



September 30, 2020

Mr. Todd Davis
EPA Site Assessment Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Subject: Pre-CERCLA Screening Report
Varsity Cleaners Site, Iowa City, Iowa
U.S. EPA Region 7, START 5, Contract No. 68HE0719D0001
Task Order No. 19F0086.002
Task Monitor: Todd Davis, EPA Site Assessment Manager

Dear Mr. Davis:

Tetra Tech, Inc. is submitting the attached Pre-Comprehensive Environmental Response, Compensation, and Liability Act Screening (PCS) report regarding the above-referenced site. If you have any questions or comments regarding this submittal, please contact the Project Manager at (816) 412-1771.

Sincerely,

A handwritten signature in blue ink that reads 'Jenna Mead'.

Jenna Mead
START Project Manager

A handwritten signature in blue ink that reads 'Ted Faile'.

Ted Faile, PG, CHMM
START Program Manager

Enclosures

**PRE-CERCLA SCREENING REPORT
VARSITY CLEANERS SITE
IOWA CITY, IOWA**

**Superfund Technical Assessment and Response Team (START) 5 Contract
Contract No. 68HE0719D0001, Task Order 19F0086.002**

Prepared For:

U.S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

September 30, 2020

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to assist with a Pre-Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Screening (PCS) at the Varsity Cleaners site (the site). This active dry cleaner has occupied the site at 910 S. Gilbert Street in the City of Iowa City (the City), Johnson County, Iowa since 1974, when the building was constructed. Field activities for this site were combined with those for three other properties in Iowa City where dry cleaning or other operations likely involving solvent use had occurred: Dodge Cleaners/RAC Mail, E. College and S. Gilbert Cleaners (Kelley Cleaners), and Well 8 (former *Press Citizen* newspaper), which are about 0.5 mile north of Varsity Cleaners. Field activities at these sites began in March 2020; however, START could not complete sampling activities until July 2020 due to closures and travel restrictions related to the novel coronavirus disease 2019 (COVID-19) outbreak.

PCS tasks for this project included:

- Conducting a site reconnaissance to observe current site conditions and identify potential sampling locations
- Reviewing available files and relevant databases, coordinating with property owners and local officials, and developing a Quality Assurance Project Plan (QAPP) for the PCS
- Collecting groundwater samples from direct-push technology (DPT) temporary wells near the former dry cleaning facility
- Collecting soil samples near the former dry cleaner by use of DPT equipment
- Collecting indoor air and ambient air samples at and/or near the former dry cleaner
- Completing a PCS Checklist/Decision Form.

2.0 SITE LOCATION AND BACKGROUND

Section 2.0 summarizes the site location, history of operations, and regulatory involvement, describes waste characteristics, and discusses geology and hydrology at and in the area of the site.

2.1 SITE LOCATION AND DESCRIPTION

Iowa City is the home of the University of Iowa (student population exceeding 33,000). The university is downtown, about 0.5 mile northwest of Varsity Cleaners. The site is in the south-central portion of downtown Iowa City, at an elevation of approximately 650 feet above mean sea level. Ralston Creek, approximately 25 feet wide, is about 130 feet west of the site—just west of S. Gilbert Street, which borders the site at the west. Ralston Creek flows to the south-southwest to its confluence with the Iowa River about 0.4 mile southwest of the site. The site is in a mixed commercial and residential area, within the northwest quarter of Section 15, Township 79 North, Range 6 West, as depicted on the Iowa City West, Iowa, U.S. Geological Survey (USGS) 7.5-minute quadrangle map (USGS 1994). At the site, the ground surface slopes slightly westward toward Ralston Creek. The street address for Varsity Cleaners is 910 S. Gilbert Street. Global Positioning System (GPS) coordinates at the approximate center of the parcel containing the active dry cleaner are 41.65068 degrees north latitude and 91.53150 degrees west longitude. The site location is shown on Figure 1 in Appendix A.

The site encompasses 0.424 acre and includes one 6,146-square-foot, single-story building occupied by Varsity Cleaners (City 2020a). The remainder of the property is a concrete and asphalt parking lot (south and west of the building). The main entrance to Varsity Cleaners faces S. Gilbert Street. The property is bounded north by E. Benton Street with Jimmy John's restaurant and Savvy Boutique (used clothing store) beyond, east by an alley with Johnson's Auto Service and Seydel Auto and Truck Repair beyond, south by Rumours Salon (hair salon), and west by S. Gilbert Street with Ralston Creek beyond. A residential area is about 300 feet to the east.

Most ground surfaces within the vicinity of the site are covered by structures and paved areas (streets, parking lots, sidewalks, etc.). In Iowa City, average annual high temperature is 61.9 degrees Fahrenheit (°F), average annual low temperature is 40.5 °F, and average annual precipitation is about 38 inches (U.S. Climate Data 2019). Drainage at the site flows into storm sewers along S. Gilbert Street.

2.2 OPERATIONAL HISTORY, REGULATORY INVOLVEMENT, AND WASTE CHARACTERISTICS

This section relates operational history and regulatory involvement at the site, and describes characteristics of waste materials associated with the site.

2.2.1 Operational History and Regulatory Involvement

Varsity Cleaners laundry and dry cleaning facility has operated at the Gilbert Street location for approximately 45 years (since 1974, when the building was constructed (City 2020a). Dave Geasland currently owns the site. Prior to 1974, Varsity Cleaners had been at 17 E. Washington Street for about 40 years. An article in *The Daily Iowan* newspaper indicated that the facility at 17. E. Washington Street used tetrachloroethene (PCE) as a cleaning solvent, and that this was a new process (see Attachment 2).

The EPA Registry ID for Varsity Cleaners is 110005740476. The Varsity Cleaners facility is a regulated Resource Conservation and Recovery Act (RCRA) Conditionally Exempt Small Quantity Generator, which indicates it generates less than 100 kilograms (kg) of hazardous waste, or less than 1 kg of acutely hazardous waste, per month. Since February 2010, RCRA records have stated the facility generates waste classified as Waste Code F002 (spent halogenated solvents—likely PCE). The RCRA Handler ID for the facility is IAD022204788 (EPA 2020c). The most recent RCRA inspection occurred on April 28, 2016, when no violations were found. Additionally, no violations had been noted during any previous RCRA inspection.

The site is listed in the Iowa Department of Natural Resources (IDNR) Environmental Facilities Database as ID Number 311459253. IDNR's Air Quality program performed site inspections and follow-up visits in 2013, 2016, 2019, and 2020 (IDNR 2020). Attachment 1 provides IDNR files available through the Air Toxics Public Access website. On March 29, 2013, IDNR met with Mr. Geasland to conduct a dry cleaner compliance assistance visit to ensure the facility was aware of and complying with 2008 changes to the 1993 National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations for dry cleaners using PCE. Completion or documentation of some required paperwork and monitoring requirements had not occurred. Leaks were identified at both dry cleaning machines in use, and function of the facility's leak detector was found improper. During a follow-up visit on November 13, 2013, some leaks were identified, and were fixed (unions tightened). On May 18, 2016, and October 16, 2019, Notices of Violations were issued (EPA 2019). IDNR records indicate that some monitoring and record keeping requirements were not completed. Leaks were detected at both machines in 2016, and at one machine in 2019. During a follow-up visit on February 12, 2020, record keeping was found in order; however, the machines were not in operation, so a leak test could not be performed (IDNR 2020).

No sampling is known to have occurred to investigate whether any release of chemicals at the property has resulted in contamination of environmental media. The site is not included in IDNR's Contaminated Sites database (IDNR 2019b).

2.2.2 Waste Characteristics

PCE is a chlorinated solvent with an ether-like odor, and is typically used in dry cleaning operations and as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 1997). PCE has a low to moderate mobility in soil and may leach slowly to groundwater. It is slightly soluble in groundwater (0.15 grams per liter [g/L] at 25 degrees Celsius [°C]). PCE has a specific gravity of 1.62. PCE is denser than water and tends to be found at greater depths with increasing distance from the source area.

PCE was not used as a dry cleaning solvent in the United States until 1934; petroleum solvents and carbon tetrachloride were in common use as dry cleaning solvents in the early 1900s. By 1948, PCE had replaced carbon tetrachloride as the major chlorinated dry cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of the PCE used in the United States (State Coalition for Remediation of Drycleaners [SCRD] 2007). PCE degrades to trichloroethene (TCE), which degrades to the *cis* and *trans* isomers of 1,2-dichloroethene (DCE), and to 1,1-DCE. These daughter products eventually degrade to vinyl chloride. Presence of petroleum hydrocarbons can enhance degradation of PCE.

2.3 GEOLOGY AND HYDROGEOLOGY

Johnson County is within the Middle Western Upland Plains of the Central Lowlands physiographic region. Regional topography is characterized by a rolling land surface with greatest relief along rivers and streams. Surface soil at the site is Downs silt loam, characterized as deep to moderately deep, well-drained to moderately well-drained soils on ridge tops, shoulders, and side slopes of stream terraces (U.S. Department of Agriculture [USDA] 2019). Clay, silt, and sand are present down to limestone bedrock at approximately 50 feet below ground surface (bgs). Unconsolidated strata in the Iowa City area are Quaternary in age and consist of loess, glacial till, and alluvial deposits. Groundwater in these unconsolidated sediments is typically encountered between 5 and 30 feet bgs.

The first bedrock encountered in the Iowa City area is limestone of the Devonian-age Cedar Valley Formation. Deeper sedimentary units, in order of increasing depth and age, are fractured carbonates of the Silurian-age Gower, Hopkinton, Kankakee, and Edgewood Formations; the Ordovician-age Maquoketa, Galena, Decorah, Platteville, St. Peter, and Prairie du Chien Formations; and the Cambrian-age Jordan, St. Lawrence, and Franconia Formations, and the Dresbach Group sandstones. Underlying these sedimentary rocks are Precambrian-age crystalline rocks.

Five viable aquifers occur in the Iowa City area: a surficial aquifer, Devonian aquifer, Silurian aquifer, Cambro-Ordovician aquifer (Jordan aquifer), and the Dresbach aquifer. The surficial aquifer in the area consists of unconsolidated alluvial, buried channel, or drift deposits. Thickness of the surficial aquifer varies considerably, and it is most productive along major rivers. Based on surface topography in the vicinity of the site, groundwater flow in the surficial aquifer is suspected to be toward the west-southwest (USGS 1994). The uppermost bedrock aquifer is the Devonian aquifer, which is exposed along the Iowa River. The Silurian aquifer immediately underlies the Devonian aquifer. In some areas within the site vicinity, the Silurian and Devonian aquifers are well interconnected and treated as a single aquifer; however, based on a 2017 pump test at a property approximately 600 feet to the northeast (Chauncey Tower property), at least one confining layer appears to occur between the Devonian and Silurian beds, separating distinguishable bedrock aquifers in those formations. Well yields are in the range of 100-300 gallons per minute (gpm) in these Devonian and Silurian formations. A thick sequence of low-permeability, Ordovician-age confining beds separates the Cambro-Ordovician (Jordan) aquifer from the overlying Silurian aquifer. Well yields of up to 1,000 gpm are obtained from the Cambro-Ordovician aquifer. Cambrian-age confining beds of the Franconia Sandstone separate the Dresbach aquifer, which forms the base of the aquifer system in the area, from the overlying Cambro-Ordovician aquifer. Groundwater flow in the bedrock aquifers is to the southwest. The underlying crystalline Precambrian rocks do not yield significant water to wells in the area (Iowa Geological Survey [IGS] 2018, MidAmerican Energy Company 2003).

The City of Iowa City obtains drinking water from a blended system treating raw water from a variety of sources including surface water from the Iowa River, a manmade lake, shallow alluvial wells (about 40 feet deep), Silurian aquifer wells (about 400 feet deep) and a Cambro-Ordovician Jordan aquifer well about 1,600 feet deep (City 2020b). The Iowa City Water Department's treatment facility and various water wells are north of Interstate 80, about 2.5 miles northwest of the site. Additional wells are along the river between Iowa City and Coralville, about 1.5 miles northwest of downtown.

The nearest municipal well (used to contribute water to Iowa City's public water supply) is about 1.9 miles northwest of the site (IDNR 2019a). Potential for new water well installations within 4 miles of the site is low. Iowa City enforces a municipal ordinance (City Code Section 14-3C-10) that prohibits installation of private water wells where a municipal water supply line is within 300 feet. Additionally, the ordinance authorizes the City to require owners of existing private wells to connect to the municipal water supply if a water supply line exists within 300 feet (EPA 2015).

3.0 FIELD ACTIVITIES

The following sections discuss March 2020 and July 2020 field activities at the site.

Prior to March 2020 field activities, EPA approved a site-specific QAPP for PCS activities (Tetra Tech 2019). Various discussions between EPA, START, and property owners led to fewer collections of samples than specified in the QAPP. Several wells planned for sampling had been decommissioned and no longer could be sampled. Only one near-site boring was selected for soil sampling at each location, because presence of contaminated soil would be unlikely at locations distant from the former dry cleaners. In general, one soil boring and four groundwater locations at each site were sampled and analyzed for selected chlorinated volatile organic compounds (CVOC) related to dry cleaning operations. Several indoor air and one ambient air sample were to be collected at each location. Sampling locations were also selected based on known historical dry cleaners in each area. START discussed proposed DPT locations with the City and began the process of obtaining a right-of-way use permit and paying a required \$1,000 deposit.

START personnel Rick Claytor, Lauren Robertson, Quan Do (DPT operator), and Nick Wiederholt mobilized to the site on March 16, 2020. The date for field activities had been chosen to coincide with spring break for the University of Iowa. The City Director of Public Utilities provided an alternate contact for the spring break week, as he would also be on vacation, with instructions to call when the crew arrived in town to go over locations and obtain the right-of-way permit. The City agreed to waive the \$50 fee for EPA work. START provided a \$1,000 deposit to the City to be refunded after 1 year provided no damage to City pavement would have resulted from field activities.

Upon arrival at the site, the team discovered that utilities around the Varsity Cleaners site had not been located, and the alternate City contact did not respond to calls. START attempted to get the utilities marked and contact the City to obtain the permit, with limited success. At noon on Tuesday, March 17, Iowa City ordered all non-essential businesses to close due to COVID-19. City offices closed and few businesses other than carry-out restaurants remained open. START collected indoor air samples at a limited number of open buildings near the four Iowa City sites and departed the site on March 18, 2020.

EPA subsequently suspended most field work involving public interaction to comply with recommendations of the Centers for Disease Control and Prevention (CDC) regarding the COVID-19 pandemic. Remaining field activities were rescheduled for July, following lift of travel restrictions. Some businesses remained closed in July; consequently, access was not available to some proposed indoor air sampling locations.

On June 30, 2020, START member (SM) Stephanie Caples met with City personnel and identified boring locations for planned drilling the following week. START also obtained a City drilling permit (Attachment 3) and paid a \$1,000 deposit (the check from March had been voided). Because of delays in utility marking, the sampling was split over 2 weeks, and DPT sampling was moved to the week of July 13, 2020. Air sampling occurred during the week of July 6th, as originally scheduled. Ms. Caples and SM Zach Usher conducted activities over both weeks. START subcontractor Plains Environmental Services of Salina, Kansas, utilized a track-rig for DPT services during the week of July 13, 2020.

A copy of the field logbook for the four Iowa City sites is in Appendix B, a photographic log is in Appendix C, the soil boring log for the Varsity Cleaners site is in Appendix D, and access agreements (July 2020 only) are in Appendix E.

Soil and groundwater samples were placed in coolers and maintained at a temperature at or below 4 degrees Celsius (°C) pending submittal to the EPA Region 7 laboratory. One indoor air sample collected under Analytical Services Requests (ASR) 8433 in March 2020 was hand delivered to the EPA Region 7 laboratory in Kansas City, Kansas, for volatile organic compounds (VOC) analysis on March 19, 2020. Indoor air samples collected under ASR 8587 in July 2020 were hand delivered to the EPA Region 7 laboratory in Kansas City, Kansas, for analysis on July 10, 2020. Soil and groundwater samples were shipped to the EPA Region 7 laboratory on July 15 via Federal Express for overnight delivery.

3.1 DIRECT-PUSH TECHNOLOGY SOIL SAMPLING

Access was granted to collect soil samples on site. Using a DPT rig, START advanced a soil boring near the southwest corner of the building (see Figure 2 in Appendix A). At the DPT soil sampling location, a soil sampler containing a disposable polyvinyl chloride (PVC) liner was advanced via the DPT rig to about 25 feet bgs. START field-screened the soil cores using a handheld photoionization detector (PID) for elevated organic vapors indicative of VOCs. Elevated vapor readings were noted immediately below the surface to 5 feet bgs and at about 17 to 19 feet bgs, just above groundwater. Two soil samples were collected at this soil boring. Table 1 summarizes soil samples collected during the PCS.

TABLE 1
DPT SOIL SAMPLE SUMMARY
Varsity Cleaners Site
Iowa City, Iowa

Soil Boring Number	Sample Depth (ft bgs)	Sample Number	Sample Date	Sample Time	Geographic Location	
					North Latitude	West Longitude
DPT-19	4-4.5	8587-101	7/14/2020	10:01	41.65058	91.53165
	18.75-19.25	8587-102		10:48		

Notes:

DPT Direct-push technology
ft bgs Feet below ground surface

Within each sampled interval, START collected a grab sample for VOCs analysis in accordance with EPA SW-846 Method 5035; each grab sample consisted of two 40-milliliter (mL) vials each preserved with sodium bisulfate and containing approximately 5 grams of soil, one 40 mL vial preserved with methanol and containing approximately 5 grams of soil, and one unpreserved container packed with soil (used for determination of moisture content). After completion of sampling activities, all DPT boreholes were plugged with bentonite from bottom of hole to ground surface. Any disturbance to surface pavement was patched with appropriate material to match the surrounding grade.

3.2 TEMPORARY WELL SAMPLING

Groundwater samples were collected at four DPT locations on site (see Figure 2 in Appendix A). Groundwater samples were collocated with the soil boring at DPT-19, near the southwest corner of the building. Groundwater samples were also collected at DPT-16, north of the building (upgradient), at DPT-17, at the southeast entrance to the property, and at DPT-18, near the southwest corner of the property. DPT temporary wells were advanced to equipment refusal (32-52 feet bgs) for sampling at the refusal depth and at top of groundwater.

Two groundwater samples were collected at each DPT soil boring location. Groundwater samples from temporary wells were collected by use of a Geoprobe® Screen Point 16 sampling apparatus containing a Geoprobe reusable stainless-steel screen. At each location, the sampler was advanced to total depth, and the screen was exposed to the aquifer. After deployment of the screen, approximately 1 gallon of water was purged through disposable polyethylene tubing by use of a check valve placed at the bottom of the tubing, and a sample was collected. The sampler was then raised to a shallower depth and purged again prior to collection of a sample from the shallow interval. Groundwater samples were collected in three 40-mL vials, each preserved with hydrochloric acid (HCl) for VOCs analysis. Following sampling at each location, the

groundwater sampler and rods were decontaminated by application of a tap water and Alconox wash and tap water rinse, and all temporary wells were plugged with bentonite from bottom of hole to ground surface. New tubing was used at each location. Any disturbance to surface pavement was patched with appropriate material to match the surrounding grade.

Table 2 summarizes the DPT groundwater samples collected.

TABLE 2
DPT TEMPORARY WELL SAMPLE SUMMARY
VARSITY CLEANERS SITE
IOWA CITY, IOWA

Temporary Well Number	Sample Depth (ft bgs)	Sample Number	Sample Date	Sample Time	Geographic Location	
					North Latitude	West Longitude
DPT-16	14-18	8587-202	7/14/2020	08:53	41.650885	91.53145
	28-32	8587-201		08:34		
DPT-17	12-16	8587-208		15:35	41.65043	91.53140
	48-52	8587-207		15:23		
DPT-18	14-18	8587-206		14:10	41.65038	91.53170
	45-49	8587-205		13:46		
DPT-19	15-19	8587-204		11:58	41.65058	91.53165
	43-47	8587-203		11:39		

Notes:

DPT Direct-push technology
ft bgs Feet below ground surface

3.3 VAPOR INTRUSION – INDOOR AIR AND AMBIENT AIR SAMPLING

To assess inhalation threats to occupants of structures overlying potentially contaminated soil and/or groundwater (via vapor intrusion into those structures), START fitted Summa canisters with passive flow regulating devices to enable collection of air samples over a continuous 24-hour period. Indoor air samples were to be collected at the lowest level of each building so that sampling results would be appropriate to a worst-case scenario. START also collected an outdoor ambient air sample to identify any contaminants detected in indoor air as possibly stemming from outdoors.

Figure 2 in Appendix A shows these sample locations. START recorded pertinent data pertaining to each sample (locations, canister and regulator numbers, and start/stop times and vacuum readings) on the electronic field sheet submitted to EPA; these data are included in the analytical data packages in Appendix F. Samples were analyzed for selected VOCs.

Table 3 summarizes information regarding the indoor and outdoor ambient air samples collected at the site.

TABLE 3
VAPOR INTRUSION SAMPLE SUMMARY
Varsity Cleaners Site
Iowa City, Iowa

Sample Number	Address	Location	Sample End Date	Start Time	End Time	Sampling Duration (hours)
March 2020 Indoor Air						
8433-1	910 S. Gilbert St.	Varsity Cleaners	3/18/2020	11:42	08:22	20
July 2020 Indoor Air						
8587-1	320 E. Benton St.	Jimmy Johns	7/8/2020	09:32	09:00	23.5
8587-3	930 S. Gilbert St.	Rumours Salon	7/8/2020	10:02	10:01	24
8587-4	935 S. Gilbert St.	Hair by Kathy	7/9/2020	10:15	09:56	24
8587-2	320 E. Benton St.	Outdoors near northeast corner of building	7/8/2020	10:09	09:09	23

3.3.1 March 2020 Sampling

Businesses surrounding the Varsity Cleaners had closed or would not be open on Wednesday March 18 for sample collection due to the City-mandated closure because of COVID-19. Varsity Cleaners was open and one indoor air sample was collected. No ambient air samples were collected near the site due to anticipated storms on Wednesday.

3.3.2 July 2020 Sampling

Samples were collected at 930 and 935 S. Gilbert, south and southeast of the site, and at 320 E. Benton Street, north of the site. The 930 building is a single-story standalone salon, and 935 S. Gilbert is a two-story building with 4-commercial spaces; the lower level where the sample was collected is partially below ground. The 320 E. Benton Street building has commercial businesses at street level and upper levels of apartments. START collected an ambient air sample northeast of this building.

3.4 QUALITY CONTROL SAMPLES

START prepared one water field blank and one water trip blank as part of the sampling quality assurance (QA)/quality control (QC) process. Samples were submitted to EPA Region 7 laboratory for VOC analysis as part of ASR 8587.

3.5 DEVIATIONS FROM THE QUALITY ASSURANCE PROJECT PLAN

Due to COVID-19 mandated closures, initial field activities were terminated in March, but resumed in July 2020 after lift of COVID-19 travel restrictions. However, some businesses remained closed in July, limiting the number of possible locations for indoor air sampling.

Fewer soil samples were collected than specified in the QAPP. Minor deviations regarding numbers and locations of samples collected do not adversely affect results of the PCS.

4.0 ANALYTICAL DATA SUMMARY

START submitted soil and groundwater samples to the EPA Region 7 laboratory for analyses for selected VOCs. The analytical data packages for ASR 8433 and ASR 8587 are in Appendix F, with the chain-of-custody records.

4.1 SOIL SAMPLE RESULTS

Soil sample results were compared to EPA Superfund Chemical Data Matrix (SCDM) Cancer Risk and Non-Cancer Risk benchmarks (EPA 2020a), and to Region 7's Regional Screening Levels (RSL). Soil data were compared to commercial RSLs because the sampling location was onsite, which is commercial (EPA 2020b).

Two soil samples were collected at DPT-19, near the southwest corner of the building. Table 4 lists VOCs detected in soil samples from the site.

TABLE 4
SELECTED VOLATILE ORGANIC COMPOUNDS IN SOIL SAMPLES
VARSITY CLEANERS SITE
IOWA CITY, IOWA

Soil Boring Number	Depth (ft bgs)	EPA Sample Number	Acetone	PCE	TCE
			Concentration (µg/kg)		
EPA RSL (Commercial)			6.7E+8	100,000	6,000
SCDM Cancer Risk			NE	331,000	8,810
SCDM Non-Cancer Risk			7.04E+4	469,000	39,100
DPT-19	4-4.5	8587-101	35	5.4 U	5.4 U
	18.75-19.25	8587-102	22	410 J	10

Notes:

EPA	U.S. Environmental Protection Agency	PCE	Tetrachloroethene
DPT	Direct-push technology	RSL	Regional Screening Level
ft bgs	Feet below ground surface	SCDM	Superfund Chemical Data Matrix
J	Estimated value	TCE	Trichloroethene
µg/kg	Micrograms per kilogram	U	Analyte not detected at concentration at or above reporting limit indicated at immediate left
NE	Not established		

No site-related VOCs were detected in the shallow soil sample from 4-4.5 feet bgs. PCE (estimated at 410 micrograms per kilogram [µg/kg]) and TCE (10 µg/kg) were detected in the sample collected at 18.75-19.25 feet bgs, just above the saturated zone. These concentrations are well below the RSL and SCDM benchmarks for soil exposure. Acetone, a common laboratory contaminant, was detected at 35 µg/kg in sample 8587-101, and at 22 µg/kg in sample 8587-102. Acetone concentrations were well below the RSL (6.7 E+8 µg/kg) and SCDM Non-cancer Risk (7.04E+7 µg/kg) benchmarks for soil exposure.

4.2 GROUNDWATER SAMPLE RESULTS

Table 5 lists VOCs detected in groundwater samples from the site. Groundwater sample analytical results were compared to EPA's Maximum Containment Levels (MCL) and SCDM benchmarks for Cancer/Non-Cancer Risks (EPA 2020a).

Low concentrations of PCE, TCE, and *cis*-1,2-DCE were detected in the groundwater sample collected from top of groundwater (28-32 feet bgs) at DPT-12 (near the southwest corner of the site). Results from that sample did not exceed the MCL or SCDM benchmarks.

TABLE 5
SELECTED VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER SAMPLES
VARSITY CLEANERS SITE
IOWA CITY, IOWA

Temporary Well Number	Depth (ft bgs)	EPA Sample Number	Acetone	PCE	TCE
			Concentration (µg/L)		
Federal MCL			NE	5	5
SCDM Cancer Risk			NE	37.1	1.19
SCDM Non-Cancer Risk			18,000	120	10
DPT-16 (Bkg)	14-18	8587-202	5 UJ	1 UJ	1 UJ
	28-32	8587-201	5 UJ	1 UJ	1 UJ
DPT-17	12-16	8587-208	5 U	1 U	1 U
	48-52	8587-207	5 U	1 U	1 U
DPT-18	14-18	8587-206	5 UJ	1.3	1 U
	45-49	8587-205	22 J	2.5 UJ	2.5 UJ
DPT-19	15-19	8587-204	5 UJ	79 J	6 J
	43-47	8587-203	5 UJ	3.9 J	1 UJ
Quality Assurance Samples					
Field Blank		8585-209-FB	5 U	1 U	1 U
Trip Blank		8585-210-FB	5 U	1 U	1 U

Notes:

Bold type indicates a concentration equal to or exceeding the benchmark for SCDM Cancer Risk.

Bkg	Background	NE	Not established
DPT	Direct-push technology	PCE	Tetrachloroethene
EPA	U.S. Environmental Protection Agency	SCDM	Superfund Chemical Data Matrix
ft bgs	Feet below ground surface	TCE	Trichloroethene
FB	Field Blank	U	Analyte not detected at concentration at or above reporting limit at immediate left
J	Estimated value	UJ	Analyte not detected at concentration at or above estimated reporting limit at immediate left
MCL	Maximum Contaminant Level		
µg/L	Micrograms per liter		

PCE was detected at an estimated 79 µg/L in the shallow groundwater sample collected within 15-19 feet bgs at DPT-19. TCE was also detected in this sample at an estimated 6 µg/L. PCE was also detected at an estimated 3.9 µg/L in the DPT-19 sample collected within 43-47 feet bgs, just above DPT refusal. PCE was detected at 1.3 µg/L in the shallow sample collected at DPT-18, about 75 feet south (generally downgradient) of DPT-19. PCE and TCE concentrations in the shallow groundwater sample from DPT-19 exceeded the MCL and SCDM Cancer Risk benchmarks. Acetone, a common laboratory contaminant, was detected in sample 8587-205 at an estimated 22 µg/L—well below MCL and SCDM risk benchmarks.

4.3 VAPOR INTRUSION SAMPLE RESULTS

In March 2020, no facilities other than Varsity Cleaners were open for sampling. Access was granted to collect an indoor air sample at that facility. In July 2020, samples were collected at two hair salons and a restaurant. An ambient air sample was collected behind the building at 320 E. Benton Street.

Vapor intrusion sample analytical results were compared to RSLs for residential and commercial settings (EPA 2020b). Only the building at 320 E. Benton Street is mixed commercial/residential; the others are commercial. Results were also compared to EPA’s SCDM benchmarks for Cancer/Non-Cancer Risks (EPA 2020a).

Table 6 summarizes results of vapor intrusion sampling.

TABLE 6
VAPOR INTRUSION ANALYTICAL DATA SUMMARY
VARSITY CLEANERS SITE
IOWA CITY, IOWA

Sample Number	Address	Location	Date of Collection	Acetone	PCE	TCE	cis-1,2-DCE	1,2-DCA	Toluene
				Concentration (µg/m³)					
Regional Screening Level (Residential)				3.2E+4	11	0.48	NE	0.11	5,200
Regional Screening Level (Commercial)				1.4E+5	47	3	NE	0.47	22,000
SCDM Cancer Risk				NE	10.8	0.478	NE	0.108	NE
SCDM Non-Cancer Risk				32,200	41.7	2.09	NE	7.3	5,210
Indoor Air									
8433-1	910 S. Gilbert St.	Varsity Cleaners	3/18/2020	11 J	690	25	0.69	0.19	3.2
8587-1	320 E. Benton St.	Jimmy Johns/Apartments	7/8/2020	42 U	4.2	0.14 U	0.2 U	0.35	2.7
8587-3	930 S. Gilbert St.	Rumours Salon	7/8/2020	420	15	0.14 U	0.2 U	0.32	22
8587-4	935 S. Gilbert St.	Hair by Kathy	7/9/2020	220	1.5	0.14 U	0.2 U	1.1	4.5
Ambient Air									
8587-2	320 E. Benton St.	Outdoors near northeast corner of building	7/8/2020	11 U	1.8	0.14 U	0.2 U	0.1 U	0.76 U

Notes:

Bold type indicates a concentration equal to or exceeding the benchmark for SCDM Cancer Risk.

DCA Dichloroethane
DCE Dichloroethene
J Estimated value
µg/m³ Micrograms per cubic meter
NE Not established

PCE Tetrachloroethene
SCDM Superfund Chemical Data Matrix
TCE Trichloroethene
U Analyte not detected at concentration at or above reporting limit at immediate left

In March 2020, PCE was detected at 690 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the indoor air sample collected at the active Varsity Cleaners facility. The PCE degradation products TCE ($25 \mu\text{g}/\text{m}^3$) and *cis*-1,2-DCE ($0.69 \mu\text{g}/\text{m}^3$) were also detected in this sample along with acetone (estimated at $11 \mu\text{g}/\text{m}^3$), 1,2-dichloroethane (DCA) ($0.19 \mu\text{g}/\text{m}^3$), and toluene ($3.2 \mu\text{g}/\text{m}^3$). The PCE and TCE concentrations exceeded the RSLs for commercial properties and SCDM benchmarks at this active facility. PCE was detected in all the July 2020 indoor air samples and the ambient air sample collected at 320 E. Benton Street. PCE concentrations ranged from $1.5 \mu\text{g}/\text{m}^3$ at 325 S. Gilbert Street (farthest from the active dry cleaner) to $15 \mu\text{g}/\text{m}^3$ at 930 S. Gilbert Street, immediately south of the facility. PCE was detected at $1.8 \mu\text{g}/\text{m}^3$ in the ambient air sample collected northeast of the facility. The PCE concentration in indoor air at 930 S. Gilbert Street (Rumours Salon) exceeded the SCDM Cancer Risk benchmark of $10.8 \mu\text{g}/\text{m}^3$, but not the applicable $47 \mu\text{g}/\text{m}^3$ commercial RSL.

Acetone, 1,2-DCA, and toluene also were detected in the three indoor air samples collected during the July 2020 sampling event. Concentrations of 1,2-DCA in all indoor air samples exceeded SCDM Cancer Risk benchmarks. The 1,2-DCA concentration in the indoor air sample collected at 320 E. Benton Street exceeded the residential RSL, and the concentration at 935 S. Gilbert Street exceeded the commercial RSL. Levels of acetone and toluene were well below their benchmarks.

Acetone and possibly toluene detections were likely related to laboratory contamination. The toluene could also be related to fuel vapors. 1,2-DCA also has been used as an additive for leaded gasoline, and has been found in indoor air as a result of off-gassing from molded plastics (Doucette, Hall, and Gorder 2010).

4.4 QA/QC SAMPLE RESULTS

No VOC was detected in the field blank or the trip blank samples.

5.0 SUMMARY

Primary objectives of the PCS task were to (1) review existing documents and other information relevant to the site; (2) collect soil, groundwater, indoor air, and ambient air samples at and near the site; and (3) complete a PCS Checklist/Decision Form. The PCS Checklist/Decision form is attached as Appendix G.

Varsity Cleaners (910 S. Gilbert Street) is an active dry cleaner using PCE as a cleaning solvent. It is in a mixed commercial and residential area of south-central Iowa City, about 0.5 mile south of the University of Iowa. Varsity Cleaners moved to this location in 1974. Newspaper articles indicate that Varsity Cleaners previously operated at 17 E. Washington Street and had used PCE since 1953.

START mobilized to conduct field activities on March 16, 2020. On March 17, 2020, the City of Iowa City mandated closure of all non-essential businesses to limit spread of COVID-19. Because businesses were closing, START was able to collect only one indoor air sample, at the Varsity Cleaners site. A PCE concentration of $690 \mu\text{g}/\text{m}^3$ was detected in the air sample collected within this active facility. The PCE degradation products TCE ($25 \mu\text{g}/\text{m}^3$) and *cis*-1,2-DCE ($0.69 \mu\text{g}/\text{m}^3$) were also detected in this sample. Remaining sampling was postponed until July 2020 when three additional indoor air samples, an ambient air sample, and soil and groundwater samples were collected.

Access was granted to collect soil and groundwater samples on site. Two groundwater samples were collected at each of the four locations. Two soil samples were collected from one soil boring placed near the southwest corner of the dry cleaner building. PCE (estimated at $410 \mu\text{g}/\text{kg}$) and TCE ($10 \mu\text{g}/\text{kg}$) were detected in the soil sample collected at 18.75-19.25 feet bgs, just above the saturated zone at DPT-19, near the building. PCE was detected at an estimated $79 \mu\text{g}/\text{L}$ in the shallow groundwater sample collected within 15-19 feet bgs at DPT-19. TCE was also detected in this sample at an estimated $6 \mu\text{g}/\text{L}$. PCE was also detected at an estimated $3.9 \mu\text{g}/\text{L}$ in the groundwater sample collected within 43-47 feet bgs, just above equipment refusal. PCE was detected at $1.3 \mu\text{g}/\text{L}$ in the shallow groundwater sample collected at DPT-18, about 75 feet south (generally downgradient) of DPT-19. The PCE and TCE concentrations in the shallow groundwater sample from DPT-19 exceeded the MCL and SCDM Cancer Risk benchmarks.

In July 2020, indoor air samples were collected at two nearby hair salons and a nearby restaurant. An ambient air sample was collected behind the restaurant building at 320 E. Benton Street, which was the only mixed commercial/residential building sampled; the other locations are commercial. PCE was detected in all the July 2020 indoor air samples and in the ambient air sample collected at 320 E. Benton Street. PCE concentrations ranged from $1.5 \mu\text{g}/\text{m}^3$ at 325 S. Gilbert Street (farthest from the active dry

cleaner) to 15 $\mu\text{g}/\text{m}^3$ at 930 S. Gilbert Street, immediately south of the facility. The PCE concentration in the indoor air sample collected at 930 S. Gilbert Street exceeded the SCDM Cancer Risk benchmark of 10.8 $\mu\text{g}/\text{m}^3$, but not the applicable 47 $\mu\text{g}/\text{m}^3$ commercial RSL. PCE was detected at 1.8 $\mu\text{g}/\text{m}^3$ in the ambient air sample collected northeast of the facility.

The PCS indicated a release at the site of PCE to soil and groundwater. PCE vapor from the active facility is impacting nearby businesses. Consequently, further CERCLA assessment is warranted at the site.

6.0 REFERENCES

- Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological Profile for Tetrachloroethene.
- City of Iowa City (City). 2020a. Iowa City Assessor Website. <https://www.arcgis.com/apps/webappviewer/index.html?id=2ebe94f0b2e74eebabdce5c77cec414f>
- City. 2020b. Water Quality and Treatment. <https://www.icgov.org/city-government/departments-and-divisions/public-works/water/water-quality-and-treatment>
- Doucette, W.J., A.J. Hall, and K.A. Gorder. 2010. “Emissions of 1,2-Dichloroethane from Holiday Decorations as a Source of Indoor Air Contamination.” *Groundwater Monitoring & Remediation*, 30(1), Winter: 65-71.
- Iowa Department of Natural Resources (IDNR). 2018. Iowa Geodata. All Registered Wells in the State of Iowa. <https://geodata.iowa.gov/dataset/all-registered-wells-state-iowa>
- IDNR. 2019a. Source Water Mapper. Iowa City, Iowa. https://programs.iowadnr.gov/sourcewater/maps/map.html?pwsid_aqfr=5225079alluvial
- IDNR. 2019b. Contaminated Sites Database. <https://programs.iowadnr.gov/contaminatedsites/reports/documentdna>
- IDNR. 2020. Public Access – Air Toxics. <https://www.iowadnr.gov/Environmental-Protection/Air-Quality/Public-Records-Air-Quality>
- Iowa Geological Survey (IGS). 2018. Evaluation of Pump and Re-Injection Test. Chauncey Tower Site, Iowa City, Iowa. Document #33798.
- MidAmerican Energy Company. 2003. Site Characterization Report for the Iowa City Iowa Former Manufactured Gas Plant Site. November.
- State Coalition for Remediation of Drycleaners (SCRD). 2007. *A Chronology of Historical Developments in Drycleaning*. November. http://www.drycleancoalition.org/download/drycleaning-historical_developments.pdf
- Tetra Tech, Inc. (Tetra Tech). 2019. Quality Assurance Project Plan for Three Pre-CERCLA Site Screenings and One Preliminary Assessment, Iowa City, Iowa. November 5.
- U.S. Climate Data. 2019. Iowa City, Iowa. <https://www.usclimatedata.com/climate/iowa-city/iowa/united-states/usia0414>
- U.S. Department of Agriculture (USDA). 2019. Web Soil Survey. <https://websoilsurvey.nrcs.usda.gov/app/>
- U.S. Environmental Protection Agency (EPA). 2015. First Five-Year Review Report For the Iowa City Former Manufactured Gas Plant Superfund Site. Johnson County, Iowa. February 13. <https://19january2017snapshot.epa.gov/sites/production/files/2015-09/documents/1st-5year-review-iowa-city-gas-plant-johnson-county-ia.pdf>

EPA. 2020a. Superfund Chemical Data Matrix (SCDM) Query. February.

EPA. 2020b. Regional Screening Levels (RSLs). May.

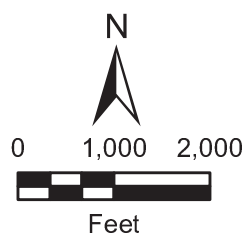
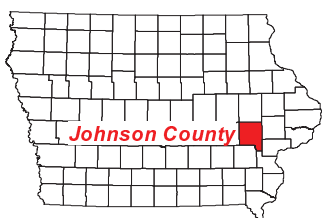
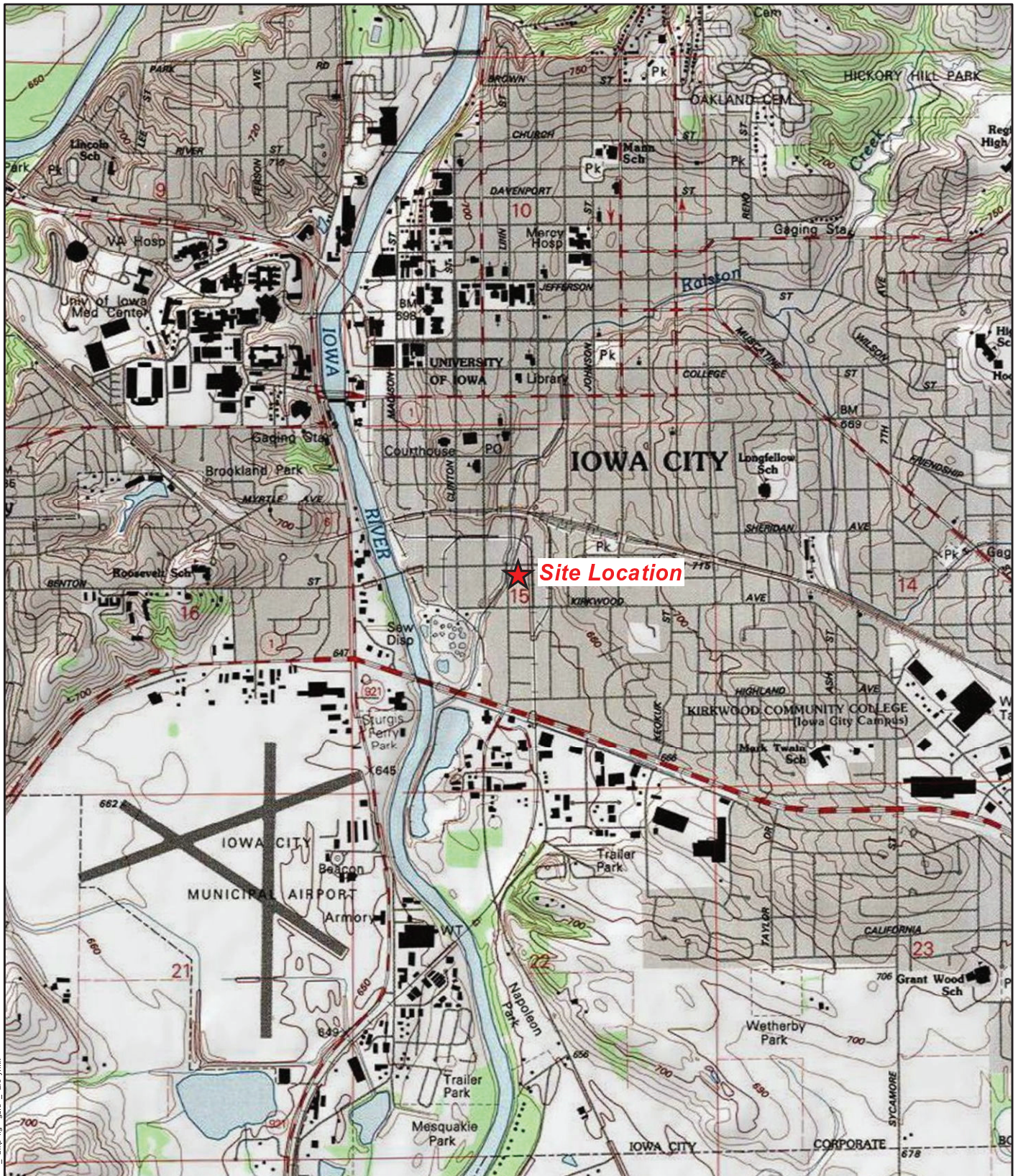
EPA. 2020c. Facility Registry Service (FRS) Facility Detail Report. Varsity Cleaners – Iowa City.
EPA Registry ID 110005740476.

https://ofmpub.epa.gov/frs_public2/fii_query_dtl_disp_program_facility

U.S. Geological Survey (USGS). 1994. Iowa City West, Iowa, Quadrangle Map. 7.5-Minute Topographic Series.

APPENDIX A

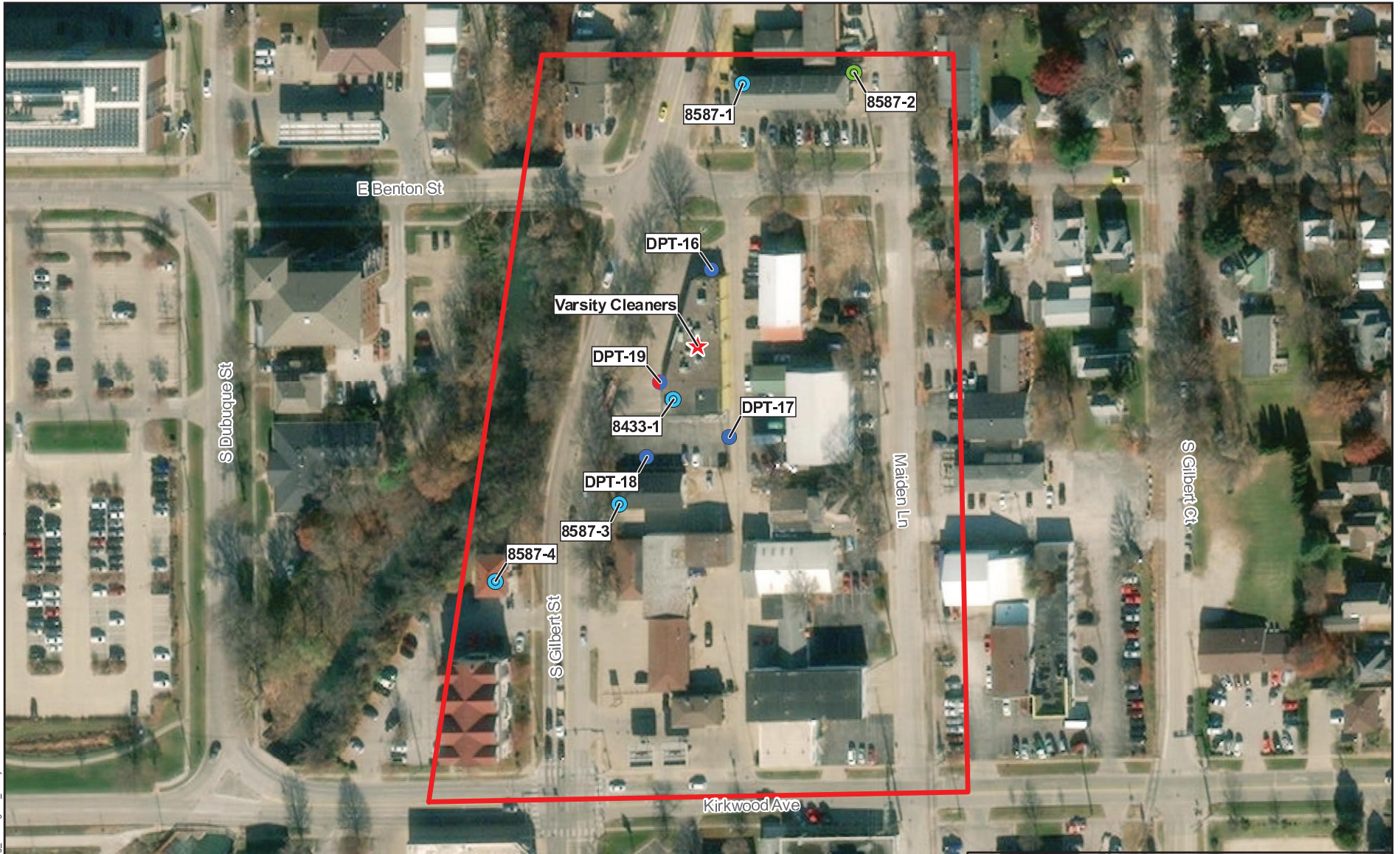
FIGURES



Varsity Cleaners
910 S. Gilbert Street
Iowa City, Iowa

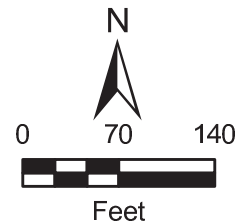
Figure 1
Site Location Map





Legend

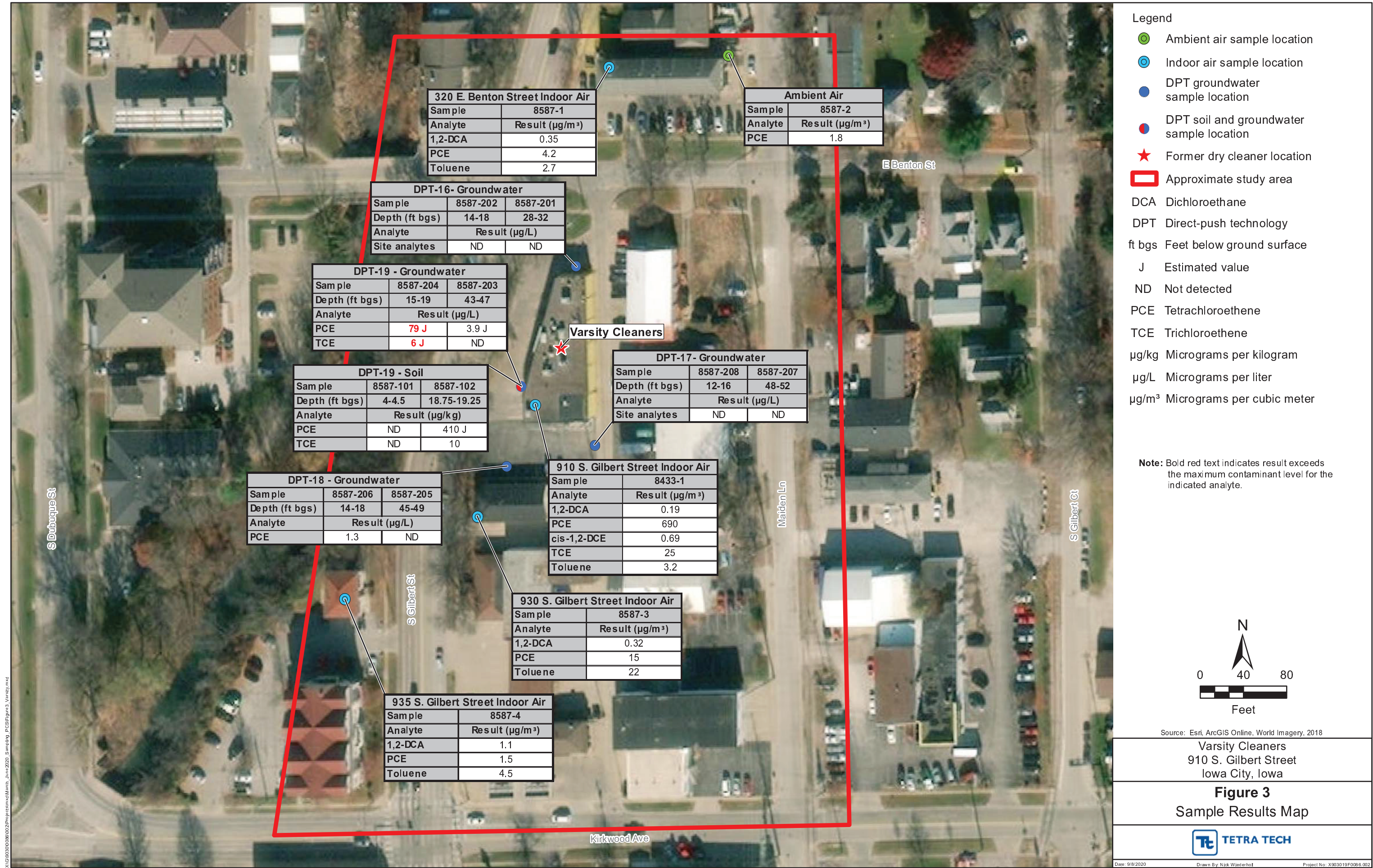
- Ambient air sample location
- Indoor air sample location
- ⊗ DPT groundwater sample location
- ⊗ DPT soil and groundwater sample location
- ★ Former dry cleaner location
- Approximate study area
- DPT Direct push technology



Varsity Cleaners
910 S. Gilbert Street
Iowa City, Iowa

Figure 2
Sample Location Map





APPENDIX B

LOGBOOK

KS1804



Rite in the Rain

ALL-WEATHER

LEVEL

Nº 311FX

103X903019F0086.002
Iowa City PASS Sites

2 Mon 3-16-20

19F086.002

0732- AFTT to load camp. Team present
Q Do Lauren Robertson, Nick Weidhelt
R. Clayton

0800- Leaving for Iowa City

1145- Lunch & Fuel stop, Newton, Ia

1330- At 910 S. Gilbert

1404- RJ called PJ Meade to report
that 3 of 4 locations @ Varsity (clean)
910 S. Gilbert had white flags & white
painted circles. Jim Protoski had been
called by J.M. @ about 1230. No answer,
no returned call

1416- RC left message w/ Jim Protoski,
on site, needing additional assistance

1449- Contacted I.C. water & fiber locate
to confirm that white flags will be placed
@ boring locations as shown on the
submitted maps. They will locate tomorrow.

*Note Q Do L.H. Robertson are going to each location
and placing white flags w/ location numbers.
HCL is being added to the QW sample Vials.

1452- Call Verizon locate to notify them that
a white flag would be placed @ ea. boring
location for utility locate

1454- Cal to Chris Robertson - left mess

1508- Chris Robertson returned call 12:10

3-16-20 cont

He will meet me @ 2005 Capitol St @ 0900
tomorrow AM. Sumner will be placed
No geopr. samples collected - utility locate not
completed. Call to J. Meade w/ info

1732- All @ hotel

Lib Clayton 3-16-20

3/17/20 Tue

19F0086.002

0550 - Team meets in lobby,

L.R. contacts 1 - Carl Iowa

0835 - Team @ 2005 Capital - Tailgate

H&S Meeting @ Hotel lobby.

0956 - Call from J. Mose - I told her no permits had been submitted to Iowa City 1004. C. Robinson arrives, to lead into lower level owned by IU.

2 Summa Set in UI Security of S. End of Block, (only area UI owns.)

1010 - Start time for Summa

1058 - At 9105 Gilbert (ASHR 8433) to check on access to collect indoor Air samples
1200 - Lunch

1215 - No one Available @ 32 E Benton to grant access - No contact info obtained. Shop (dress) closed due to Corona Virus

1349 - At College of Gilbert (ASHR 8432)

At 3020 E College 8432-1 & 2

N⁸⁴³²⁻¹ - state @ 1407

116.8432-1 state @ 1410

1451 - Return to Hotel.

Ed Rytter
3/17/20

3-18-20 Wed

19F0086.002

0700 - Team meets in lobby - H&S reviewed
Tailgate form reviewed & signed, 410

Rain

0749 - L.R. & Q.D. to 2005 Capital to retrieve the 2 Summa placed yesterday. RC contacted C. Robertson to arrange to meet the team. The summa @ Varsity cleaner will also be retrieved later.

0911 - RC to get copies of Maps showing sample locations for Iowa City Right-of-Way Excavation Permit.

0930 - Continue to track/identify, which utility locates have not been done, to attempt to contact & check on the status.
1130 - L.R. & Q.D. leaving hotel to retrieve the Air samplers that remain

RC heading to I.C. city Hall w/ Cert. of Insurance, Maps & EXC Permit

1145 - RC @ City Hall, the building was closed due to the Corona Virus, No permit could be obtained

1148 - RC called Jenna Mead to report that the permit could not be obtained. - She confirmed that without the permit no geoprobe sampling could be conducted

RC 3/18/20

Rite in the Rain.

3/18/20

1224- Team prepared to leave for KC. All
 samples collected, labeled & field info
 recorded. The samples will be submitted
 to the EPA lab tomorrow by L. Robertson
 1240- Leaving I.C. for KC.
 1700- At TJ garage to unload Equip.
 Roll Cyls 3/18/20

3/18/20

1224- Team prepared to leave for KC. All
 samples collected, labeled & field info
 recorded. The samples will be submitted
 to the EPA lab tomorrow by L. Robertson.

1240- Leaving I.C. for KC.

1700- At TJ garage to unload Equip.

RR Cyle 3/18/20

20

6/29/20⁷

1300 Stephanie Caples mobilizing
 to Town City, IA for
 Utility Joint Meet with
 the City to ID approved
 drilling locations.

Weather: Sunny, 90°, breezy.

1930 Arrived in Town City
 after 2-hour traffic
 delay entering the
 city. I will mark
 locations to be addressed
 tomorrow morning
 before the noon
 meeting time arranged
 for City Hall.

1935 End of Day.

~~St. Clair
 6/29/20~~

8 6/30/20

0900 Weather: Overcast, 80°F,
Windy, scattered thunder
storms & rain expected
later today.

0915 Headed to Varsity Cleaner
at 910 South Gilbert
Street.

Proposed SB GPS:

SB-1: 41° 39' 1" N - 91° 31' 54" W

SB-2: 41° 39' 3" N - 91° 31' 51" W

SB-3: 41° 39' 1" N - 91° 31' 51" W

SB-4: 41° 39' 0" N - 91° 31' 54" W

0956 Headed to Dodge Cleaners/
RAC Mall at 304 East
Burlington Street.

Proposed SB GPS:

SB-1: 41° 39' 30" N - 91° 31' 53" W

SB-2: 41° 39' 28" N - 91° 31' 54" W

SB-3: 41° 39' 27" N - 91° 31' 49" W

SB-4: 41° 39' 27" N - 91° 31' 57" W

SB-5: 41° 39' 28" N - 91° 31' 53" W

SB-5 added in as a possible
additional location TBD.

1038 Moving to Well 8 at
319 East Washington
Street.

6/30/20 9

Proposed SB GPS:

SB-1: 41° 39' 35" N - 91° 31' 50" W

SB-2: 41° 39' 34" N - 91° 31' 52" W

SB-3: 41° 39' 35" N - 91° 31' 49" W

SB-4: 41° 39' 32" N - 91° 31' 49" W

1109 Moved to East College
South Gilbert Former
Dry Cleaner at 408
East College Street.

Proposed SB GPS:

SB-1: 41° 39' 32" N - 91° 31' 48" W

SB-2: 41° 39' 32" N - 91° 31' 43" W

SB-3: 41° 39' 36" N - 91° 31' 45" W

SB-4: 41° 39' 36" N - 91° 31' 48" W

GT-N: 41° 39' 35" N - 91° 31' 48" W

GT-S: 41° 39' 32" N - 91° 31' 51" W

1200 Headed in to City Hall to
meet everyone (utilities &
city representative).

1207 Received call from Rob
Bender who is the property
manager for the UPS/
mail drop-off building
where the former Dodge
Cleaners was located.
1-319-530-5341 *Little in the Ring*

6/30/20

He will be checking if we can drill on this property. Will call back later. (SB-5).

1213 Only Ty + the water department showed up for the joint meet.

- Jeff Salm → Water & Fiber
- Dillon Olmstead → Gas & Electric
- Kevin Keating → Signal & Street lighting.

1351 Joint meet complete.

1503 Heading back to KCMO.

2018 Arrived in KCMO.
End of day.

~~6/30/20~~

7/1/20

1100 Stephanie Cuples + Zach Usher of START were tasked to go to Iowa City + conduct indoor Air Sampling.

Weather: Sunny, 90°F, light breeze

1130 Arrived in Iowa City, IA. Will begin air sampling tomorrow.
End of day.

~~7/1/20~~

7/7/20

- 0730 Met in the Holiday Inn lobby to discuss plans for the day & conduct a daily safety tailgate.
- 0750 ~~Departed~~ + headed to site.
- 0817 Arrived at Varsity cleaners. Varsity is closed on Tuesday, will check with them tomorrow & start with other local businesses nearby.
- 0930 Set up canister 632/gage 172:
Start pressure -28 in Hg
Start time 0932
Inside the Jimmy Johns building in NW corner.
- 1001 Setup canister 730/gage 135:
Start time 1002
Start pressure -30 in Hg
Inside the Rumors Salon in SW corner. ^{41°39'52"N}_{91°33'18"W}
- 1008 Upgradient Ambient Air location ^{41°39'5"N}_{91°31'5"W}
Canister # 5115 / Gage # 134

7/7/20 13

- Start time 1009
Start pressure -30 in Hg.
- 1042 At 353 E. College (TNC).
Canister # 737 / gage # 132
Start pressure -29 in Hg
Start time 1043
GPS: ^{41°39'32"N}_{91°31'49"W}
- 1240 ~~Record~~ Collector (Record Stone).
Canister # ~~737~~ 5182
Gage # 131
Start pressure -28 in Hg
Start time 1301
- 1348 Rec Center gym floor
Canister # 807 / Gage # 130
Start time 1351
Start pressure -27 in Hg
- 1415 Public Library
Canister # 729 Gage # 129
Start time 1416
Start pressure -29 in Hg
- 1428 City Hall downstairs breakroom
Canister # 5204 / gage # 99
Start time 1430
Start pressure -29 in Hg
- 1440 Ambient air for ASR 8586
GPS: ^{41°39'37"N}_{91°31'44"W}

7/7/20

Canister # 733 / Gauge # 133

Start time 1442

Start pressure -29 in Hg

1513 End of Day

7/8/20

7/8/20

0730 met in hotel lobby & conducted a safety tailgate. Weather today: Sunny, 90°F, lite breeze.

0850 Received permission from Varsity Cleaners to drill on property. Consent form signed.

0900 Picking up at Jimmy Johns (632/172). 8587-1.

End Pressure: -2 in Hg.

End Time: 0900.

GPS: 41.6513547 -91.5313606

0909 Picking up Ambient air outside SJ (LS115/134).

End pressure: -5 in Hg

End Time: 0909.

8587-2.

1001 Picking up canister inside the Rumors Salon (730/155).

End Pressure: -6 in Hg.

End Time 1001. 8587-3

1014 Setting up @ Hair by Kathy

Canister # 634 / Gauge # 179

Start time 1015

Start pressure -11 in Hg *Rite in the Rain*

7/8/20

- 1035 Picked up Canister @ TNC.
End pressure: -4 in Hg
End time 1035 8586-1
- 1213 318 E. Burlington St.
Canister # 711 / Gage # 65
Start time: 1214
Start pressure: -29 in Hg
GPS: 41.659152 -91.531129
- 1226 Ambient air for ASR 8584
Canister # 832 / Gage # 127
Start time: 1227
Start pressure: -29 in Hg
GPS: 41.661648 -91.531469
- 1234 Picking up Canister from Recorder
End pressure: -4 (25182/131)
End time: 1234
8584-1 GPS: 41.659541 -91.53273
- 1252 Set Ambient A.r for ASR 8585.
Canister # 801 / Gage # 116
Start time: 1254
Start pressure: -26
GPS: 41.658353 -91.530640
- 1329 Picking up Rec Center Canister -
(807 / 130)
End pressure: -4.5 in Hg
End Time: 1329

7/8/20

- GPS: 41.658817 -91.529805
8586-2
- 1349 Picked up @ City Hall.
End time 1349
End pressure: -4 in Hg
8586-3 GPS: 41.660303 -91.529559
- 1358 Pick up @ Public Library.
End pressure: -5 in Hg
End time: 1358
GPS: 41.659238 -91.532522
8584-2
- 1407 Picked up Ambient air for ASR 8586
End time: 1407
End pressure: -4.5 in Hg
8586-4
- NE corner of City Hall.
- 1500 Set up Canister @ Sports Column
Canister # 603 / Gage # 118
Start time: 1503
Start pressure: -27 in Hg
GPS: 41.660848 -91.532906
- 1517 End of Day

Stray
7/8/20

Rite in the Rain

7/19/20

0745 Conducted site safety talk.

Weather: Sunny, 90°F, light breeze.

0956 Picking up @ Air by Kathy.

End Time: 0956

End pressure: -3.5 in Hg

GPS: 41.656050 -91.532256

8587-4.

1130 Picking up @ 318 E. Burlington

End time: 1138

End pressure: -4.5 in Hg

8585-1.

1140 Picking up ambient air for
ASR 8585.

End time: 1144

End pressure: -4.5 in Hg

8585-2.

1150 Picking up ambient air ASR 8584.

End time: 1151

End pressure: -4 in Hg

8584-3.

1430 Picking up at the Sports Center

End time: 1434

End Pressure: -2 in Hg

8584-4.

1440 Departing for KCMO.

2209 Arrived in KCMO. End of Day.

7/12/20

1630 Stephanie Carles of Tetra
Tech START departed
KCMO + headed to
Lamar City, IA for
Soil + GW sampling taking
place on Monday.

2208 Arrived at Hotel.

End of Day.

P
7/12/20
S

7/13/20

0750 Met Henry of ^{Plains} Environmental
~~at the~~ at the Rec Center.

0800 Weather: Sunny, light breeze, expected
 high of 85°F.

0815 Applied for parking permit
 for parking the EW
 truck & trailer for the
 week.

0820 Called Jim Protaskey
 & left him a voicemail.
 Called Ron Knoche to
 get someone out here
 to review work plan
 & participate in drilling.
 Ron will try to get
 a hold of Jim & send
 someone over to meet us.

0840 Site safety reviewed &
 safety tailgate signed.

0900 ~~Begin~~ began drilling at
 DPT-Z → Colleague Gilbert
 ASR 8586.

1000 Collected Sample ~~SC~~
DPT-Z-50-(3.75-4.25) ASR
8586-101.

1127 Collected Sample #

+11/5/2020²¹

DPT-Z-50-(23-23.5) ASR
8586-102 & an MS/MSD.

1155 Collected sample #

DPT-Z-GW-(59.5) ASR
8586-201

1216 Collected Sample #

DPT-Z-GW-(22) ASR

8586-202. Sample was
 bubbling due to HCl. Could
 not collect a preserved
 sample w/o bubbling.

Samples contain bubbles.

1230 Boring filled with bentonite
 chips to water table &
 then backfilled with
 soil cuttings to the
 top of hole.

1238 Break for lunch.

1325 Moved to Well-8 DPT-5,
 ASR 8584.

GPS: 41.460019 - 91.530704

1348 Refusal at 68 lbs.

1354 Trip blank added to cooler.
8584-217-FB. Start: 7/7/2020
 1407

1407 Collected sample #

DPT-5-GW-(48) ASR

7/13/20

8584-201. GW was very silty & gassy. Unable to secure sample w/o bubbles, more kept coming & would stick to the sides of the vial. Unable to knock most of them loose.

1412 Added ASR 8586 trip blank to the cooler.

8586-209-FB.

Start: 7/7/2020 1415.

1427 Collected Sample #

DPT-5-GW-(22) ASR

8584-202. Same silting & bubble problem as before.

1500 Moved to DPT-7.

1520 Began drilling at DPT-7.

1537 Collected sample #

DPT-7-SO-(475-S) ASR

8584-101.

1618 At 25' bgs, oppb out of top of boring.

1700 Collected Sample #

DPT-7-SO (32.5-33) ASR

8584-102 tan MS/MSD.

7/13/20²³

1734 Collected Sample #

DPT-7-GW-(73)

8584-203 tan MS/MSD.

Sample bubbled/effervesced heavily. Lots of bubbles form gasses in water, created unavoidable bubbles in VOA vial.

1804 Collected Sample #

DPT-7-GW-(37) ASR

8584-204.

1834 Filled boring w/ bentonite to top of water table & then backfilled w/ soil cuttings to surface. Patched w/ asphalt & photographed.

1907 End of Day.

~~Sitany
7/13/20~~

7/14/20

0800 Met Henry at Varsity Cleaners
+ ~~conducted~~ conducted safety
talk. Weather: Partly
cloudy to overcast, high of
90°F, chance of rain later
in the day.

0810 Began drilling at DPT-16.

0834 Collected Sample at 32 ft.
[DPT-16-GW-(32)] ASR
[8587-201] + an MS/MSD.
Sample effervesced heavily.

0853 Collected Sample #.

[DPT-16-GW-(18)] ASR
[8587-202]. Sample did
not appear to effervesce
during sample collection.

GPS: 41.650870 - 91.531472

0900 Trip bank for ASR 8587
added to cooler.

Start time: 1221 Start date: 7/7/2020

[8587-209-FB].

0945 Moved to DPT-19.

GPS: 41.650588 ~~41.650588~~
- 91.531717

1001 Collected Sample #

[DPT-19-50-(4-4.5)]

7/14/20 25

ASR [8587-101] with
an MS/MSD.

1018 Collected Sample #

[DPT-19-50-(18.75-19.25)]

[ASR 8587-102]

1139 Collected Sample #

[DPT-19-GW-(47)]

[8587-203]. Samples
effervesced heavily.

1158 Collected Sample #

[DPT-19-GW-(19)]

ASR [8587-204]. Samples
effervesced heavily.

1208 DPT-19 backfilled w/
bentonite chips to water
table, then filled w/
soil cuttings, & topped
with concrete.

1301 Began drilling at DPT-18.

1346 Collected Sample #

[DPT-18-GW-(49)]

ASR [8587-205]. Samples
effervesced heavily. Low
yield, only 2 VOAS could
be filled.

1400 Utility locates on SO ~~Plot in the Rain~~

7/14/2020

working locations still not complete. Called Chris Richardson w/ USICE, Jim Potaski w/ the city utilities, + Jake Ormsby w/ Century Link to get things moving. No ~~answer~~ answer from Jake, left message.

1410 Collected sample # DPT-18-GW-(18) ASR 8587-206. Samples effervesced heavily.

1411 Jake called back, Chris w/ USICE will be doing Century Link locates. Chris agreed to do the locates needing sidewalk closures first, so tomorrow we should be prepared for drilling those locations.

1421 GPS (DPT-18): 41.650385 -91.531701

1523 Collected sample # DPT-17-GW-(32) ASR 8587-207 Sample

7/14/2020

effervesced moderately when collected.

1531 Field Blank for ASR 8587 added to cooler, sample # 8587-210-FB.

1534 Collected sample # DPT-17-GW-(180) ASR 8587-208.

Sample did not appear to effervesce at the time of collection.

1540 DPT-17 GPS: 41.650434 -91.531400 ASR 8587 complete. Will ship samples to lab tonight / tomorrow depending on last departure.

1603 Checked all of the remaining utility locate tickets, & Century Link (USICE) still has not responded to any of them. As such, we cannot drill anywhere else today.
End of day.

7/14/2020

S. Little in the Rain

7/15/2020

0800 Met Chris Brown USJCE
 & went over remaining
 locates to be completed.
 Weather: Overcast, 75°F
 high, 100% humidity, 75-100%
 chance of rain & thunder
 storms. Will be keeping
 a close eye on weather
 & lightning throughout
 the day.

0845 Site Safety meeting.
 Will be setting up on
 DPT-11 today.

1002 Collected sample #
DPT-1-GW-(65) ASR
8586-203 & an MS/MSD.
 Sample effervesced heavily
 at time of collection.

1018 Collected sample #
DPT-1-GW-(32) ASR
8586-204. Sample
 effervesced heavily at time
 of collection.

1025 Field blanks for
 ASR 8586, 8584, & 8585
 added to cooler.

7/15/2020

8584-218-FB8585-209-FB8586-210-FB

1030 Trip blank for ASR

8585 added to

cooler 8585-210-FB.

Start date: 7/7/2020

Start time: 1417

1102 GPS DPT-1: 41.659211 -91.530480
 24 ft higher than ROW/
 Street level.

1107 DPT-4 had to be abandoned
 due to inability to find
 a safe location to drill
 in the ROW.

GPS DPT-4: 41.658527 -91.530361

1114 Moved to DPT-14.

GPS: 41.657570 -91.530358

1147 Collected sample #

DPT-14-GW-(62) ASR8585-201 & an MS/MSD.

Sample did not appear
 to effervesce at the
 time of collection.

1209 Collected sample #

DPT-14-GW-(17)*Rite in the Rain*

7/15/2020

ASR 8585-202. Sample effervesced heavily when collected, had strong petroleum odor, & a sheen on meniscus of VOA vial.

1243 Moved to ~~DPT-13~~^{sc} DPT-13.
GPS: 41.657641 - 91.531783

1326 Collected Sample #

DPT-13-GW-(75)

ASR 8585-203.

Sample effervesced heavily at the time of collection.

1339 Rain is picking up from an intermittent drizzle to a steady light rain. no lightning w/in 10 mile radius detected.

1347 Collected Sample #

DPT-13-GW-(35) ASR

8585-204. Sample effervesced.

heavily at time of collection.

1440 Moved to DPT-10.

GPS: 41.658310 - 91.536309.

This Location refused

7/15/20

at 35' bgs & was dry. we will offset to a location closer to E Burlington & try again.

1500 Rain has stopped.

DPT-10 moved to

GPS: 41.658193 - 91.536308

1520 The new location for

DPT-10 was also.

dry at 33.75' bgs.

We will not be able to sample this location

1545 Moved to DPT-11.

GPS: 41.658484 - 91.531597

1645 Collected Sample #

DPT-11-GW-(71) ASR

8585-205. Sample effervesced lively at the time of collection

1711 Collected Sample #

DPT-11-GW-(28)

ASR 8585-206. Sample effervesced lively when collected.

1826 End of Day.

7/15/20

5° *Rite in the Rain*

7/16/20

0730 Arrived on-site + drove around to the remaining borings to check the locates + sidewalk closures.

0800 Site safety meeting. Weather: Overcast now, sunny / partly cloudy, expected later today, high of 79°F, 20% chance of rain, light breeze.

0812 Setting up at DPT-3
GPS: 41.658902-91.530027

0841 Refusal at 21' bgs. Tubing completely dry. No sample collected. Could not adjust location for drilling due to not enough information for utility placement nearby.

0920 Moved to DPT-12,
GPS: 41.657948-91.531546

0947 Collected sample #
DPT-12-SO-(2.75-3.25)
ASR 8585-101 to air MS/MSD

7/16/20 33

1020 Collected sample #
DPT-12-SO-(17.75-18.25)
ASR 8585-102.

Sample selected due to high PID reading (301.36 ppm). Strong petroleum odor in sample.

1037 Collected sample #
DPT-12-SO-(21.75-22.25)
ASR 8585-103. Sample

selected for high PID reading (386.37 ppm). Strong petroleum odor noted.

1058 Collected sample #
DPT-12-SO-(32-32.25)
ASR 8585-104. Sample

selected for top of water table.
1111 Used PID to check lawn hole VOCs. Casing at 71' bgs, PID read 1810 ppb.

1118 Collected sample #
DPT-12-GW-(71) *Rite in the Rain.*

7/16/20

ASH ~~(8585-207)~~. No
effervescence.

1133 Collected Sample #

~~DPT-12-GW-(32)~~

ASR ~~(8585-208)~~. Samples
effervesced lively upon
collection.

1207 Moved to DPT-9.

GPS: 41.659707-91.534805

1301 Collected sample #

DPT-9-GW-(75)

ASR (8584-205).

Sample effervesced moderately
upon collection.

1302 Issue w/ damaging
a vault across the street
at Active Endeavors.
Spoke w/ Dave (owner)
& took pictures. Will
forward information onto
Senna Mead to be addressed.

1322 Collected Sample #

~~DPT-9-GW-(52)~~

ASR (8584-206). Sample
effervesced moderately
upon collection.

7/16/20³⁵

1343 Moved to DPT-15.

GPS: 41.659897-91.534736

1445 Collected sample #

DPT-15-GW-(75)

ASR (8584-207). Sample
did not appear to effervesce
at the time of collection.

1505 Collected sample #

DPT-15-GW-(48)

ASR (8584-208). Sample
effervesced lively at
the time of collection.

1600 Moved to DPT-8.

GPS: 41.660200-91.532878

Inaccessible due to utility
locations, landscaping rim/
concrete, & light pole/tension
placement. We will have
to forego this location.

1609 Moved to DPT-6.

GPS: 41.659377-91.530977

1707 Collected sample #

DPT-6-GW-(72) ASR

(8584-209). Sample
effervesced heavily
when collected. *Note in the Rain.*

7/11/20

1719 Collected Sample #
 DPT-6 - GW - (33) T
 ASR (8584-210). Sample
 effervesced heavily
 upon collection.

1743 Geoprobe picked up.
 Asphalt at DPT-6
 patched after bentonite backfill.
 End of Day.

7/11/20

7/17/20

0549 Departed Town City
 & headed for EPA Lab.

1150 Dropped off ASR
 8584 w/ vehicle
 (8585 + 8586 shipped
 via FedEx the day
 before).

1300 Dropped off rental
 vehicle
 End of Day.

7/17/20

APPENDIX C
PHOTOGRAPHIC LOG

**Varsity Cleaners Site
Iowa City, Iowa**

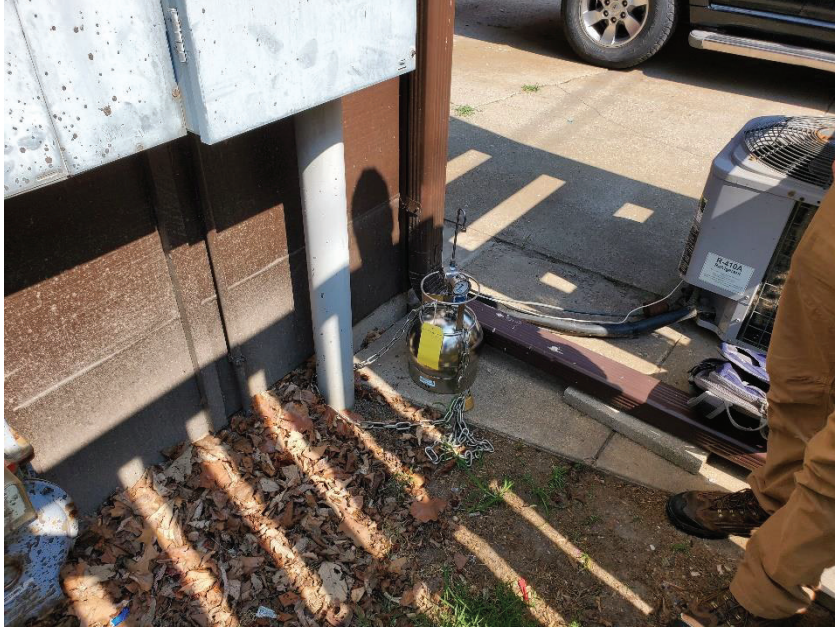


TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows sample 8433-1 location in back room of Varsity Cleaners (910 S. Gilbert St.).	1
	CLIENT	Environmental Protection Agency - Region 7	DATE
	PHOTOGRAPHER	Lauren Robertson	3/17/2020



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows sample 8587-1 location in the northwest corner of the dining room in Jimmy Johns (320 E. Benton St.).	2
	CLIENT	Environmental Protection Agency - Region 7	DATE
	PHOTOGRAPHER	Stephanie Caples	7/7/2020

**Varsity Cleaners Site
Iowa City, Iowa**



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows sample 8587-2 at the northeast corner of the outside of Jimmy Johns (320 E. Benton St.).	3
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/7/2020
	PHOTOGRAPHER	Stephanie Caples	



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows sample 8587-3 on the west central side of the main floor of the Rumours Salon (930 S. Gilbert St.).	4
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/7/2020
	PHOTOGRAPHER	Stephanie Caples	

**Varsity Cleaners Site
Iowa City, Iowa**

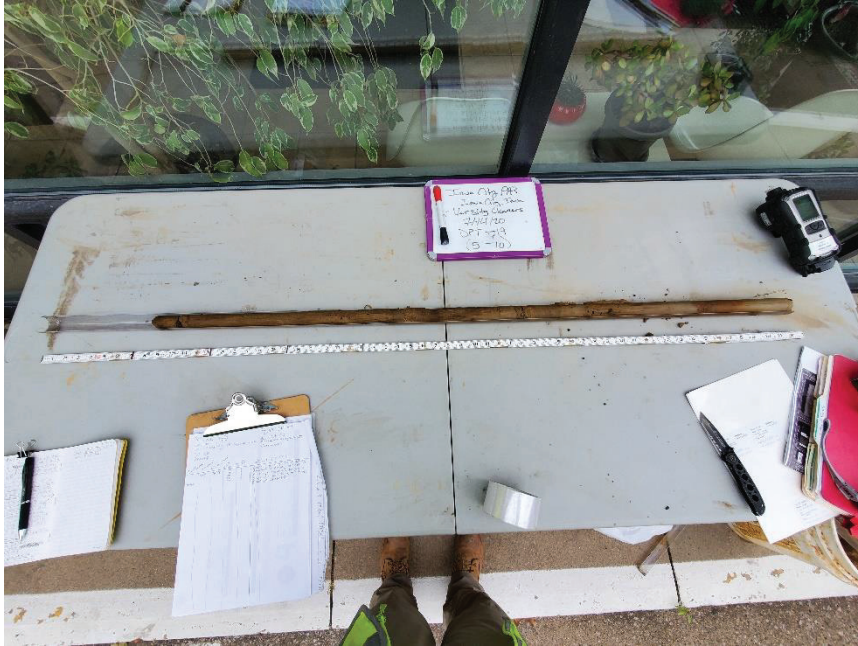


<p>TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA</p>	DESCRIPTION	This photograph shows sample 8587-4 on the west side of the basement of Hair By Kathy (935 S. Gilbert St.).	5
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/8/2020
	PHOTOGRAPHER	Stephanie Caples	



<p>TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA</p>	DESCRIPTION	This photograph shows direct-push technology (DPT) soil boring core DPT-19 (0-5). A sample was collected within 4-4.5 feet (ft) below ground surface (bgs). Sample identification (ID): DPT-19-SO-(4-4.5).	6
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/14/2020
	PHOTOGRAPHER	Stephanie Caples	

**Varsity Cleaners Site
Iowa City, Iowa**



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows soil boring core DPT-19 (5-10).	7
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/14/2020
	PHOTOGRAPHER	Stephanie Caples	



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows soil boring core DPT-19 (10-15).	8
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/14/2020
	PHOTOGRAPHER	Stephanie Caples	

**Varsity Cleaners Site
Iowa City, Iowa**



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows soil boring core DPT-19 (15-20).	9
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/14/2020
	PHOTOGRAPHER	Stephanie Caples	



TETRA TECH PROJECT NO. X9030.19F.0086.002 DIRECTION: NA	DESCRIPTION	This photograph shows soil boring core DPT-19 (20-25). A sample was collected within 18.75-19.25 ft bgs. Sample ID: DPT-19-SO(18.75-19.25).	10
	CLIENT	Environmental Protection Agency - Region 7	DATE 7/14/2020
	PHOTOGRAPHER	Stephanie Caples	

APPENDIX D
BORING LOG

Boring Log Form

Site Name: Varsity Cleaners, Iowa City, Iowa

Boring Number: DPT-19

Date Drilled (Start/Finish): July 14, 2020

Drilling Method: Direct-push technology (DPT)

Drilling Company: Plains Environmental Services, Salina, Kansas

Elevation:

Total Depth: 25 feet (ft) below ground surface (bgs)

Coordinates: 41.650588 -91.531717

Depth to Water: 19 ft bgs

Geologist: S. Caples

Project Number: 103X9030.19F.0086.002

Weather: Partly Cloudy; 79 degrees

Sample Interval (feet)	Interval	Soil Recv.	PID Reading (ppb)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Graphic Log	Description and Remarks
4-4.5	0-5	70%	170 100 90 180 110	5		CH/ CL		CLAY & SILT, dark brown (topsoil). 1 ft bgs: becomes medium brown, plastic, stiff, damp.
	5-10	85%	0 0 0 0 0	10				Alternating layers of CLAY, with some silt, medium brown with black and dark brown streaks, damp to moist; and SAND: coarse to very coarse, orange, dense. 9 ft bgs: Clay and Sand trends to red.
	10-15	80%	0 0 0 0 0	15		CH/ CL		CLAY & SILT with SAND: very fine to coarse, gray with orange and red, stiff, dense, moist. 11.5 ft bgs: CLAY, orange and red and rust colored streaks throughout, plastic, soft, moist. 13.5 ft bgs: SAND, coarse to very coarse and a little silt, red and orange and brown, dense, wet.
18.75-19.25	15-20	100%	0 20 0 70 0	20		SC/ SM/ SP		SAND & SILT: very coarse sand and small gravel with a little silt, orange brown, loose, saturated. 17 ft bgs: becomes red. 17.5 ft bgs: grades to clay with silt, steel gray, plastic, stiff, saturated.
	20-25	90%	0 0 0 0 0	25				CLAY & SILT with SAND: very fine, steel gray, plastic, soft, saturated. 24.25 ft bgs: coarse sand with silt and a little clay, steel gray to lighter gray with depth, dense.
				30				

APPENDIX E
ACCESS AGREEMENTS



**CONSENT TO ACCESS FOR
ENVIRONMENTAL INVESTIGATION/RESPONSE**

Property Owner(s): _____

Property Description: 910 S. Gilbert ST
Jonas City, IA 52240
Varsity Cleaners

Right of Entry. I am the owner, representative of the owner, or lessee of the property described above. I hereby consent to the United States Environmental Protection Agency and its authorized employees, contractors, and agents (EPA), entering, investigating, and/or sampling the described property, and conducting activities to respond to the release or threat of release of hazardous substances, pollutants, or contaminants at, on, and/or from, the property, in accordance with Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604.

Scope of Access. The investigation and/or response may include, but is not necessarily limited to, locating equipment and machinery on the property in preparation for, and in the course of, the investigation/response, collecting samples from the property, and implementing the response action.

Restoration of Property. I recognize that the performance of such actions may require some disturbance of the property and that EPA will attempt to minimize such disturbance, and that areas of disturbance will be restored as nearly as possible to prior condition by EPA, subject to the availability of appropriated funds.

Liability. I understand that EPA requires its contractors to maintain comprehensive vehicle liability insurance, and comprehensive general liability insurance for bodily injury, death, and loss or damage to property or third persons arising from their activities. I also understand that EPA's liability for damages to the property or injuries to persons which result from or are caused by its activities on the property shall be to the extent permitted by the Federal Tort Claims Act (28 U.S.C. §§ 1346(b), 2671 - 2680) and the Federal Employee's Compensation Act (5 U.S.C. §§ 8101 - 8151).

Term. The consent granted hereby will terminate upon EPA's notifying me that the environmental investigation/response is complete.

This written permission is given by me voluntarily and without threats or promises of any kind. By my signature I acknowledge that I am authorized to grant the access provided for herein.

7-8-20
Date

[Signature]
Signature

Dave Garsbnd
Printed Name

Owner
Title



**CONSENT TO ACCESS FOR
ENVIRONMENTAL INVESTIGATION/RESPONSE**

EPA Project Manager
Todd Davis
913-551-7749

Property Owner(s):

Gregory A. McDonald, D.C.

Property Description:

935 S. Gilbert St.

Iowa City, IA. 52240

Right of Entry. I am the owner, representative of the owner, or lessee of the property described above. I hereby consent to the United States Environmental Protection Agency and its authorized employees, contractors, and agents (EPA), entering, investigating, and/or sampling the described property, and conducting activities to respond to the release or threat of release of hazardous substances, pollutants, or contaminants at, on, and/or from, the property, in accordance with Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604.

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Term. The consent granted hereby will terminate upon EPA's notifying me that the environmental investigation/response is complete.

This written permission is given by me voluntarily and without threats or promises of any kind. By my signature I acknowledge that I am authorized to grant the access provided for herein.

7/7/20

Date

Gregory A. McDonald, D.C.
Signature

Gregory A. McDonald, D.C.
Printed Name

Owner
Title



**CONSENT TO ACCESS FOR
ENVIRONMENTAL INVESTIGATION/RESPONSE**

Property Owner(s): _____

Property Description: 930 S. Gilbert St

Rumours Salon

Right of Entry. I am the owner, representative of the owner, or lessee of the property described above. I hereby consent to the United States Environmental Protection Agency and its authorized employees, contractors, and agents (EPA), entering, investigating, and/or sampling the described property, and conducting activities to respond to the release or threat of release of hazardous substances, pollutants, or contaminants at, on, and/or from, the property, in accordance with Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604.

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Term. The consent granted hereby will terminate upon EPA's notifying me that the environmental investigation/response is complete.

This written permission is given by me voluntarily and without threats or promises of any kind. By my signature I acknowledge that I am authorized to grant the access provided for herein.

7/7/20
Date

Madison Baxa
Signature

Madison Baxa
Printed Name

Stylist
Title



**CONSENT TO ACCESS FOR
ENVIRONMENTAL INVESTIGATION/RESPONSE**

Property Owner(s): _____

Property Description: 320 E. Benton St

Jimmy Johns

Right of Entry. I am the owner, representative of the owner, or lessee of the property described above. I hereby consent to the United States Environmental Protection Agency and its authorized employees, contractors, and agents (EPA), entering, investigating, and/or sampling the described property, and conducting activities to respond to the release or threat of release of hazardous substances, pollutants, or contaminants at, on, and/or from, the property, in accordance with Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604.

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Term. The consent granted hereby will terminate upon EPA's notifying me that the environmental investigation/response is complete.

This written permission is given by me voluntarily and without threats or promises of any kind. By my signature I acknowledge that I am authorized to grant the access provided for herein.

7/7/20
Date

[Signature]
Signature

Aaron Scovel
Printed Name

General Manager
Title

APPENDIX F

**EPA TRANSMITTAL OF CHAIN-OF-CUSTODY AND SAMPLE ANALYSIS RESULTS FOR
ANALYTICAL SERVICES REQUESTS (ASR) #8433 AND #8587**

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 03/27/2020

Subject: Transmittal of Sample Analysis Results for ASR #: 8433

Project ID: KPVARCL

Project Description: Varsity Cleaner

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

To: Kumud Pyakuryal
SEMD/AERR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Kumud Pyakuryal**Org:** SEMD/AERR**Phone:** 913-551-7956**Project ID:** KPVARCL**QAPP Number:** 12/9/19**Project Desc:** Varsity Cleaner**Location:** Iowa City**State:** Iowa**Program:** Superfund**Site Name:** Multi-Site - General**Site ID:** 07ZZ **Site OU:** 00**Purpose:** Site Characterization**GPRA PRC:** 000DD2

Pre-CERCLA site screening soil, groundwater, indoor air and ambient air sampling.
No CERCLIS ID provided on submitted ASR from EPA PM/Sampler.

GPRA/site code (+OU) check per JN on 11/1/19.

Submitted ASR from the PM (KP)/SET contractor dated 10/31/2019 noted that this ASR is not part of a litigation hold activity at this time.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

Units: Specific units in which results are reported.

___ = Field Sample

I.D. = Identification, Species or Other ID

psig = Pounds per Square Inch Gauge

ug/m3 = Micrograms per Cubic Meter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

J = The identification of the analyte is acceptable; the reported value is an estimate.

ASR Number: 8433

Sample Information Summary

03/27/2020

Project ID: KPVARCL

Project Desc: Varsity Cleaner

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ____		Air	910FD- Indoor Air		03/17/2020	11:42	03/18/2020	08:22	03/19/2020

Analysis Comments About Results For This Analysis

1 Air VOA Field Parameters

Lab: (Field Measurement)**Method:** Measurement of field parameter**Samples:** 1-__**Comments:**
(N/A)

1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.4I**Samples:** 1-__**Comments:**

Vinyl Chloride (32.8%, limit is 30%) was UJ-coded in sample 1. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

Acetone (33.9%, limit is 30%) was J-coded in sample 1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for this analyte may be higher than the reported value.

ASR Number: 8433

RLAB Approved Sample Analysis Results

03/27/2020

Project ID: KPVARCL

Project Desc: Varsity Cleaner

Analysis/ Analyte	Units	1-__
1 Air VOA Field Parameters		
Canister ID	I.D.	717
Regulator ID	I.D.	184
Starting Pressure	psig	-29
Ending Pressure	psig	-6
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS		
Acetone	ug/m3	11 J
1,2-Dichloroethane	ug/m3	0.19
1,1-Dichloroethene	ug/m3	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.69
trans-1,2-Dichloroethene	ug/m3	0.20 U
Tetrachloroethene	ug/m3	690
Toluene	ug/m3	3.2
Trichloroethene	ug/m3	25
Vinyl Chloride	ug/m3	0.13 UJ

[illegible]

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 08/13/2020

Subject: Transmittal of Sample Analysis Results for ASR #: 8587

Project ID: KPVARCL

Project Description: Varsity Cleaner

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

To: Todd Davis
SEMD/AERR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Todd Davis**Org:** SEMD/AERR**Phone:** 913-551-7749**Project ID:** KPVARCL**QAPP Number:** 2020021**Project Desc:** Varsity Cleaner**Location:** Iowa City**State:** Iowa**Program:** Superfund**Site Name:** Multi-Site - General**Site ID:** 07ZZ **Site OU:** 00**Purpose:** Site Preliminary Assessment**GPRA PRC:** 000DD2

Preliminary Assessment soil, groundwater, indoor air and ambient air sampling.

GPRA/site code (+OU) check per DB on 5/6/2020.

Submitted ASR from the PM (KP)/TT/START contractor dated 5/5/2020 noted that this ASR is not part of a litigation hold activity at this time.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

Units: Specific units in which results are reported.

___ = Field Sample

FB = Field Blank

ug/kg = Micrograms per Kilogram

I.D. = Identification, Species or Other ID

inHg = Inch of Mercury

ug/m3 = Micrograms per Cubic Meter

ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

U = The analyte was not detected at or above the reporting limit.

J = The identification of the analyte is acceptable; the reported value is an estimate.

ASR Number: 8587**Sample Information Summary****08/13/2020****Project ID: KPVARCL****Project Desc: Varsity Cleaner**

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ___		Air	320 E Benton St. / Jimmy Johns		07/07/2020	09:32	07/08/2020	09:00	07/10/2020
2 - ___		Air	NE of Jimmy Johns / Upwind Ambient		07/07/2020	10:09	07/08/2020	09:09	07/10/2020
3 - ___		Air	930 S Gilbert St. / Rumours Salon		07/07/2020	10:02	07/08/2020	10:01	07/10/2020
4 - ___		Air	935 S Gilbert St. / Hair by Kathy		07/08/2020	10:15	07/09/2020	09:56	07/10/2020
101 - ___		Solid	DPT-19-SO-(4-4.5)		07/14/2020	10:01			07/16/2020
102 - ___		Solid	DPT-19-SO-(18.75-19.25)		07/14/2020	10:48			07/16/2020
201 - ___		Water	DPT-16-GW-(32)		07/14/2020	08:34			07/16/2020
202 - ___		Water	DPT-16-GW-(18)		07/14/2020	08:53			07/16/2020
203 - ___		Water	DPT-19-GW-(47)		07/14/2020	11:39			07/16/2020
204 - ___		Water	DPT-19-GW-(19)		07/14/2020	11:58			07/16/2020
205 - ___		Water	DPT-18-GW-(49)		07/14/2020	13:46			07/16/2020
206 - ___		Water	DPT-18-GW-(18)		07/14/2020	14:10			07/16/2020
207 - ___		Water	DPT-17-GW-(52)		07/14/2020	15:23			07/16/2020
208 - ___		Water	DPT-17-GW-(16)		07/14/2020	15:34			07/16/2020
209 - FB		Water	LDL VOA Trip Blank sample		07/07/2020	12:21	07/14/2020	09:00	07/16/2020
210 - FB		Water	LDL VOA Field Blank sample		07/14/2020	15:31			07/16/2020

Analysis Comments About Results For This Analysis

1 Air VOA Field Parameters

Lab: (Field Measurement)**Method:** Measurement of field parameter**Samples:** 1-___ 2-___ 3-___ 4-___**Comments:**
(N/A)

1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.4I**Samples:** 1-___ 2-___ 3-___ 4-___**Comments:**

Slight Acetone contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: 1 and 2.

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry**Samples:** 101-___ 102-___**Comments:**

Tetrachloroethene was J-coded in sample -102. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to the reported value exceeding the calibrated range of the instrument.

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.13F**Samples:** 201-___ 202-___ 203-___ 204-___ 205-___ 206-___ 207-___
 208-___ 209-FB 210-FB**Comments:**

Samples 201, 202, 203, 204, and 205 were received with significant head space (larger than pea-sized). The data for analytes that were not found at or above the reporting limit have been UJ-coded. The actual reporting limit of some or all analytes may be higher than the reported value. For analytes that were detected above the reporting limit, the data have been J-coded. The analytes present have been positively identified in the sample,

Analysis	Comments About Results For This Analysis
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however, the quantitation should be considered an estimate. The actual concentration of some or all analytes may have been higher than the reported result.

Sample 205 contained significant sediment, did not have sufficient aqueous portion to fill a separate vial, and needed to be diluted by a factor of 2.5x. Reporting limits for this sample have been raised by this same factor.

ASR Number: 8587**RLAB Approved Sample Analysis Results****08/13/2020****Project ID:** KPVARCL**Project Desc:** Varsity Cleaner

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 Air VOA Field Parameters					
Canister ID	I.D.	632	L5115	730	634
Regulator ID	I.D.	172	134	135	179
Starting Pressure	inHg	-28	-30	-30	-29
Ending Pressure	inHg	-2	-5	-6	-3.5
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	42 U	11 U	420	220
1,2-Dichloroethane	ug/m3	0.35	0.10 U	0.32	1.1
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
Tetrachloroethene	ug/m3	4.2	1.8	15	1.5
Toluene	ug/m3	2.7	0.76 U	22	4.5
Trichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U

Analysis/ Analyte	Units	101-__	102-__	201-__	202-__
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	35	22		
1,2-Dichloroethane	ug/kg	5.4 U	5.3 U		
1,1-Dichloroethene	ug/kg	5.4 U	5.3 U		
cis-1,2-Dichloroethene	ug/kg	5.4 U	5.3 U		
trans-1,2-Dichloroethene	ug/kg	5.4 U	5.3 U		
Tetrachloroethene	ug/kg	5.4 U	410 J		
Toluene	ug/kg	5.4 U	5.3 U		
Trichloroethene	ug/kg	5.4 U	10		
Vinyl Chloride	ug/kg	5.4 U	5.3 U		
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L			5.0 UJ	5.0 UJ
1,2-Dichloroethane	ug/L			1.0 UJ	1.0 UJ
1,1-Dichloroethene	ug/L			1.0 UJ	1.0 UJ
cis-1,2-Dichloroethene	ug/L			1.0 UJ	1.0 UJ
trans-1,2-Dichloroethene	ug/L			1.0 UJ	1.0 UJ
Tetrachloroethene	ug/L			1.0 UJ	1.0 UJ
Toluene	ug/L			1.0 UJ	1.0 UJ
Trichloroethene	ug/L			1.0 UJ	1.0 UJ
Vinyl Chloride	ug/L			1.0 UJ	1.0 UJ

ASR Number: 8587**RLAB Approved Sample Analysis Results****08/13/2020****Project ID:** KPVARCL**Project Desc:** Varsity Cleaner

Analysis/ Analyte	Units	203-__	204-__	205-__	206-__
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 UJ	5.0 UJ	22 J	5.0 U
1,2-Dichloroethane	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U
1,1-Dichloroethene	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U
Tetrachloroethene	ug/L	3.9 J	79 J	2.5 UJ	1.3
Toluene	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U
Trichloroethene	ug/L	1.0 UJ	6.0 J	2.5 UJ	1.0 U
Vinyl Chloride	ug/L	1.0 UJ	1.0 UJ	2.5 UJ	1.0 U

ASR Number: 8587**RLAB Approved Sample Analysis Results****08/13/2020****Project ID:** KPVARCL**Project Desc:** Varsity Cleaner

Analysis/ Analyte	Units	207-__	208-__	209-FB	210-FB
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

CHAIN OF CUSTODY RECORD ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)

Todd Davis

SITE OR SAMPLING EVENT

Iowa City PA/SS Sites

DATE OF SAMPLE COLLECTION(S)

07 14 2020
MONTH DAY YEAR

SHEET

1 of 1

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	VOA SET BOTTLE	(3 vials & 1 tube) NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER	EMDA SET (3 VIALS EA)	SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
				WATER	SD	H2S/TWIST	AIR	
8587-101		3		✓				MS/MSD
8587-102		1		✓				
8587-201			3	✓				MS/MSD. # = See below
8587-202			1	✓				* = See below
8587-203			1	✓				# = See below
8587-204			1	✓				# = See below
8587-205		1		✓				Sample effervesced heavily causing bubbles in vials after lidded. Low flow, only two vials.
8587-206			1	✓				# = See below
8587-207			1	✓				# = See below
8587-208			1	✓				* = See below
8587-209-FB			1	✓				
8587-210-FB			1	✓				Noted issue with air bubble(s) and/or sediment rec'd in the water VOA vials as noted by the TT sampler. PM/sampler emailed re: all issues on 7/16/2020.
ASR complete.								nr7/16/2020
								# = Sample effervesced moderately during collection causing bubbles to form in vials after lidded.
								* = Sample did not appear to effervesce at the time of collection.
								Cooler delivered on 7/16/2020 with a temp. range between 9.1-12.3degC. & all ice completely melted. nr7/16/2020

No custody seal
on cooler. But
cooler taped shut
& no tampering
observed. nr 7/16/2020

DESCRIPTION OF SHIPMENT

16 CONTAINER(S) CONSISTING OF
1 ICE CHEST(S); OTHER

CRATE(S)

COMMERCIAL CARRIER

FedEx

SAMPLER CONVEYED

(SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (PM/SAMPLER)
stephanie.caples@tetratech.com
Digitally signed by: stephanie.caples@tetratech.com
DN: CN = stephanie.caples@tetratech.com
Date: 2020.07.14 18:14:42 -0500

NICOLE ROBLEZ

Digitally signed by NICOLE ROBLEZ
Date: 2020.07.16 14:10:05 -0500

STC Analyses

APPENDIX G

PRE-CERCLA SCREENING CHECKLIST/DECISION FORM

Pre-CERCLA Screening Checklist/Decision Form

This form is used in conjunction with a site map and any additional information required by the EPA Region to document completion of a Pre-CERCLA Screening (PCS). The form includes a decision on whether a site should be added to the Superfund program's active site inventory for further investigation. This checklist replaces Attachment A in the December 2016 PCS Guidance document. A current version of the PCS checklist and additional information is available at: <https://www.epa.gov/superfund/pre-cercla-screening>.

Region: <u>7</u>	State/Territory: <u>IA</u>	Tribe: _____	EPA ID No. (If Available) _____
Site Name: <u>Varsity Cleaners</u>			
Other Site Name(s): _____			
Site Location: <u>910 S. Gilbert Street</u>			
(Street)			
_____	<u>Iowa City</u>	<u>IA</u>	<u>JOHNSON</u>
Congressional District	(City)	(State/Terr.)	(County)
		<u>52240</u>	<u>-</u>
		(Zip+4)	(No Zip Available) <input type="checkbox"/>
If no street address is available: _____			
		(Township-Range)	(Section)
Checklist Preparer: _____			
Jenna Mead		09/30/2020	
		(Date)	
Tetra Tech, Inc.		(816) 412-1771	
		(Phone)	
415 Oak Street		jenna.mead@tetratech.com	
		e-Mail	
<u>Kansas City</u>		<u>MO</u>	<u>64106</u>
(City)		(State/Terr.)	(County) (Zip+4)
Site Contact Info/Mailing Address: _____			

CERCLA 105d Petition for Preliminary Assessment? <u>No</u> If Yes, Petition Date (mm/dd/yyyy): _____			
RCRA Subtitle C Site Status: Is site in RCRA Info? <u>No</u> If Yes, RCRA Info Handler ID #: _____			
Ownership Type: <u>Private</u>		Additional RCRA Info ID #(s): _____	
Site Type: <u>Other</u>		State ID #(s): _____	
Site Sub-Type: <u>Dry-Cleaning Operations</u>		Other ID #(s): _____	
Federal Facility? <u>No</u>		Federal Facility Owner: (Make selection) _____	
Formerly Used Defense Site (FUDS)? <u>No</u>			
Federal Facility Docket? <u>No</u>		If Yes, FF Docket Listing Date (mm/dd/yyyy): _____	
Federal Facility Docket Reporting Mechanism: (Make selection) _____			
Native American Interest? <u>No</u>		If Yes, list Tribe: _____	
		Additional Tribe (s): (Make Selection)	
		Additional Tribe (s): (Make Selection)	

Site Description

Use this section to briefly describe site background and conditions if known or (easily) available, such as: operational history; physical setting and land use; site surface description, soils, geology and hydrogeology; source and waste characteristics; hazardous substances/contaminants of concern; historical releases, previous investigations and cleanup activities; previous regulatory actions, including permitting and enforcement actions; institutional controls; and community interest.

The site, an active dry cleaning facility utilizing tetrachloroethene (PCE), is at 910 S. Gilbert Street in Iowa City, Iowa, and encompasses approximately 0.4 acre. The site is in a largely commercial area in the southern downtown area. A mixed-use commercial/residential building is north of the site, and apartments or single family homes are about one block to the east. Varsity Cleaners has operated at this site since the building was constructed in 1974. At that time, Varsity Cleaners moved to this facility from its previous facility at 17 E. Washington Street (since demolished). Iowa Department of Natural Resources (IDNR) conducted a compliance inspection visit in October 2019 and a follow-up visit in February 2020. Notice of violations were noted after May 20016 and October 2019 inspections. Clay, silt, and sand are present down to limestone bedrock at approximately 50 feet below ground surface (bgs). Soils have been modified by construction activities and are generally covered by buildings and pavement. Surface runoff at the site is to the west, toward Ralston Creek, across S. Gilbert Street from the site.

Geospatial Information

Latitude:

41.650680

Longitude:

91.53150

Decimal Degree North (e.g., 38.859156)

Decimal Degree West (e.g., 77.036783)

Provide 4 significant digits at a minimum, more if your collection method generates them.

Except for certain territories in the Pacific Ocean, all sites in U.S. states and territories are located within the northern and western hemispheres and will have a positive latitude sign and negative longitude sign. Coordinate signs displayed above are based on the State/Territory entry on page A-1. Geospatial data tips from the PCS Guidance document are available [here](#).

Point Description: Select the option below that best represents the site point for future reference and to distinguish it from any nearby sites. See additional information [here](#).

- ☐ Geocoded (address-matched) Site Address
☐ Site Entrance (approximate center of curb-cut)
☒ Approximate Center of Site
☐ Other Distinguishing Site Feature (briefly describe):

Point Collection Method: Check the method used to collect the coordinates above and enter the date of collection. See additional information [here](#).

- ☒ Online Map Interpolation
☐ GPS (handheld, smartphone, other device or technology with accuracy range < 25 meters)
☐ GPS Other (accuracy range is ≥ 25 meters or unspecified)
☐ Address Matching: Urban
☐ Address Matching: Rural
☐ Other Method (briefly describe below):

Collection Date (mm/dd/yyyy): 09/30/2020

POINT-SELECTION CONSIDERATIONS

- Often the best point is a feature associated with the environmental release or that identifies the site visually.
- Use the curb cut of the entrance to the site if there is a clear primary entrance and it is a good identifier for the overall location.
- The approximate center of the site (a guess at the centroid) is useful for large-area sites or where there are no appropriate distinguishing features.
- Use the geocoded address if that is the only or best option available, but if possible use something more representative for sites larger than 50 acres.

Complete this checklist to help determine if a site should be added to the Superfund Active site inventory. See Section 3.6 of the PCS guidance for additional information.

	YES	NO	Unknown
1. An initial search for the site in EPA's Superfund active, archive and non-site inventories should be performed prior to starting a PCS. Is this a new site that does not already exist in these site inventories?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there evidence of an actual release or a potential to release?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are there possible targets that could be impacted by a release of contamination at the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there documentation indicating that a target has been exposed to a hazardous substance released from the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Is the release of a naturally occurring substance in its unaltered form, or is it altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the release from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. If there has been a release into a public or private drinking water supply, is it due to deterioration of the system through ordinary use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Are the hazardous substances possibly released at the site, or is the release itself, excluded from being addressed under CERCLA?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Is the site being addressed under RCRA corrective action or by the Nuclear Regulatory Commission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Is another federal, state, tribe or local government environmental cleanup program other than site assessment actively involved with the site (e.g., state voluntary cleanup program)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Is there sufficient documentation or evidence that demonstrates there is no likelihood of a significant release that could cause adverse environmental or human health impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Are there other site-specific situations or factors that warrant further CERCLA remedial/integrated assessment or response?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Preparer's Recommendation: ☒ Add site to the Superfund Active site inventory.
☐ Do not add site to the Superfund Active site inventory.

Please explain recommendation below:

PCS Summary and Decision Rationale

Use this section to summarize PCS findings and support the decision to add or not add the site to the Superfund active site inventory for further investigation. Information does not need to be specific but, where known, can include key factors such as source and waste characteristics (e.g., drums, contaminated soil); evidence of release or potential release; threatened targets (e.g., drinking water wells); key sampling results (if available); CERCLA eligibility; involvement of other cleanup programs; and other supporting factors. Attach additional pages as necessary.

The PCS indicated a release of volatile organic compounds to soil and groundwater at the site. PCE and TCE were also in indoor air samples collected at and near the facility. Because of the history of dry cleaning operations at the site (1974-present) and presence of PCE and trichloroethene in shallow groundwater and indoor air, further CERCLA assessment is warranted at the Varsity Cleaners site.

Jenna Mead

EPA contractor

09/30/2020

Checklist Preparer Name

Checklist Preparer Organization

Date

EPA Regional Review and Pre-CERCLA Screening Decision

Add site to the Superfund active site inventory for completion of a:

- ☒ Standard/full preliminary assessment (PA)
☐ Abbreviated preliminary assessment (APA)
☐ Combined preliminary assessment/site inspection (PA/SI)
☐ Integrated removal assessment and preliminary assessment
☐ Integrated removal assessment and combined PA/SI
☐ Other: _____

Do not add site to the Superfund active site inventory. Site is:

- ☐ Not a valid site or incident
☐ Being addressed by EPA's removal program
☐ Being addressed by a state cleanup program
☐ Being addressed by a tribal cleanup program
☐ Being addressed under the Resource Conservation and Recovery Act
☐ Being addressed by the Nuclear Regulatory Commission
☐ Other: _____

Optional- Print name of EPA Site Assessor making this decision: _____

EPA Regional Approval: (Enter Date and then click this box to initiate digital signature stamp)

TODD DAVIS

Digitally signed by TODD

DAVIS

Date: 2021.05.27 15:28:05
-05'00'

Date

Site Description*(All text as entered on page A-2)*

The site, an active dry cleaning facility utilizing tetrachloroethene (PCE), is at 910 S. Gilbert Street in Iowa City, Iowa, and encompasses approximately 0.4 acre. The site is in a largely commercial area in the southern downtown area. A mixed-use commercial/residential building is north of the site, and apartments or single family homes are about one block to the east. Varsity Cleaners has operated at this site since the building was constructed in 1974. At that time, Varsity Cleaners moved to this facility from its previous facility at 17 E. Washington Street (since demolished). Iowa Department of Natural Resources (IDNR) conducted a compliance inspection visit in October 2019 and a follow-up visit in February 2020. Notice of violations were noted after May 20016 and October 2019 inspections. Clay, silt, and sand are present down to limestone bedrock at approximately 50 feet below ground surface (bgs). Soils have been modified by construction activities and are generally covered by buildings and pavement. Surface runoff at the site is to the west, toward Ralston Creek, across S. Gilbert Street from the site.

PCS Summary and Decision Rationale*(All text as entered on page A-4)*

The PCS indicated a release of volatile organic compounds to soil and groundwater at the site. PCE and TCE were also in indoor air samples collected at and near the facility. Because of the history of dry cleaning operations at the site (1974-present) and presence of PCE and trichloroethene in shallow groundwater and indoor air, further CERCLA assessment is warranted at the Varsity Cleaners site.

ATTACHMENT 1

IOWA AIR TOXICS SITE RECORDS



TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

April 3, 2013

Attn: Dave and Katie Geasland
Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240

RE: Dry Cleaner Compliance Assistance Visit
Facility No. 52-01-051

Dear Mr. and Mrs. Geasland:

On March 29, 2013, I met with Dave Geasland at your facility at 910 S. Gilbert in Iowa City, Iowa and conducted a dry cleaner compliance assistance visit.

The purpose of this compliance assistance visit was to ensure that your facility is aware of and complying with the 2008 changes to 40 CFR Part 63 Subpart M (Dry Cleaner NESHAP).

The enclosed Dry Cleaner Compliance Assistance Report indicates that some of the required recordkeeping and monitoring requirements were not being completed and/or documented. While at the facility I used a MiniRAE photoionization detector (PID) to perform leak testing of the dry cleaning machines. During the visit we identified leaks on both of the dry cleaning machines, the Bowe Permac P-25 and the Bowe Permac P-546. The locations and severity of the leaks are indicated on page 6 of the attached Dry Cleaner Compliance Assistance Visit Checklist (visit checklist). The following issues were also identified:

- The facility has not been documenting the weekly leak inspections.
- The facility has a hand held leak detector (TIF 5000) but it was obvious that the detector was not functioning properly.
- The facility is not draining the cartridge filters in their housing or another sealed container for a minimum of 24 hours before removing them.

Therefore, to be in compliance, the facility must do the following:

1. Complete the repair of these perceptible leaks within 24 hours and notify me at this office in writing (e-mail is acceptable) when the repairs are complete. If parts are needed, they are to be ordered within two days and installed within 5 days of receipt. Please note that for leaks for which the parts to repair the leak are not on hand, the parts must be ordered within two days of the detection of the leak and installed within five days of the receipt of the repair parts.
2. Document all weekly leak inspections as well as any leaks detected and the actions (including dates) taken to repair the leaks. Repair any and all leaks according to the timetable shown in #1.

RECEIVED
APR 09 2013
IDNR AIR QUALITY
HMK

Page 2 of 2

Dry Cleaner Compliance Assistance Visit Letter
Varsity Cleaners - 910 S. Gilbert, Iowa City
April 3, 2013


3. Either repair or replace the TIF 5000 hand held leak detector and maintain the equipment so it can be used to detect vapor leaks from the equipment. A hand held leak detector (halogenated hydrocarbon detector or PCE gas analyzer) must be used at least once per month to check for vapor leaks from the equipment. The areas to be tested are included in the Environmental Recordkeeping Calendar for Drycleaners which was provided to Mr. Geasland on the date of the site visit.
4. Keep in contact with the field office regarding the repair of the leaks that were noticed during the compliance assistance visit and make sure to document all information on detected leaks including when the leak was repaired, if parts needed to be ordered, when the parts were ordered, when any ordered parts were received, and the date that any parts that needed to be ordered were installed.
5. Drain the cartridge filters in their housing or another sealed container for a minimum of 24 hours before removal.
6. Monitor and document the refrigerated condenser outlet temperature on a weekly basis.

A follow up visit may be performed at the facility after the facility has addressed the above-mentioned items in order to verify the completion of the leak repairs and ensure that other areas of non-compliance have been corrected.

If you have any questions or would like further explanation of any part of this report, please contact me at 319-653-2135 or jon.ryk@dnr.iowa.gov

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU



Jon Ryk
Environmental Specialist

JPR: J:\Fo6\SHARED\JRYK\AQ\2013\Varsity Cleaners - Iowa City\Varsity Cleaners - 910 S Gilbert - Iowa City - Cover 04-13.doc

Picture Filename: N/A

Encl. ☒ Visit checklist

xc: ☒ AQB - DNR

☒ Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners

Dry Cleaning Compliance Assistance Visit

Owner/Operator: **Dave and Katie Geasland**
Facility Name: **Varsity Cleaners**
Facility No.: **52-01-051**
Plant Address: **910 S. Gilbert Street, Iowa City, IA 52240**
City: **Iowa City**
Telephone: **319-337-4153**

Mailing Address (if different than Plant Address): **SAME**
Street Address:
City/State:
Phone Number:

Date of Visit: **March 29, 2013**

1. Facility Is Not Subject To The Dry Cleaning NESHAP If:

- ☐ Dry Cleaner Is A Pick-Up Store Only
☐ Has only coin-operated dry cleaning machines that are operated by the customers

2. Use Table Below To Determine Size Of Facility (Based On Total Volume Of Perc Purchased Over The Last 12 Months Based On Actual Purchase Receipts. Facility Is Required To Have These Records On Hand)

APPLICABILITY	SMALL AREA SOURCE	LARGE AREA SOURCE	MAJOR SOURCE
FACILITIES WITH:	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>LESS THAN</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>EQUAL OR BETWEEN:</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>MORE THAN:</u>
Only Dry-to-Dry Machines	140 gallons	140-2,100 gallons	2,100 gallons (8,000 liters) PCE/year

Total volume of perchloroethylene (perc) purchased for ALL of the machines at this facility over the past 12 months: 160 gallons

Number of employees at this facility: 6 FTE (including owner) / 9 PTE

- ☐ SMALL AREA SOURCE
☒ LARGE AREA SOURCE (New)
☐ MAJOR SOURCE

3. Facility Information (This may be taken from the notifications if no changes have occurred)

Machine Type (dry to dry or transfer)	Date Machine Installed (New Source constructed on or after 12/9/91)	Required Control	Date Control Installed
Bowe Permac P-25	9/1/1999	Refrigerated Condenser	9/1/1999
Bowe Permac P-546	9/1/1999	Refrigerated Condenser	9/1/1999

DNR Staff: 

Date: 4/3/2013

Division Approval by: 

Date: 4/5/13

**Perc Dry Cleaner Requirements for
NEW SMALL AREA SOURCES AND NEW LARGE AREA SOURCES**

NOTIFICATION REQUIREMENTS

- ☒ Initial Notification Report Sent To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Pollution Prevention Compliance Report To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Control Equipment Compliance Report to DNR (Compliance Date: June 18, 1994)
- ☒ Facility Compliance Status Report to DNR (Compliance Date: July 28, 2008)

Subpart M §63.324: Reporting and recordkeeping requirements.

(a) Each owner or operator of a dry cleaning facility shall notify the Administrator or delegated State authority in writing within 270 calendar days after September 23, 1993 (i.e., June 18, 1994) and provide the following information: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) A brief description of the type of each dry cleaning machine at the dry cleaning facility; (4) Documentation as described in §63.323(d) of the yearly perchloroethylene consumption at the dry cleaning facility for the previous year to demonstrate applicability according to §63.320; or an estimation of perchloroethylene consumption for the previous year to estimate applicability with §63.320; (5) A description of the type of control device(s) that will be used to achieve compliance with §63.322 (a) or (b) and whether the control device(s) is currently in use or will be purchased; and (6) Documentation to demonstrate to the Administrator's satisfaction that each room enclosure used to meet the requirements of §63.322(a)(3) meets the requirements of §63.322(a)(3) (i) and (ii).

(b) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before the 30th day following the compliance dates specified in §63.320 (b) or (c) or June 18, 1994, whichever is later, a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d); (2) Whether or not they are in compliance with each applicable requirement of §63.322; and (3) All information contained in the statement is accurate and true.

(f) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before July 28, 2008 a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) If they are located in a building with a residence(s), even if the residence is vacant at the time of this notification; (4) If they are located in a building with no other tenants, leased space, or owner occupants; (5) Whether they are a major or area source; (6) The yearly PCE solvent consumption based upon the yearly solvent consumption calculated according to §63.323(d); (7) Whether or not they are in compliance with each applicable requirement of §63.322; and (8) All information contained in the statement is accurate and true.

Comments: The owner completed and submitted the Notification of Compliance Status Report on the day of the compliance assistance visit (March 29, 2013) which fulfills the notification requirement.

CONTROL EQUIPMENT REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable
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Requirement:

Dry cleaning system must be equipped with a refrigerated condenser.

Any perc dry cleaning machine installed after September 22, 1993 must be a dry-to-dry machine.

After July 27, 2006 a non-vented carbon adsorber must be added to a dry cleaning system installed after December 21, 2005. Gas and vapors from inside the drum must be passed through the adsorber before opening the door.

Subpart M §63.322: Standards.

(b) The owner or operator of each new dry-to-dry machine and its ancillary equipment and of each new transfer machine system and its ancillary equipment installed after September 22, 1993:

(1) Shall route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser or an equivalent control device;

(2) Shall eliminate any emission of perchloroethylene during the transfer of articles between the washer and dryer(s).

(c)(2) The owner or operator of each dry cleaning system installed after December 21, 2005, at an area source shall route the air-PCE gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser and pass the air-PCE gas-vapor stream from inside the dry cleaning machine drum through a non-vented carbon adsorber or equivalent control device immediately before the door of the dry cleaning machine is opened. The carbon adsorber must be desorbed in accordance with manufacturer's instructions.

Comments: None

POLLUTION PREVENTION REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Keep machine doors closed at all times except when transferring clothes.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate and maintain system according to manufacturer's specifications and recommendations.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate the refrigerated condenser so that the air/Perc mixture contained inside the dry cleaning machine is not vented to the atmosphere while the drum is rotating.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Drain cartridge filters in their housing or other sealed container <u>for 24 hours</u> before removing from facility.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Store all perc solvent and waste in sealed containers.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintain on-site a copy of the design specifications and operating manuals for each machine and control device at facility.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 28, 2008 transfer machine systems using perc are no longer allowed to be operated.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 27, 2009 dry cleaning machines using perc that were installed between December 21, 2005 and July 13, 2006 are no longer allowed to be operated in a building with a residence. No dry cleaning machines using perc have been allowed to be installed in any building with a residence since July 13, 2006.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After December 21, 2020, dry cleaning machines using perc that were installed before December 21, 2005 are no longer allowed to be operated in a building with a residence.

Subpart M §63.322: Standards.

- (c) The owner or operator shall close the door of each dry cleaning machine immediately after transferring articles to or from the machine, and shall keep the door closed at all other times.
- (d) The owner or operator of each dry cleaning system shall operate and maintain the system according to the manufacturers' specifications and recommendations.
- (e) Each refrigerated condenser used for the purposes of complying with paragraph (a) or (b) of this section and installed on a dry-to-dry machine, dryer, or reclaimers:
- (e)(1) Shall be operated to not vent or release the air-perchloroethylene gas-vapor stream contained within the dry cleaning machine to the atmosphere while the dry cleaning machine drum is rotating;
- (e)(2) Shall be monitored according to §63.323(a)(1); and
- (e)(3) Shall prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
- (f) The owner or operator of an affected facility shall drain all cartridge filters in their housing, or other sealed container, for a minimum of 24 hours, or shall treat such filters in an equivalent manner, before removal from the dry cleaning facility.
- (g) The owner or operator of an affected facility shall store all perchloroethylene and wastes that contain perchloroethylene in solvent tanks or solvent containers with no perceptible leaks. The exception to this requirement is that containers for separator water may be uncovered, as necessary, for proper operation of the machine and still.
- (o)(3) The owner or operator of any dry cleaning system shall eliminate any emission of PCE during the transfer of articles between the washer and the dryer(s) or reclaimers(s).
- (o)(4) The owner or operator shall eliminate any emission of PCE from any dry cleaning system that is installed (including relocation of a used machine) after December 21, 2005, and that is located in a building with a residence.
- (o)(5)(i) After December 21, 2020, the owner or operator shall eliminate any emission of PCE from any dry cleaning system that is located in a building with a residence.

Subpart M §63.324: Reporting and recordkeeping requirements.

- (e) Each owner or operator of a dry cleaning facility shall retain onsite a copy of the design specifications and the operating manuals for each dry cleaning system and each emission control device located at the dry cleaning facility.

Comments: The owner mentioned that he drains the filters in their housing for 12 to 18 hours before removing them. I informed him that the filters need to be drained for a full 24 hours before removal.

CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On a weekly basis monitor the refrigerated condenser high and low pressure OR measure the refrigerated condenser outlet temperature before the end of the cool down or drying cycle. Record the results.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If pressure is used, the pressure must be maintained within the manufacturer's specified range.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If temperature is used, the outlet temperature should be equal to or less than 45°F.

Subpart M §63.323: Test methods and monitoring.

(a) When a refrigerated condenser is used to comply with §63.322(a)(1) or (b)(1):

(a)(1) The owner or operator shall monitor on a weekly basis the parameters in either paragraph (a)(1)(i) or (ii) of this section.

(i) The refrigeration system high pressure and low pressure during the drying phase to determine if they are in the range specified in the manufacturer's operating instructions.

(ii) The temperature of the air-perchloroethylene gas-vapor stream on the outlet side of the refrigerated condenser on a dry-to-dry machine, dryer, or reclaimer with a temperature sensor to determine if it is equal to or less than 7.2 °C (45 °F) before the end of the cool-down or drying cycle while the gas-vapor stream is flowing through the condenser. The temperature sensor shall be used according to the manufacturer's instructions and shall be designed to measure a temperature of 7.2 °C (45 °F) to an accuracy of ±1.1 °C (±2 °F).

Subpart M §63.324: Reporting and recordkeeping requirements.

Maintain a log of the following information and keep it on file for a period of five years.

(d)(5) The date and monitoring results (temperature sensor or pressure gauge), as specified in §63.323 if a refrigerated condenser is used to comply with §63.322(a), (b) or (c).

Comments: None.

INSPECTION AND MAINTENANCE REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Conduct a weekly inspection of the dry cleaning system for perceptible leaks while the dry cleaning system is in operation. <u>Document the results of the inspections.</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A halogenated hydrocarbon detector or PCE gas analyzer shall be used to check for vapor leaks once a month. This monitoring can replace one of the weekly inspections. This monitoring must commence by July 27, 2006 for systems installed after December 21, 2005 and by July 28, 2008 for systems installed between December 9, 1991 and December 21, 2005.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Repair any perceptible leaks discovered during these inspections within 24 hours. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Document any repair work. If the dry cleaning system pressure, temperature or perc concentration are out of compliance with the applicable standard, adjustments or repairs must be made. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt. Document any repair work.

Subpart M §63.322: Standards.

(k) The owner or operator of a dry cleaning system shall inspect the following components weekly for perceptible leaks while the dry cleaning system is operating:

- (k)(1) Hose and pipe connections, fittings, couplings, and valves;
- (k)(2) Door gaskets and seatings;
- (k)(3) Filter gaskets and seatings;
- (k)(4) Pumps;
- (k)(5) Solvent tanks and containers;
- (k)(6) Water separators;
- (k)(7) Muck cookers;
- (k)(8) Stills;
- (k)(9) Exhaust dampers;
- (k)(10) Diverter valves; and
- (k)(11) Cartridge filter housings.

(m) The owner or operator of a dry cleaning system shall repair all perceptible leaks detected under paragraph (k) or (o)(1) of this section within 24 hours. If repair parts must be ordered, either a written or verbal order for those parts shall be initiated within 2 working days of detecting such a leak. Such repair parts shall be installed within 5 working days after receipt.

(n) If parameter values monitored under paragraphs (e), (f), or (g) of this section do not meet the values specified in §63.323(a), (b), or (c), adjustments or repairs shall be made to the dry cleaning system or control device to meet those values. If repair parts must be ordered, either a written or verbal order for such parts shall be initiated within 2 working days of detecting such a parameter value. Such repair parts shall be installed within 5 working days after receipt.

(o)(1) After July 28, 2008 the owner or operator of a dry cleaning system shall inspect the components listed in paragraph (k) of this section for vapor leaks monthly while the component is in operation.

(i) Area sources shall conduct the inspections using a halogenated hydrocarbon detector or PCE gas analyzer that is operated according to the manufacturer's instructions. The operator shall place the probe inlet at the surface of each component interface where leakage could occur and move it slowly along the interface periphery.

(iii) Any inspection conducted according to this paragraph shall satisfy the requirements to conduct an inspection for perceptible leaks under §63.322(k) or (l) of this subpart.

Subpart M §63.324: Reporting and recordkeeping requirements.

(d)(3) The dates when the dry cleaning system components are inspected for perceptible leaks, as specified in §63.322(k) or (l), and the name or location of dry cleaning system components where perceptible leaks are detected;

(d)(4) The dates of repair and records of written or verbal orders for repair parts to demonstrate compliance with §63.322(m) and (n)

Comments: The owner has reportedly been performing weekly inspections for leaks but has not been documenting them. He also had a TIF 5000 leak detector at the facility but it was apparent that the leak detector was not functioning properly. I utilized a MiniRAE photoionization detector (PID) to locate leaks. The owner's leak detector was not detecting leaks where the PID identified significant leaks (where an odor was detected) and it was detecting leaks in the office at the dry cleaning facility which was well away from the dry cleaning machines. The owner was informed that his leak detector was not providing valid information and that it would need to be repaired or replaced.

The following leaks were detected at the indicated dry cleaning machine using a MiniRAE photoionization detector (PID):

Bowe Permac P-25

- Still watch glass (600 ppm)
- Water separator watch glass (300 ppm)
- Still door (Muck door) (121 ppm)
- Seal on filter (50 ppm)

Bowe Permac P-546

- Still watch glass (1052 ppm)
- Still door (Muck door) (714 ppm)
- #5 Angle Valve (141 ppm)
- Large filter (74 ppm)
- #30 Angle Valve (38 ppm)
- Small filter (30 ppm)
- Front door seal – top (28 ppm)

RECORD KEEPING AND REPORTING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each month calculate the sum of the volume of perc purchased during the previous 12 month period. Maintain purchase receipts, a log showing the monthly purchase volumes and a record of the monthly calculations.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Submit a notice of compliance status to the DNR if the facility exceeds the perc consumption limits for a large area source and becomes a major source.

Subpart M §63.323 Test methods and monitoring.

(d) When calculating yearly perchloroethylene consumption for the purpose of demonstrating applicability according to §63.320, the owner or operator shall perform the following calculation on the first day of every month:

(d)(1) Sum the volume of all perchloroethylene purchases made in each of the previous 12 months, as recorded in the log described in §63.324(d)(1).

(d)(2) If no perchloroethylene purchases were made in a given month, then the perchloroethylene consumption for that month is zero gallons.

(d)(3) The total sum calculated in paragraph (d) of this section is the yearly perchloroethylene consumption at the facility.

Subpart M §63.324: Reporting and recordkeeping requirements.

(c) Each owner or operator of an area source dry cleaning facility that exceeds the solvent consumption limit reported in paragraph (b) of this section shall submit to the Administrator or a delegated State authority by registered mail on or before the dates specified in §63.320 (f) or (i), a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy:

(1) The new yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d);

(2) Whether or not they are in compliance with each applicable requirement of §63.322; and

(3) All information contained in the statement is accurate and true.

(d) Each owner or operator of a dry cleaning facility shall keep receipts of perchloroethylene purchases and a log of the following information and maintain such information on site and show it upon request for a period of 5 years:

(d)(1) The volume of perchloroethylene purchased each month by the dry cleaning facility as recorded from perchloroethylene purchases; if no perchloroethylene is purchased during a given month then the owner or operator would enter zero gallons into the log;

(d)(2) The calculation and result of the yearly perchloroethylene consumption determined on the first day of each month as specified in §63.323(d);

Comments: The owner was keeping records of perc purchases but the rolling 12-month total was not being calculated properly. The owner was instructed on how to determine the 12-month rolling total and where in the Environmental Compliance Calendar to document the perc usage information.

Regulatory Assistance for Dry Cleaners can be obtained at the University of Northern Iowa – Iowa Waste Reduction Center website (<http://www.iwrc.org/index.cfm/services/iaeap/dry-cleaning/>). At the site you can view a tutorial, read and print out a compliance manual, and print out a compliance calendar.



A. S. W. S. / Initials _____
FACILITY ID _____
WK ACT / Doc Code _____

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

November 26, 2013

Attn: Dave and Katie Geasland
Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240

RE: Dry Cleaner Follow-Up Visit - November 13, 2013
Facility No. 52-01-051

Dear Mr. and Mrs. Geasland:

On November 13, 2013, I met with Dave Geasland at your facility at 910 S. Gilbert in Iowa City, Iowa and conducted a dry cleaner compliance follow up visit.

The purpose of this follow up visit was to evaluate the facility with respect to the actions taken to meet the requirements in 40 CFR Part 63 Subpart M (Dry Cleaner NESHAP).

The facility is keeping records of the perc purchases and the 12-month rolling totals for the perc purchases. In addition, the facility had records indicating that the weekly monitoring of the refrigerated condenser outlet temperature is being performed. The records of the leak inspections appeared to be kept but there were a few weeks with missing records.

During the visit I performed a leak inspection on the two dry cleaning machines (Bowe Permac P-25 and Bowe Permac P-546) and Mr. Geasland also used his hand held leak detector to check for leaks in the dry cleaning machines. I utilized a MiniRAE photoionization detector (PID) to perform leak testing of the dry cleaning machines. During the visit leaks were identified on both of the machines. The Bowe Permac P-25 machine had a leak at a union of one of the pipes on the still. The PID meter indicated a concentration of about 114 ppm of perchloroethylene at this location. Mr. Geasland tightened the union and stopped the leak during the visit. The Bowe Permac P-546 had a leak near the upper seal on the door which Mr. Geasland fixed at the time of the visit. It also had a leak at the unions of some piping immediately left of the water separator. The PID meter indicted a concentration of about 170 ppm at this location.

Therefore, to be in compliance, the facility must do the following:

1. Complete the repair of these perceptible leaks within 24 hours and notify me at this office in writing (e-mail is acceptable) when the repairs are complete. If parts are needed, they are to be ordered within two days and installed within 5 days of receipt. Please note that for leaks for which the parts to repair the leak are not on hand, the parts must be ordered within two days of the detection of the leak and installed within five days of the receipt of the repair parts.

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Field Office #6 1023 W Madison St Washington, IA 52353-1623
PH 319-653-2135 FAX 319-653-2856 www.iowadnr.gov

DEC 02 2013

IDNR AIR QUALITY

Page 2 of 2

Dry Cleaner Compliance Assistance Visit Letter
Varsity Cleaners - 910 S. Gilbert, Iowa City
November 13, 2013

2. Document all weekly leak inspections as well as any leaks detected and the actions (including dates) taken to repair the leaks. Repair any and all leaks according to the timetable shown in #1.
3. Keep in contact with the field office regarding the repair of the leaks that were noticed during the follow up visit and make sure to document all information on detected leaks including when the leak was repaired, if parts needed to be ordered, when the parts were ordered, when any ordered parts were received, and the date that any parts that needed to be ordered were installed. Make sure to document the outcome of all detected leaks and the actions taken to repair the leaks on the Dry Cleaning Compliance Calendar.

Another item noticed during the visit was that the hand held leak detector appeared to be having some issues. It was determined later that the machine just needed to run for a while to clear the sensor. It is highly recommended that the machine be properly maintained to ensure that it is functioning properly. It may require letting the leak detector to run for a while in a clean air setting to clear the sensor before shutting the machine down. Any issues with the leak detector should be addressed through the manufacturer.

A follow up visit may be performed at the facility after the facility has addressed the above-mentioned items in order to verify the completion of the leak repairs and ensure that other areas of non-compliance have been corrected.

If you have any questions or would like further explanation of any part of this letter, please contact me at 319-653-2135 or jon.ryk@dnr.iowa.gov

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU



Jon Ryk
Environmental Specialist

JPR: J:\Fo6\SHARED\JRYK\AQ\2013\Varsity Cleaners - Iowa City\Varsity Cleaners - 910 S Gilbert - Iowa City - Visit Ltr 11-13.doc

Picture Filename: N/A

xc: ~~AOB~~ - DNR

Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners



Fields of Opportunities

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

STATE OF IOWA

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

MEMO

DATE: November 20, 2013
TO: MEMO TO FILE
FROM: Jon Ryk, ES JPR
RE: November 13, 2013 Dry Cleaner Visit
FACILITY: Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240
Facility No. 52-01-051

Wednesday, November 13, 2013:

~1130: I arrived at Varsity Cleaners and met with Mr. Dave Geasland, the owner of the business.

The purpose of the follow up visit was to evaluate the facility with respect to the actions taken to meet the requirements in 40 CFR Part 63 Subpart M (Dry Cleaner NESHA).

Mr. Geasland provided records for review. The facility is keeping records of the perc purchases and the 12-month rolling totals for the perc purchases. In addition, the facility had records indicating that the weekly monitoring of the refrigerated condenser outlet temperature is being performed. The records of the leak inspections appeared to be kept but there were a few weeks with missing records.

During the visit I performed a leak inspection on the two dry cleaning machines (Bowe Permac P-25 and Bowe Permac P-546) and Mr. Geasland also used his hand held leak detector to check for leaks in the dry cleaning machines. I utilized a MiniRAE photoionization detector (PID) to perform leak testing of the dry cleaning machines. During the visit leaks were identified on both of the machines. The Bowe Permac P-25 machine had a leak at a union of one of the pipes on the still. The PID meter indicated a concentration of about 114 ppm of perchloroethylene at this location. Mr. Geasland tightened the union and stopped the leak during the visit. The Bowe Permac P-546 had a leak near the upper seal on the door which Mr. Geasland fixed at the time of the visit. It also had a leak at the unions of some piping immediately left of the water separator. The PID meter indicted a concentration of about 170 ppm at this location.

Another item noticed during the visit was that the hand held leak detector appeared to be having some issues. It was determined later that the machine just needed to run for a while to clear the sensor. It is highly recommended that the machine be properly maintained to ensure that it is functioning properly. It may require letting the leak detector to run for a while in a clean air setting to clear the sensor before shutting the machine down. Any issues with the leak detector should be addressed through the manufacturer.

I went over the issues identified with Mr. Geasland before leaving.

JPR: J:\Fo6\SHARED\JRYK\AQ\2013\Varsity Cleaners - Iowa City\Visit Memo - Varsity Cleaners DC Visit 11-13-13.doc

xc: LAQB - DNR

Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners

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STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

May 19, 2016

R. SERIES / Initials Con 10-1 i KB
FACILITY ID 52-01-051
NK ACT / Doc Code CO 1 IS

Attn: Dave and Katie Geasland
Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240

RE: Dry Cleaner Compliance Evaluation Visit
Facility No. 52-01-051

LETTER OF NON-COMPLIANCE

Dear Mr. and Mrs. Geasland:

On May 18, 2016, I met with Dave Geasland at your facility at 910 S. Gilbert in Iowa City, Iowa and conducted a dry cleaner air quality compliance evaluation visit.

The purpose of this air quality compliance evaluation visit was to ensure that your facility is aware of and complying with the 2008 changes to 40 CFR Part 63 Subpart M (Dry Cleaner NESHAP).

The enclosed Dry Cleaner Compliance Evaluation Report indicates that some of the required recordkeeping and monitoring requirements were not being completed and/or documented. While at the facility I used a MiniRAE photoionization detector (PID) to perform leak testing of the dry cleaning machines. During the visit we identified leaks on both of the dry cleaning machines, the Bowe Permac P-25 and the Bowe Permac P-546. The locations and severity of the leaks are indicated on page 6 of the attached Dry Cleaner Compliance Evaluation Visit Checklist (visit checklist). The following issues were also identified:

- The facility has not been performing and documenting the weekly leak inspections.
- The facility has not been documenting the 12-month rolling totals of the perchloroethylene (perc) purchases.

Therefore, to be in compliance, the facility must do the following:

1. Complete the repair of these perceptible leaks within 24 hours. If parts are needed, they are to be ordered within two days and installed within 5 days of receipt. Please note that for leaks for which the parts to repair the leak are not on hand, the parts must be ordered within two days of the detection of the leak and installed within five days of the receipt of the repair parts. All of the above must be documented and the documentation kept at the facility.

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MAY 23 2016

Field Office #6 1023 W Madison St Washington, IA 52353-1623
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IDNR AIR QUALITY

Dry Cleaner Compliance Evaluation Visit - Letter of Non-Compliance

Varsity Cleaners - 910 S. Gilbert, Iowa City

May 19, 2016

- 2'. Document all weekly leak inspections as well as any leaks detected and the actions (including dates) taken to repair the leaks. Repair any and all leaks according to the timetable shown in #1.
3. A hand held leak detector (halogenated hydrocarbon detector or PCE gas analyzer) must be used at least once per month to check for vapor leaks from the equipment. The areas to be tested are included in the Environmental Recordkeeping Calendar for Drycleaners which is included with this letter.
4. Keep records of perc purchases and keep a rolling 12-month total of perc purchases. The included Environmental Recordkeeping Calendar for Drycleaning Facilities includes information on how to document the 12-month rolling totals and has all of the monthly monitoring worksheets and logs with which to document the perc purchases rolling total and the other required documentation.

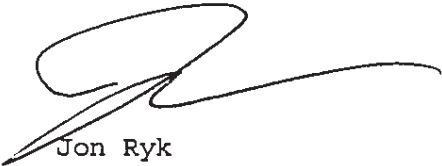
The facility must provide written documentation to the field office when the above-mentioned items have been corrected so that a follow up visit can be performed in order to verify that the facility has addressed the areas of non-compliance.

Failure to comply with the requirements of this letter may result in this matter being considered for referral to DNR's Legal Services Bureau in Des Moines for additional enforcement action. Additional enforcement actions typically include the requirement to address all areas of non-compliance and a monetary penalty of up to \$10,000.

If you have any questions or would like further explanation of any part of this report, please contact me at 319-653-2135 or jon.ryk@dnr.iowa.gov

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU



Jon Ryk
Environmental Specialist

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Cleaners - Iowa City\Varsity Cleaners - 910 S Gilbert - Iowa City - Cover 05-
16.doc

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Encl. Visit checklist
Environmental Recordkeeping Calendar for Drycleaning Facilities

xc: AQB - DNR
Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
AIR QUALITY COMPLIANCE INSPECTION
FIELD OFFICE # 6

FACILITY # 52-01-051

OPERATING PERMIT # NA

Company Name: Varsity Cleaners

Company Address: 910 S. Gilbert Street, Iowa City, IA 52240

Plant Address: SAME AS ABOVE

Process and/or Product Type: Dry Cleaner

Facility Classification: ☐ Title V ☐ SM 80 ☒ Minor

Deficiencies Noted During Inspection: Yes ☒ No ☐ (If yes, list deficiencies below)

EP	EP Description	Permit	Deficiency	FRV
NA	Dry Cleaning Machine	NA	Not performing weekly leak inspections on Dry Cleaning Machine	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
NA	Dry Cleaning Machine	NA	Not keeping 12-month rolling totals of perchloroethylene purchases	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
NA	Dry Cleaning Machine	NA	Perceptible leaks identified during 5/18//16 compliance evaluation visit.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>

A Federally Reportable Violation (FRV) as defined in the FRV Policy dated September 23, 2014 - EPA Guidance on Federally-Reportable Violations for Clean Air Act Sources.

VISIT NUMBER: 1

Inspection Type: Dry Clean
Inspection Date: 5/18/16
Time Arrive: 1020
Wind Speed & Direction: NNE 7mph
Weather Conditions: Partly Cloudy
Inspection status: Partial
Time Depart: 1110

Persons Contacted: Dave Geasland

Phone: 319-337-4153

Inspector's Signature: 
Jon Ryk, Environmental Specialist

Date: 5/19/2016

Reviewed by: 
Kurt Levetzow, Environmental Specialist Senior

Date: 5/20/16

Dry Cleaning Compliance Evaluation Visit

Owner/Operator: **Dave and Katie Geasland**
Facility Name: **Varsity Cleaners**
Facility No.: **52-01-051**
Plant Address: **910 S. Gilbert Street, Iowa City, IA 52240**
City: **Iowa City**
Telephone: **319-337-4153**

Mailing Address (if different than Plant Address): **SAME AS ABOVE**

Street Address:

City/State:

Phone Number:

Date of Visit: May 18, 2016

1. Facility Is Not Subject To The Dry Cleaning NESHAP If:

☐ Dry Cleaner Is A Pick-Up Store Only

☐ Has only coin-operated dry cleaning machines that are operated by the customers

2. Use Table Below To Determine Size Of Facility (Based On Total Volume Of Perc Purchased Over The Last 12 Months Based On Actual Purchase Receipts. Facility Is Required To Have These Records On Hand)

APPLICABILITY	SMALL AREA SOURCE	LARGE AREA SOURCE	MAJOR SOURCE
FACILITIES WITH:	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>LESS THAN</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>EQUAL OR BETWEEN:</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>MORE THAN:</u>
Only Dry-to-Dry Machines	140 gallons	140-2,100 gallons	2,100 gallons (8,000 liters) PCE/year

Total volume of perchloroethylene (perc) purchased for ALL of the machines at this facility over the past 12 months: 160 gallons

Number of employees at this facility: 6 FTE (including owner) / 9 PTE

☐ SMALL AREA SOURCE

☒ LARGE AREA SOURCE (New)

☐ MAJOR SOURCE

3. Facility Information (This may be taken from the notifications if no changes have occurred)

Machine Type (dry to dry or transfer)	Date Machine Installed (New Source constructed on or after 12/9/91)	Required Control	Date Control Installed
Bowe Permac P-25	9/1/1999	Refrigerated Condenser	9/1/1999
Bowe Permac P-546	9/1/1999	Refrigerated Condenser	9/1/1999

DNR Staff: [Signature]

Date: 5/19/2016

Division Approval by: _____

Date: _____

**Perc Dry Cleaner Requirements for
NEW SMALL AREA SOURCES AND NEW LARGE AREA SOURCES**

NOTIFICATION REQUIREMENTS

- ☒ Initial Notification Report Sent To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Pollution Prevention Compliance Report To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Control Equipment Compliance Report to DNR (Compliance Date: June 18, 1994)
- ☒ Facility Compliance Status Report to DNR (Compliance Date: July 28, 2008)

Subpart M §63.324: Reporting and recordkeeping requirements.

(a) Each owner or operator of a dry cleaning facility shall notify the Administrator or delegated State authority in writing within 270 calendar days after September 23, 1993 (i.e., June 18, 1994) and provide the following information: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) A brief description of the type of each dry cleaning machine at the dry cleaning facility; (4) Documentation as described in §63.323(d) of the yearly perchloroethylene consumption at the dry cleaning facility for the previous year to demonstrate applicability according to §63.320; or an estimation of perchloroethylene consumption for the previous year to estimate applicability with §63.320; (5) A description of the type of control device(s) that will be used to achieve compliance with §63.322 (a) or (b) and whether the control device(s) is currently in use or will be purchased; and (6) Documentation to demonstrate to the Administrator's satisfaction that each room enclosure used to meet the requirements of §63.322(a)(3) meets the requirements of §63.322(a)(3) (i) and (ii).

(b) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before the 30th day following the compliance dates specified in §63.320 (b) or (c) or June 18, 1994, whichever is later, a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d); (2) Whether or not they are in compliance with each applicable requirement of §63.322; and (3) All information contained in the statement is accurate and true.

(f) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before July 28, 2008 a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) If they are located in a building with a residence(s), even if the residence is vacant at the time of this notification; (4) If they are located in a building with no other tenants, leased space, or owner occupants; (5) Whether they are a major or area source; (6) The yearly PCE solvent consumption based upon the yearly solvent consumption calculated according to §63.323(d); (7) Whether or not they are in compliance with each applicable requirement of §63.322; and (8) All information contained in the statement is accurate and true.

Comments: None.

CONTROL EQUIPMENT REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Requirement:

Dry cleaning system must be equipped with a refrigerated condenser.

Any perc dry cleaning machine installed after September 22, 1993 must be a dry-to-dry machine.

After July 27, 2006 a non-vented carbon adsorber must be added to a dry cleaning system installed after December 21, 2005. Gas and vapors from inside the drum must be passed through the adsorber before opening the door.

Subpart M §63.322: Standards.

(b) The owner or operator of each new dry-to-dry machine and its ancillary equipment and of each new transfer machine system and its ancillary equipment installed after September 22, 1993:

(1) Shall route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser or an equivalent control device;

(2) Shall eliminate any emission of perchloroethylene during the transfer of articles between the washer and dryer(s).

(o)(2) The owner or operator of each dry cleaning system installed after December 21, 2005, at an area source shall route the air-PCE gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser and pass the air-PCE gas-vapor stream from inside the dry cleaning machine drum through a non-vented carbon adsorber or equivalent control device immediately before the door of the dry cleaning machine is opened. The carbon adsorber must be desorbed in accordance with manufacturer's instructions.

Comments: None

POLLUTION PREVENTION REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Keep machine doors closed at all times except when transferring clothes.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate and maintain system according to manufacturer's specifications and recommendations.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate the refrigerated condenser so that the air/perc mixture contained inside the dry cleaning machine is not vented to the atmosphere while the drum is rotating.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drain cartridge filters in their housing or other sealed container <u>for 24 hours</u> before removing from facility.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Store all perc solvent and waste in sealed containers.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintain on-site a copy of the design specifications and operating manuals for each machine and control device at facility.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 28, 2008 transfer machine systems using perc are no longer allowed to be operated.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 27, 2009 dry cleaning machines using perc that were installed between December 21, 2005 and July 13, 2006 are no longer allowed to be operated in a building with a residence. No dry cleaning machines using perc have been allowed to be installed in any building with a residence since July 13, 2006.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After December 21, 2020, dry cleaning machines using perc that were installed before December 21, 2005 are no longer allowed to be operated in a building with a residence.

Subpart M §63.322: Standards.

- (c) The owner or operator shall close the door of each dry cleaning machine immediately after transferring articles to or from the machine, and shall keep the door closed at all other times.
- (d) The owner or operator of each dry cleaning system shall operate and maintain the system according to the manufacturers' specifications and recommendations.
- (e) Each refrigerated condenser used for the purposes of complying with paragraph (a) or (b) of this section and installed on a dry-to-dry machine, dryer, or reclaimers:
- (e)(1) Shall be operated to not vent or release the air-perchloroethylene gas-vapor stream contained within the dry cleaning machine to the atmosphere while the dry cleaning machine drum is rotating;
- (e)(2) Shall be monitored according to §63.323(a)(1); and
- (e)(3) Shall prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
- (f) The owner or operator of an affected facility shall drain all cartridge filters in their housing, or other sealed container, for a minimum of 24 hours, or shall treat such filters in an equivalent manner, before removal from the dry cleaning facility.
- (g) The owner or operator of an affected facility shall store all perchloroethylene and wastes that contain perchloroethylene in solvent tanks or solvent containers with no perceptible leaks. The exception to this requirement is that containers for separator water may be uncovered, as necessary, for proper operation of the machine and still.
- (h)(3) The owner or operator of any dry cleaning system shall eliminate any emission of PCE during the transfer of articles between the washer and the dryer(s) or reclaimers(s).
- (i)(4) The owner or operator shall eliminate any emission of PCE from any dry cleaning system that is installed (including relocation of a used machine) after December 21, 2005, and that is located in a building with a residence.
- (j)(5)(i) After December 21, 2020, the owner or operator shall eliminate any emission of PCE from any dry cleaning system that is located in a building with a residence.

Subpart M §63.324: Reporting and recordkeeping requirements.

- (a) Each owner or operator of a dry cleaning facility shall retain onsite a copy of the design specifications and the operating manuals for each dry cleaning system and each emission control device located at the dry cleaning facility.

Comments: None.

CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On a weekly basis monitor the refrigerated condenser high and low pressure OR measure the refrigerated condenser outlet temperature before the end of the cool down or drying cycle. Record the results.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If pressure is used, the pressure must be maintained within the manufacturer's specified range.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If temperature is used, the outlet temperature should be equal to or less than 45°F.

Subpart M §63.323: Test methods and monitoring.

(a) When a refrigerated condenser is used to comply with §63.322(a)(1) or (b)(1):

(a)(1) The owner or operator shall monitor on a weekly basis the parameters in either paragraph (a)(1)(i) or (ii) of this section.

(i) The refrigeration system high pressure and low pressure during the drying phase to determine if they are in the range specified in the manufacturer's operating instructions.

(ii) The temperature of the air-perchloroethylene gas-vapor stream on the outlet side of the refrigerated condenser on a dry-to-dry machine, dryer, or reclaiming machine with a temperature sensor to determine if it is equal to or less than 7.2 °C (45 °F) before the end of the cool-down or drying cycle while the gas-vapor stream is flowing through the condenser. The temperature sensor shall be used according to the manufacturer's instructions and shall be designed to measure a temperature of 7.2 °C (45 °F) to an accuracy of ±1.1 °C (±2 °F).

Subpart M §63.324: Reporting and recordkeeping requirements.

Maintain a log of the following information and keep it on file for a period of five years.

(d)(5) The date and monitoring results (temperature sensor or pressure gauge), as specified in §63.323 if a refrigerated condenser is used to comply with §63.322(a), (b) or (c).

Comments: The facility was recording the outlet temperature weekly.

INSPECTION AND MAINTENANCE REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Conduct a weekly inspection of the dry cleaning system for perceptible leaks while the dry cleaning system is in operation. <u>Document the results of the inspections.</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A halogenated hydrocarbon detector or PCE gas analyzer shall be used to check for vapor leaks once a month. This monitoring can replace one of the weekly inspections. This monitoring must commence by July 27, 2006 for systems installed after December 21, 2005 and by July 28, 2008 for systems installed between December 9, 1991 and December 21, 2005.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Repair any perceptible leaks discovered during these inspections within 24 hours. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt. Document any repair work.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the dry cleaning system pressure, temperature or perc concentration are out of compliance with the applicable standard, adjustments or repairs must be made. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt. Document any repair work.

Subpart M §63.322: Standards.

(k) The owner or operator of a dry cleaning system shall inspect the following components weekly for perceptible leaks while the dry cleaning system is operating:

- (k)(1) Hose and pipe connections, fittings, couplings, and valves;
- (k)(2) Door gaskets and seatings;
- (k)(3) Filter gaskets and seatings;
- (k)(4) Pumps;
- (k)(5) Solvent tanks and containers;
- (k)(6) Water separators;
- (k)(7) Muck cookers;
- (k)(8) Stills;
- (k)(9) Exhaust dampers;
- (k)(10) Diverter valves; and
- (k)(11) Cartridge filter housings.

(m) The owner or operator of a dry cleaning system shall repair all perceptible leaks detected under paragraph (k) or (o)(1) of this section within 24 hours. If repair parts must be ordered, either a written or verbal order for those parts shall be initiated within 2 working days of detecting such a leak. Such repair parts shall be installed within 5 working days after receipt.

(n) If parameter values monitored under paragraphs (e), (f), or (g) of this section do not meet the values specified in §63.323(a), (b), or (c), adjustments or repairs shall be made to the dry cleaning system or control device to meet those values. If repair parts must be ordered, either a written or verbal order for such parts shall be initiated within 2 working days of detecting such a parameter value. Such repair parts shall be installed within 5 working days after receipt.

(o)(1) After July 28, 2008 the owner or operator of a dry cleaning system shall inspect the components listed in paragraph (k) of this section for vapor leaks monthly while the component is in operation.

(i) Area sources shall conduct the inspections using a halogenated hydrocarbon detector or PCE gas analyzer that is operated according to the manufacturer's instructions. The operator shall place the probe inlet at the surface of each component interface where leakage could occur and move it slowly along the interface periphery.

(iii) Any inspection conducted according to this paragraph shall satisfy the requirements to conduct an inspection for perceptible leaks under §63.322(k) or (l) of this subpart.

Subpart M §63.324: Reporting and recordkeeping requirements.

(d)(3) The dates when the dry cleaning system components are inspected for perceptible leaks, as specified in §63.322(k) or (l), and the name or location of dry cleaning system components where perceptible leaks are detected;

(d)(4) The dates of repair and records of written or verbal orders for repair parts to demonstrate compliance with §63.322(m) and (n)

Comments: The facility has not been doing or documenting the weekly leak inspections. The facility did not have a drycleaning recordkeeping calendar. The facility should ensure that they are using the correct setting (high or low) on the hand held leak detector to do leak inspections. It is recommended that they consult the owners manual to ensure that they are using the appropriate settings. It is also recommended that they maintain and operate their hand held leak detector according to the manufacturer's recommendations including the care and replacement of the sensor in the unit.

The following leaks were detected at the indicated dry cleaning machine using a MiniRAE photoionization detector (PID):

Bowe Permac P-25

- Still watch glass (97 ppm) (600 ppm last inspection)

Bowe Permac P-546

- Coupler by # 47/1 Angle Valve (151 ppm)
- Piping Elbow leading to separator (right side) (397 ppm)
- Pressure fitting above separator (right side) (1155 ppm)
- Angle valve from perc container to still (100 ppm)

RECORD KEEPING AND REPORTING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Each month calculate the sum of the volume of perc purchased <u>during the previous 12 month period</u> . Maintain purchase receipts, a log showing the monthly purchase volumes and a record of the monthly calculations. Submit a notice of compliance status to the DNR if the facility exceeds the perc consumption limits for a large area source and becomes a major source.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Subpart M §63.323 Test methods and monitoring.

(d) When calculating yearly perchloroethylene consumption for the purpose of demonstrating applicability according to §63.320, the owner or operator shall perform the following calculation on the first day of every month:

(d)(1) Sum the volume of all perchloroethylene purchases made in each of the previous 12 months, as recorded in the log described in §63.324(d)(1).

(d)(2) If no perchloroethylene purchases were made in a given month, then the perchloroethylene consumption for that month is zero gallons.

(d)(3) The total sum calculated in paragraph (d) of this section is the yearly perchloroethylene consumption at the facility.

Subpart M §63.324: Reporting and recordkeeping requirements.

(c) Each owner or operator of an area source dry cleaning facility that exceeds the solvent consumption limit reported in paragraph (b) of this section shall submit to the Administrator or a delegated State authority by registered mail on or before the dates specified in §63.320 (f) or (i), a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy:

(1) The new yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d);

(2) Whether or not they are in compliance with each applicable requirement of §63.322; and

(3) All information contained in the statement is accurate and true.

(d) Each owner or operator of a dry cleaning facility shall keep receipts of perchloroethylene purchases and a log of the following information and maintain such information on site and show it upon request for a period of 5 years:

(d)(1) The volume of perchloroethylene purchased each month by the dry cleaning facility as recorded from perchloroethylene purchases; if no perchloroethylene is purchased during a given month then the owner or operator would enter zero gallons into the log;

(d)(2) The calculation and result of the yearly perchloroethylene consumption determined on the first day of each month as specified in §63.323(d);

Comments: The owner was keeping records of perc purchases but the rolling 12-month total was not being calculated. The facility did not have a copy of the current Environmental Recordkeeping Calendar for Drycleaning Facilities.

Regulatory Assistance for Dry Cleaners can be obtained at the University of Northern Iowa – Iowa Waste Reduction Center website (<http://www.iwrc.org/index.cfm/services/iaeap/dry-cleaning/>). At the site you can view a tutorial, read and print out a compliance manual, and print out a compliance calendar.



October 22, 2019

Attn: Dave and Katie Geasland
Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240

RE: Dry Cleaner Compliance Evaluation Visit
Facility No. 52-01-051

LETTER OF NON-COMPLIANCE

Dear Mr. and Mrs. Geasland:

On October 16, 2019 and October 22, 2019, I met with Dave Geasland at your facility at 910 S. Gilbert in Iowa City, Iowa and conducted a dry cleaner air quality compliance evaluation visit. During the October 22, 2019 visit I was accompanied by Carrie Davis, Environmental Specialist at Field Office 6, and performed a leak inspection on the dry cleaning machines at the facility.

The purpose of the air quality compliance evaluation was to ensure that your facility is aware of and complying with the 2008 changes to 40 CFR Part 63 Subpart M (Dry Cleaner NESHAP).

The enclosed Dry Cleaner Compliance Evaluation Report indicates that some of the required recordkeeping and monitoring requirements were not being completed and/or documented. While at the facility on October 22, 2019 I used a MiniRAE photoionization detector (PID) to perform leak testing of the dry cleaning machines. During the visit we identified leaks by the door for the lint catch on the Bowe Permac P-25 dry cleaning machine. The detected concentrations and specific locations of the leaks are indicated on page 6 of the attached Dry Cleaner Compliance Evaluation Visit Checklist (visit checklist). The following monitoring and recordkeeping issues were also identified during the compliance evaluation:

- There was a period identified in August 2019 and September 2019 where facility had not been performing and documenting the weekly leak inspections.
- There was a period identified in August 2019 and September 2019 where the facility had not been performing and documenting the weekly monitoring of the outlet temperature for the refrigerated condenser.

Therefore, to be in compliance, the facility must do the following:

1. Complete the repair of these perceptible leaks within 24 hours. If parts are needed, they are to be ordered within two days and installed within 5 days of receipt. Please note that for leaks for which the parts to repair the leak are not on hand, the parts must be ordered within two days of the detection of the leak and installed within five days of the receipt of the repair parts. All of the above must be documented and the documentation kept at the facility.

Page 2 of 2

Dry Cleaner Compliance Evaluation Visit - Letter of Non-Compliance
Varsity Cleaners - 910 S. Gilbert, Iowa City
October 2019

2. Document all weekly leak inspections as well as any leaks detected and the actions (including dates) taken to repair the leaks. Repair any and all leaks according to the timetable shown in #1.
3. Conduct weekly monitoring of the outlet temperature for the refrigerated condenser and document the findings in the Environmental Recordkeeping Calendar for Drycleaners.
4. A hand held leak detector (halogenated hydrocarbon detector or PCE gas analyzer) must be used at least once per month to check for vapor leaks from the equipment. The areas to be tested are included in the Environmental Recordkeeping Calendar for Drycleaners.

I would recommend contacting University of Northern Iowa - Iowa Waste Reduction Center website at <https://iwrc.uni.edu/regulatory-information/dry-cleaners>) to get the dry cleaner recordkeeping calendar for the 2020-2021 time period in advance in order to ensure there are no gaps in the recordkeeping. At the site you can view a tutorial, read and print out a compliance manual, and print out a compliance calendar.

The facility must provide written documentation to the field office when the above-mentioned items have been corrected so that a follow up visit can be performed in order to verify that the facility has addressed the areas of non-compliance.

If you have any questions or would like further explanation of any part of this report, please contact me at 319-653-2135 or jon.ryk@dnr.iowa.gov

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU



Jon Ryk
Environmental Specialist

JPR: N:\Environmental Services\Field Services\ESD06-Wash-Fo6\JRYK\AQ\2019\Varsity Cleaners - Iowa City\Varsity Cleaners - 910 S Gilbert - Iowa City - Cover 10-19.doc

Picture Filename: N/A

Encl. Dry Cleaner Compliance Evaluation Report

xc: AQB - DNR (w/encl)

Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners (w/encl)

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
AIR QUALITY COMPLIANCE INSPECTION
FIELD OFFICE # 6

FACILITY # 52-01-051

OPERATING PERMIT # NA

Company Name: Varsity Cleaners

Company Address: 910 S. Gilbert Street, Iowa City, IA 52240

Plant Address: SAME AS ABOVE

Process and/or Product Type: Dry Cleaner

Facility Classification: ☐ Title V ☐ SM 80 ☒ Minor

Deficiencies Noted During Inspection: Yes ☐ No ☐ (If yes, list deficiencies below)

EP	EP Description	Permit	Deficiency	FRV*
	Dry Cleaning Machines	N/A	Did not perform or document weekly leak inspections for three weeks in August and all of September.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Dry Cleaning Machines	N/A	Did not monitor the required weekly monitoring of the refrigerated condenser outlet temperature for three weeks in August and all of September.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	P-25 Dry Cleaning Machine	N/A	Leaks identified during dry cleaning visit on October 22, 2019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

* A Federally Reportable Violation (FRV) as defined in the FRV Policy dated September 23, 2014 - EPA Guidance on Federally-Reportable Violations for Clean Air Act Sources.

VISIT NUMBER:	1	2
Inspection Type	Routine Dry Cleaner	Routine Dry Cleaner
Inspection Date	10/16/2019	10/22/2019
Time Arrive	1458	0915
Wind Speed & Direction	NNW 14-17 mph	W 20-30
Weather Conditions	Overcast	Overcast
Inspection status	Partial	Partial
Time Depart	1325	0945

Persons Contacted: Dave Geasland, Owner

Phone: 319-337-4153

Inspector's Signature: 
Jon Ryk, Environmental Specialist

Date: 10/22/2019

Reviewed by: 
Kurt Levetzow, Environmental Specialist Senior

Date: 10/23/19

Dry Cleaning Compliance Evaluation Visit

Owner/Operator: **Dave and Katie Geasland**
Facility Name: **Varsity Cleaners**
Facility No.: **52-01-051**
Plant Address: **910 S. Gilbert Street, Iowa City, IA 52240**
City: **Iowa City**
Telephone: **319-337-4153**

Mailing Address (if different than Plant Address): SAME AS ABOVE
Street Address:
City/State:
Phone Number:

Date of Visit: October 16, 2019 and October 22, 2019

1. Facility Is Not Subject To The Dry Cleaning NESHAP If:

- ☐ Dry Cleaner Is A Pick-Up Store Only
☐ Has only coin-operated dry cleaning machines that are operated by the customers

2. Use Table Below To Determine Size Of Facility (Based On Total Volume Of Perc Purchased Over The Last 12 Months Based On Actual Purchase Receipts. Facility Is Required To Have These Records On Hand)

APPLICABILITY	SMALL AREA SOURCE	LARGE AREA SOURCE	MAJOR SOURCE
FACILITIES WITH:	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>LESS THAN</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>EQUAL OR BETWEEN:</u>	AMOUNT PERC PURCHASED OVER PRECEDING 12 MONTH PERIOD WAS <u>MORE THAN:</u>
Only Dry-to-Dry Machines	140 gallons	140-2,100 gallons	2,100 gallons (8,000 liters) PCE/year

Total volume of perchloroethylene (perc) purchased for ALL of the machines at this facility over the past 12 months: 90 gallons

Number of employees at this facility: 4 FTE (including owner) / 7 PTE

- ☒ SMALL AREA SOURCE
☐ LARGE AREA SOURCE
☐ MAJOR SOURCE

3. Facility Information (This may be taken from the notifications if no changes have occurred)

Machine Type (dry to dry or transfer)	Date Machine Installed (New Source constructed on or after 12/9/91)	Required Control	Date Control Installed
Bowe Permac P-25	9/1/1999	Refrigerated Condenser	9/1/1999
Bowe Permac P-546	9/1/1999	Refrigerated Condenser	9/1/1999

DNR Staff: [Signature]

Date: 10/22/2019

Division Approval by: [Signature]

Date: 10/23/19

**Perc Dry Cleaner Requirements for
NEW SMALL AREA SOURCES AND NEW LARGE AREA SOURCES**

NOTIFICATION REQUIREMENTS

- ☒ Initial Notification Report Sent To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Pollution Prevention Compliance Report To EPA Or DNR (Compliance Date: June 18, 1994)
- ☒ Control Equipment Compliance Report to DNR (Compliance Date: June 18, 1994)
- ☒ Facility Compliance Status Report to DNR (Compliance Date: July 28, 2008)

Subpart M §63.324: Reporting and recordkeeping requirements.

(a) Each owner or operator of a dry cleaning facility shall notify the Administrator or delegated State authority in writing within 270 calendar days after September 23, 1993 (i.e., June 18, 1994) and provide the following information: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) A brief description of the type of each dry cleaning machine at the dry cleaning facility; (4) Documentation as described in §63.323(d) of the yearly perchloroethylene consumption at the dry cleaning facility for the previous year to demonstrate applicability according to §63.320, or an estimation of perchloroethylene consumption for the previous year to estimate applicability with §63.320; (5) A description of the type of control device(s) that will be used to achieve compliance with §63.322 (a) or (b) and whether the control device(s) is currently in use or will be purchased; and (6) Documentation to demonstrate to the Administrator's satisfaction that each room enclosure used to meet the requirements of §63.322(a)(3) meets the requirements of §63.322(a)(3) (i) and (ii).

(b) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before the 30th day following the compliance dates specified in §63.320 (b) or (c) or June 18, 1994, whichever is later, a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d); (2) Whether or not they are in compliance with each applicable requirement of §63.322; and (3) All information contained in the statement is accurate and true.

(f) Each owner or operator of a dry cleaning facility shall submit to the Administrator or delegated State authority by registered mail on or before July 28, 2008 a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy: (1) The name and address of the owner or operator; (2) The address (that is, physical location) of the dry cleaning facility; (3) If they are located in a building with a residence(s), even if the residence is vacant at the time of this notification; (4) If they are located in a building with no other tenants, leased space, or owner occupants; (5) Whether they are a major or area source; (6) The yearly PCE solvent consumption based upon the yearly solvent consumption calculated according to §63.323(d); (7) Whether or not they are in compliance with each applicable requirement of §63.322; and (8) All information contained in the statement is accurate and true.

Comments: None.

CONTROL EQUIPMENT REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Requirement:

Dry cleaning system must be equipped with a refrigerated condenser.

Any perc dry cleaning machine installed after September 22, 1993 must be a dry-to-dry machine.

After July 27, 2006 a non-vented carbon adsorber must be added to a dry cleaning system installed after December 21, 2005. Gas and vapors from inside the drum must be passed through the adsorber before opening the door.

Subpart M §63.322: Standards.

(b) The owner or operator of each new dry-to-dry machine and its ancillary equipment and of each new transfer machine system and its ancillary equipment installed after September 22, 1993:

(1) Shall route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser or an equivalent control device;

(2) Shall eliminate any emission of perchloroethylene during the transfer of articles between the washer and dryer(s).

(c)(2) The owner or operator of each dry cleaning system installed after December 21, 2005, at an area source shall route the air-PCE gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser and pass the air-PCE gas-vapor stream from inside the dry cleaning machine drum through a non-vented carbon adsorber or equivalent control device immediately before the door of the dry cleaning machine is opened. The carbon adsorber must be desorbed in accordance with manufacturer's instructions.

Comments: None

POLLUTION PREVENTION REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Keep machine doors closed at all times except when transferring clothes.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate and maintain system according to manufacturer's specifications and recommendations.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operate the refrigerated condenser so that the air/Perc mixture contained inside the dry cleaning machine is not vented to the atmosphere while the drum is rotating.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drain cartridge filters in their housing or other sealed container <u>for 24 hours</u> before removing from facility.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Store all perc solvent and waste in sealed containers.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintain on-site a copy of the design specifications and operating manuals for each machine and control device at facility.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 28, 2008 transfer machine systems using perc are no longer allowed to be operated.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After July 27, 2009 dry cleaning machines using perc that were installed between December 21, 2005 and July 13, 2006 are no longer allowed to be operated in a building with a residence. No dry cleaning machines using perc have been allowed to be installed in any building with a residence since July 13, 2006.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	After December 21, 2020, dry cleaning machines using perc that were installed before December 21, 2005 are no longer allowed to be operated in a building with a residence.

Subpart M §63.322: Standards.

- (c) The owner or operator shall close the door of each dry cleaning machine immediately after transferring articles to or from the machine, and shall keep the door closed at all other times.
- (d) The owner or operator of each dry cleaning system shall operate and maintain the system according to the manufacturers' specifications and recommendations.
- (e) Each refrigerated condenser used for the purposes of complying with paragraph (a) or (b) of this section and installed on a dry-to-dry machine, dryer, or reclaimer:
- (e)(1) Shall be operated to not vent or release the air-perchloroethylene gas-vapor stream contained within the dry cleaning machine to the atmosphere while the dry cleaning machine drum is rotating;
- (e)(2) Shall be monitored according to §63.323(a)(1); and
- (e)(3) Shall prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
- (f) The owner or operator of an affected facility shall drain all cartridge filters in their housing, or other sealed container, for a minimum of 24 hours, or shall treat such filters in an equivalent manner, before removal from the dry cleaning facility.
- (g) The owner or operator of an affected facility shall store all perchloroethylene and wastes that contain perchloroethylene in solvent tanks or solvent containers with no perceptible leaks. The exception to this requirement is that containers for separator water may be uncovered, as necessary, for proper operation of the machine and still.
- (o)(3) The owner or operator of any dry cleaning system shall eliminate any emission of PCE during the transfer of articles between the washer and the dryer(s) or reclaimer(s).
- (o)(4) The owner or operator shall eliminate any emission of PCE from any dry cleaning system that is installed (including relocation of a used machine) after December 21, 2005, and that is located in a building with a residence.
- (o)(5)(i) After December 21, 2020, the owner or operator shall eliminate any emission of PCE from any dry cleaning system that is located in a building with a residence.

Subpart M §63.324: Reporting and recordkeeping requirements.

- (e) Each owner or operator of a dry cleaning facility shall retain onsite a copy of the design specifications and the operating manuals for each dry cleaning system and each emission control device located at the dry cleaning facility.

Comments: None

CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On a weekly basis monitor the refrigerated condenser high and low pressure OR measure the refrigerated condenser outlet temperature before the end of the cool down or drying cycle. Record the results.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If pressure is used, the pressure must be maintained within the manufacturer's specified range.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If temperature is used, the outlet temperature should be equal to or less than 45°F.

Subpart M §63.323: Test methods and monitoring.

(a) When a refrigerated condenser is used to comply with §63.322(a)(1) or (b)(1):

(a)(1) The owner or operator shall monitor on a weekly basis the parameters in either paragraph (a)(1)(i) or (ii) of this section.

(i) The refrigeration system high pressure and low pressure during the drying phase to determine if they are in the range specified in the manufacturer's operating instructions.

(ii) The temperature of the air-perchloroethylene gas-vapor stream on the outlet side of the refrigerated condenser on a dry-to-dry machine, dryer, or reclaimer with a temperature sensor to determine if it is equal to or less than 7.2 °C (45 °F) before the end of the cool-down or drying cycle while the gas-vapor stream is flowing through the condenser. The temperature sensor shall be used according to the manufacturer's instructions and shall be designed to measure a temperature of 7.2 °C (45 °F) to an accuracy of ±1.1 °C (±2 °F).

Subpart M §63.324: Reporting and recordkeeping requirements.

Maintain a log of the following information and keep it on file for a period of five years.

(d)(5) The date and monitoring results (temperature sensor or pressure gauge), as specified in §63.323 if a refrigerated condenser is used to comply with §63.322(a), (b) or (c).

Comments: In general the facility has been recording the refrigerated condenser outlet temperature. However, due to a delivery truck accident and some personnel family / health issues, there were three weeks in August 2019 and all of September 2019 for which there was no documentation for the monitoring of the refrigerated condenser outlet temperature.

INSPECTION AND MAINTENANCE REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Conduct a weekly inspection of the dry cleaning system for perceptible leaks while the dry cleaning system is in operation. <u>Document the results of the inspections.</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A halogenated hydrocarbon detector or PCE gas analyzer shall be used to check for vapor leaks once a month. This monitoring can replace one of the weekly inspections. This monitoring must commence by July 27, 2006 for systems installed after December 21, 2005 and by July 28, 2008 for systems installed between December 9, 1991 and December 21, 2005.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Repair any perceptible leaks discovered during these inspections within 24 hours. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt. Document any repair work.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If the dry cleaning system pressure, temperature or perc concentration are out of compliance with the applicable standard, adjustments or repairs must be made. If parts are needed, they are to be ordered within 2 days and installed within 5 days of receipt. Document any repair work.

Subpart M §63.322: Standards.

(k) The owner or operator of a dry cleaning system shall inspect the following components weekly for perceptible leaks while the dry cleaning system is operating:

- (k)(1) Hose and pipe connections, fittings, couplings, and valves;
- (k)(2) Door gaskets and sealings;
- (k)(3) Filter gaskets and sealings;
- (k)(4) Pumps;
- (k)(5) Solvent tanks and containers;
- (k)(6) Water separators;
- (k)(7) Muck cookers;
- (k)(8) Stillis;
- (k)(9) Exhaust dampers;
- (k)(10) Diverter valves; and
- (k)(11) Cartridge filter housings.

(m) The owner or operator of a dry cleaning system shall repair all perceptible leaks detected under paragraph (k) or (o)(1) of this section within 24 hours. If repair parts must be ordered, either a written or verbal order for those parts shall be initiated within 2 working days of detecting such a leak. Such repair parts shall be installed within 5 working days after receipt.

(n) If parameter values monitored under paragraphs (e), (f), or (g) of this section do not meet the values specified in §63.323(a), (b), or (c), adjustments or repairs shall be made to the dry cleaning system or control device to meet those values. If repair parts must be ordered, either a written or verbal order for such parts shall be initiated within 2 working days of detecting such a parameter value. Such repair parts shall be installed within 5 working days after receipt.

(o)(1) After July 28, 2008 the owner or operator of a dry cleaning system shall inspect the components listed in paragraph (k) of this section for vapor leaks monthly while the component is in operation.

(i) Area sources shall conduct the inspections using a halogenated hydrocarbon detector or PCE gas analyzer that is operated according to the manufacturer's instructions. The operator shall place the probe inlet at the surface of each component interface where leakage could occur and move it slowly along the interface periphery.

(iii) Any inspection conducted according to this paragraph shall satisfy the requirements to conduct an inspection for perceptible leaks under §63.322(k) or (l) of this subpart.

Subpart M §63.324: Reporting and recordkeeping requirements.

(d)(3) The dates when the dry cleaning system components are inspected for perceptible leaks, as specified in §63.322(k) or (l), and the name or location of dry cleaning system components where perceptible leaks are detected;

(d)(4) The dates of repair and records of written or verbal orders for repair parts to demonstrate compliance with §63.322(m) and (n)

Comments: In general the facility has been doing and recording the weekly inspections for perceptible leaks from the dry cleaning equipment and also using a halogenated hydrocarbon detector for at least one of the leak inspections each month. However, due to a delivery truck accident and some personnel family / health issues, there were three weeks in August 2019 and all of September 2019 for which there was no documentation of the weekly leak inspections or monthly inspection using the halogenated hydrocarbon detector.

The facility was not running any of the dry cleaning machines on the afternoon of October 16, 2019 when I made my first visit. Therefore, a follow up visit was made on October 22, 2019 to do a leak inspection of the dry cleaning machines while they were in operation.

The following leaks were detected at the indicated dry cleaning machine using a MiniRAE photoionization detector (PID):

Bowe Permac P-25:

Top of door for lint catch (back of machine, right side): 138.5 ppm

Middle of door for lint catch (back of machine, right side): 29.0

Bowe Permac P-546

No leaks were detected in the Bowe Permac P-546 machine.

RECORD KEEPING AND REPORTING REQUIREMENTS

In Compliance	Out of Compliance	Not Applicable	Requirement:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each month calculate the sum of the volume of perc purchased <u>during the previous 12 month period</u> . Maintain purchase receipts, a log showing the monthly purchase volumes and a record of the monthly calculations. Submit a notice of compliance status to the DNR if the facility exceeds the perc consumption limits for a large area source and becomes a major source.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Subpart M §63.323 Test methods and monitoring.

(d) When calculating yearly perchloroethylene consumption for the purpose of demonstrating applicability according to §63.320, the owner or operator shall perform the following calculation on the first day of every month:

(d)(1) Sum the volume of all perchloroethylene purchases made in each of the previous 12 months, as recorded in the log described in §63.324(d)(1).

(d)(2) If no perchloroethylene purchases were made in a given month, then the perchloroethylene consumption for that month is zero gallons.

(d)(3) The total sum calculated in paragraph (d) of this section is the yearly perchloroethylene consumption at the facility.

Subpart M §63.324: Reporting and recordkeeping requirements.

(c) Each owner or operator of an area source dry cleaning facility that exceeds the solvent consumption limit reported in paragraph (b) of this section shall submit to the Administrator or a delegated State authority by registered mail on or before the dates specified in §63.320 (f) or (i), a notification of compliance status providing the following information and signed by a responsible official who shall certify its accuracy:

(1) The new yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to §63.323(d);

(2) Whether or not they are in compliance with each applicable requirement of §63.322; and

(3) All information contained in the statement is accurate and true.

(d) Each owner or operator of a dry cleaning facility shall keep receipts of perchloroethylene purchases and a log of the following information and maintain such information on site and show it upon request for a period of 5 years:

(d)(1) The volume of perchloroethylene purchased each month by the dry cleaning facility as recorded from perchloroethylene purchases; if no perchloroethylene is purchased during a given month then the owner or operator would enter zero gallons into the log;

(d)(2) The calculation and result of the yearly perchloroethylene consumption determined on the first day of each month as specified in §63.323(d);

Comments: The owner was keeping records of perc purchases and the 12-month rolling totals were being calculated. The facility had not yet completed the rolling 12-month total of perc purchases for the period ending in September 2019 but there had been no perc purchases that month. Based on the most recent 12 months perc purchases, the facility is a Small Area Source. The facility was reminded to get a copy of the 2020-2021 Environmental Recordkeeping Calendar for Drycleaning Facilities.

Regulatory Assistance for Dry Cleaners can be obtained at the University of Northern Iowa – Iowa Waste Reduction Center website (<https://iwrcc.uni.edu/regulatory-information/dry-cleaners>). At the site you can view a tutorial, read and print out a compliance manual, and print out a compliance calendar.



February 12, 2020

Attn: Dave and Katie Geasland
Varsity Cleaners
910 S. Gilbert
Iowa City, IA 52240

RE: Dry Cleaner Follow Up Visit
Facility No. 52-01-051

Dear Mr. and Mrs. Geasland:

On Tuesday, February 11, 2020, I stopped by the Varsity Cleaners dry cleaning facility located at 910 S. Gilbert in Iowa City, Iowa for a follow up visit. The purpose of the follow up visit was to determine if the items identified during the compliance evaluation visits in October (October 16, 2019 and October 22, 2019,) had been corrected. While at the facility I met with Deanna McKinney and she provided the dry cleaning records for review. Because the dry cleaning machines were not running at the time of my visit, I did not do any leak inspections on the machines.

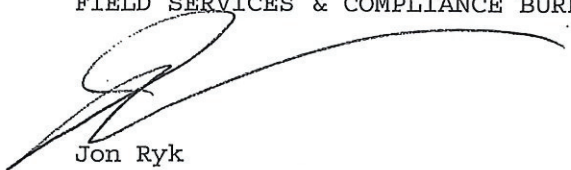
The review of the Dry Cleaning Recordkeeping Calendars for the time period after my October visits indicated that the facility has been performing and documenting the required weekly inspections for leaks, including one inspection each month using the hand held halogenated hydrocarbon detector or PCE gas analyzer. The facility also appears to have been performing the required weekly monitoring of the outlet temperature for the refrigerated condenser and documenting the findings in the Environmental Recordkeeping Calendar for Drycleaners. The facility is also documenting the 12-month rolling total for perchloroethylene (perc) purchases.

Therefore, it appears that the facility has corrected the issues identified during the compliance evaluation performed in October 2019 and is back in compliance with the Drycleaner NESHAP.

If you have any questions or would like further explanation of any part of this report, please contact me at 319-653-2135 or jon.ryk@dnr.iowa.gov

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU



Jon Ryk
Environmental Specialist

JPR: N:\Environmental Services\Field Services\ESD06-Wash-Fo6\JRYK\AQ\2020\Varsity Cleaners - Iowa City\2-12-20 Ltr - Varsity Cleaners - Iowa City.doc

Picture Filename: N/A

xc: AQB - DNR

Facility AQ File - Dry Cleaners, Johnson County, Varsity Cleaners



MEMO

DATE: February 11, 2020

TO: Memo to File
(Dry Cleaners, Johnson County, Varsity Cleaners)

FROM: Jon Ryk, Environmental Specialist *JM*

RE: February 11, 2020 Follow Up Visit

FACILITY: Varsity Cleaners

FACILITY NO. 52-01-051

On February 11, 2020 I made a follow up visit to the Varsity Cleaners Dry Cleaning facility located at 910 S. Gilbert in Iowa City, Iowa. The purpose of the follow up visit was to determine if the facility had addressed the issues identified in my October 16, 2019 air quality compliance evaluation. The owner, Dave Geasland, was not available but I met with Ms. Deanna McKinney and reviewed the records from the date of the air quality compliance evaluation to the present. The records reviewed included leak inspection records, records of the monitoring of the refrigerated condenser, and perchloroethylene (perc) purchase records. The review of the records indicated that the facility has corrected the recordkeeping issues identified in the October 16, 2019 compliance evaluation and that they have addressed the leaks that were identified in that visit and in any subsequent facility performed leak inspections. It should be noted that a leak inspection was not performed during this visit since the dry cleaning had been completed in the morning.

JPR: N:\Environmental Services\Field Services\ESD06-Wash-Fo6\JRYK\AQ\2020\Varsity Cleaners - Iowa City\2-11-20 Visit Memo - Varsity Cleaners - Iowa City.docx

Xc: Air Quality Bureau (via email)

ATTACHMENT 2

HISTORICAL TETRACHLOROETHENE USE AT VARSITY CLEANERS

Jane Blake Elected Head Of Sorority



Jane Blake

Jane Blake, A3, Cedar Rapids, has been elected president of Pi Delta Phi, social sorority. Marge Martin, A3, Hamburg, is vice-president.

Other new officers are Gloria Ann Young, A3, St. Louis, Mo., house president; Jeanette Noble, A2, Ft. Madison, treasurer; Ann Andrews, A2, Iowa City, pledge trainer; Barbara Clark, A3, Dubuque, scholarship chairman; Jeanette Noble, A2, Ft. Madison, sophomore representative.

Joe Muto, N2, Des Moines, judicial chairman; Diane Skinner, A2, Cedar Rapids, assistant treasurer; Mary Donai, A3, Des Moines, rushing chairman; Nancy Charlton, A3, Des Moines, assistant rushing chairman; Harriet Whitehead, A3, Cedar Rapids, recording secretary.

Sally McConnell, A2, Orlando, Fla., corresponding secretary; Sally Stebbins, A3, Oelwein, social chairman; Carol Berger, A2, Iowa City, activity chairman; Maribeth James, N2, Belle Plaine, program chairman; Jo Miles, A4, Clear Lake, song chairman.

Diane Skinner, A2, Cedar Rapids, intra-murals chairman; Joan Evers, A2, Iowa City, censor and settlement school chairman; Jean Evers, A2, Iowa City, censor and magazine chairman; Marilyn Larson, A2, Mount Vernon, N.Y., assistant social chairman and social exchange chairman.

The new pledges are Roger Klemas, A4, Mason City; James Wehr, A3, Iowa City; Bill Toran, G, Iowa City; John Tatman, A3, Danbury; Robert Johnston, A3, Lake City; and Daryl Carter, C3, Cedar Falls.

One of the events ADS is making plans for is the annual banquet early in May with Gamma Alpha Chi honorary advertising sorority for women.

Committee Named
Planning committee is Jim Vickery, A4, Des Moines; Chuck Wheeler, A4, Des Moines; Bob Johnston, A3, Lake City, and Daryl Carter, C3, Cedar Falls.

A committee has been assigned to research on possibilities for a project for ADS. Don Wallace, A4, Veneta, Pa.; Jim Wehr, A3, Iowa City; Max Falke, G, Albany, N.Y.; and Bill Toran, G, Iowa City, will be in charge of this.

To Present Awards
At the Iowa Press association conference to be held in March, ADS will present six awards for excellence in advertising layout and design. Three will be given to

Pierce To Speak At University Club

Dr. I. J. Pierce will give the program at the University club on Thursday.

The meeting will be held at the club rooms at the Iowa Memorial Union from 2 to 4 p.m. A business meeting is scheduled for 2:15.

Mrs. A. W. Bryant is chairman of the tea committee. Other members are Mrs. Erling Thoen, Mrs. A. O. Klaffenbach, Mrs. R. W. Kern, Mrs. Merle Hale, Mrs. Howard Meredith, Mrs. W. R. Wick and Mrs. Ray Smith.

French Society Shifts Meeting to Tuesday

The date of the Pi Delta Phi, honorary French society, meeting has been changed to Tuesday evening at 8 at the home of Prof. J. B. Bateman, 1029 E. Court st. D. A. Peterson, G, Oconomowoc, Wis., will speak on the life of the 19th century poet, Gerard de Nerval. Peterson has done research on the poet's life and has found new evidences of his work.

Wedding on Feb. 15 To Be Performed In Danforth Chapel

February 15 is the date that has been set by an SUI student and graduate for what will probably be the first wedding ceremony to be performed in the new Danforth Chapel.

Miss Beverly Speed, N3, Greenfield, and Mr. Thomas Beach, SUI pharmacy class of 1952, Dubuque, were the first couple to apply for use of the chapel for a wedding. The Rev. Laurence Nelson, of the Presbyterian church in Greenfield will perform the ceremony.

Mrs. Shirley Whitworth, Macksburg, sister of the bride-elect, will be maid of honor. Dr. Robert Beach, of Webster City will be best man.

Miss Speed is the daughter of Mr. and Mrs. Theodore Speed of Greenfield. Mr. Beach is the son of Mrs. Charles Beach, Bellevue. Mr. Beach is employed by a Dubuque drug firm.

Social Fraternity Donates 18 Pints In Blood Drive

Sigma Alpha Epsilon social fraternity donated 18 pints of blood to the Red Cross blood drive.

Members who donated are John Koch, A3, Keokuk; Azzeddine Cherif, E1, Tunisia; Paul Foster, A1, Cedar Rapids; Jim Murphy, C3, Ida Grove; Phil Hiddison, A1, Ottumwa; Phil Elting, A1, Des Moines.

Jim Nordyke, A1, Waterloo; Duane Hartleip, A2, Waterloo; Dick Jordan, C3, Cedar Rapids; Jim Broshar, A1, Waterloo; Don Kalenburgh, C4, Des Moines; Tom Murphy, A2, Ida Grove.

Bill Merner, A4, Cedar Rapids; Steve Jaeger, A2, Des Moines; Jack Prouty, A3, Cedar Rapids; Bill Tieper, A3, Sioux City; Carroll Ramseyer, A3, Des Moines; and Bob Doerr, A2, Sioux City.

Campus Carnival Set for April 11

Saturday, April 11, has been set as the date of the annual SUI Campus Carnival.

Helen Roseberry, A4, LeMars, and Francis Long, E4, Iowa City, are co-chairmen of the event, which is sponsored by Mortar Board, senior women's leadership and scholarship honorary, and Omicron Delta Kappa, leadership fraternity.

The carnival features game and show booths of various campus housing units.

Gray Ladies Group To Be Organized

A new Gray Ladies group will begin soon. Mrs. George Easton and Mrs. George Frohwein, chairmen of the Johnson County Red Cross Gray Ladies committee said.

Women interested in Gray Ladies work may sign up for work at either the University hospitals or Veterans hospital.

This will be the third in a series of such classes sponsored by the Johnson County Red Cross. Women who volunteer will be given a brief orientation by the Red Cross and by the hospital at which they will work.

Gray Ladies' duties consist of visiting patients; assisting them with their correspondence; writing letters for them and distributing mail to the patients.

Other duties include playing games with patients; serving as guides to visitors and entertainers and arranging and distributing flowers.

Women who are interested may call Mrs. Easton, 9750, or Mrs. Frohwein 6998.

League To Have Speakers' Class

The speech and dramatics arts department of SUI will conduct a class for members of the League of Women Voters, who are interested in trying out for a speakers' bureau to be organized by the league.

Kenneth Bailey, resident assistant of speech and dramatic arts at SUI, will be in charge. The class will meet Tuesday at 8 p.m. in the conference rooms of the Iowa Memorial Union. A second class may be conducted later.

BUSINESS REVIEW PAGE

LAUNDROMAT
HALF-HOUR SERVICE
24 S. Van Buren

Kelley Cleaners
"Home of the Shirt That Smiles"
120 So. Gilbert St.

It Pays to
Park at
Pearson's
Linn at Market

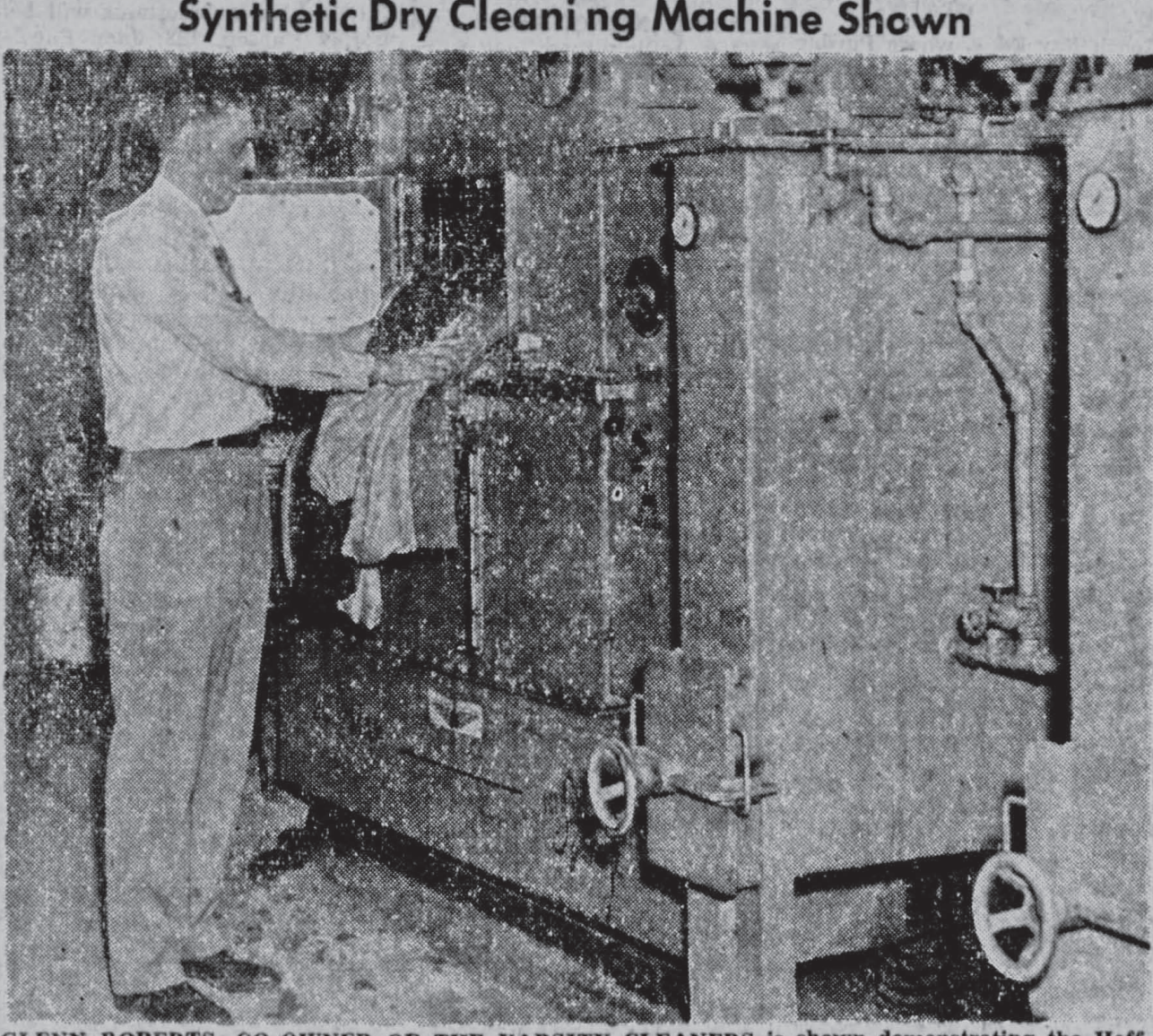
ALWAYS GOOD FOOD and MEAL A MINUTE SERVICE AT
D-L GRILL
12 S. Dubuque
DOUG'S COFFEE SHOP
127 S. Clinton
DOUG'S DINER
630 Iowa Ave.

"LET ONE CALL DO IT ALL"
LAUNDRY CLEANING
New Process
LAUNDRY-DRY CLEANING
LET ONE CALL DO BOTH
Phone 4177 312 S. Dubuque

FOR DISTINCTIVE YET INEXPENSIVE GIFTS
HALL'S GIFT SHOP

CAPITOL
For the BEST in
— Dramatic —
— Comedy —
— Foreign —
FILMS

Westinghouse
Anything Electrical
THOMAS ELECTRIC
19 E. Washington Phone 7735



GLENN ROBERTS, CO-OWNER OF THE VARSITY CLEANERS is shown demonstrating the Hoffman Synthetic Nu-cleaning System. Approximately one-third of all dry cleaning in the United States is done with Synthetic Solvent. The machine is entirely automatic and is the latest type of synthetic dry cleaning equipment available.

New Westinghouse Dishwasher Gives 37-Minute Service

A Westinghouse automatic dishwasher washes, rinses and dries as much as a complete dinner service for eight in exactly 37 minutes, and hands never touch the water.

Thomas Electric company at 19 E. Washington st. sells the Westinghouse dishwasher.

The Westinghouse is described as being better in four big ways — front opening, top loading, greater capacity, perfect washing and drying and low-cost installation.

The front loading, roll-out "washwell" means easy hip-high loading. The top is always free for counter space. The greater capacity allows the housewife to wash pots and pans with dishes, wash 19 cups or 28 glasses at one time, or just wash once a day if the family is small.

The Westinghouse dishwasher operates with 28 quarts of water and can use water with pressure ranging from 20 to 120 pounds.

Nagle Advises 'Perfect Seal' For Fire Safety

Nagle Lumber company, 120 W. Burlington st., advises homeowners to insulate with Perfect Seal fire-proof rock wool.

This insulation against winter winds and drafts and summer heat waves can be accomplished without noise, fuss or muss, and no damage to lawn, shrubbery or home.

The insulation material is blown into attic and walls by specially trained workmen. In Iowa City Nagle's is the authorized applicator for Perfect Seal rock wool. Home owners having Perfect Seal insulation have reported fuel savings up to 40 per cent during the winter cold. Insulated houses have been kept up to 12 degrees cooler in the summer.

Nagle's emphasize the following advantages of Perfect Seal insulation: pays for itself in fuel savings; never wears out; rot proof, rodent proof, vermin proof, fire proof; keeps heat where it belongs, even indoor temperatures; provides better health for the entire family and makes every room in the house a livable room.

Varsity Cleaners
Free Moth-Proofing Service
DIAL 4153
Pick-Up and Delivery
17 E. WASHINGTON

Hall's Gift Shop Adds Home Gadget Service

Hall's Gift Shop features unusual and different inexpensive gifts. A new department "Home Gadgets" was added last May and has grown and expanded to meet the housewife's love of kitchen gadgets. Hall's features the newest in American and imported kitchen gadgets. More and more women say that having seen a new gadget in a magazine, they go to Hall's knowing that they can see what it's really like rather than taking a chance by mail order.

Just a few words about two of

Swiss Watches Back Economy

Switzerland and watches have been almost synonymous for years, but few realize just how much the tiny country depends on its watchmaking industry.

The Swiss have no access to the sea, and own no colonies. Their country possesses no minerals and no raw materials worth mentioning, and one-fourth of its territory is mountainous and impossible to cultivate.

Yet Switzerland today is one of the few nations with a stable currency. With a population half that of New York city, it is one of the cash customers of the United States.

So extensive is watchmaking in the Swiss economy that an entire region of the country, between Geneva and Schaffhouse, lives almost entirely by the watch industry. Generations of watchmakers live there, with families tracing their work to the founding of the industry in 1550.

In a recent showing of watches, their ingenuity was shown by the

WIKEL TYPEWRITER CO.
Authorized ROYAL Dealer
Typewriter Specialists
RENTALS REPAIRS SALES SERVICE
23 E. Washington Dial 8-1051

We Make our Candy
TO PLEASE YOU
at **DARZES CANDIES**

Memo:
Know your jeweler!
Alger's Jewelry
I. Fuiks
Hands Jewelry Store
Herten & Stocker
Leonard's Jewelry

Secret To Brighter Clothes Is Special Solvent, Filter

The Hoffman Synthetic Nu-cleaning System has just become popular in the last ten years. Approximately one-third of all dry cleaning in the United States is done with Synthetic Solvent — in over 3,000 plants in the city of New York alone. Varsity Cleaners now has this latest type of synthetic dry cleaning equipment. The machine is entirely automatic.

Alec's Best Featured In Comedy At Capitol

The movie currently showing at the Capitol theatre, The Promoter starring Alec Guinness, is the story of a man who learned as a youth that while honesty is the best policy, an assist to the fates paid big dividends.

The picture is scheduled to remain at the Capitol through Friday.

Edward Henry (Denry) Machin, played by Guinness, found that by altering his school grades just a trifle he could win a scholarship; as a young law clerk he invited himself to the Countess' ball and capped the evening with that lovely lady as his dancing partner.

As a rent-collector he discovered that by helping the tenants to meet their monthly debts (for a fee) he developed a reputation that won him additional accounts. His entire career, as portrayed by Guinness, is that of a lovable rogue who wins your loyalty, affection and applause.

The Promoter is a J. Arthur Rank organization comedy directed by Ronald Neame. Guinness is assisted in his humorous party by Glynis Johns as Ruth Earp, the squeaky voiced dancing instructor, Valerie Hobson as the Countess of Chell, and Petula Clark as Nellie Cotterill.

The movie is based on Arnold Bennett's famous novel, The Card. Guinness will be remembered for his comedies The Lavender Hill Mob and The Man in the White Suit.

What Day Is It?



THE BEAUTIFUL BENRUS CALENDAR WATCH shows the day of the month and number from 1 to 31 around the dial to indicate the day of the week. It is an entirely useful and accurate instrument, and is one of the new features of the watch industry.

variety of models displayed. Included were water-and-shock resistant watches; calendar types recording the day, date and phase of the moon; automatic watches relying only on wrist movement to keep them wound, and an exhibit of chronographs.

It takes 2,400 distinct operations to manufacture a Swiss watch. They have 180 parts, the smallest a screw four thousandths of an inch in diameter.

Know the jewelers who handle Swiss watches in Iowa City: Alger's Jewelry, I. Fuiks, Hands Jewelry store, Herten & Stocker, and Leonard's Jewelry.

YOUR CAR
323 E. Burlington
BOB and HENRY
"WANT TO SEE YOU" for Winter Changeover
• Motor Tuneup • Gas • Oil • Anti Freeze • Lubrication • Batteries

Are You COLD and FREEZING?
STOP DRAFTS. STOP HEAT LOSS —
GRADE "A" BLOWN ROCKWOOL APPLIED BY EXPERTS
NAGLE LUMBER CO.
BY THE DAM FREE ESTIMATES DIAL 8-1113

The Thinking Fellow Calls A Yellow 3131
YELLOW - CHECKER CAB

ATTACHMENT 3

EXCAVATION PERMIT – RIGHT-OF-WAY PERMIT



City of Iowa City
410 E. Washington Street, Iowa City, Iowa
52240

EXCAVATION PERMIT - RIGHT OF WAY PERMIT

Permit Number: **EXV20-0022**

Issue Date: **07/09/2020**

Job Address: **320 E COLLEGE ST, IOWA CITY, IA 52240**

Parcel: **1010452003**

Contractor: **Lynn Newcomer**

Additional Information: **Special Conditions:** If it is necessary to block metered parking, must work with Parking Division to hood parking meters. Contact 319-356-5151.

Permit Details: Locations: 320 E College Street (on Gilbert Street) 405 E Washington Street (on Gilbert Street) 220 S Gilbert Street (on College Street) 325 E College Street (on Gilbert Street) 319 E Washington Street 312 E College Street (adjacent alley) 14 S Dubuque Street (adjacent alley) 204 E Washington Street 201 S Clinton Street - 2 locations 240 S Madison Street (on Capitol Street) 200 S Linn Street 308 E Burlington Street 307 S Linn Street 323 E Burlington Street (on Gilbert Street) Work Dates: 7/13/7/17/20 Activity: Environmental Sampling