0.4 mph NNE					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/8/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0948	17.4	16.2	NA	NA	Downwind - No visible emissions
	ASB-AM-6	0954	17.3	16.5	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1004	17.8	16.3	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1009	20.2	17.7	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 73.2°F, RH = 48%, Wind = 1.8 mph NE					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/8/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1145	22.2	19.6	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1150	19.3	18.5	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1158	23.5	20.0	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1205	23.6	20.7	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 72.1°F, RH = 80%, Wind = 2.0 mph WSW					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/12/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0941	32.5	28.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	0952	29.9	27.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	0958	40.5	31.3	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 74.3°F, RH = 71%, Wind = 4.3 mph SSW					
Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.					
8/12/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1049	29.6	27.6	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1056	36.6	26.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1104	24.6	21.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1109	25.5	21.9	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions		Temp. = 78.4°F, RH = 58%, Wind = 4.9 mph SW					

**TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL**

8/12/2014		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				Comments
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition		
ASB-AM-7	1454	19.1	16.8	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1511	17.6	16.0	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1521	14.4	12.9	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1525	25.1	18.4	NA	NA	Downwind - No visible emissions	
8/13/2014		Weather Temp./RH/Wind Conditions	Temp. = 60.3°F, RH = 83%, Wind = 2.5 mph SW				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	0958	25.4	23.4	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1004	26.1	24.6	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1014	25.9	25.3	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1018	31.7	27.6	NA	NA	Downwind - No visible emissions	
8/13/2014		Weather Temp./RH/Wind Conditions	Temp. = 61.2°F, RH = 80%, Wind = 2.5 mph SW				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	1105	25.1	24.3	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1111	26.8	25.1	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1118	24.1	23.4	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1124	27.1	25.8	NA	NA	Downwind - No visible emissions	
8/13/2014		Weather Temp./RH/Wind Conditions	Temp. = 78.4°F, RH = 58%, Wind = 4.9 mph SW				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	1454		16.8	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1511	17.6	16.0	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1521	14.4	12.9	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1525	25.1	18.4	NA	NA	Downwind - No visible emissions	
8/14/2014		Weather Temp./RH/Wind Conditions	Temp. = 64.8°F, RH = 63%, Wind = 1.3 mph W				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-6	0916	7.8	6.8	NA	NA	Upwind - No visible emissions	
ASB-AM-5	0923	8.8	7.6	NA	NA	Downwind - No visible emissions	
ASB-AM-4	0929	7.2	6.5	NA	NA	Downwind - No visible emissions	
ASB-AM-3	0934	7.8	6.4	NA	NA	Downwind - No visible emissions	
8/14/2014		Weather Temp./RH/Wind Conditions	Temp. = 61.2°F, RH = 80%, Wind = 2.5 mph SW				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	1105	25.1	24.3	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1111	26.8	25.1	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1118	24.1	23.4	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1124	27.1	25.8	NA	NA	Downwind - No visible emissions	
8/14/2014		Weather Temp./RH/Wind Conditions	Temp. = 78.4°F, RH = 58%, Wind = 4.9 mph SW				
		Work Activity and Area	Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	1454	18.1	16.8	NA	NA	Upwind - No visible emissions	
ASB-AM-6	1511	17.6	16.0	NA	NA	Upwind - No visible emissions	
ASB-AM-2	1521	14.4	12.9	NA	NA	Downwind - No visible emissions	
ASB-AM-1	1525	25.1	18.4	NA	NA	Downwind - No visible emissions	
8/15/2014		Weather Temp./RH/Wind Conditions	Temp. = 60.4°F, RH = 64%, Wind = 2.0 mph SW				
		Work Activity and Area	Relocating ACWM from around kiln building and relocating to loading area inside asbestos exclusion zone.				
Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments	
ASB-AM-7	0930	12.2	10.8	NA	NA	Upwind - No visible emissions	
ASB-AM-3	0938	12.0	11.2	NA	NA	Downwind - No visible emissions	
ASB-AM-2	0944	12.8	11.1	NA	NA	Downwind - No visible emissions	
ASB-AM-1	0950	15.7	13.4	NA	NA	Downwind - No visible emissions	
8/15/2014		Weather Temp./RH/Wind Conditions	Temp. = 67.1°F, RH = 47%, Wind = 1.8 mph WSW				
		Work Activity and Area	Relocating ACWM from around kiln building and relocating to loading area inside asbestos exclusion zone.				

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

8/15/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1053	7.2	5.0	NA	NA	Upwind - No visible emissions
	ASB-AM-3	1058	7.1	6.2	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1104	15.7	8.1	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1109	14.9	7.4	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 71.6°F, RH = 35%, Wind = 3.6 mph WSW				
Work Activity and Area			Relocating ACWM from around kiln building and relocating to loading area inside asbestos exclusion zone.				
8/15/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1502	5.6	4.6	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1523	7.9	5.6	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1530	18.4	7.9	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 69.8°F, RH = 67%, Wind = 1.8 mph NNE				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/18/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1030	14.2	11.7	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1036	11.7	10.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1044	11.4	9.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1050	11.3	9.5	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 71.4°F, RH = 57%, Wind = 1.1 mph E				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/18/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1131	12.2	11.2	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1135	11.9	10.8	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1142	17.2	11.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1149	17.0	11.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 80.8°F, RH = 51%, Wind = 2.0 mph NNE				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/18/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1327	12.0	11.1	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1334	11.0	10.6	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1341	22.2	14.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1347	11.4	10.9	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 80.8°F, RH = 51%, Wind = 2.0 mph NNE				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/18/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1518	10.2	9.4	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1530	11.5	8.6	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1540	12.6	10.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1546	43.4	32.0	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 66.0°F, RH = 74%, Wind = 0.0 mph SW				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/19/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0854	20.9	17.3	NA	NA	Calm - No visible emissions
	ASB-AM-6	0859	28.3	17.4	NA	NA	Calm - No visible emissions
Weather Temp./RH/Wind Conditions			Temp. = 80.8°F, RH = 45%, Wind = 1.8 mph S				
Work Activity and Area			Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
8/19/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1106	17.6	15.6	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1122	14.0	12.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1129	32.8	15.2	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 66.9°F, RH = 84%, Wind = 0.8 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/20/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0945	7.1	4.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1002	5.1	3.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1007	7.9	4.6	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 76.1°F, RH = 70%, Wind = 3.1 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/20/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1335	24.5	21.0	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1345	23.3	20.3	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1350	25.3	22.2	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 72.5°F, RH = 77%, Wind = 3.1 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/21/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	955	27.6	23.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1007	27.6	23.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1012	25.5	24.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 76.1°F, RH = 70%, Wind = 3.1 mph SW							
Work Activity and Area Relocating ACWM from around kiln building and relocating to loading area inside asbestos exclusion zone.							
8/21/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1612	16.0	11.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1621	10.7	9.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1626	14.1	10.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 72.0°F, RH = 82%, Wind = 1.1 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/22/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	948	26.7	25.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	958	61.1	30.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1004	70.1	45.5	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 79.0°F, RH = 69%, Wind = 0.6 mph W							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/22/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1114	30.7	28.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1126	29.1	26.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1132	28.9	25.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 71.1°F, RH = 67%, Wind = 0.4 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/25/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1009	10.2	8.8	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1018	10.1	7.3	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1024	18.1	10.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 79.0°F, RH = 69%, Wind = 0.6 mph W							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/25/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1114	30.7	28.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1126	29.1	26.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1132	28.9	25.8	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 65.8°F, RH = 76%, Wind = 1.6 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/26/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	828	16.3	13.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	839	13.2	12.2	NA	NA	Downwind - No visible emissions
	ASB-AM-1	843	15.4	13.2	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 75.9°F, RH = 57%, Wind = 3.6 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/26/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1037	15.5	14.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1049	12.2	10.8	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1055	17.1	12.5	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 83.7°F, RH = 51%, Wind = 2.0 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/26/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1352	17.7	16.2	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1402	14.6	13.6	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1407	23.3	18.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 68.0°F, RH = 90%, Wind = 0.0 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/27/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	820	55.5	50.9	NA	NA	Upwind - No visible emissions
	ASB-AM-6	826	43.1	39.9	NA	NA	Upwind - No visible emissions
	ASB-AM-2	836	38.1	36.0	NA	NA	Downwind - No visible emissions
	ASB-AM-1	841	45.0	41.2	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 79.7°F, RH = 63%, Wind = 0.8 mph ESE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/27/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1019	37.4	35.4	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1026	32.6	31.8	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1042	31.4	28.8	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1046	27.1	26.2	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 84.4°F, RH = 55%, Wind = 1.8 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
8/27/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1518	35.0	34.5	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1531	28.3	27.2	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1542	39.4	37.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1547	41.2	40.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 66.9°F, RH = 59%, Wind = 3.8 mph NE							
Work Activity and Area Inside asbestos exclusion zone relocating ACWM to the load-out area.							
8/28/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1052	16.1	5.9	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1057	4.5	3.6	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1120	4.6	3.7	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1128	8.5	5.9	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 791.8°F, RH = 49%, Wind = 1.3 mph NNE							
Work Activity and Area Inside asbestos exclusion zone relocating ACWM to the load-out area.							
8/28/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1323	6.2	5.1	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1329	7.2	4.6	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1337	7.9	4.9	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1345	10.1	7.9	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 71.6°F, RH = 75%, Wind = 0.6 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/3/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	913	36.2	32.3	NA	NA	Upwind - No visible emissions
	ASB-AM-2	923	44.6	33.5	NA	NA	Downwind - No visible emissions
	ASB-AM-1	930	41.1	35.5	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 79.7°F, RH = 63%, Wind = 0.8 mph ESE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/3/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1150	12.5	12.0	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1203	14.0	11.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1209	22.7	12.7	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 80.8°F, RH = 50%, Wind = 3.1 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/4/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1128	13.2	11.5	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1140	10.4	9.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1145	11.5	9.7	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 79.7°F, RH = 63%, Wind = 0.8 mph ESE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/4/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1408	14.9	13.8	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1418	17.7	14.5	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1426	17.5	15.7	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 78.4°F, RH = 70%, Wind = 2.5 mph SSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/5/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1025	25.3	24.2	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1040	20.6	19.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1045	24.4	22.4	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 84.2°F, RH = 57%, Wind = 4.0 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/5/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1337	18.2	17.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1348	16.8	15.5	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1354	18.4	16.7	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 70.9°F, RH = 52%, Wind = 2.2 mph NNE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/8/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1101	7.7	4.8	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1109	6.0	5.0	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1121	5.0	4.3	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1126	4.5	3.9	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 76.8°F, RH = 39%, Wind = 0.8 mph E							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/8/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1340	5.1	4.2	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1346	3.8	3.3	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1358	8.6	7.2	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1402	12.3	10.8	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 67.1°F, RH = 69%, Wind = 0.6 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/9/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1100	5.2	4.6	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1108	6.0	5.0	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1116	5.7	4.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1121	6.5	4.5	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 68.5°F, RH = 81%, Wind = 1.3 mph WSW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/10/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-9	0904	14.8	12.9	NA	NA	Upwind - No visible emissions
	ASB-AM-6	0912	15.2	13.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	0921	16.8	12.1	NA	NA	Downwind - No visible emissions
	ASB-AM-1	0926	27.8	21.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 75.9°F, RH = 66%, Wind = 1.1 mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/10/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-9	1135	11.5	10.0	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1144	12.0	10.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1155	10.5	9.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1201	10.6	9.7	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 57.0°F, RH = 71%, Wind = 3.8 mph NE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/12/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1011	198.4	36.7	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1017	NA	4.7	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1032	1.9	1.2	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1040	5.3	0.9	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 57.0°F, RH = 71%, Wind = 3.8 mph NE							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/15/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-3	1115	5.2	4.8	NA	NA	Downwind - No visible emissions
	ASB-AM-4	1120	6.2	5.6	NA	NA	Upwind - No visible emissions
	ASB-AM-5	1125	4.6	3.9	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1135	4.8	4.2	NA	NA	Upwind - No visible emissions
	ASB-AM-7	1137	4.2	3.9	NA	NA	Downwind - No visible emissions
	ASB-AM-8	1145	11.7	7.4	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = °F, RH = , Wind =							
Work Activity and Area Outside asbestos north and west end of asbestos exclusion zone. Removing pit and trench debris, surface scraping							
9/15/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-1	1335	4.3	3.9	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1335	4.3	6.3	NA	NA	Downwind - No visible emissions
	ASB-AM-3	1340	12.1	9.3	NA	NA	Downwind - No visible emissions
	ASB-AM-4	1340	5.1	4.2	NA	NA	Downwind - No visible emissions
	ASB-AM-5	1348	3.8	4.7	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1352	14.7	5.2	NA	NA	Upwind - No visible emissions
	ASB-AM-7	1400	9.8	4.8	NA	NA	Upwind - No visible emissions
	ASB-AM-8	1405	4.6	4.2	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp = 56°F, RH =87% , Wind = NW Calm 0-8 mph							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/16/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-1	1052	15.0	14.1	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1054	14.7	14.2	NA	NA	Upwind - No visible emissions
	ASB-AM-5	1102	15.2	14.8	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1105	17.4	16.8	NA	NA	Downwind - No visible emissions
	ASB-AM-7	1107	17.9	16.1	NA	NA	Downwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = °F, RH = , Wind = mph SW							
Work Activity and Area Inside asbestos north end of asbestos exclusion zone loading haul trucks.							
9/16/2014	Station #	Time	Dust Conc. (µg/m ³)	Dust TWA (µg/m ³)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-1	1305	7.7	7.3	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1308	9.0	8.8	NA	NA	Upwind - No visible emissions
	ASB-AM-5	1315	9.6	9.1	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1320	13.8	13.1	NA	NA	Downwind - No visible emissions
	ASB-AM-7	1324	14.0	12.4	NA	NA	Downwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

9/17/2014	Weather Temp./RH/Wind Conditions		Temp. = 68.5°F, RH = 81%, Wind = 1.3 mph WSW				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	0904	14.8	12.9	NA	NA	wind - No visible emissi	Upwind - No visible emissions
9/18/2014	Weather Temp./RH/Wind Conditions		Temp. = 68.5°F, RH = 81%, Wind = 1.3 mph WSW				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0904	14.8	12.9	NA	NA	Upwind - No visible emissions
9/19/2014	Weather Temp./RH/Wind Conditions		Temp. = 68.5°F, RH = 81%, Wind = 1.3 mph WSW				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0904	14.8	12.9	NA	NA	Upwind - No visible emissions
9/20/2014	Weather Temp./RH/Wind Conditions		Temp. = 53.1°F, RH = 61%, Wind = 1.8 mph WSW				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1007	10.7	6.7	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1020	5.9	3.2	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1027	4.0	2.8	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1033	8.0	5.7	NA	NA	Downwind - No visible emissions
9/23/2014	Weather Temp./RH/Wind Conditions		Temp. = 51.1°F, RH = 72%, Wind = 0.0 mph WSW				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	953	16.5	7.7	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1001	15.3	7.4	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1012	12.1	6.8	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1016	9.3	5.7	NA	NA	Downwind - No visible emissions
9/23/2014	Weather Temp./RH/Wind Conditions		Temp. = 65.3°F, RH = 38%, Wind = 2.2 mph S				
	Work Activity and Area		Inside asbestos north end of asbestos exclusion zone loading haul trucks.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1340	8.3	5.1	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1355	5.4	4.0	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1406	3.9	3.7	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1412	15.1	10.1	NA	NA	Downwind - No visible emissions
9/24/2014	Weather Temp./RH/Wind Conditions		Temp. = 66.9°F, RH = 47%, Wind = 0.2 mph WS				
	Work Activity and Area		Inside asbestos exclusion zone loading haul trucks with non-friable ACWM.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1059	8.6	7.2	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1112	41.1	11.2	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1122	6.7	5.5	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1126	7.6	6.0	NA	NA	Upwind - No visible emissions
9/24/2014	Weather Temp./RH/Wind Conditions		Temp. = 73.4°F, RH = 35%, Wind = 0.2 mph NW				
	Work Activity and Area		Inside asbestos exclusion zone loading haul trucks with non-friable ACWM.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1337	13.7	8.5	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1505	4.6	3.8	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1515	3.8	3.3	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1520	3.7	3.1	NA	NA	Upwind - No visible emissions
9/25/2014	Weather Temp./RH/Wind Conditions		Temp. = 62.1°F, RH = 66%, Wind = 0.2 mph NE				
	Work Activity and Area		Inside asbestos exclusion zone moving non-friable ACWM to load-out area.				
	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	0948	10.6	9.4	NA	NA	Downwind - No visible emissions
	ASB-AM-6	0953	10.1	9.1	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1002	10.5	8.6	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1007	8.8	7.9	NA	NA	Upwind - No visible emissions

TABLE 7
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE PARTICULATE CONCENTRATIONS
DAILY PERIMETER PARTICULATE CONCENTRATIONS DURING ASBESTOS REMOVAL

Weather Temp./RH/Wind Conditions Temp. = 74.5°F, RH = 45%, Wind = 3.4 mph NE							
Work Activity and Area Inside asbestos exclusion zone moving non-friable ACWM to load-out area.							
9/25/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1341	5.9	4.6	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1354	5.4	4.3	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1400	4.6	4.2	NA	NA	Downwind - OSC Edwards observed visible emissions
	ASB-AM-1	1419	25.8	7.8	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = °F, RH = %, Wind = mph NE							
Work Activity and Area Inside asbestos exclusion zone moving non-friable ACWM to load-out area.							
9/29/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1015	15.8	14.1	NA	NA	Calm - No visible emissions
	ASB-AM-6	1020	15.1	14.1	NA	NA	Calm - No visible emissions
	ASB-AM-2	1029	15.1	14.1	NA	NA	Calm - No visible emissions
	ASB-AM-1	1035	13.2	11.6	NA	NA	Calm - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 80.4°F, RH = 38%, Wind = 2.0 mph NNE							
Work Activity and Area Inside asbestos exclusion zone moving non-friable ACWM to load-out area.							
9/29/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1406	34.7	20.6	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1421	12.1	10.7	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1428	12.8	10.2	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1434	10.7	9.5	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 57.2°F, RH = 85%, Wind = 0.8 mph NE							
Work Activity and Area Inside asbestos exclusion zone moving non-friable ACWM to load-out area. And loading haul trucks.							
10/1/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1025	33.6	26.5	NA	NA	Downwind - No visible emissions
	ASB-AM-6	1031	26.8	24.8	NA	NA	Downwind - No visible emissions
	ASB-AM-2	1040	29.4	27.1	NA	NA	Upwind - No visible emissions
	ASB-AM-1	1046	35.2	24.3	NA	NA	Upwind - No visible emissions
Weather Temp./RH/Wind Conditions Temp. = 57.7°F, RH = 79%, Wind = 4.0 mph SW							
Work Activity and Area Inside asbestos exclusion zone moving non-friable ACWM to load-out area. And loading haul trucks.							
10/2/2014	Station #	Time	Dust Conc. ($\mu\text{g}/\text{m}^3$)	Dust TWA ($\mu\text{g}/\text{m}^3$)	AirCon2 Flow Rate (L/min)	25 mm Cassette Condition	Comments
	ASB-AM-7	1048	20.9	20.0	NA	NA	Upwind - No visible emissions
	ASB-AM-6	1054	44.4	34.7	NA	NA	Upwind - No visible emissions
	ASB-AM-2	1104	19.6	18.9	NA	NA	Downwind - No visible emissions
	ASB-AM-1	1110	23.6	20.7	NA	NA	Downwind - No visible emissions

Notes:

°F = Degrees Fahrenheit

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

= Number

AM = Air monitoring

ASB = Asbestos

Conc. = Concentration

L/min = Liters per minute

mm = Millimeter

mph = Miles per hour

RH = Relative humidity

Temp = Temperature

TWA = Time-weighted average

TABLE 8
STARK CERAMICS TIME-CRITICAL REMOVAL ACTION
DUST READING INSIDE THE ASBESTOS EXCLUSION ZONE

Reading	Date	Monitoring Time Range	Highest Conc. (µg/m³)	TWA Conc. (µg/m³)	Maximum Background Conc (µg/m³)	Average Background Conc (µg/m³)	Maximum Background Conc. x 3 (µg/m³)	Average Background Conc. x 3 (µg/m³)
1	8/1/2014	1520 - 1615	108	31.1	71.20	6.70	213.60	20.10
2	8/5/2014	1045 - 1140	138	45	71.20	6.70	213.60	20.10
3	8/6/2014	1328 - 1400	27.1	24.4	71.20	6.70	213.60	20.10
4	8/8/2014	1330 - 1415	90.3	28.8	71.20	6.70	213.60	20.10
5	8/12/2014	1325 - 1400	69.3	29.1	71.20	6.70	213.60	20.10
6	8/15/2014	1315 - 1350	229	22.9	71.20	6.70	213.60	20.10
7	8/19/2014	1410 - 1450	609	42.1	71.20	6.70	213.60	20.10
8	8/21/2014	1400 - 1430	60.9	22.8	71.20	6.70	213.60	20.10
9	8/26/2014	1115 - 1140	16.4	13.3	71.20	6.70	213.60	20.10
10	9/9/2014	1440 - 1505	128	58	71.20	6.70	213.60	20.10
11	9/18/2014	1400 - 1500	103.3	28.8	71.20	6.70	213.60	20.10
12	9/19/2014	1310 - 1355	60.6	29.7	71.20	6.70	213.60	20.10
13	9/26/2014	1030 - 1100	80.8	29.8	71.20	6.70	213.60	20.10
14	10/9/2014	0830 - 1000	17.4	14.1	71.20	6.70	213.60	20.10

Notes:

µg/m³ = Micrograms per cubic meter

Conc. = Concentration

TWA = Time-weighted average

x = Times

**TABLE 9
STARK CERAMICS REMOVAL SITE
PERIMETER ASBESTOS AIR SAMPLE SUMMARY RESULTS
ASBESTOS REMOVAL ACTIVITY**

# of Samples Collected	# of Samples Submitted	EPA Sample #	La Sample #	Collection Date	Batch #	Aircon II	Station #	Wind Direction	Wind Speed (mph)	Upwind Downwind	Start Time	Stop Time	Sample Time (min)	Initial Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Volume (L)	Fibers Detected	Fibers per mm ²	Fiber Conc. (f/cc)	95% UCL (f/cc)	Validation Qualifiers
1	X	ASB-1-072914	NA	7/29/2014	1	9002	ASB-1	W	4.0	Upwind	1209	1658	289	10.22	9.23	9.63	2,783	Sample Archived				NA
2	X	ASB-2-072914	NA	7/29/2014	1	8010	ASB-2	W	4.0	Downwind	1212	1704	292	10.2	9.87	10.04	2,932	Sample Archived				NA
3	X	ASB-3-072914	NA	7/29/2014	1	9001	ASB-3	W	4.0	Downwind	1214	1707	293	10.1	9.67	9.89	2,898	Sample Archived				NA
4	X	ASB-1-073014	NA	7/30/2014	1	9002	ASB-1	SW	2.9	Upwind	835	void	void	10.17	void	void	void	void	void	void	void	NA
5	X	ASB-2-073014	NA	7/30/2014	1	8010	ASB-2	SW	2.9	Downwind	840	1108	148	10.05	5.05	7.55	1,117	Sample Archived				NA
6	X	ASB-3-073014	NA	7/30/2014	1	9001	ASB-3	SW	2.9	Downwind	842	1420	338	10.31	8.45	9.38	3,170	Sample Archived				NA
7	1	ASB-1-073114	5654256-1	7/31/2014	1	9002	ASB-1	SW	3.1 - 4.0	Upwind	839	1345	306	10.22	7.33	8.76	2,681	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
8	2	ASB-2-073114	5654257-1	7/31/2014	1	8010	ASB-2	SW	3.1 - 4.0	Downwind	848	1330	282	10.2	8.76	9.48	2,673	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
9	3	ASB-3-073114	5654258-1	7/31/2014	1	9001	ASB-3	SW	3.1 - 4.0	Downwind	850	1335	285	10.26	5.22	7.74	2,206	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
10	1D	ASB-3-073114D	5654259-1	7/31/2014	1	9001	ASB-3	SW	3.1 - 4.0	Downwind	850	1335	285	10.26	5.22	7.74	2,206	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
11	X	ASB-1-080114	NA	8/1/2014	1	9002	ASB-1	SW - WNW	1.1 - 1.8	Upwind	900	void	NA	10.18	void	void	void	void	void	void	void	NA
12	X	ASB-2-080114	NA	8/1/2014	1	8010	ASB-2	SW - WNW	1.1 - 1.8	Downwind	850	void	NA	9.73	void	void	void	void	void	void	void	NA
13	X	ASB-3-080114	NA	8/1/2014	1	9001	ASB-3	SW - WNW	1.1 - 1.8	Downwind	852	void	NA	10.4	void	void	void	void	void	void	void	NA
X	FB 1	FB 1	5654260-1	8/1/2014	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 2	FB 2	5654261-1	8/1/2014	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
14	X	ASB-1-080414	NA	8/4/2014	2	9002	ASB-1	SW - SSW	1.6 - 1.8	Upwind	844	void	NA	10.02	void	void	void	void	void	void	void	NA
15	X	ASB-2-080414	NA	8/4/2014	2	8010	ASB-2	SW - SSW	1.6 - 1.9	Downwind	828	void	NA	10.07	void	void	void	void	void	void	void	NA
16	X	ASB-3-080414	NA	8/4/2014	2	9001	ASB-3	SW - SSW	1.6 - 1.10	Downwind	830	1615	465	10.23	10.08	10.16	4,724	Sample Archived				NA
17	4	ASB-1-080614	5669927-1	8/6/2014	2	9002	ASB-1	ENE - NNE	0.8 - 2.9	Downwind	835	1609	454	10.15	8.47	9.31	4,227	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
18	5	ASB-2-080614	5669928-1	8/6/2014	2	8010	ASB-2	ENE - NNE	0.8 - 2.9	Upwind	841	1616	454	10.18	9.61	9.9	4,495	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
19	6	ASB-3-080614	5669928-1	8/6/2014	2	9001	ASB-3	ENE - NNE	0.8 - 2.9	Upwind	842	1619	457	10.19	5.91	8.05	3,679	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
20	X	ASB-1-080714	NA	8/7/2014	2	9002	ASB-1	WSW - NNE	0.2 - 2.9	Downwind	826	void	void	10.02	void	void	void	void	void	void	void	U
21	X	ASB-2-080714	NA	8/7/2014	2	8010	ASB-2	WSW - NNE	0.2 - 2.9	Upwind	842	void	void	10.09	void	void	void	void	void	void	void	U
22	X	ASB-3-080714	NA	8/7/2014	2	9001	ASB-3	WSW - NNE	0.2 - 2.9	Upwind	845	1455	370	10.23	10.05	10.14	3,752	Sample Archived				NA
23	X	ASB-1-080814	NA	8/8/2014	2	9002	ASB-1	NE - NNE	0.4 - 2.5	Downwind	858	1509	371	8.09	7.93	8.01	2,972	Sample Archived				NA
24	X	ASB-2-080814	NA	8/8/2014	2	8010	ASB-2	NE - NNE	0.4 - 2.5	Upwind	900	void	void	8.03	void	void	void	void	void	void	void	NA
25	X	ASB-3-080814	NA	8/8/2014	2	9001	ASB-3	NE - NNE	0.4 - 2.5	Upwind	900	void	void	8.06	void	void	void	void	void	void	void	NA
X	FB 3	FB 3	5669930-1	8/8/2014	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 4	FB 4	5669931-1	8/8/2014	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
26	X	ASB-1-081114	NA	8/11/2014	3	9002	ASB-1	WSW - ENE	1.2 - 1.6	Both	922	1447	325	8.02	7.98	8	2,600	Sample Archived				NA
27	X	ASB-2-081114	NA	8/11/2014	3	8010	ASB-2	WSW - ENE	1.2 - 1.6	Both	910	1457	347	8.1	7.75	7.93	2,752	Sample Archived				NA
28	X	ASB-3-081114	NA	8/11/2014	3	9001	ASB-3	WSW - ENE	1.2 - 1.6	Both	912	1503	351	8.19	7.89	8.04	2,822	Sample Archived				NA
29	X	ASB-1-081214	NA	8/12/2014	3	9002	ASB-1	WSW - SW	2.0 - 4.9	Upwind	853	1506	373	8.2	7.83	8.02	2,991	Sample Archived				NA
30	X	ASB-2-081214	NA	8/12/2014	3	8010	ASB-2	WSW - SW	2.0 - 4.9	Downwind	843	1516	393	8.09	7.85	7.97	3,132	Sample Archived				NA
31	X	ASB-3-081214	NA	8/12/2014	3	9001	ASB-3	WSW - SW	2.0 - 4.9	Downwind	844	1518	394	8.16	8.02	8.09	3,187	Sample Archived				NA
32	X	ASB-1-081314	NA	8/13/2014	3	9002	ASB-1	SW	2.5 - 4.0	Upwind	902	1451	349	8.16	7.93	8.05	2,809	Sample Archived				NA
33	X	ASB-2-081314	NA	8/13/2014	3	8010	ASB-2	SW	2.5 - 4.0	Downwind	908	1439	331	8.06	7.84	7.95	2,631	Sample Archived				NA
34	X	ASB-3-081314	NA	8/13/2014	3	9001	ASB-3	SW	2.5 - 4.0	Downwind	909	1503	354	8.16	8.06	8.11	2,871	Sample Archived				NA
35	X	ASB-1-081414	NA	8/14/2014	3	9002	ASB-1	W - N	1.3 - 2.2	Downwind	905	1414	309	8.19	6.03	7.11	2,197	Sample Archived				NA
36	X	ASB-2-081414	NA	8/14/2014	3	8010	ASB-2	W - N	1.3 - 2.2	Upwind	856	1355	299	7.99	7.86	7.93	2,371	Sample Archived				NA
37	X	ASB-3-081414	NA	8/14/2014	3	9001	ASB-3	W - N	1.3 - 2.2	Upwind	856	1506	370	8.04	7.99	8.02	2,967	Sample Archived				NA
38	7	ASB-1-081514	5683075-1	8/15/2014	3	9002	ASB-1	SW - WSW	1.8 - 3.6	Upwind	857	1455	358	8.08	7.85	7.97	2,853	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
39	8	ASB-2-081514	5683077-1	8/15/2014	3	8010	ASB-2	SW - WSW	1.8 - 3.6	Downwind	905	1340	275	7.95	7.93	7.94	2,184	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
40	9	ASB-3-081514	5683079-1	8/15/2014	3	9001	ASB-3	SW - WSW	1.8 - 3.6	Downwind	906	1515	369	7.98	7.91	7.95	2,934	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
X	FB 5	FB 5	5683081-1	8/16/2014	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 6	FB 6	5683083-1	8/17/2014	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
41	X	ASB-1-081814	NA	8/18/2014	4	9002	ASB-1	NNE - E	1.1 - 2.5	Downwind	845	1530	405	8.24	7.93	8.09	3,276	Sample Archived				NA
42	X	ASB-2-081814	NA	8/18/2014	4	8010	ASB-2	NNE - E	1.1 - 2.5	Upwind	836	1544	428	8.08	7.81	7.95	3,403	Sample Archived				NA
43	X	ASB-3-081814	NA	8/18/2014	4	9001	ASB-3	NNE - E	1.1 - 2.5	Upwind	837	1546	429	8.14	7.91	8.03	3,445	Sample Archived				NA

**TABLE 9
STARK CERAMICS REMOVAL SITE
PERIMETER ASBESTOS AIR SAMPLE SUMMARY RESULTS
ASBESTOS REMOVAL ACTIVITY**

# of Samples Collected	# of Samples Submitted	EPA Sample #	La Sample #	Collection Date	Batch #	Aircon II	Station #	Wind Direction	Wind Speed (mph)	Upwind Downwind	Start Time	Stop Time	Sample Time (min)	Initial Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Volume (L)	Fibers Detected	Fibers per mm ²	Fiber Conc. (f/cc)	95% UCL (f/cc)	Validation Qualifiers
44	X	ASB-1-081914	NA	8/19/2014	4	9002	ASB-1	S - SW	0.0 - 1.8	Upwind	850	void	void	8.21	void	void	void	void	void	void	void	NA
45	X	ASB-2-081914	NA	8/19/2014	4	8010	ASB-2	S - SW	0.0 - 1.8	Downwind	831	1530	419	8.05	7.93	7.99	3,348	Sample Archived				NA
46	X	ASB-3-081914	NA	8/19/2014	4	9001	ASB-3	S - SW	0.0 - 1.8	Downwind	832	1531	419	8.13	8.05	8.09	3,390	Sample Archived				NA
47	X	ASB-1-082014	NA	8/20/2014	4	8009	ASB-1	WSW - SW	0.8 - 3.1	Upwind	1027	1543	316	8.03	7.61	7.82	2,471	Sample Archived				NA
48	X	ASB-2-082014	NA	8/20/2014	4	8010	ASB-2	WSW - SW	0.8 - 3.1	Downwind	853	1329	276	8.07	7.22	7.65	2,111	Sample Archived				NA
49	X	ASB-3-082014	NA	8/20/2014	4	9001	ASB-3	WSW - SW	0.8 - 3.1	Downwind	855	void	void	8.14	void	void	void	void	void	void	void	NA
50	10	ASB-1-082114	5696385-1	8/21/2014	4	8009	ASB-1	SW	3.1 - 4.3	Upwind	902	1523	381	8.01	7.35	7.68	2,926	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
51	X	ASB-2-082114	NA	8/21/2014	4	8010	ASB-2	SW	3.1 - 4.3	Downwind	900	1328	268	8.14	8.06	8.1	2,171	Sample Archived				NA
52	X	ASB-3-082114	NA	8/21/2014	4	9001	ASB-3	SW	3.1 - 4.3	Downwind	900	1536	396	8.03	7.58	7.81	3,093	Sample Archived				NA
53	X	ASB-1-082214	NA	8/22/2014	4	8009	ASB-1	SSW-SW	0.6 - 1.1	Upwind	855	void	void	8.09	void	void	void	void	void	void	void	NA
54	11	ASB-2-082214	5696386-1	8/22/2014	4	8010	ASB-2	SSW-SW	0.6 - 1.1	Downwind	856	1533	397	8.19	7.8	8	3,176	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
55	12	ASB-3-082214	5696387-1	8/22/2014	4	9001	ASB-3	SSW-SW	0.6 - 1.1	Downwind	856	1533	397	8.12	7.8	7.96	3,160	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
X	FB 7	FB 7	5696388-1	8/22/2014	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 8	FB 8	5696389-1	8/22/2014	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
56	X	ASB-1-082514	NA	8/25/2014	5	8009	ASB-1	SSW	0.4	Upwind	907	void	void	8.06	void	void	void	void	void	void	void	NA
57	X	ASB-2-082514	NA	8/25/2014	5	8010	ASB-2	SSW	0.4	Downwind	859	1539	400	8.19	7.83	8.01	3,204	Sample Archived				NA
58	X	ASB-3-082514	NA	8/25/2014	5	9001	ASB-3	SSW	0.4	Downwind	858	1541	403	8.12	7.85	7.99	3,220	Sample Archived				NA
59	X	ASB-1-082614	NA	8/26/2014	5	8009	ASB-1	SSW - WSW	1.6 - 3.6	Upwind	932	1528	356	7.99	7.85	7.92	2,820	Sample Archived				NA
60	X	ASB-2-082614	NA	8/26/2014	5	8010	ASB-2	SSW - WSW	1.6 - 3.6	Downwind	921	1539	378	7.95	7.75	7.85	2,967	Sample Archived				NA
61	13	ASB-3-082614	5715626-1	8/26/2014	5	9001	ASB-3	SSW - WSW	1.6 - 3.6	Downwind	922	1308	230	8.03	7.93	7.98	1,835	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
62	14	ASB-1-082714	5715627-1	8/27/2014	5	8009	ASB-1	SSW - ESE	0.0 - 1.8	Upwind	920	1527	367	8.02	7.75	8	2,896	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
63	15	ASB-2-082714	5715628-1	8/27/2014	5	8010	ASB-2	SSW - ESE	0.0 - 1.8	Downwind	925	1630	425	5.11	5	5.06	2,151	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
64	2D	ASB-2-082714D	5715629-1	8/27/2014	5	8010	ASB-2	SSW - ESE	0.0 - 1.8	Downwind	925	1630	425	5.11	5	5.06	2,151	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
65	X	ASB-3-082714	NA	8/27/2014	5	9001	ASB-3	SSW - ESE	0.0 - 1.8	Downwind	913	void	void	8.02	void	void	void	void	void	void	void	NA
66	X	ASB-1-082814	NA	8/28/2014	5	8009	ASB-1	NE - NNE	1.3 - 3.8	Downwind	757	void	void	void	8	void	void	void	void	void	void	NA
67	X	ASB-2-082814	NA	8/28/2014	5	8010	ASB-2	NE - NNE	1.3 - 3.8	Upwind	801	1416	375	7.97	6.19	7.08	2,655	Sample Archived				NA
68	X	ASB-3-082814	NA	8/28/2014	5	9001	ASB-3	NE - NNE	1.3 - 3.8	Upwind	802	1413	371	7.98	7.85	7.92	2,938	Sample Archived				NA
X	FB 9	FB 9	5715630-1	8/28/2014	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 10	FB 10	5715631-1	8/28/2014	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
69	16	ASB-1-090314	5724863-1	9/3/2014	6	8009	ASB-1	SSW	0.6	Upwind	910	1434	324	8.06	4.07	6.07	1,967	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
70	17	ASB-2-090314	5724864-1	9/3/2014	6	8010	ASB-2	SSW	0.6	Downwind	901	1531	390	8.1	7.93	8.02	3,128	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
71	18	ASB-3-090314	5724865-1	9/3/2014	6	9001	ASB-3	SSW	0.6	Downwind	900	1533	393	8.11	7.9	8.01	3,148	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
72	X	ASB-1-090414	NA	9/4/2014	6	8009	ASB-1	WSW - SW	2.5 - 3.1	Upwind	921	void	void	8.1	void	void	void	void	void	void	void	U
73	X	ASB-2-090414	NA	9/4/2014	6	8010	ASB-2	WSW - SW	2.5 - 3.1	Downwind	919	1351	272	7.9	7.75	7.83	2,129	Sample Archived				NA
74	X	ASB-3-090414	NA	9/4/2014	6	9001	ASB-3	WSW - SW	2.5 - 3.1	Downwind	915	1522	367	8.2	8.13	8.17	2,998	Sample Archived				NA
75	X	ASB-1-090514	NA	9/5/2014	6	8009	ASB-1	SSW - SW	2.5 - 4.0	Upwind	839	void	void	8.11	void	void	void	void	void	void	void	U
76	X	ASB-2-090514	NA	9/5/2014	6	8010	ASB-2	SSW - SW	2.5 - 4.0	Downwind	902	1455	353	8.04	7.8	7.92	2,796	Sample Archived				NA
77	X	ASB-3-090514	NA	9/5/2014	6	9001	ASB-3	SSW - SW	2.5 - 4.0	Downwind	903	1457	354	8.45	8.17	8.31	2,942	Sample Archived				NA
X	FB 11	FB 11	5724866-1	9/5/2014	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 12	FB 12	5724867-1	9/5/2014	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
78	X	ASB-1-090814	NA	9/8/2014	7	8009	ASB-1	E - NNE	0.8 - 2.2	Downwind	912	1549	397	8.03	7.85	7.94	3,152	Sample Archived				NA
79	X	ASB-2-090814	NA	9/8/2014	7	8010	ASB-2	E - NNE	0.8 - 2.2	Upwind	859	1543	404	8.25	8.01	8.13	3,285	Sample Archived				NA
80	X	ASB-3-090814	NA	9/8/2014	7	9001	ASB-3	E - NNE	0.8 - 2.2	Upwind	857	1542	405	8.13	7.95	8.04	3,256	Sample Archived				NA
81	X	ASB-1-090914	NA	9/9/2014	7	8009	ASB-1	WSW - SW	0.6 - 2.9	Upwind	906	1533	387	8.03	7.8	7.92	3,065	Sample Archived				NA
82	X	ASB-2-090914	NA	9/9/2014	7	8010	ASB-2	WSW - SW	0.6 - 2.9	Downwind	904	1332	268	8.25	8.21	8.23	2,206	Sample Archived				NA
83	X	ASB-3-090914	NA	9/9/2014	7	9001	ASB-3	WSW - SW	0.6 - 2.9	Downwind	903	1533	390	8.09	8.17	8.13	3,171	Sample Archived				NA
84	X	ASB-1-091014	NA	9/10/2014	7	8009	ASB-1	WSW - SW	1.1 - 1.3	Upwind	902	1536	394	8.11	7.84	7.98	3,144	Sample Archived				NA
85	X	ASB-2-091014	NA	9/10/2014	7	8010	ASB-2	WSW - SW	1.1 - 1.3	Downwind	858	1531	393	8.11	7.84	7.98	3,136	Sample Archived				NA
86	X	ASB-3-091014	NA	9/10/2014	7	9001	ASB-3	WSW - SW	1.1 - 1.3	Downwind	1053	1532	279	8.09	7.1	7.6	2,120	Sample Archived				NA

**TABLE 9
STARK CERAMICS REMOVAL SITE
PERIMETER ASBESTOS AIR SAMPLE SUMMARY RESULTS
ASBESTOS REMOVAL ACTIVITY**

# of Samples Collected	# of Samples Submitted	EPA Sample #	La Sample #	Collection Date	Batch #	Aircon II	Station #	Wind Direction	Wind Speed (mph)	Upwind Downwind	Start Time	Stop Time	Sample Time (min)	Initial Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Volume (L)	Fibers Detected	Fibers per mm ²	Fiber Conc. (f/cc)	95% UCL (f/cc)	Validation Qualifiers
87	19	ASB-1-091114	5738274-1	9/11/2014	7	8009	ASB-1	WSW - SW	1.1 - 1.8	Upwind	918	1515	357	8.18	7.36	7.77	2,774	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
88	20	ASB-2-091114	5738275-1	9/11/2014	7	8010	ASB-2	WSW - SW	1.1 - 1.8	Downwind	858	1153	175	8.15	8.02	8.09	1,416	<5.5	<7	<0.002	<0.002 (Sr=N/A)	U
89	21	ASB-3-091114	5738276-1	9/11/2014	7	9001	ASB-3	WSW - SW	1.1 - 1.8	Downwind	858	1517	379	8.14	7.84	7.99	3,028	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
90	X	ASB-1-091214	NA	9/12/2014	7	8009	ASB-1	NE	3.4 - 3.8	Downwind	847	void	void	8.05	void	void	void	Sample Archived				NA
91	X	ASB-2-091214	NA	9/12/2014	7	8010	ASB-2	NE	3.4 - 3.8	Upwind	901	1144	163	8.43	8.14	8.29	1,351	Sample Archived				NA
92	X	ASB-3-091214	NA	9/12/2014	7	9001	ASB-3	NE	3.4 - 3.8	Upwind	900	1521	381	8.02	7.77	7.9	3,010	Sample Archived				NA
X	FB 13	FB 13	5738277-1	9/12/2014	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 14	FB 14	5738278-1	9/12/2014	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	NA
93	X	ASB-1-091514	NA	9/15/2014	8	8009	ASB-1	S	7	Upwind	928	1521	353	8.31	8.2	8.25	2,912	Sample Archived				NA
94	X	ASB-2-091514	NA	9/15/2014	8	8010	ASB-2	S	7	Downwind	901	1521	380	8.14	8.1	8.12	3,085	Sample Archived				NA
95	X	ASB-3-091514	NA	9/15/2014	8	9001	ASB-3	S	7	Downwind	817	1037	140	8.2	4.91	6.6	924	Sample Archived				NA
96	X	ASB-1-091614	NA	9/16/2014	8	8009	ASB-1	NW	8	Upwind	904	1532	388	8.3	5.8	7.05	2735	Sample Archived				NA
97	X	ASB-2-091614	NA	9/16/2014	8	8010	ASB-2	NW	8	Upwind	857	1538	401	8.2	8.1	8.15	3,268	Sample Archived				NA
98	22	ASB-3-091614	5761128-1	9/16/2014	8	9001	ASB-3	NW	8	Downwind	912	1539	387	8.6	8.4	8.5	3,289	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
99	23	ASB-1-091714	5761129-1	9/17/2014	8	8009	ASB-1	NW	4.4	Upwind	933	1445	312	8.3	8.29	8.29	2,568	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
100	24	ASB-2-091714	5761130-1	9/17/2014	8	8010	ASB-2	NW	4.4	Upwind	910	1552	402	8.5	8.33	8.42	3,385	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
101	X	ASB-3-091714	NA	9/17/2014	8	9001	ASB-3	NW	4.4	Downwind	906	void	void	8.5	void	void	void	Sample Archived				NA
102	X	ASB-1-091814	NA	9/18/2014	8	8009	ASB-1	NE	3.1	Upwind	848	1510	383	8.49	7.81	8.15	3,113	Sample Archived				NA
103	X	ASB-2-091814	NA	9/18/2014	8	8010	ASB-2	NE	3.1	Upwind	843	1525	402	8.6	8.4	8.5	3,417	Sample Archived				NA
104	X	ASB-3-091814	NA	9/18/2014	8	9001	ASB-3	NE	3.1	Downwind	842	1525	403	8.59	10.26	9.43	3,800	Sample Archived				NA
105	X	ASB-1-091914	NA	9/19/2014	8	8009	ASB-1	ENE	0.6	Upwind	838	1440	362	8.17	5.39	6.78	2,454	Sample Archived				NA
106	X	ASB-2-091914	NA	9/19/2014	8	8010	ASB-2	ENE	0.6	Upwind	833	1250	257	8.15	7.25	7.7	1,979	Sample Archived				NA
107	X	ASB-3-091914	NA	9/19/2014	8	9001	ASB-3	ENE	0.6	Downwind	832	1549	437	8.28	8.08	8.18	3,575	Sample Archived				NA
X	FB 15	FB 15	5761131-1	9/19/2014	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 16	FB 16	5761132-2	9/19/2014	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
108	X	ASB-1-092214	NA	9/22/2014	9	8009	ASB-1	WSW	1.8	Upwind	911	1435	324	8.2	7.98	8.09	2,621	Sample Archived				NA
109	X	ASB-2-092214	NA	9/22/2014	9	8010	ASB-2	WSW	1.8	Downwind	807	1532	445	9.07	9.13	9.1	4,049	Sample Archived				NA
110	X	ASB-3-092214	NA	9/22/2014	9	9001	ASB-3	WSW	1.8	Downwind	931	1537	366	9.03	9.22	9.13	3,342	Sample Archived				NA
111	25	ASB-1-092314	5778116-1	9/23/2014	9	8009	ASB-1	WS - S	0.0 - 2.2	Upwind	903	1540	397	8	7.86	7.93	3,148	<5.5	<7	<0.002	<0.002 (Sr=N/A)	U
112	26	ASB-2-092314	5778117-1	9/23/2014	9	8010	ASB-2	WS - S	0.0 - 2.2	Downwind	817	1550	453	8.09	7.93	8.01	3,628	<5.5	<7	<0.002	<0.002 (Sr=N/A)	U
113	27	ASB-3-092314	5778118-1	9/23/2014	9	9001	ASB-3	WS - S	0.0 - 2.2	Downwind	835	1335	300	8.03	8.03	8.03	2,409	<5.5	<7	<0.002	<0.002 (Sr=N/A)	U
114	X	ASB-1-092414	NA	9/24/2014	9	8009	ASB-1	WNW - WS	0.2	Both	851	1529	398	8.17	7.99	8.08	3,216	Sample Archived				NA
115	X	ASB-2-092414	NA	9/24/2014	9	8010	ASB-2	WNW - WS	0.2	Both	901	1527	387	5.94	6.49	6.22	2,401	Sample Archived				NA
116	X	ASB-3-092414D	NA	9/24/2014	9	8010	ASB-3	WNW - WS	0.2	Both	901	1527	387	5.94	6.49	6.22	2,401	Sample Archived				NA
117	X	ASB-3-092414	NA	9/24/2014	9	9001	ASB-3	WNW - WS	0.2	Both	1006	7.93	7.99	8.05	7.93	7.99	3,020	Sample Archived				NA
118	X	ASB-1-092514	NA	9/25/2014	9	8009	ASB-1	WS	0.2 - 3.4	Downwind	905	void	void	8.02	void	void	void	Sample Archived				NA
119	X	ASB-2-092514	NA	9/25/2014	9	8010	ASB-2	WS	0.2 - 3.4	Upwind	908	1505	357	8.02	7.75	7.88	2,813	Sample Archived				NA
120	X	ASB-3-092514	NA	9/25/2014	9	9001	ASB-3	WS	0.2 - 3.4	Upwind	909	1500	351	8.04	7.4	7.72	2,710	Sample Archived				NA
121	X	ASB-1-092614	NA	9/26/2014	9	8009	ASB-1	WSW	1.7	Upwind	900	1454	354	8.04	7.32	7.68	2,719	Sample Archived				NA
122	X	ASB-2-092614	NA	9/26/2014	9	8010	ASB-2	WSW	1.7	Downwind	851	1500	369	8.06	7.88	7.97	2,941	Sample Archived				NA
123	X	ASB-3-092614	NA	9/26/2014	9	9001	ASB-3	WSW	1.7	Downwind	849	1456	367	8.03	7.83	7.93	2,910	Sample Archived				NA
X	FB 17	FB 17	5778119-1	9/26/2014	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 18	FB 18	5778120-1	9/26/2014	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
124	X	ASB-1-092914	NA	9/29/2014	10	8009	ASB-1	NNE	2	Downwind	857	1456	359	7.99	7.4	7.7	2,764	Sample Archived				NA
125	X	ASB-2-092914	NA	9/29/2014	10	8010	ASB-2	NNE	2	Upwind	910	1505	355	7.98	7.91	7.94	2,819	Sample Archived				NA
126	X	ASB-3-092914	NA	9/29/2014	10	9001	ASB-3	NNE	2	Upwind	912	1510	358	7.98	7.55	7.77	2,782	Sample Archived				NA
127	X	ASB-1-093014	NA	9/30/2014	10	8009	ASB-1	void	void	void	911	void	void	8.02	void	void	void	void	void	void	void	NA
128	X	ASB-2-093014	NA	9/30/2014	10	8010	ASB-2	void	void	void	904	void	void	8.01	void	void	void	void	void	void	void	NA
129	X	ASB-3-093014	NA	9/30/2014	10	9001	ASB-3	void	void	void	904	void	void	8.01	void	void	void	void	void	void	void	NA

**TABLE 9
STARK CERAMICS REMOVAL SITE
PERIMETER ASBESTOS AIR SAMPLE SUMMARY RESULTS
ASBESTOS REMOVAL ACTIVITY**

# of Samples Collected	# of Samples Submitted	EPA Sample #	La Sample #	Collection Date	Batch #	Aircon II	Station #	Wind Direction	Wind Speed (mph)	Upwind Downwind	Start Time	Stop Time	Sample Time (min)	Initial Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Volume (L)	Fibers Detected	Fibers per mm ²	Fiber Conc. (f/cc)	95% UCL (f/cc)	Validation Qualifiers
130	X	ASB-1-100114	NA	10/1/2014	10	8009	ASB-1	NE	0.8	Downwind	855	1457	362	8.01	7.94	7.98	2,889	Sample Archived			NA	
131	X	ASB-2-100114	NA	10/1/2014	10	8010	ASB-2	NE	0.8	Upwind	924	1454	330	8.03	7.94	7.99	2,637	Sample Archived			NA	
132	X	ASB-3-100114	NA	10/1/2014	10	9001	ASB-3	NE	0.8	Upwind	924	1454	330	8.05	7.66	7.85	2,591	Sample Archived			NA	
133	28	ASB-1-100214	5806969-1	10/2/2014	10	8009	ASB-1	SW	4	Upwind	930	1517	347	8.01	7.7	7.86	2,727	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
134	29	ASB-2-100214	5806970-1	10/2/2014	10	8010	ASB-2	SW	4	Downwind	1005	1525	320	8.66	8.85	8.76	2,803	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
135	3D	ASB-2-100214D	5806971-1	10/2/2014	10	8010	ASB-2	SW	4	Downwind	1005	1525	320	8.66	8.85	8.76	2,803	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
136	30	ASB-3-100214	5806972-1	10/2/2014	10	9001	ASB-3	SW	4	Downwind	939	1525	346	8.05	7.82	7.94	2,747	<5.5	<7	<0.001	<0.001 (Sr=N/A)	NA
137	X	ASB-1-100614	NA	10/6/2014	11	8009	ASB-1	void	void	Upwind	903	1420	317	8.04	7.89	7.97	2,526	Sample Archived			NA	
138	X	ASB-2-100614	NA	10/6/2014	11	8010	ASB-2	void	void	Downwind	857	1425	328	8.05	7.94	8	2,624	Sample Archived			NA	
139	X	ASB-3-100614	NA	10/6/2014	11	9001	ASB-3	void	void	Downwind	856	1425	329	8.04	7.16	7.6	2,500	Sample Archived			NA	
140	31	ASB-1-100714	5806973-1	10/7/2014	11	8009	ASB-1	void	void	Upwind	805	1400	355	8.04	5.76	6.9	2,450	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
141	32	ASB-2-100714	5806974-1	10/7/2014	11	8010	ASB-2	void	void	Downwind	800	1410	370	8.06	8.02	8.04	2,975	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
142	33	ASB-3-100714	5806975-1	10/7/2014	11	9001	ASB-3	void	void	Downwind	800	1411	371	8.04	7.8	7.92	2,938	<5.5	<7	<0.001	<0.001 (Sr=N/A)	U
143	X	ASB-1-100814	NA	10/8/2014	11	8009	ASB-1	void	void	Upwind	808	1245	237	8.07	7.97	8.02	1,901	Sample Archived			NA	
144	X	ASB-2-100814	NA	10/8/2014	11	8010	ASB-2	void	void	Downwind	806	1410	364	8.05	8.08	8.07	2,937	Sample Archived			NA	
145	X	ASB-3-100814	NA	10/8/2014	11	9001	ASB-3	void	void	Downwind	807	1331	324	8.03	7.96	8	2,592	Sample Archived			NA	
X	FB 19	FB 19	5806976-1	10/8/2014	10&11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U
X	FB 20	FB 20	5806977-2	10/8/2014	10&11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	<5.5	<7	N/A	N/A (Sr=N/A)	U

Notes:
= Number
X = Sample collected but not submitted to the laboratory for analysis
ASB = Asbestos
E = East
ENE = East , northeast
ESE = East, southeast
EPA = U.S. Environmental Protection Agency
f/cc = Fibers per cubic centimeter
FB = Field blank
L/min = Liters per minute
L = Liter
min = Minute
mm² = Millimeter squared
mph = Miles per hour
N = North
N/A = Laboratory abbreviation for "Not applicable"
NA = Not applicable
NE = Northeast
NNE = North, northeast
S = South
SSW = South, southwest
SW = Southwest
Sr = Relative standard deviation
U = Indicates compound was analyzed for, but not detected.
UCL = Upper confidence level
W = West
WNW = West, northwest
WSW = West, southwest

TABLE 10
STARK CERAMICS REMOVAL SITE
BORROW SOIL PILE XRF METAL SCREENING RESULTS

Date	Reading	Mode	Titanium	Chromium	Iron	Nickel	Copper	Zinc	Arsenic	Rubidium	Strontium	Zirconium	Cadmium	Antimony	Mercury	Lead
10/24/2014	0	Standardization														
10/24/2014	1	Soil	7,161.20	<LOD	6,059.35	<LOD	<LOD	21.84	<LOD	62.78	142.89	480.28	51.85	<LOD	<LOD	30.00
10/24/2014	2	Soil	7,150.82	117.19	5,516.12	<LOD	<LOD	20.50	9.99	58.59	136.53	481.58	<LOD	<LOD	<LOD	18.97
10/24/2014	3	Soil	5,484.38	127.74	4,784.23	50.17	29.86	16.08	<LOD	59.92	146.53	530.66	54.08	<LOD	<LOD	19.91
10/24/2014	4	Soil	5,391.73	<LOD	5,128.95	<LOD	<LOD	14.68	<LOD	62.42	149.24	432.32	<LOD	<LOD	12.65	18.25
10/24/2014	5	Soil	6,878.02	<LOD	5,584.65	<LOD	<LOD	16.50	<LOD	60.19	125.42	472.31	<LOD	<LOD	<LOD	29.84
10/24/2014	6	Soil	6,492.74	<LOD	5,200.21	<LOD	<LOD	16.07	<LOD	61.80	105.59	552.66	<LOD	<LOD	<LOD	28.32
10/24/2014	7	Soil	6,345.68	<LOD	7,235.55	<LOD	<LOD	19.75	<LOD	65.50	136.08	397.38	<LOD	<LOD	<LOD	29.63
10/24/2014	8	Soil	6,038.92	<LOD	7,662.15	<LOD	<LOD	17.54	<LOD	70.79	165.24	441.87	<LOD	76.61	<LOD	37.55
10/24/2014	9	Soil	5,761.78	<LOD	5,960.89	<LOD	<LOD	13.95	<LOD	70.96	150.66	430.22	54.89	<LOD	<LOD	24.82
10/24/2014	10	Soil	4,084.10	<LOD	5,249.06	<LOD	<LOD	12.18	<LOD	59.90	113.77	395.44	<LOD	<LOD	<LOD	23.71
10/24/2014	11	Soil	6,761.12	<LOD	5,431.66	<LOD	<LOD	21.74	<LOD	62.13	141.24	534.02	<LOD	<LOD	<LOD	24.14
10/24/2014	12	Soil	7,535.97	<LOD	7,196.29	<LOD	24.33	17.49	<LOD	58.91	154.60	577.25	73.23	<LOD	<LOD	28.59
EPA RSLs Industrial			NA	NA	82,000	2,200	47,000	35,000	3	NA	70,000	9.30	980	47	NA	800
OEPA Direct-Contact Commercial & Industrial			NA	NA	NA	44,000	NA	880,000	82	NA	NA	NA	2,300	1,200	NA	NA

Notes:

All concentrations are presented in parts per million (ppm).

EPA = U.S. Environmental Protection Agency

LOD = Limit of detection

OEPA = Ohio Environmental Protection Agency

RSL = Regional screening levels

XRF = X-ray fluorescence

TABLE 11
STARK CERAMICS REMOVAL SITE
COLOR DYE POWDER IN FIBER DRUMS XRF METAL SCREENING RESULTS - DETECTIONS ONLY

Date	Sample	Mode	Copper	Strontium	Zirconium	Arsenic	Selenium	Lead	Cadmium	Antimony	Chromium	Iron	Cobalt	Zinc	Manganese	Nickel	Molybdenum	Tin
9/18/2014	0	Standardization																
9/18/2014	black	Soil	>10%	170	199	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
9/18/2014	blue	Soil	>10%	<LOD	>10%	1,344	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
9/18/2014	pink	Soil	5,460	78	2,038	5,481	7,049	>10%	48,787	8,689	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
9/18/2014	light gray	Soil	37,788	<LOD	>10%	10,616	1,166	9,310	<LOD	<LOD	66,142	37,052	30,125	76,730	<LOD	<LOD	<LOD	<LOD
9/18/2014	olive	Soil	<LOD	118	13,851	<LOD	<LOD	<LOD	169	<LOD	>10%	68,884	<LOD	>10%	7,147	5,788	14,758	457
9/18/2014	light brown	Soil	6,148	<LOD	>10%	1,275	<LOD	<LOD	<LOD	<LOD	46,255	37,314	<LOD	>10%	<LOD	<LOD	<LOD	>10%
9/18/2014	olive	Soil	10,716	<LOD	1,012	1,012	<LOD	<LOD	<LOD	<LOD	>10%	80,856	47,555	1,182	<LOD	<LOD	<LOD	<LOD
9/18/2014	dark brown	Soil	<LOD	1,277	195	195	<LOD	136	<LOD	<LOD	<LOD	>10%	<LOD	34,357	>10%	2,275	<LOD	<LOD
9/18/2014	dusty rose	Soil	<LOD	63	<LOD	<LOD	<LOD	2,134	<LOD	<LOD	70,170	47,650	65,744	<LOD	5,737	>10%	<LOD	>10%
9/18/2014	turquoise	Soil	21,137	<LOD	1,533	1,533	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
EPA RSLs Industrial			47,000	70,000	9.3	3	5,800	800	980	47	NA	82,000	350	35,000	2,600	2,200	580	70,000
OEPA Direct Contact Commercial & Industrial			NA	NA	NA	82	15,000	NA	2,300	1,200	NA	NA	23,000	880,000	NA	44,000	NA	NA

Notes:

All concentrations are presented in parts per million (ppm).

Number of 35-gallon fiber drums found on site = 11

Number of fiber drums less than 35 gallons = 26

EPA = U.S. Environmental Protection Agency

LOD = Limit of detection

OEPA = Ohio Environmental Protection Agency

RSL = Regional screening levels

Sample = Refers to the color of the powder dye

XRF = X-ray fluorescence

**TABLE 12
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE COVERED SHED HAZARDOUS SOLIDS**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
1	10/3/14	13788501	Dump Trailer	Soil	23.44	Countywide Recycling and Disposal Facility
2	10/3/14	13788502	Dump Trailer	Soil	24.85	Countywide Recycling and Disposal Facility
3	10/3/14	13788503	Dump Trailer	Soil	23.70	Countywide Recycling and Disposal Facility
4	10/3/14	13788504	Dump Trailer	Soil	24.99	Countywide Recycling and Disposal Facility
5	10/6/14	13788505	Dump Trailer	Soil	22.10	Countywide Recycling and Disposal Facility
6	10/6/14	13788506	Dump Trailer	Soil	24.74	Countywide Recycling and Disposal Facility
7	10/6/14	13788507	Dump Trailer	Soil	28.02	Countywide Recycling and Disposal Facility
8	10/6/14	13788508	Dump Trailer	Soil	23.88	Countywide Recycling and Disposal Facility
9	10/6/14	13788509	Dump Trailer	Soil	26.53	Countywide Recycling and Disposal Facility
10	10/6/14	13788510	Dump Trailer	Soil	24.02	Countywide Recycling and Disposal Facility
11	10/6/14	13788511	Dump Trailer	Soil	25.18	Countywide Recycling and Disposal Facility
12	10/6/14	13788512	Dump Trailer	Soil	25.68	Countywide Recycling and Disposal Facility
13	10/7/14	13788513	Dump Trailer	Soil	24.17	Countywide Recycling and Disposal Facility
14	10/7/14	13788514	Dump Trailer	Soil	24.59	Countywide Recycling and Disposal Facility
15	10/7/14	13788515	Dump Trailer	Soil	27.87	Countywide Recycling and Disposal Facility
16	10/7/14	13788516	Dump Trailer	Soil	28.67	Countywide Recycling and Disposal Facility
17	10/7/14	13788517	Dump Trailer	Soil	24.65	Countywide Recycling and Disposal Facility
18	10/7/14	13788518	Dump Trailer	Soil	24.79	Countywide Recycling and Disposal Facility
19	10/7/14	13788519	Dump Trailer	Soil	26.18	Countywide Recycling and Disposal Facility
20	10/7/14	13788520	Dump Trailer	Soil	25.71	Countywide Recycling and Disposal Facility
21	10/8/14	13788521	Dump Trailer	Soil	24.89	Countywide Recycling and Disposal Facility
22	10/8/14	13788522	Dump Trailer	Soil	26.05	Countywide Recycling and Disposal Facility
23	10/8/14	13788523	Dump Trailer	Soil	25.84	Countywide Recycling and Disposal Facility
24	10/8/14	13788524	Dump Trailer	Soil	26.70	Countywide Recycling and Disposal Facility
25	10/8/14	13788525	Dump Trailer	Soil	25.27	Countywide Recycling and Disposal Facility
26	10/8/14	13788526	Dump Trailer	Soil	28.12	Countywide Recycling and Disposal Facility
27	10/8/14	13788527	Dump Trailer	Soil	26.93	Countywide Recycling and Disposal Facility
28	10/8/14	13788528	Dump Trailer	Soil	28.19	Countywide Recycling and Disposal Facility
29	10/9/14	13788529	Dump Trailer	Soil	27.33	Countywide Recycling and Disposal Facility
30	10/9/14	13788530	Dump Trailer	Soil	25.96	Countywide Recycling and Disposal Facility
31	10/9/14	13788531	Dump Trailer	Soil	28.57	Countywide Recycling and Disposal Facility
32	10/9/14	13788532	Dump Trailer	Soil	24.71	Countywide Recycling and Disposal Facility
33	10/9/14	13788533	Dump Trailer	Soil	27.29	Countywide Recycling and Disposal Facility
34	10/9/14	13788534	Dump Trailer	Soil	25.64	Countywide Recycling and Disposal Facility
35	10/9/14	13788535	Dump Trailer	Soil	28.73	Countywide Recycling and Disposal Facility
36	10/9/14	13788536	Dump Trailer	Soil	25.37	Countywide Recycling and Disposal Facility
37	10/9/14	13788537	Dump Trailer	Soil	29.14	Countywide Recycling and Disposal Facility
38	10/9/14	13788538	Dump Trailer	Soil	26.31	Countywide Recycling and Disposal Facility
39	10/15/14	13788539	Dump Trailer	Soil	28.15	Countywide Recycling and Disposal Facility
40	10/15/14	13788540	Dump Trailer	Soil	26.23	Countywide Recycling and Disposal Facility
41	10/15/14	13788541	Dump Trailer	Soil	27.62	Countywide Recycling and Disposal Facility
42	10/15/14	13788542	Dump Trailer	Soil	25.52	Countywide Recycling and Disposal Facility
43	10/15/14	13788543	Dump Trailer	Soil	28.81	Countywide Recycling and Disposal Facility
44	10/15/14	13788544	Dump Trailer	Soil	26.42	Countywide Recycling and Disposal Facility
45	10/15/14	13788545	Dump Trailer	Soil	27.90	Countywide Recycling and Disposal Facility
46	10/15/14	13788546	Dump Trailer	Soil	26.45	Countywide Recycling and Disposal Facility
47	10/15/14	13788547	Dump Trailer	Soil	28.28	Countywide Recycling and Disposal Facility
48	10/15/14	13788548	Dump Trailer	Soil	27.28	Countywide Recycling and Disposal Facility
49	10/16/14	13788549	Dump Trailer	Soil	25.94	Countywide Recycling and Disposal Facility
50	10/16/14	13788550	Dump Trailer	Soil	26.34	Countywide Recycling and Disposal Facility
51	10/16/14	13788551	Dump Trailer	Soil	27.26	Countywide Recycling and Disposal Facility
52	10/16/14	13788552	Dump Trailer	Soil	27.15	Countywide Recycling and Disposal Facility
53	10/16/14	13788553	Dump Trailer	Soil	27.82	Countywide Recycling and Disposal Facility
54	10/16/14	13788554	Dump Trailer	Soil	27.16	Countywide Recycling and Disposal Facility
55	10/16/14	13788555	Dump Trailer	Soil	24.91	Countywide Recycling and Disposal Facility
56	10/16/14	13788556	Dump Trailer	Soil	24.56	Countywide Recycling and Disposal Facility
57	10/16/14	13788557	Dump Trailer	Soil	29.81	Countywide Recycling and Disposal Facility
58	10/16/14	13788558	Dump Trailer	Soil	26.03	Countywide Recycling and Disposal Facility
59	10/17/14	13788559	Dump Trailer	Soil	26.30	Countywide Recycling and Disposal Facility
60	10/17/14	13788560	Dump Trailer	Soil	25.43	Countywide Recycling and Disposal Facility
61	10/17/14	13788561	Dump Trailer	Soil	27.42	Countywide Recycling and Disposal Facility

**TABLE 12
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE COVERED SHED HAZARDOUS SOLIDS**

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
62	10/17/14	13788562	Dump Trailer	Soil	25.42	Countywide Recycling and Disposal Facility
63	10/17/14	13788563	Dump Trailer	Soil	29.16	Countywide Recycling and Disposal Facility
64	10/17/14	13788564	Dump Trailer	Soil	26.36	Countywide Recycling and Disposal Facility
65	10/17/14	13788565	Dump Trailer	Soil	27.64	Countywide Recycling and Disposal Facility
66	10/17/14	13788566	Dump Trailer	Soil	27.79	Countywide Recycling and Disposal Facility
67	10/20/14	13788567	Dump Trailer	Soil	25.94	Countywide Recycling and Disposal Facility
68	10/20/14	13788568	Dump Trailer	Soil	27.46	Countywide Recycling and Disposal Facility
69	10/20/14	13788569	Dump Trailer	Soil	28.35	Countywide Recycling and Disposal Facility
70	10/20/14	13788570	Dump Trailer	Soil	25.98	Countywide Recycling and Disposal Facility
71	10/20/14	13788571	Dump Trailer	Soil	27.66	Countywide Recycling and Disposal Facility
72	10/20/14	13788572	Dump Trailer	Soil	27.11	Countywide Recycling and Disposal Facility
73	10/20/14	13788573	Dump Trailer	Soil	27.23	Countywide Recycling and Disposal Facility
74	10/20/14	13788574	Dump Trailer	Soil	26.88	Countywide Recycling and Disposal Facility
75	10/21/14	13788575	Dump Trailer	Soil	26.18	Countywide Recycling and Disposal Facility
76	10/21/14	13788576	Dump Trailer	Soil	25.68	Countywide Recycling and Disposal Facility
77	10/21/14	13788577	Dump Trailer	Soil	28.46	Countywide Recycling and Disposal Facility
78	10/21/14	13788578	Dump Trailer	Soil	25.73	Countywide Recycling and Disposal Facility
79	10/21/14	13788579	Dump Trailer	Soil	26.40	Countywide Recycling and Disposal Facility
80	10/21/14	13788580	Dump Trailer	Soil	27.04	Countywide Recycling and Disposal Facility
81	10/21/14	13788581	Dump Trailer	Soil	24.51	Countywide Recycling and Disposal Facility
82	10/21/14	13788582	Dump Trailer	Soil	27.27	Countywide Recycling and Disposal Facility
83	10/22/14	13788583	Dump Trailer	Soil	26.52	Countywide Recycling and Disposal Facility
84	10/22/14	13788584	Dump Trailer	Soil	26.93	Countywide Recycling and Disposal Facility
85	10/22/14	13788585	Dump Trailer	Soil	29.50	Countywide Recycling and Disposal Facility
86	10/22/14	13788586	Dump Trailer	Soil	25.89	Countywide Recycling and Disposal Facility
87	10/22/14	13788587	Dump Trailer	Soil	27.27	Countywide Recycling and Disposal Facility
88	10/22/14	13788588	Dump Trailer	Soil	27.59	Countywide Recycling and Disposal Facility
89	10/22/14	13788589	Dump Trailer	Soil	33.40	Countywide Recycling and Disposal Facility
90	10/22/14	13788590	Dump Trailer	Soil	27.66	Countywide Recycling and Disposal Facility
91	10/23/14	13788591	Dump Trailer	Soil	30.66	Countywide Recycling and Disposal Facility
92	10/23/14	13788592	Dump Trailer	Soil	27.21	Countywide Recycling and Disposal Facility
93	10/23/14	13788593	Dump Trailer	Soil	36.67	Countywide Recycling and Disposal Facility
94	10/23/14	13788594	Dump Trailer	Soil	28.10	Countywide Recycling and Disposal Facility
95	10/23/14	13788595	Dump Trailer	Soil	31.43	Countywide Recycling and Disposal Facility
96	10/23/14	13788596	Dump Trailer	Soil	26.64	Countywide Recycling and Disposal Facility
97	10/23/14	13788597	Dump Trailer	Soil	28.30	Countywide Recycling and Disposal Facility
98	10/23/14	13788598	Dump Trailer	Soil	25.41	Countywide Recycling and Disposal Facility
99	10/23/14	13788599	Dump Trailer	Soil	27.65	Countywide Recycling and Disposal Facility
100	10/24/14	13788600	Dump Trailer	Soil	27.86	Countywide Recycling and Disposal Facility
101	10/24/14	13788601	Dump Trailer	Soil	28.61	Countywide Recycling and Disposal Facility
102	10/24/14	13788602	Dump Trailer	Soil	26.70	Countywide Recycling and Disposal Facility
103	10/24/14	13788603	Dump Trailer	Soil	30.69	Countywide Recycling and Disposal Facility
104	10/24/14	13788604	Dump Trailer	Soil	26.67	Countywide Recycling and Disposal Facility
105	10/24/14	13788605	Dump Trailer	Soil	32.21	Countywide Recycling and Disposal Facility
106	10/24/14	13788606	Dump Trailer	Soil	26.67	Countywide Recycling and Disposal Facility
107	10/24/14	13788607	Dump Trailer	Soil	29.19	Countywide Recycling and Disposal Facility
108	10/27/14	13788608	Dump Trailer	Soil	27.87	Countywide Recycling and Disposal Facility
109	10/27/14	13788609	Dump Trailer	Soil	35.68	Countywide Recycling and Disposal Facility
110	10/27/14	13788610	Dump Trailer	Soil	26.82	Countywide Recycling and Disposal Facility
111	10/27/14	13788611	Dump Trailer	Soil	35.97	Countywide Recycling and Disposal Facility
112	10/27/14	13788612	Dump Trailer	Soil	27.41	Countywide Recycling and Disposal Facility
113	10/27/14	13788613	Dump Trailer	Soil	37.34	Countywide Recycling and Disposal Facility
114	10/27/14	13788614	Dump Trailer	Soil	36.40	Countywide Recycling and Disposal Facility
115	10/28/14	13788615	Dump Trailer	Soil	25.54	Countywide Recycling and Disposal Facility
116	10/28/14	13788616	Dump Trailer	Soil	26.03	Countywide Recycling and Disposal Facility
117	10/28/14	13788617	Dump Trailer	Soil	27.35	Countywide Recycling and Disposal Facility
118	10/28/14	13788618	Dump Trailer	Soil	27.48	Countywide Recycling and Disposal Facility
119	10/28/14	13788619	Dump Trailer	Soil	29.35	Countywide Recycling and Disposal Facility
120	10/28/14	13788620	Dump Trailer	Soil	26.99	Countywide Recycling and Disposal Facility
121	10/28/14	13788621	Dump Trailer	Soil	28.37	Countywide Recycling and Disposal Facility
122	10/28/14	13788622	Dump Trailer	Soil	24.96	Countywide Recycling and Disposal Facility

TABLE 12
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF THE COVERED SHED HAZARDOUS SOLIDS

Load #	Date	Manifest #	Truck	Medium	Quantity (tons)	Disposal Facility
123	10/29/14	13788623	Dump Trailer	Soil	28.49	Countywide Recycling and Disposal Facility
124	10/29/14	13788624	Dump Trailer	Soil	29.34	Countywide Recycling and Disposal Facility
125	10/29/14	13788625	Dump Trailer	Soil	32.70	Countywide Recycling and Disposal Facility
126	10/29/14	13788626	Dump Trailer	Soil	27.42	Countywide Recycling and Disposal Facility
127	10/29/14	13788627	Dump Trailer	Soil	29.02	Countywide Recycling and Disposal Facility
128	10/29/14	13788628	Dump Trailer	Soil	29.54	Countywide Recycling and Disposal Facility
129	10/29/14	13788629	Dump Trailer	Soil	29.29	Countywide Recycling and Disposal Facility
130	10/29/14	13788630	Dump Trailer	Soil	32.82	Countywide Recycling and Disposal Facility
131	10/29/14	13788631	Dump Trailer	Soil	28.69	Countywide Recycling and Disposal Facility

TABLE 13
STARK CERAMICS REMOVAL SITE
COVERED SHED SOLIDS PILE XRF METAL SCREENING RESULTS

Date	Sample	Mode	Titanium	Chromium	Iron	Nickel	Copper	Zinc	Arsenic	Selenium	Rubidium	Strontium	Zirconium	Cadmium	Lead
10/28/2014	0	Standardization													
10/28/2014	1	Soil	9,358.62	<LOD	7,621.47	<LOD	<LOD	28.18	11.22	<LOD	87.40	157.25	323.27	<LOD	35.52
10/28/2014	2	Soil	8,363.99	146.07	7,264.24	50.52	22.94	23.33	<LOD	<LOD	91.44	144.55	326.37	<LOD	35.81
10/28/2014	3	Soil	8,592.52	186.58	6,793.00	47.55	<LOD	21.30	<LOD	<LOD	87.38	143.64	319.50	<LOD	46.20
10/28/2014	4	Soil	9,546.33	<LOD	7,113.94	<LOD	<LOD	25.17	13.74	3.78	84.00	142.12	308.29	<LOD	40.23
10/28/2014	5	Soil	7,542.06	<LOD	8,694.42	<LOD	<LOD	18.76	<LOD	<LOD	74.91	203.82	339.83	<LOD	30.13
10/28/2014	6	Soil	5,864.11	<LOD	7,056.54	<LOD	<LOD	16.42	<LOD	<LOD	72.39	218.58	341.70	52.88	23.85
10/28/2014	7	Soil	5,393.70	<LOD	6,681.45	<LOD	<LOD	17.50	<LOD	<LOD	66.45	118.87	310.89	<LOD	25.32
10/28/2014	8	Soil	6,974.96	<LOD	8,457.66	<LOD	<LOD	15.37	<LOD	<LOD	65.77	67.84	332.81	<LOD	45.76
10/28/2014	9	Soil	8,018.93	129.65	8,141.23	<LOD	<LOD	24.41	<LOD	<LOD	85.78	194.20	369.63	<LOD	20.19
10/28/2014	10	Soil	7,021.23	<LOD	6,349.29	<LOD	<LOD	15.68	<LOD	<LOD	63.26	313.53	472.07	<LOD	20.18
EPA RSLs Industrial			NA	NA	82,000	44,000	4,700	35,000	82	5,800	NA	70,000	9.3	980	800
OEPA Direct Contact Commercial & Industrial			NA	NA	NA	NA	NA	880,000	NA	15,000	NA	NA	NA	23,000	NA

Notes:

All concentrations are presented in parts per million

EPA = U.S. Environmental Protection Agency

LOD = Limit of detection

OEPA = Ohio Environmental Protection Agency

RSL = Regional screening levels

XRF = X-ray Fluorescence

TABLE 14
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE DUST CONCENTRATIONS
DUST AIR MONITORING READING ON NORTH PERIMETER OF THE COVERED SHED

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Action Level ($\mu\text{g}/\text{m}^3$)
1	10/2/2014	9:23:51	15:53:51	2.0	390	95.85	24.03	1.66	0.46	1,000
2	10/3/2014	7:45:23	10:30:23	2.0	165	38.35	27.48	0.35	0.30	1,000
3	10/6/2014	7:38:53	14:11:53	2.0	393	69.35	8.50	3.99	0.52	1,000
4	10/7/2014	7:58:08	14:23:08	2.0	385	23.52	7.91	1.98	0.44	1,000
5	10/8/2014	8:00:35	14:17:35	2.0	377	51.42	12.05	3.63	0.52	1,000
6	10/9/2014	7:40:18	15:25:18	2.0	465	47.12	11.72	2.74	0.72	1,000
7	10/15/2014	7:58:45	15:19:45	2.0	441	58.74	9.92	2.00	0.38	1,000
8	10/16/2014	DataRAM4 unit not operational								1,000
9	10/17/2014	8:07:23	15:30:23	2.0	443	298.36	31.68	3.41	0.74	1,000
10	10/20/2014	8:09:15	15:44:15	2.0	455	203.00	20.28	3.99	0.63	1,000
11	10/22/2014	8:58:10	15:39:10	2.0	401	60.09	16.84	1.12	0.49	1,000
12	10/23/2014	8:11:29	16:11:29	2.0	480	38.28	12.53	1.33	0.49	1,000
13	10/24/2014	8:02:36	15:27:36	2.0	445	366.99	34.45	2.14	0.61	1,000
14	10/27/2014	8:22:44	15:50:44	2.0	448	590.32	36.18	4.13	1.28	1,000
15	10/28/2014	8:02:22	15:03:22	2.0	421	122.51	24.85	0.71	0.39	1,000
16	10/29/2014	8:00:25	15:56:25	2.0	476	47.80	11.28	3.87	0.96	1,000

Notes:

All dust concentrations rounded off to 2 significant digits.

All diameter size measurements rounded off to 2 significant digits.

μ = Micron

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

L/min = Liters per minute

TABLE 15
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE DUST CONCENTRATIONS
DUST AIR MONITORING READING ON SOUTH PERIMETER OF THE COVERED SHED

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Action Level ($\mu\text{g}/\text{m}^3$)
1	10/2/2014	9:26:19	15:58:19	2.0	392	24.19	17.22	0.75	0.54	1,000
2	10/3/2014	7:46:32	10:30:32	2.0	164	75.10	28.91	0.89	0.43	1,000
3	10/6/2014	7:40:02	14:11:02	2.0	391	9.98	5.21	0.90	0.44	1,000
4	10/7/2014	8:01:16	14:23:16	2.0	382	13.69	5.85	1.73	0.47	1,000
5	10/8/2014	8:01:49	14:18:49	2.0	377	35.54	8.94	2.91	0.52	1,000
6	10/9/2014	7:44:08	15:23:08	2.0	459	45.24	7.69	2.38	0.55	1,000
7	10/15/2014	8:03:07	15:24:07	2.0	441	17.65	7.28	1.18	0.43	1,000
8	10/16/2014	9:52:47	15:23:47	2.0	331	22.10	12.25	0.69	0.39	1,000
9	10/17/2014	8:06:01	15:19:01	2.0	433	22.39	13.57	0.69	0.47	1,000
10	10/20/2014	8:12:06	15:43:06	2.0	451	10.71	7.86	0.47	0.37	1,000
11	10/22/2014	8:57:07	15:43:07	2.0	406	43.79	15.16	1.14	0.54	1,000
12	10/23/2014	8:10:08	16:10:08	2.0	480	94.76	12.18	2.01	0.57	1,000
13	10/24/2014	7:58:51	15:26:51	2.0	448	78.74	21.79	1.38	0.57	1,000
14	10/27/2014	8:20:44	15:46:44	2.0	446	94.04	7.93	4.11	0.70	1,000
15	10/28/2014	8:01:24	15:00:24	2.0	419	234.75	16.83	0.66	0.35	1,000
16	10/29/2014	7:54:14	15:59:14	2.0	485	15.15	6.20	1.94	0.64	1,000

Notes:

All dust concentrations rounded off to 2 significant digits.

All diameter size measurements rounded off to 2 significant digits.

μ = Micron

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

L/min = Liters per minute

TABLE 16
STARK CERAMICS REMOVAL SITE
PERIMETER TOTAL AIRBORNE DUST CONCENTRATIONS
DUST AIR MONITORING READING ON WEST PERIMETER OF THE COVERED SHED

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Diameter (μ)	Average Diameter (μ)	Action Level ($\mu\text{g}/\text{m}^3$)
1	10/2/2014	9:22:20	15:53:20	2.0	391	220.34	28.69	2.11	0.64	1,000
2	10/3/2014	7:45:11	10:27:11	2.0	162	30.84	24.47	0.39	0.33	1,000
3	10/6/2014	7:36:54	14:09:54	2.0	393	75.00	12.93	4.09	0.92	1,000
4	10/7/2014	7:59:19	14:21:19	2.0	382	240.58	12.66	3.92	0.68	1,000
5	10/8/2014	7:57:44	14:16:44	2.0	379	64.45	14.80	3.46	0.60	1,000
6	10/9/2014	7:39:06	15:22:06	2.0	463	155.80	18.27	4.13	1.23	1,000
7	10/15/2014	7:58:15	15:18:15	2.0	440	154.04	13.79	4.13	0.64	1,000
8	10/16/2014	DataRAM4 unit not operational								1,000
9	10/17/2014	8:04:04	15:29:04	2.0	445	181.23	21.61	2.88	0.69	1,000
10	10/20/2014	8:05:56	15:38:56	2.0	453	268.55	22.71	4.13	0.80	1,000
11	10/22/2014	8:55:01	15:38:01	2.0	403	33.88	17.02	0.85	0.52	1,000
12	10/23/2014	8:10:53	16:09:53	2.0	479	63.41	12.93	1.78	0.60	1,000
13	10/24/2014	8:04:13	15:24:13	2.0	440	175.98	40.13	1.85	0.75	1,000
14	10/27/2014	8:26:15	15:45:15	2.0	439	155.56	16.30	4.13	1.49	1,000
15	10/28/2014	8:00:55	14:57:55	2.0	417	315.03	35.49	2.09	0.59	1,000
16	10/29/2014	7:53:36	15:57:36	2.0	484	389.37	10.96	4.13	1.01	1,000

Notes:

All dust concentrations rounded off to 2 significant digits.

All diameter size measurements rounded off to 2 significant digits.

μ = Micron

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

L/min = Liters per minute

TABLE 17
STARK CERAMICS REMOVAL SITE
INSIDE COVERED SHED TOTAL AIRBORNE DUST CONCENTRATIONS
DUST AIR MONITOR READINGS INSIDE THE COVERED SHED

Day	Date	Start Time	Stop Time	Flow Rate (L/min)	Data Points Logged	Maximum Concentration ($\mu\text{g}/\text{m}^3$)	Average Concentration ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)
10	10/22/2014	8:57:50	13:41:50	2.0	142	2,965.86	22.69	1,000
12	10/24/2014	7:52:40	14:48:40	2.0	208	1,320.98	23.17	1,000
13	10/27/2014	8:22:52	15:20:54	2.0	102	1,087.01	33.14	1,000
14	10/28/2014	7:57:50	15:07:50	2.0	215	819.97	40.95	1,000
15	10/29/2014	7:52:55	16:14:55	2.0	251	325.80	16.99	1,000

Notes:

All dust concentrations rounded off to 2 significant digits.

$\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

L/min = Liters per minute

TABLE 18
STARK CERAMICS REMOVAL SITE
TRANSPORTATION AND DISPOSAL OF OVER-PACKED WASTE

Disposal Date	DOT Description	Waste Code	Quantity	Unit	Manifest #	Disposal Facility
10/30/2014	UN1760, Waste Corrosive Liquids, n.o.s., Hydrochloric Acid PG II	D002, D008	340	gallons	012481323 JJK	Petro-Chem Processing Group 421 Lyncaste, Detroit, Michigan
	UN1993, Waste Flammable Liquids, n.o.s., PGII	D001	50	gallons		
	UN1263, Waste Paint Related material (Oil Based Paint), 3 PGII	D001	1,500	pounds		
	UN1760, Waste Corrosive Liquids, n.o.s., (Sodium Hydroxide) 8 PGII	D002, D008	50	gallons		
	UN1760, Waste Corrosive Liquids, n.o.s., (Sodium Hydroxide) 8 PGI	D002, D008	400	gallons		
	Non-DOT, Non-RCRA Regulated Material (Grease)	D29L	130	gallons		
	Non-DOT, Non-RCRA Regulated Material (Grease)	D29L	20	gallons		
	Non-DOT, Non-RCRA Regulated Material	D29L	50	gallons		
	Non-DOT, Non-RCRA Regulated Material	D29L	150	gallons		
	Non-DOT, Non-RCRA Regulated Material	D29L	500	pounds		
UN1993, Waste Flammable Liquids, n.o.s., 3 PGIII	D001	55	gallons			

Notes:

DOT - Department of Transportation

RCRA -Resource Conservation and Recovery Act



ATTACHMENT D

Data Verification Report and Analytical Data

DATA VERIFICATION REPORT

Stark Ceramics Site, East Canton, Ohio

This report presents a data verification on the analytical reports for air samples collected during the Stark Ceramics removal action in East Canton, Ohio, from July through October 2014 by Tetra Tech START personnel. The samples were collected on a weekly basis and sent by overnight courier to the EMLab P&K (EMLab) facility in San Bruno, California, for analysis. EMLab identified each shipment of samples as a separate work order (Nos. 1242561, 1245982, 1248959, 1251984, 1256201, 1258220, 1260988, 1265720, 1269370, and 1275093) and analyzed the samples (less those that Tetra Tech START directed them to archive) for asbestos by National Institute for Occupational Safety and Health (NIOSH) Method 7400. The following paragraphs discuss the results of the analyses. EMLab's reports are included following this report.

Each work order included two field blanks. All analytical results for the field blanks and the perimeter samples were the same: no fibers detected. (NIOSH Method 7400 conservatively defines "fiber" as an object with a length greater than 5 micrometers and a length:width ratio of 3 or more.) Therefore no further actions to identify fibers were required. The method requires no further QC analyses for nondetected results and none were included. Data users should note that the reported detection limits are statistically determined, based on the standard number of microscope fields examined.

In summary, no results were qualified. All results may be used, as reported, for any purpose.



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148 Personal pumps - 8/15/14
EML ID: 1248183

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 08-19-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148 Personal pumps - 8/15/14

Date of Sampling: 08-15-2014
 Date of Receipt: 08-18-2014
 Date of Report: 08-19-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: CN644612, Field Blank 1

Comments:

5679674-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A
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Location: CN054696, Operator

Comments:

5679675-1	1,170	< 5.5	100	< 7	< 0.002 (Sr = N/A)	< 0.002
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Location: CN644638, Hot Zone BW

Comments:

5679676-1	930	8	100	10.19	0.008 (Sr = 0.21)	0.004
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Location: CN644832, Hot Zone WW

Comments:

5679677-1	930	< 5.5	100	< 7	< 0.003 (Sr = N/A)	< 0.003
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Location: CN645061, Excursion equip trailer

Comments:

5679678-1	60	< 5.5	100	< 7	< 0.045 (Sr = N/A)	< 0.045
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Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: Stark Ceramic; 55-148
EML ID: 1279895

Approved by:

Dates of Analysis:
Asbestos PLM: 10-21-2014

Approved Signatory
Renee Luna

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: Stark Ceramic; 55-148

Date of Sampling: 10-15-2014
 Date of Receipt: 10-21-2014
 Date of Report: 10-21-2014

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted: 9
Total Samples Analysed: 5
Total Samples with Layer Asbestos Content > 1%: 2

Location: 1, SC-Bulk-01

Lab ID-Version‡: 5828036-1

Sample Layers	Asbestos Content
Gray Non-Fibrous Material	< 1% Actinolite
Composite Non-Asbestos Content:	< 1% Vermiculite
Sample Composite Homogeneity:	Good

Location: 2, SC-Bulk-02

Lab ID-Version‡: 5828037-1

Sample Layers	Asbestos Content
Gray Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

Location: 3, SC-Bulk-03

Lab ID-Version‡: 5828038-1

Sample Layers	Asbestos Content
Gray Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

Location: 4, SC-Bulk-04

Lab ID-Version‡: 5828039-1

Sample Layers	Asbestos Content
Light Gray Semi-Fibrous Material	10% Chrysotile
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Good

Location: 7, SC-Bulk-07

Lab ID-Version‡: 5828042-1

Sample Layers	Asbestos Content
Light Gray Semi-Fibrous Material	10% Chrysotile
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148 / AREA / 8-4-14
EML ID: 1242561

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 08-06-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148 / AREA / 8-4-14

Date of Submittal: 08-04-2014
 Date of Receipt: 08-05-2014
 Date of Report: 08-07-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-073114			Comments:			
5654256-1	2,681	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-073114			Comments:			
5654257-1	2,673	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-073114			Comments:			
5654258-1	2,206	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-0731140			Comments:			
5654259-1	2,206	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB1			Comments:			
5654260-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB2			Comments:			
5654261-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148/Area/WE8-8-14
EML ID: 1245982

Approved by:

Dates of Analysis:
Asbestos-airborne fiber count (NIOSH 7400): 08-13-2014

Miguel Constantino Ines

Technical Manager
Miguel Ines

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #178697

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148/Area/WE8-8-14

Date of Submittal: 08-11-2014
 Date of Receipt: 08-12-2014
 Date of Report: 08-15-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-080614			Comments:			
5669927-1	4,227	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-080614			Comments:			
5669928-1	4,495	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-080614			Comments:			
5669929-1	3,679	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB3			Comments:			
5669930-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB4			Comments:			
5669931-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148/Area/NE 8/15/14
EML ID: 1248959

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 08-20-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148/Area/NE 8/15/14

Date of Sampling: 08-15-2014
 Date of Receipt: 08-19-2014
 Date of Report: 08-20-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-081514			Comments:			
5683075-1	2,853	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-081514			Comments:			
5683077-1	2,184	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-081514			Comments:			
5683079-1	2,934	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB-5			Comments:			
5683081-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB-6			Comments:			
5683083-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148/DREA/WE 8-22-14
EML ID: 1251984

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 08-27-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148/DREA/WE 8-22-14

Date of Submittal: 08-25-2014
 Date of Receipt: 08-26-2014
 Date of Report: 08-27-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-082114			Comments:			
5696385-1	2,926	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-082214			Comments:			
5696386-1	3,176	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-082214			Comments:			
5696387-1	3,160	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB 7, Field blank			Comments:			
5696388-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB 8, Field blank			Comments:			
5696389-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148-E. Stark Ceramic
EML ID: 1256201

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 09-05-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148-E. Stark Ceramic

Date of Receipt: 09-04-2014
 Date of Report: 09-05-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-3-082614			Comments:			
5715626-1	1,835	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-1-082714			Comments:			
5715627-1	2,896	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-082714			Comments:			
5715628-1	2,151	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-082714D			Comments:			
5715629-1	2,151	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB 9			Comments:			
5715630-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB 10			Comments:			
5715631-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: 5 PCMs
EML ID: 1258220

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:
Asbestos-airborne fiber count (NIOSH 7400): 09-10-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: 5 PCMs

Date of Receipt: 09-09-2014
 Date of Report: 09-10-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-090314

Comments:

5724863-1	1,967	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
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Location: ASB-2-090314

Comments:

5724864-1	3,128	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
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Location: ASB-3-090314

Comments:

5724865-1	3,148	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
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Location: FB11

Comments:

5724866-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A
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Location: FB12

Comments:

5724867-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A
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Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: E. Stark
EML ID: 1260988

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:
Asbestos-airborne fiber count (NIOSH 7400): 09-16-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (01260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: E. Stark

Date of Sampling: 09-11-2014
 Date of Receipt: 09-15-2014
 Date of Report: 09-16-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-091114			Comments:			
5738274-1	2,774	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-091114			Comments:			
5738275-1	1,416	< 5.5	100	< 7	< 0.002 (Sr = N/A)	< 0.002

Location: ASB-3-091114			Comments:			
5738276-1	3,028	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB 13			Comments:			
5738277-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB 14			Comments:			
5738278-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5 148-AREA-092214
EML ID: 1265720

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 09-24-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (EM-AS-S-1260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5 148-AREA-092214

Date of Receipt: 09-23-2014
 Date of Report: 09-24-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
Location: ASB-3-091614			Comments:			
5761128-1	3,289	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
Location: ASB-1-091714			Comments:			
5761129-1	2,568	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
Location: ASB-2-091714			Comments:			
5761130-1	3,385	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001
Location: FB 15			Comments:			
5761131-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A
Location: FB 16			Comments:			
5761132-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: S5-148-Area-092914; E Stark Ceramics
EML ID: 1269370

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 10-01-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (EM-AS-S-1260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Environmental Restoration, LLC
 C/O: Ed Kiernicki
 Re: S5-148-Area-092914; E Stark Ceramics

Date of Receipt: 09-30-2014
 Date of Report: 10-01-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-092314			Comments:			
5778116-1	1,540	< 5.5	100	< 7	< 0.002 (Sr = N/A)	< 0.002

Location: ASB-2-092314			Comments:			
5778117-1	1,550	< 5.5	100	< 7	< 0.002 (Sr = N/A)	< 0.002

Location: ASB-3-092314			Comments:			
5778118-1	1,335	< 5.5	100	< 7	< 0.002 (Sr = N/A)	< 0.002

Location: FB 17			Comments:			
5778119-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB 18			Comments:			
5778120-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

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Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Ed Kiernicki
Environmental Restoration, LLC
6812 19 1/2 Mile Rd.
Sterling Heights, MI 48314

Regarding: Project: 55-148-AREA-10-9-14
EML ID: 1275093

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Asbestos-airborne fiber count (NIOSH 7400): 10-13-2014

Service SOPs: Asbestos-airborne fiber count (NIOSH 7400) (EM-AS-S-1260)
AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested.

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Client: Environmental Restoration, LLC
C/O: Ed Kiernicki
Re: 55-148-AREA-10-9-14

Date of Submittal: 10-09-2014
Date of Receipt: 10-10-2014
Date of Report: 10-13-2014

ASBESTOS AND OTHER FIBERS BY PCM: NIOSH 7400 METHOD

Lab ID-Version‡	Volume (liters)	Fibers Detected	Fields Read	Fibers/mm ²	95% UCL*	Fibers per CC
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Location: ASB-1-100214			Comments:			
5806969-1	2,727	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-100214			Comments:			
5806970-1	2,803	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-100214D			Comments:			
5806971-1	2,803	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-100214			Comments:			
5806972-1	2,747	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-1-100714			Comments:			
5806973-1	2,450	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-2-100714			Comments:			
5806974-1	2,975	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: ASB-3-100714			Comments:			
5806975-1	2,938	< 5.5	100	< 7	< 0.001 (Sr = N/A)	< 0.001

Location: FB19			Comments:			
5806976-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Location: FB20			Comments:			
5806977-1	0	< 5.5	100	< 7	N/A (Sr = N/A)	N/A

Interpretation is left to the company and/or persons who conducted the field work.

Field blank, if submitted with the project, has been used to correct the data.

Reporting limit is calculated using a minimum detection limit of 7 fibers/mm².

* Upper 95% Confidence Limit for fibers/cc, calculated using a relative standard deviation value (intralaboratory Sr) mentioned above.

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