TETRA TECH

February 6, 2020

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

Subject: **Phase II Targeted Brownfields Assessment**
Former St. Francis Hospital, Marceline, Linn County, Missouri
EPA Region 7, START 5, Contract No. 68HE0719D0001
Task Order 19F0101.002
Task Monitor: Todd Davis, Site Assessment Manager

Dear Mr. Davis:

Tetra Tech, Inc. (Tetra Tech) is submitting the enclosed Phase II Targeted Brownfields Assessment (TBA) report regarding the regarding the Former St. Francis Hospital in Building in Marceline, Missouri. If you have any questions or comments regarding this submittal, please call the Project Manager at (816) 412-1748.

Sincerely,

Megan Sawyer
START Project Manager

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START Program Manager

Enclosures

cc: Randy Brown, EPA On-Scene Coordinator

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TARGETED BROWNFIELDS ASSESSMENT
PHASE II ENVIRONMENTAL SITE ASSESSMENT

FORMER ST. FRANCIS HOSPITAL
MARCELINE, LINN COUNTY, MISSOURI

Superfund Technical Assessment and Response Team (START) 5 Contract
Contract No. 68HE0719D0001, Task Order 19F0101.002

Prepared For:

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

February 6, 2020

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EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked Tetra Tech, Inc. (Tetra Tech) Region 7 Superfund Technical Assessment and Response Team (START) to conduct a Phase II Environmental Site Assessment (ESA) as part of a Targeted Brownfields Assessment (TBA) of the Former St. Francis Hospital Building site (the site) at 108 East Howell Avenue in Marceline, Missouri. START conducted this Phase II ESA in accordance with the ASTM International (ASTM) Standard E1903-11 for Phase II ESAs, and otherwise in compliance with EPA's "All Appropriate Inquiries" Rule (AAI Rule) (40 *Code of Federal Regulations* [CFR] Part 312) (ASTM 2011).

In April 2018, Terracon Consultants, Inc. (Terracon) conducted an asbestos and lead-based paint (LBP) survey of the site that revealed the presence of friable regulated asbestos-containing material (RACM) and asbestos-containing material (ACM), as well as multiple areas of LBP (Terracon 2018a). In May 2018, Terracon performed a Phase I ESA that identified recognized environmental conditions (REC) at the site (Terracon 2018b). Section 2.5 details these findings. Terracon's Phase I ESA report recommended further investigation of the site.

Purposes of this Phase II ESA were to (1) confirm or eliminate the RECs identified during the Phase I ESA, (2) acquire information regarding the nature of contamination (if present) and risks posed by that contamination that would support informed business decisions about the property; (3) where applicable, satisfy the innocent purchaser defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (ASTM 2011).

During the Phase II ESA, sampling of surface soil, subsurface soil, and groundwater occurred. In addition, START collected suspect ACM not previously sampled and verified quantities of confirmed ACM. Areas of LBP identified by Terracon were quantified, and window and/or door caulk suspected to contain polychlorinated biphenyls (PCB) was sampled. START inventoried hazardous materials. START submitted a separate hazardous materials survey report summarizing results of the ACM, LBP, and PCB survey, as well as the hazardous materials inventory on December 11, 2019.

Review of analytical data from the Phase II ESA led to the following noteworthy findings:

Surface Soil

- Arsenic was detected in all four surface soil samples at concentrations above the EPA Regional Screening Level (RSL) for industrial soil and the Missouri Risk-based Corrective Action (MRBCA) Lowest Default Target Levels (LDTLs). In one surface soil sample, SB-4, arsenic concentration exceeded the MRBCA Tier 1 non-residential Risk-based Target Level (RBTL). Exceedances of U.S. Geological Survey (USGS)-reported background concentrations of arsenic in Linn County were as follows:
    - Sample SB-1 (0-3'): exceedances of the minimum and mean background levels
    - Samples SB-2 (0-3') and SB-4 (0-3'): exceedances of the minimum, maximum, and mean background levels
    - Sample SB-3 (0-3'): exceedance of the minimum background level.
- Lead was detected in all four samples at concentrations above the MRBCA LDTL, but below the EPA RSL. Exceedances of USGS-reported background concentrations of lead in Linn County were as follows:
    - Samples SB-1 (0-3') and SB-3 (0-3'): exceedance of the minimum background level
    - Samples SB-2 (0-3') and SB-4 (0-3'): exceedances of the minimum, maximum, and mean background levels.
- The semivolatile organic compounds (SVOC) benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected, but none at concentration exceeding a regulatory benchmark.

Subsurface Soil

- Arsenic was detected in all five samples (including a field duplicate) at concentrations exceeding the EPA RSL, MRBCA LDTL and minimum USGS-reported background concentration in Linn County. The USGS reported average concentrations of minerals in Linn County were derived based on a variety of sample sources and not specifically relatable to surface or subsurface soils. Arsenic concentrations in two samples also exceeded the USGS-reported mean background concentration in Linn County, but were below the USGS-reported maximum concentration and thus arsenic is likely naturally occurring.
- Lead was detected in all samples (including a field duplicate) at concentrations exceeding the MRBCA LDTLs. Lead was also reported at concentrations exceeding the USGS-reported minimum background concentration in Linn County in all samples except SB-2 (26-28'). However, all detections were below the mean background concentration in Linn County, therefore lead is likely naturally occurring.
- Mercury was detected in one surface soil sample, SB-DUP (SB-3) exceeding the USGS-reported maximum background levels in Linn County, but below the EPA RSL, MRBCA LDTL, and RBTL levels. Mercury was not detected in the parent sample collected from soil boring SB-3.

Groundwater

- Arsenic and lead concentrations in the two groundwater samples exceeded the respective MCLs and MRBCA Tier 1 non-residential RBTLs. However, arsenic and lead were not detected at concentrations exceeding a regulator benchmark in samples analyzed for dissolved metals, therefore, it is apparent that the detections of total metals can be attributed to naturally occurring metals in soils in the area. The lack of groundwater samples collected presents insufficient interpretation to the extent of possible contamination. Drinking water to the site is provided by the City of Marceline.

Sampling results during this Phase II ESA indicated presence of contaminants in soil and groundwater at the site. Notably, concentrations of arsenic and lead in surface soil and groundwater samples were reported above non-residential benchmarks. Groundwater samples contained levels of total arsenic and lead above the EPA MCLs and MRBCA LDTLs. However, arsenic and lead were not detected in dissolved groundwater samples, therefore are likely naturally occurring within the area. The City of Marceline provides drinking water to the site. Furthermore, downspouts and windows containing LBP may have contributed to the elevated lead levels found at the site. The source of SVOCs detected at surface soil boring SB-2, east of the addition and south of the original building, is unknown. None of the reported concentrations of SVOCs exceeded any applicable screening level, and the SVOCs are possibly attributed to a historical release from the former UST and historical industrial use in the surrounding area. Based on the lack of detections of VOCs in excess of any regulatory benchmarks, there does not appear to be any vapor intrusion related concern at the site.

The current owner, Michael Wrenn, has interest in demolishing the building on site, and the future use is unknown. The location of the site in downtown Marceline is surrounded by local businesses. It is assumed that the property will be used for commercial development and/or retail space. Based on analytical results from soil and groundwater samples, further investigation and/or remediation does not appear to be warranted; however, ACM and LBP should be appropriately addressed prior to building renovation or demolition. An Analysis of Brownfields Cleanup Alternatives (ABCA), to be submitted under separate cover, will present alternatives for remediating affected media at the site.

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked Tetra Tech, Inc. (Tetra Tech) Region 7 Superfund Technical Assessment and Response Team (START) to conduct a Phase II Environmental Site Assessment (ESA) as part of a Targeted Brownfields Assessment (TBA) of the approximately 1.8-acre Former St. Francis Hospital site (the site) at 108 East Howell Avenue in Marceline, Missouri (see Appendix A, Figures 1 and 2). The current owner, Michael Wrenn, has indicated the site building will be demolished.

START conducted this Phase II ESA in accordance with the ASTM International (ASTM) Standard E1903-11 for Phase II ESAs, and otherwise in compliance with EPA's "All Appropriate Inquiries" Rule (AAI Rule) (40 *Code of Federal Regulations* [CFR] Part 312) (ASTM 2011).

In April 2018, Terracon Consultants, Inc. (Terracon) conducted an asbestos and lead-based paint (LBP) survey of the site that revealed presence of numerous items containing friable regulated asbestos-containing material (RACM) and asbestos-containing material (ACM), as well as multiple areas of LBP (Terracon 2018a). In May 2018, Terracon performed a Phase I ESA that identified recognized environmental conditions (REC) at the site (Terracon 2018b). Section 2.5 details these findings. Terracon's Phase I ESA report recommended further investigation of the site.

During the Phase II ESA, sampling of surface soil, subsurface soil, and groundwater occurred. In addition, START sampled suspect ACM not previously sampled, and verified quantities of confirmed ACM. Areas of LBP identified by Terracon were quantified, window and/or door caulk suspected to contain polychlorinated biphenyls (PCB) was sampled, and hazardous materials were inventoried. Under separate cover, START submitted a hazardous materials survey report summarizing results of the ACM, LBP, and PCB survey, as well as the hazardous materials inventory on December 11, 2019.

1.1 PURPOSE

Purposes of this Phase II ESA were to (1) confirm or eliminate the RECs identified during the Phase I ESA; (2) acquire information regarding the nature of contamination (if present) and risks posed by that contamination that would support informed business decisions about the property, and (3) where applicable, satisfy the innocent purchaser defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (ASTM 2011).

1.2 SPECIAL TERMS AND CONDITIONS

No special terms or conditions were identified during the Phase II ESA.

2.0 BACKGROUND AND SITE HISTORY

This section specifies the location of the site and its features, conveys the physical setting, recounts the history of the site, discusses land uses at the site and adjacent properties, and relates results of previous investigations.

2.1 SITE DESCRIPTION AND FEATURES

The approximately 1.8-acre site is at 108 East Howell Avenue in industrial Marceline, Linn County, Missouri (see Appendix A, Figure 1). The site is included on the Marceline, Missouri, U.S. Geological Survey (USGS) 7.5-minute topographic series maps (USGS 1979) (see Appendix A, Figure 1). Coordinates at the approximate center of the site are 39.713804 degrees north latitude and 92.950723 degrees west longitude.

2.2 PHYSICAL SETTING

The site lies within the south-southeast portion of Marceline, Missouri. It is bounded north by E Howell Avenue, followed by US Bank and Black Insurance Group; northeast by E Howell Avenue, followed by Dollar General; east by OK Tavern and storage sheds; southeast by vacant grassed land; south by E Garcia Avenue, followed by vacant grassed land; and southwest by Macon Electric (Terracon 2018b). The site encompasses an approximately 1.8-acre property, which hosts a 18,250 square foot former hospital building with the remining site as vacant green space.

2.2.1 Geologic Setting

The site is within the Dissected Till Plains Physiographic Region (Missouri Department of Natural Resources [MDNR] 2018). According to the Geologic units section of the Missouri GIS Database reviewed in May 2018, geology at the site includes Pennsylvanian age with Marmaton Group sediments consisting of cyclic layers of sandstone, limestone, shale, and clay with some workable coal beds in an overall transgressive sequence.

Soil at the site has been classified according to the Linn County, Missouri U.S. Department of Agriculture (USDA) Soil Conservation Services Web Soil Survey reviewed in May 2018. The soils consist of Kilwinning silt loam with 1 to 5 percent slopes. This soil type is found in interfluves and summits, has a very high runoff class, and is poorly drained (Terracon 2018b).

2.2.2 Hydrogeology

The site is within the Northwest Missouri Groundwater Province within the Glaciated Plains groundwater region. According to MDNR, no high-yield, potable bedrock aquifers are present within this province. However, test drilling in the 1950s defined the axes of several drift-filled preglacial channels that had been stream valleys filled with water-borne coarse sediments during glacial periods. In addition, alluvial deposits underlay the floodplains of major rivers. Wells installed within these areas or within preglacial channels can produce a significant amount of water for irrigation, agricultural, and public water supply uses (MDNR 2018). The preglacial channels are a general outline of the possible water throughout the Northwestern Missouri province, however it is unlikely a preglaical channel is located on the site, given the lack of groundwater and types of soil encountered while drilling.

The hydrologic gradient at the site is not known but may be inferred to be parallel to the topographic gradient, which extends primarily in the north-northeast direction. Depth to groundwater is approximately 30 feet below ground surface (bgs), as determined via advancements of borings on and in the vicinity of the site. Groundwater depth and direction likely vary with seasonal changes, precipitation, and other unknown hydrogeologic features (Terracon 2018b). Observed static water level while on site was approximately 25 feet although very limited yield was reported via direct-push borings.

2.2.3 Hydrology

The site is generally flat; however, surface water likely flows to the north-northeast toward the Locust Branch stream or north toward E Howell Avenue.

2.3 SITE HISTORY AND LAND USE

Terracon's Phase I ESA report indicated that in 1894, the site had hosted a steam carpenter shop and stable on the northern portion and a residence on the center southern portion; the remainder of the site was undeveloped. Original construction of the Former St. Francis Hospital occurred between 1898 and 1899. By 1902 a second-hand store was present on the eastern portion of the site. Between 1930 and 1939, B.B. Putman Memorial Hospital (Former St. Francis Hospital) was on the northern portion of the site, St. Bonaventure R.C. School was on the southwestern portion, and a rooming building and garage were on the southeastern portion of the site. By 1950, an addition to the Former St. Francis Hospital had been constructed. In 1977, the St. Bonaventure R.C. School no longer was present (Terracon 2018b). Currently, only the vacant Former St. Francis Hospital remains, in disrepair, and the remainder of the site is green space.

2.4 ADJACENT PROPERTY USE

The site lies within an industrial area in the south-southeast portion of Marceline, Missouri. It is bounded north by E Howell Avenue, followed by US Bank and Black Insurance Group; northeast by E Howell Avenue, followed by Dollar General; east by OK Tavern and storage sheds; southeast by vacant grassed land; south by E Garcia Avenue, followed by vacant grassed land; and southwest by Macon Electric (Terracon 2018b).

2.5 SUMMARY OF PREVIOUS ASSESSMENTS

In May 2018, Terracon identified the following recognized environmental conditions (REC) to the site (Terracon 2018b):

- In 1992, a release of diesel occurred from a historically identified, on-site, 6,000-gallon leaking underground storage tank (LUST). The release was remediated, and MDNR issued a No Further Action (NFA) letter in 1993; however, the cleanup occurred prior to establishment in 2004 of Missouri Risk-Based Corrective Action (RBCA) guidelines. Therefore, lack of analytical data for comparison to current RBCA guideline levels poses a Historical Recognized Environmental Concern (HREC) to the site.
- A historically identified dry-cleaning facility on the east-adjoining property likely released dry-cleaning solvents onto the site; therefore, the dry-cleaning facility poses a REC to the site.
- A historically identified filling station with petroleum products 50 feet north from the site poses a REC to the site.
- Petroleum products could have migrated onto the site from a historically identified automotive repair facility and gasoline tank 50 feet south-southwest of the site; therefore, the automotive repair facility and gasoline tank pose a REC to the site.

The Phase I ESA report therefore recommended an additional investigation to evaluate subsurface conditions at the site.

In April 2018, Terracon completed an asbestos and LBP survey of the site. The report identified the following (Terracon 2018a):

Regulated asbestos-containing material (RACM) and asbestos-containing material (ACM):

- Approximately 600 square feet of friable RACM identified in wall plaster
- Approximately 4,400 square feet of friable RACM identified in ceiling plaster
- Approximately 360 square feet of friable RACM identified in boiler insulation
- Approximately 280 square feet of friable RACM identified in breech insulation
- Approximately 220 square feet of friable RACM identified in tank insulation in the additional building

- Approximately 15 square feet of friable RACM identified in tank insulation in the original building
- Approximately 1,600 linear feet (amount was increased during Tetra Tech survey) of friable RACM identified in layered paper pipe insulation
- Approximately 200 joint packings of friable RACM identified in the joint packings associated with layered paper pipe insulation
- Approximately 800 linear feet (amount was increased during Tetra Tech survey) of friable RACM identified in performed pipe insulation
- Approximately 100 joint packings of friable RACM identified in mudded joint packings associated with preformed pipe insulation
- Approximately 400 linear feet (amount was increased during Tetra Tech survey) of friable RACM identified in corrugated pipe insulation
- Approximately 75 joint packings of friable RACM identified in joint packings associated with corrugated pipe insulation
- Approximately 75 joint packings of friable RACM identified in joint packings associated with fiberglass insulated piping
- Approximately 950 square feet of Category I non-friable ACM identified in brown 12- by 12-inch floor tile and mastic
- Approximately 3,000 square feet of Category I non-friable ACM identified in white 9- by 9-inch floor tile
- Approximately 3,000 square feet of Category I non-friable ACM identified in tan 9- by 9-inch floor tile
- Approximately 600 square feet of Category I non-friable ACM identified in tan 12- by 12-inch floor tile
- Approximately 400 square feet of Category I non-friable ACM identified in gold 12- by 12-inch floor tile
- Approximately 30 fire doors containing friable RACM in fire door insulation
- Approximately 800 square feet of Category II non-friable ACM identified in cement panels
- Approximately 96 windows with Category II non-friable ACM in window caulk.

LBP:

- Original Building:
    - Plaster walls and ceilings
    - 1st floor waiting room wood ceiling
    - Wood window components
    - Wood doors and door jambs
    - Basement maintenance shop steel beam
    - Exterior downspouts

- Addition:
    - Plaster walls and ceilings
    - Metal stair components.

While on site START quantified and located specific LBP areas based on results from Terracon's survey.

No other assessments are known to have occurred at the site.

3.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

The following subsections describe the scope, field exploration, and methods implemented during the Phase II ESA. START members Megan Sawyer, Madison Ericson, and Quan Do conducted soil and groundwater sampling on October 17, 2019. START members Megan Sawyer and Ryan Slanczka performed the hazardous materials survey for ACM, LBP, PCBs, and on-site hazardous materials on October 17 and 18, 2019. A hazardous materials report documenting the findings of the ACM, LBP, and PCBs surveys, and the hazardous materials survey was submitted under a separate cover. Photographs taken to document Phase II ESA field activities are in Appendix B. Phase II activities were documented in a site logbook, a copy is in Appendix C.

3.1 SCOPE OF THE ASSESSMENT

START conducted environmental sampling to determine if groundwater, surface and subsurface soils had been contaminated by current and/or historical activities at the site. Sampling was consistent with the Quality Assurance Project Plan (QAPP) approved by EPA on October 8, 2019 (Tetra Tech 2019).

3.1.1 Sampling Plan

The proposed sampling scheme for this project incorporated a combination of biased/judgmental sampling with definitive laboratory analysis, in accordance with procedures included in the *Guidance for Performing Site Inspections Under CERCLA*, Office of Solid Waste and Emergency Response (OSWER) Directive #9345.1-05, September 1992. All samples were submitted for analysis to an off-site laboratory subcontracted by START. Objectives of soil and groundwater sampling were to characterize possible releases to the environment. Appendix A, Figure 2 depicts sampling locations at the site. Sampling at the site occurred as follows:

- Four surface soil samples were collected at four locations on the subject property. Each boring was advanced by use of a Geoprobe® direct-push technology (DPT) rig. From each boring, one soil sample was collected within 0 to 3 feet bgs.
- Five subsurface soil samples (including one field duplicate) were collected at four Geoprobe DPT boring locations. From each boring one soil sample was collected within a 1- to 2-foot interval at depths not exceeding 30 feet bgs.
- Two groundwater samples (including one field duplicate) were collected at one boring location, SB-2.

3.1.2 Chemical Testing Plan

Laboratory analyses for chemical parameters were selected based on possibly present contaminants associated with current and historical uses of the site. All samples were submitted to ALS Group, USA (ALS) of Holland, Michigan, for analyses for the following parameters: volatile organic compounds (VOC), semivolatile organic compounds (SVOC), total petroleum hydrocarbons (TPH) – gasoline-range organics (GRO), TPH – diesel-range organics (DRO), TPH – oil-range organics (ORO), and Resource Conservation and Recovery Act (RCRA) metals including mercury.

3.1.3 Deviations from the QAPP

The following deviations from the QAPP occurred during Phase II ESA activities:

- START collected one groundwater sample instead of four, as groundwater was not encountered at boring locations SB-1, -3, and -4.
- Groundwater and soil samples arrived at the laboratory at 7.2 degrees Celsius (^{o}C) instead of 4 ^{o}C. START placed the samples into the cooler with a sufficient amount of ice, but the ice melted, assumedly due to traveling conditions, which contributed to the elevated temperature in the sample container. However, the slightly elevated temperature likely did not significantly impact overall analytical results or conclusions regarding the Phase II ESA.

3.2 FIELD EXPLORATION AND METHODS

Field activities at the site occurred on October 17, 2019. Samples were submitted to ALS in Holland, Michigan, on October 18, 2019. The following sections summarize soil and groundwater sample collections. Sampling locations are depicted on Figure 2 in Appendix A.

3.2.1 Soil Sampling

At each of four select soil boring locations, a surface soil sample and a subsurface soil sample were collected during Phase II activities at select locations to investigate present contamination from historical and current activities surrounding the site (see Appendix A, Figure 2). To confirm or eliminate RECs identified in the Phase I TBA (Terracon 2018b), one boring was advanced southeast of the original building and east of the addition where a former UST would likely have been located (the former UST had been identified during the Phase I ESA as a 6,000-gallon diesel fuel UST removed in 1992). One boring was advanced northeast of the Former St. Francis Hospital (downgradient of the site) to assess the possibility of migration from the site of contamination associated with RECs identified during the Phase I ESA. Two additional borings were advanced south and southeast of the site building and upgradient to assess potential for migration to the site of contamination from off-site sources on adjacent properties.

Sampling proceeded by use of a Geoprobe® DPT rig. Soil cores were collected by use of Geoprobe 4-foot-long, Macro-Core samplers with disposable polyvinyl chloride (PVC) liners. Soil borings were advanced to maximum depth of 30 feet, or to groundwater, whichever came first. All borings were advanced to 30 feet except at SB-2, where groundwater was encountered at approximately 28 feet bgs. One surface soil sample and one subsurface soil sample were collected at each boring and submitted for laboratory analysis. Soil borings were screened by use of a hand-held photoionization detector (PID) for presence of elevated concentrations of VOCs. If an interval within the boring exhibited observable staining, emitted odor, or induced elevated PID readings, a soil sample was collected within that interval. In the absence of staining/odor or elevated PID readings, a composite surface sample was collected within the 0- to 3-foot bgs interval. A similar approach to subsurface soil collection was followed. In the absence of staining/odor or elevated PID readings, a sample was collected from directly above the water table or from the bottom of the boring (30 feet bgs) if the water table was not encountered. No staining/odor or elevated PID readings were noted in any boring.

Soil samples for analyses for VOCs and TPH-GRO (analyzed via SW-846 Method 8260) were collected following EPA Method 5035, which involved collecting approximately 5 grams of soil into three 40-milliliter (mL) vials directly from the undisturbed core by use of a disposable volatile organic analysis (VOA) plunger. Two vials were preserved with sodium bisulfate and one vial was preserved with methanol. Remaining soil from each sample interval was homogenized and placed into one 8-ounce jar for analyses for SVOCs (via SW-846 Method 8270), TPH-DRO (via SW-846 Method 8270), TPH-ORO (via SW-846 Method 8270), and RCRA metals (via SW-846 Method 6020) (including mercury [via SW-846 Method 7470]).

Following collection of each sample, its location (i.e., global positioning system [GPS] coordinates) was recorded in the site logbook. Table 1 below summarizes soil samples collected during this Phase II ESA.

TABLE 1

SOIL BORING AND SAMPLE SUMMARY
FORMER ST. FRANCIS HOSPITAL, MARCELINE, LINN COUNTY, MISSOURI

Boring ID	Sample ID(s)	Depth Interval (ft bgs)	Latitude (°N)	Longitude (°W)	Analyses Performed
SB-1	SB-1 (0-3')	0-3	39.713926	92.950465	VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and RCRA Metals (including mercury)
	SB-1 (30')	30			
SB-2	SB-2 (0-3')	0-3	39.713685	92.950744	
	SB-2 (26-28')	26-28			
SB-3	SB-3 (0-3')	0-3	39.713579	92.951037	
	SB-3 (28-30)	28-30			
	SB-DUP (28-30')	28-30			
SB-4	SB-4 (0-3')	0-3	39.713367	92.950640	
	SB-4 (30)	30			

Notes:

°	Decimal degrees	RCRA	Resource Conservation and Recovery Act
DRO	Diesel-range organics	SB	Soil boring
DUP	Duplicate sample	SVOC	Semivolatile organic compound
ft bgs	Feet below ground surface	TPH	Total petroleum hydrocarbons
GRO	Gasoline-range organics	VOC	Volatile organic compound
ID	Identification	W	West
N	North		
ORO	Oil-range organics		

3.2.2 Groundwater Sampling

Two groundwater samples (including one field duplicate) were collected at one location collocated with soil boring location SB-2. Groundwater was encountered at approximately 28 to 30 feet bgs.

Samples from SB-2 were collected by use of a Geoprobe Screen Point 16 sampling apparatus containing a disposable, 4-foot-long, PVC screen. At each soil boring location, groundwater was anticipated at a depth between 20-30 bgs; however, groundwater was encountered only at SB-2. At SB-2, the boring proceeded to approximately 4-5 feet below the water table, and then the screen was exposed to the aquifer. After the screen had been deployed at the bottom of the boring, about 1 gallon of water was purged through disposable polyethylene tubing utilizing a check valve placed at the bottom of the tubing. Samples for analysis for low-level VOCs (including GRO) via SW-846 Method 8260 were collected into four 40-mL vials preserved with hydrochloric acid (HCl). Samples for analyses for SVOCs, TPH-DRO, and TPH-ORO (via SW-846 Method 8270) were collected in two unpreserved 1-liter (L) amber glass bottles. Samples for analyses for RCRA metals (via SW-846 Method 6020) (plus mercury [via SW-846 Method 7470]) were collected in two 250-mL containers (one for analysis for total metals and one for analysis for dissolved metals) and preserved with nitric acid (HNO_3) to a pH less than (<) 2. Samples for dissolved metals analysis were filtered in the field through a 0.45-micrometer filter.

Following collection of the samples, the sampling location (i.e., GPS coordinates) was recorded in the site logbook. Table 2 below summarizes groundwater samples collected during this Phase II ESA.

TABLE 2

GROUNDWATER SAMPLE SUMMARY
FORMER ST. FRANCIS HOSPITAL, MARCELINE, LINN COUNTY, MISSOURI

Boring ID	Sample ID(s)	Static Water Level (ft bgs)	Latitude(°N)	Longitude(°W)	Analyses Performed
SB-2	GW-2 (30)	26-28	39.713685	92.950744	VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and total and dissolved RCRA Metals (including mercury)
SB-2	GW-DUP	26-28	39.713685	92.950744	VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and total and dissolved RCRA Metals (including mercury)

Notes:

°	Decimal degrees	ORO	Oil-range organics
DRO	Diesel-range organics	RCRA	Resource Conservation and Recovery Act
DUP	Duplicate sample	SVOC	Semivolatile organic compound
ft bgs	Feet below ground surface	SB	Soil boring
GRO	Gasoline-range organics	TPH	Total petroleum hydrocarbons
GW	Groundwater	VOC	Volatile organic compound
ID	Identification	W	West
N	North		

3.2.3 Quality Control Sampling

Field quality control (QC) sampling for this investigation included one laboratory-supplied aqueous trip blank, one field blank, one equipment rinsate blank, and one soil and one groundwater field duplicate samples. The trip blank was analyzed by ALS for VOCs and TPH-GRO. The field blank and equipment rinsate blank were analyzed by ALS for VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and total and dissolved RCRA metals including mercury. Analytical data from the trip blank were referenced to determine whether contamination had been introduced during transportation of containers and samples. Analytical data from the field blank were used to evaluate contamination of sampling containers or sample preservatives, and to assess contamination potentially introduced during sampling and laboratory procedures. Analytical data from the equipment rinsate blank were used to verify that equipment had been properly decontaminated after sampling, and that cross-contamination had not occurred. One soil and one groundwater field duplicate samples were collected to evaluate for total method precision.

4.0 EVALUATION AND PRESENTATION OF RESULTS

The following sections present analytical data from soil and groundwater samples collected during the Phase II ESA. Soil sample results from this ESA were compared to EPA Regional Screening Levels (RSL) for industrial soil (EPA 2019), Missouri Risk-based Corrective Action (MRBCA) Lowest Default Target Levels (LDTL), and MRBCA Tier 1 Risk-based Target Levels (RBTL) for Type 1 (sandy) non-residential soils (MDNR 2010). Concentrations of metals in soils that exceeded screening levels were compared to USGS-reported background concentrations in Linn County, Missouri (USGS 2019). Analytical results from groundwater samples were compared to EPA Maximum Contaminant Levels (MCL), MRBCA LDTLs, and MRBCA Tier 1 non-residential RBTLs for groundwater via ingestion inhalation (vapor emission and particles) and dermal contact in Type 1 (sandy) soils.

Comparisons of analytical data to applicable screening values appear in Appendix D, Tables D-1 through D-4. Copies of analytical data packages and a data validation report are in Appendix E.

4.1 SURFACE SOIL SAMPLES

Four surface soil samples were collected at four locations to assess impacts on soil from historical and current site activities. Soil samples were submitted to ALS for analyses for VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and RCRA metals including mercury. Table D-1 in Appendix D lists detected analytical results from all surface soil samples collected during the Phase II ESA.

VOCs

The laboratory detected 2-butanone (methyl ethyl ketone) and acetone in surface soil samples, with no detected concentration exceeding a regulatory benchmark, both are common laboratory contaminants. Table D-1 in Appendix D lists VOC detections in surface soil.

SVOCs

Several SVOCs were detected in three surface soil samples—SB-1 (0-3’), SB-2(0-3’), and SB-3 (0-3')—with no detected concentration exceeding an applicable screening level. Table D-1 in Appendix D lists SVOC detections.

TPH

TPH-GRO (C6-C10) was detected at SB-3 at an estimated concentration between the method detection limit (MDL) and laboratory reporting limit, the detection did not exceed any regulatory benchmarks.

Metals

Metals were detected in all four samples. Table D-1 in Appendix D lists metal detections in surface soil. Detected concentrations found to exceed applicable screening levels are as follows:

- Arsenic was detected in all four surface soil samples at concentrations ranging from 7.2 to 19 milligrams per kilogram (mg/kg). All detected concentrations exceeded the EPA RSL for industrial soil of 3 mg/kg and MRBCA LDTL of 3.89 mg/kg; however, all results were below the MRBCA Tier 1 non-residential RBTL of 15.9 mg/kg, except in the sample collected at SB-4. All results were above the USGS-reported minimum background concentration in Linn County of 2.74 mg/kg. Arsenic concentrations at soil borings SB-1, -2 and -3 were above the mean average in Linn County of 7.41; at SB-1 and -3 were below the maximum background concentration in Linn County of 13.65; and at SB-2 and -4 were above the maximum background concentration in Linn County.
- Lead was detected in all four samples at concentrations ranging from 15 to 54 mg/kg. All detected concentrations exceeded MRBCA LDTL of 3.74 mg/kg but were below the EPA RSL and MRBCA RBTL for nonresidential land use. At all boring locations except SB-1, lead concentrations were above the minimum and mean background concentrations in Linn County. At SB-1 and -2, lead concentrations were below the maximum background concentration in Linn County, and at SB-2 and -4 were above the mean and maximum background concentrations in Linn County.

4.2 SUBSURFACE SOIL SAMPLES

Five subsurface soil samples (including one field duplicate) were collected at four locations to assess impacts on soil from historical site activities and current surrounding businesses. Soil samples were submitted to ALS for analyses for VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and RCRA metals including mercury. Table D-2 in Appendix D lists analytical data from all subsurface soil samples collected during the Phase II ESA.

VOCs

Acetone, a common laboratory contaminant, was the only VOC detected in any subsurface soil sample.

SVOCs

One SVOC, 2-methylnaphthalene, was detected in one of four borings, SB-DUP, at 0.0096 mg/kg below the EPA RSL, MRBCA LDTL, and MRBCA Tier 1 non-residential screening level. No other SVOC was detected in a subsurface soil sample. Table D-2 in Appendix D lists SVOC detections in subsurface soil samples.

TPH

TPH-GRO (C6-C10) was detected in one of four borings, SB-3(30'), at 5.8 mg/kg—below the EPA RSL, MRBCA LDTL, and MRBCA Tier 1 non-residential screening level. TPH compounds were not detected in any other subsurface soil sample. Table D-2 in Appendix D lists detections of TPH in subsurface soil samples.

Metals

Metals were detected in all five subsurface soil samples collected from four borings. Table D-2 in Appendix D lists metal detections in subsurface soil samples. Detected concentrations found to exceed applicable screening levels are as follows:

- Arsenic was detected in all five samples (including a field duplicate) at concentrations ranging from 4.4 to 7.9 mg/kg. All detected concentrations exceeded the EPA RSL for industrial soil of 3 mg/kg and MRBCA LDTL of 3.89 mg/kg. Detected concentrations in two samples, SB-3 (30') at 7.5 mg/kg and SB-4 (30') at 7.9 mg/kg, exceeded the USGS-reported mean background concentration in Linn County of 7.411 mg/kg. However, these detections were below the maximum background concentration in Linn County of 13.647 mg/kg, and thus arsenic at the site is likely naturally occurring. No MRBCA Tier 1 non-residential RBTL has been established for arsenic. The MCL based Soil Screening (SSL) for arsenic is 0.29 mg/kg, thus creates a possibility of arsenic leaching into the soil. Since background soil concentrations in some areas of Linn County appear to greater than the SSL, total arsenic concentrations in groundwater appear to be related to background conditions.
- Lead was detected in all five samples (including a field duplicate) at concentrations ranging from 6.8 to 14 mg/kg, exceeding the MRBCA LDTL of 3.74 mg/kg. However, all detected concentrations were below the EPA RSL for industrial soil (800 mg/kg), MRBCA Tier 1 non-residential RBTL (660 mg/kg), and USGS-reported mean background concentration in Linn County of 17.554 mg/kg and thus lead is likely naturally occurring.
- Mercury was detected in one sample, SB-DUP (SB-3) at a concentration of 0.0.31, exceeding the USGS-reported maximum background concentration levels in Linn County, but below the EPA RSL of 4.6 mg/kg, MRBCA LDTL of 2.19 mg/kg and MRBCA Tier 1 non-residential RBTL of 17.6 mg/kg. Mercury was not detected in the parent sample collected from soil boring SB-3.

4.3 GROUNDWATER SAMPLES

Two groundwater samples (including one field duplicate) were collected at one location to assess impacts on groundwater from historical activities and adjacent properties. Groundwater samples were submitted to ALS for analyses for VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and total and dissolved RCRA metals including mercury. Comparisons of analytical data to MCLs, MRBCA LDTLs, and MRBCA Tier 1 non-residential soil type sandy RBTLs for groundwater via indoor inhalation of vapor emissions. If a value was not established for MRBCA Tier 1 non-residential soil type sandy RBTLs for groundwater via indoor inhalation of vapor emissions, the value for dermal contact was used as the

benchmark for comparison. Table D-3 summarizes analytical data from groundwater samples collected during the Phase II ESA.

VOCs

Acetone and carbon disulfide were detected in GW-2 (30) at 0.037 and 0.00063 J milligrams per liter (mg/L), respectively ("J" denotes an estimated value)—with carbon disulfide concentration below the EPA MCL (compared to tap water EPA RSL in absence of EPA MCL), and both concentrations below respective MRBCA LDTLs and MRBCA Tier 1 non-residential RBTLs for groundwater; an EPA MCL has not been established for acetone. No other VOC was detected in groundwater samples. Table D-3 in Appendix D lists VOC detections in groundwater.

SVOCs

One SVOC, bis(2-ethylhexyl)phthalate, was detected in GW-2 (30), at 0.00075 J mg/L. The detection was below the EPA MCL, MRBCA LDTL, and MRBCA Tier 1 non-residential RBTL screening levels. Table D-3 in Appendix D lists SVOC detections in groundwater.

TPH

TPH-DRO (C10-C21) was detected in GW-2 (30), at 0.19 mg/L—below the EPA MCL (compared to tap water EPA RSL in absence of EPA MCL), MRBCA LDTL, and MRBCA Tier 1 non-residential RBTL screening level. Table D-3 in Appendix D lists the TPH-DRO detection in groundwater.

Metals

Metals were detected in both groundwater samples GW-2 (30) and GW-DUP. Table D-3 in Appendix D lists total and dissolved metal detections. Detected concentrations in total metals analysis found to exceed applicable screening levels are as follows:

- Arsenic was detected in samples GW-2 (30) and GW-DUP at 0.037 and 0.031 mg/L, respectively—exceeding the EPA MCL of 0.01 mg/L and MRBCA LDTL of 0.01 mg/L, but below the MRBCA Tier 1 non-residential RBTL of 0.58 mg/L.
- Lead was detected in in samples GW-2 (30) and GW-DUP at 0.08 and 0.06 mg/L, respectively—exceeding the EPA MCL of 0.015 mg/L and MRBCA LDTL of 0.015 mg/L. No MRBCA Tier 1 non-residential RBTL level has been established.

No detections in filtered samples for dissolved metals exceeded regulatory benchmarks; therefore, it appears that the lead and arsenic reported in samples for total metals analysis can be attributed to naturally occurring metals in the soil.

4.4 QUALITY CONTROL SAMPLES

One trip blank was included in the Phase II ESA to determine whether contamination had been introduced during transportation of containers and samples. One field blank was collected to evaluate contamination of sampling containers and/or preservatives and to assess contamination potentially introduced during sampling and laboratory procedures. One equipment rinsate blank was collected to evaluate effectiveness of decontamination procedures. The trip blank was analyzed for VOCs, and the field blank and equipment rinsate blank were analyzed for VOCs, SVOCs, TPH-GRO, TPH-DRO, TPH-ORO, and total and dissolved RCRA metals including mercury. Table D-4 in Appendix D lists detections in quality control samples and associated regulatory benchmarks. Comparisons of analytical data to MCLs, MRBCA LDTLs, and MRBCA Tier 1 non-residential RBTLs for groundwater via dermal contact exposure yielded the following results from quality control samples:

> The common laboratory-related contaminants acetone, chloroform, and methylene chloride were detected in trip blanks. Acetone was detected in all samples at concentrations between the MDL and reporting limit. No other contaminants were detected in the quality control samples.

5.0 DISCUSSION OF SIGNIFICANT FINDINGS AND CONCLUSIONS

This section summarizes significant findings and offers conclusions regarding Phase II ESA field activities. A property profile form for the subject property is in Appendix F.

5.1 SIGNIFICANT FINDINGS

Surface Soil

Arsenic was detected in all four surface soil samples at concentrations above the EPA RSL for industrial soil and the MRBCA LDTL. None of the concentrations reported exceeded the removal management levels (RML) of 68 mg/kg residential/300 mg/kg non-residential. Also, none of the concentrations exceed three times background which the Hazard Ranking System guidance considers evidence of an observed release. In one surface soil sample, SB-4, arsenic concentration exceeded the MRBCA Tier 1 non-residential RBTL. Exceedances of USGS-reported background concentrations of arsenic in Linn County were as follows:

- Sample SB-1 (0-3'): exceedances of the minimum and mean background levels
- Samples SB-2 (0-3') and SB-4 (0-3'): exceedances of the minimum, maximum, and mean background levels
- Sample SB-3 (0-3'): exceedance of the minimum background level.

Lead was detected in all four samples at concentrations above the MRBCA LDTL, but below the EPA RSL. Exceedances of USGS-reported background concentrations of lead in Linn County were as follows:

- Samples SB-1 (0-3') and SB-3 (0-3'): exceedance of the minimum background level
- Samples SB-2 (0-3') and SB-4 (0-3'): exceedances of the minimum, maximum, and mean background levels.

The semivolatile organic compounds (SVOC) benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected, but none of the samples collected exceeded regulatory benchmarks.

Subsurface Soil

Arsenic was detected in all five samples (including a field duplicate) at concentrations exceeding the EPA RSL, MRBCA LDTL and minimum USGS-reported background concentration in Linn County.
The USGS reported average concentrations of minerals in Linn County were derived based on a variety of sample sources and not specifically relatable to surface or subsurface soils. Arsenic concentrations in two

samples also exceeded the USGS-reported mean background concentration in Linn County, but were below the USGS-reported maximum concentration and thus arsenic is likely naturally occurring.

Lead was detected in all samples (including a field duplicate) at concentrations exceeding the MRBCA LDTLs. Lead was also reported at concentrations exceeding the USGS-reported minimum background concentration in Linn County in all samples except SB-2 (26-28'). However, all detections were below the mean background concentration in Linn County, therefore lead is likely naturally occurring.

Mercury was detected in one surface soil sample, SB-DUP (SB-3) exceeding the USGS-reported maximum background levels in Linn County, but below the EPA RSL, MRBCA LDTL, and RBTL levels. Mercury was not detected in the parent sample collected from soil boring SB-3.

Groundwater

Arsenic and lead concentrations in the two groundwater samples exceeded the respective MCLs and MRBCA Tier 1 non-residential RBTLs. However, arsenic and lead were not detected at concentrations exceeding a regulator benchmark in samples analyzed for dissolved metals, therefore, it is apparent that the detections of total metals can be attributed to naturally occurring metals in soils in the area. The lack of groundwater samples collected presents insufficient interpretation to the extent of possible contamination. Drinking water to the site is provided by the City of Marceline.

5.2 EVALUATION OF PREVIOUSLY IDENTIFIED RECS AND HRECS

This section provides a discussion and evaluation of the previously identified RECs and HRECs reported in the May 2018 Phase I ESA (Terracon 2018).

- A Historical Recognized Environmental Concern (HREC) - a release of diesel occurred from a historically identified, on-site, 6,000-gallon leaking underground storage tank (LUST). Due to the limited detections of SVOCS, VOCs, and TPH's in soil and groundwater at the site, no evidence of contamination to soil and/or groundwater from a release of diesel fuel was indicated.

- REC - A historically identified dry-cleaning facility on the east-adjoining property likely released dry-cleaning solvents onto the site. Due to the lack of SVOCs, VOCs and TPHs detections in soil and groundwater at the site, no evidence of a release of dry cleaning solvents onto the site was indicated.
- REC-A historically identified filling station with petroleum products 50 feet north from the. Due to the lack of SVOCs, VOCs and TPHs detections in soil and groundwater at the site, no evidence of a release of petroleum products onto the site was indicated.
- REC- Petroleum products could have migrated onto the site from a historically identified automotive repair facility and gasoline tank 50 feet south-southwest of the site. Due to the lack of SVOCs, VOCs and TPHs detections in soil and groundwater at the site, no evidence of a release of petroleum products onto the site was indicated.

5.3 AFFECTED MEDIA

Sampling results during this Phase II ESA indicated presence of contaminants in soil and groundwater at the site. Notably, concentrations of arsenic and lead in surface soil and groundwater samples were reported above non-residential benchmarks. Groundwater samples contained levels of total arsenic and lead above the EPA MCLs and MRBCA LDTLs. However, arsenic and lead were not detected in dissolved groundwater samples, therefore are likely naturally occurring within the area. The City of Marceline provides drinking water to the site. Furthermore, downspouts and windows containing LBP may have contributed to the elevated lead levels found at the site. The source of SVOCs detected at surface soil boring SB-2, east of the addition and south of the original building, is unknown. None of the reported concentrations of SVOCs exceeded any applicable screening level, and the SVOCs are possibly attributed to a historical release from the former UST and historical industrial use in the surrounding area. Based on the lack of detections of VOCs in excess of any regulatory benchmarks, there does not appear to be any vapor intrusion related concern at the site.

The current owner, Michael Wrenn, has interest in demolishing the building on site, and the future use is unknown. The location of the site in downtown Marceline is surrounded by local businesses. Assumedly, the space will be used for commercial development and/or retail space. Based on analytical results from soil and groundwater samples, further investigation and/or remediation does not appear to be warranted; however, asbestos and LBP should be appropriately addressed prior to building renovation or demolition. The Hazardous Materials Survey summarizes the ACM and LBP found at the site and has been submitted to EPA. An Analysis of Brownfields Cleanup Alternatives (ABCA), to be submitted under separate cover, will present alternatives for remediating affected media at the site.

6.0 REFERENCES

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U.S. Geological Survey (USGS). 1979. Marceline Quadrangle. USGS 7.5-Minute Topographic Series.

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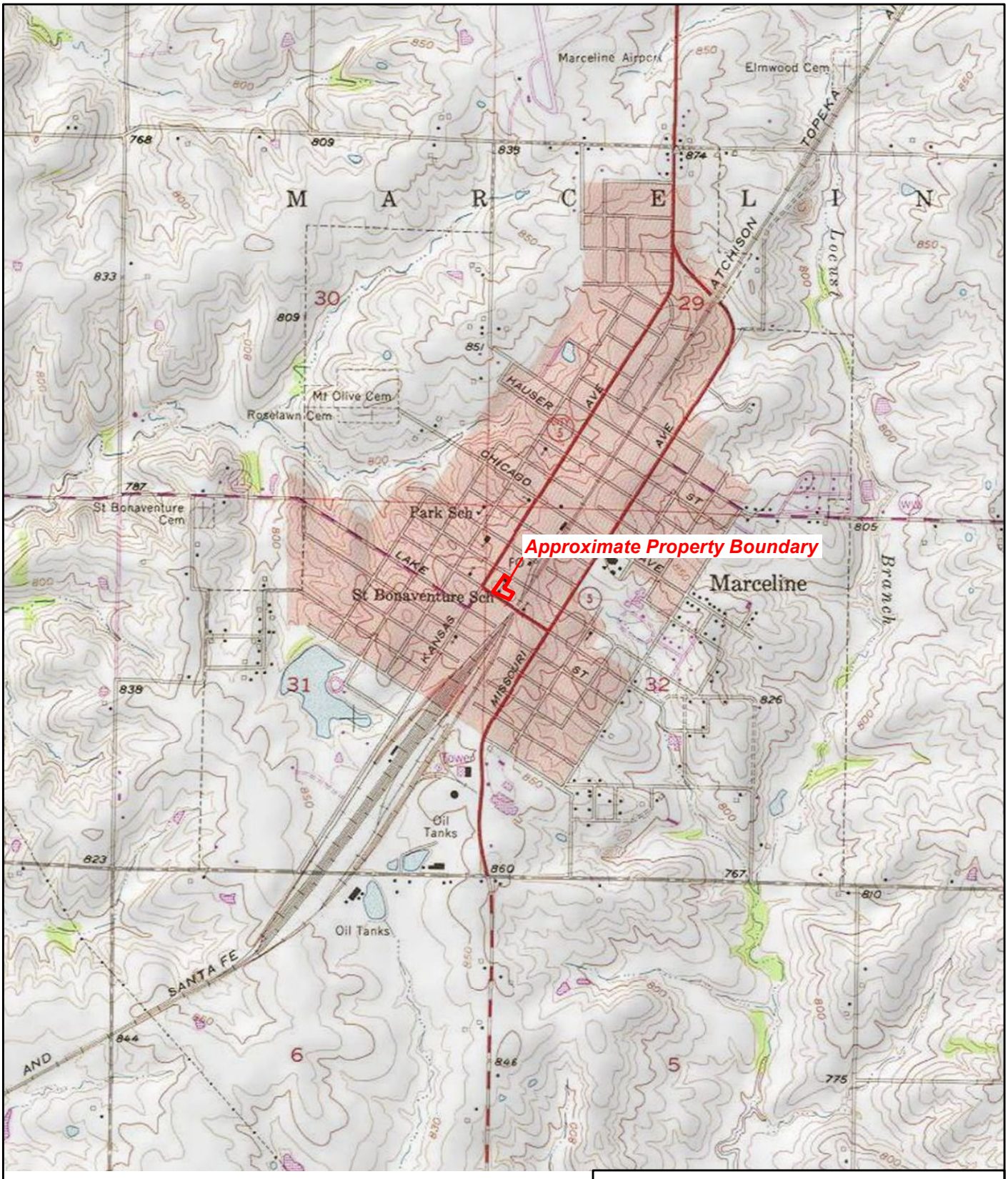
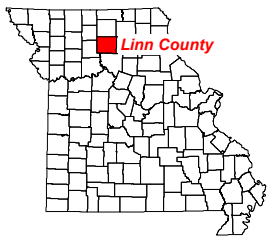
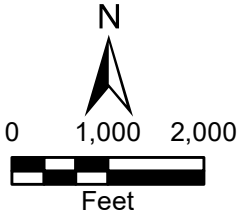
APPENDIX A

FIGURES







Source: USGS Marceline, MO 7.5 Minute Topo Quad, 1979

Former St. Francis Hospital
Marceline, Missouri

Figure 1

Site Location Map

TETRA TECH

Date: 6/18/2019 Drawn By: Nick Wiederholt Project No: X903019F0101.002

X:\G\9030\010.1\002\Projects\mxd\Figure1.mxd

Legend

- Soil sample location
- Soil and groundwater sample location
- Approximate property boundary
- Building footprint

N

0 30 60

Feet

Source: Esri, ArcGIS Online, Word Imagery (Clarity)

Former St. Francis Hospital
Marceline, Missouri

Figure 2

Sample Location Map

TETRA TECH

Date: 12/13/2019 Drawn By: Nick Wiederholt Project No: X903019F0101.002

X:\G\9030\010\1002\Projects\mxd\Figure2_121319.mxd

APPENDIX B

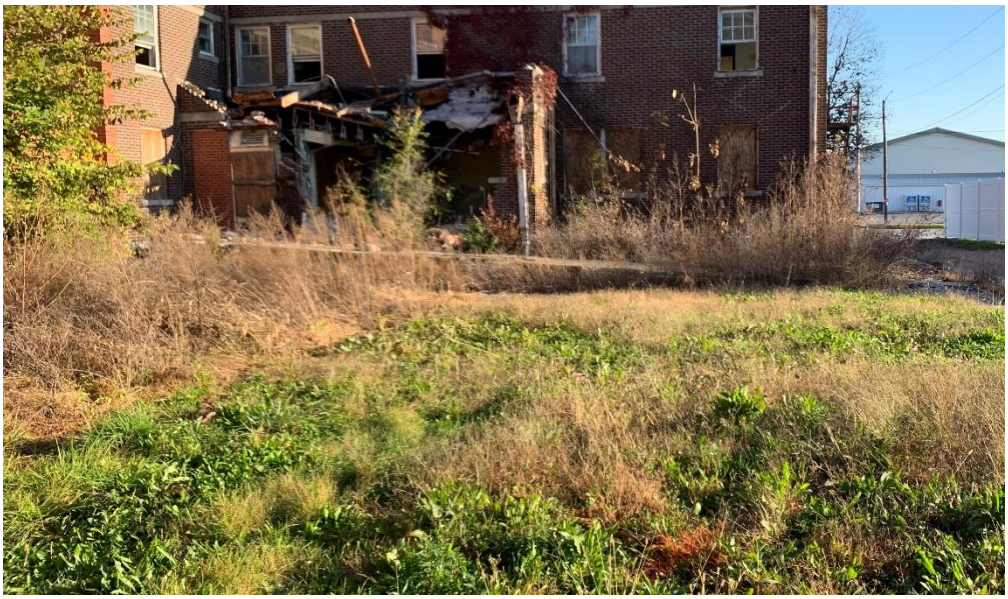
PHOTOGRAPHIC DOCUMENTATION

Phase II Targeted Brownfields Assessment
St. Francis Hospital Building - Marceline, Missouri

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows direct-push technology (DPT) activities at soil boring (SB)-1 location on northeast side of building.	1
	CLIENT	U.S. Environmental Protection Agency (EPA)	Date
Direction: Southwest	PHOTOGRAPHER	Madison Ericson	10/17/2019

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows soil cores from SB-1 within 0 to 30 feet below ground surface (bgs).	2
	CLIENT	EPA	Date
Direction: NA	PHOTOGRAPHER	Madison Ericson	10/17/2019

Phase II Targeted Brownfields Assessment
St. Francis Hospital Building - Marceline, Missouri



TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows SB-2 location on southeast side of building.	3
	CLIENT	EPA	Date
Direction: North	PHOTOGRAPHER	Madison Ericson	10/17/2019

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows soil cores from SB-2 within 0 to 28 feet bgs.	4
	CLIENT	EPA	Date
Direction: NA	PHOTOGRAPHER	Madison Ericson	10/17/2019

Phase II Targeted Brownfields Assessment
St. Francis Hospital Building - Marceline, Missouri

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows DPT activities at SB-3 location on the southwest side of building.	5
	CLIENT	EPA	Date
Direction: North	PHOTOGRAPHER	Madison Ericson	10/17/2019

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows soil cores from SB-3 within 0 to 30 feet bgs.	6
	CLIENT	EPA	Date
Direction: NA	PHOTOGRAPHER	Madison Ericson	10/17/2019

Phase II Targeted Brownfields Assessment
St. Francis Hospital Building - Marceline, Missouri

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows SB-4 location on far southeast side of building.	7
	CLIENT	EPA	Date
Direction: North	PHOTOGRAPHER	Madison Ericson	10/17/2019

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows soil cores from SB-4 within 0 to 30 feet bgs.	8
	CLIENT	EPA	Date
Direction: NA	PHOTOGRAPHER	Madison Ericson	10/17/2019

Phase II Targeted Brownfields Assessment
St. Francis Hospital Building - Marceline, Missouri

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows DPT and groundwater sampling activities at SB-2.	9
	CLIENT	EPA	Date
Direction: South	PHOTOGRAPHER	Madison Ericson	10/17/2019

TETRA TECH PROJECT NO. X903019F0101.002	DESCRIPTION	This photograph shows groundwater sampling at SB-2.	10
	CLIENT	EPA	Date
Direction: NA	PHOTOGRAPHER	Madison Ericson	10/17/2019

APPENDIX C

SITE LOGBOOK

KS1785

103X903019F0101.002

Rite in the Rain®
ALL-WEATHER
LEVEL
№ 311FX

Former St. Francis Hospital
Marceline, MO

10/17/19 St. Francis Hospital Marceline

0830 Megan Sawyer, Ryan Slanczka, Madison Ericson & Quan Do arrived on site.

0900 Walked site & checked out boring locations equiement set up.

0908 SB1 (0003) collected and sampled at 0"-3ft P.D:0.0

1022 SB-1 (30) collected and sampled at 30ft PID:0.0 ; No GW.

1042 SB-2 (6-3) collected and sampled at 0-3ft PID:0.0

1137 SB-2 (26-28) collected and sampled at 26-28

1200 GW-2 (30) GW hit at 30ft

~~1258~~ GW Dup sampled @ 1258 at GW-2 (30)

1420 SB-3 (0-3) collected and sampled at 0-3ft PID:0.0

1530 SB-3 (30) Sample collected at 30ft PID: 0.0; NO GW

1535 SB-DUP Sample collected at 28-30ft @ SB-3

1550 SB-4 (0-3) sample collected at 0-3ft PID:0.0

1720 SB-4 (30) sample collected at 30f PID: 0.0 ; NO GW

10/17/19 St. Francis Hospital Marceline

1730 Collected Rinsate Blank

1740 R. Slanczka & M. Sawyer departed from site building.

1745 Collected GPS locations from SB-1, SB-2, SB-3, SB-4

SB-1 = Lat 39.4251.0297
Long 92.570.834

SB-2 = Lat 39.4249.593
Long 92.574.538

SB-3 = Lat 39.4249.834
Long 92.574.350

SB-4 = Lat 39.4248.179
Long 92.572.445

No PID readings were above 0.0

1800 Departed site

MEricson

10/17/19

Rite in the Rain

10/18/19 St. Francis Hospital Marceline MO

0830 M. Ericson, M. Sawyer, R. Slanzeka arrived on site

0840 M. Ericson & M. Sawyer went into site building

1125 Field Blank collected

1340 Departed site to head back to KC office

1400 Lunch

1430 End lunch

1700 Arrived @ KC office, un packed van

1730 Left KC office. End of day

Megan Sawyer
10/18/2019

Rite in the Rain

APPENDIX D

ANALYTICAL SUMMARY TABLES

TABLE D-1

SURFACE SOIL SAMPLE ANALYTICAL SUMMARY
FORMER ST. FRANCIS HOSPITAL
MARCELINE, LINN COUNTY, MISSOURI

Sample ID	Depth (ft bgs)	VOCs		SVOCs												RCRA Metals								TPH
		2-Butanone (Methyl Ethyl Ketone)	Acetone	2-Methylnaphthalene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	TPH-GRO (C6-C10)
		Results (mg/kg)																						
SB-1 (0-3')	0-3	0.011 J	0.11	0.0086 U	0.0086 U	0.015	0.015	0.021	0.0086 U	0.0086 U	0.011	0.024	0.0086 U	0.023	0.021	**10**	400	0.17 U	21	15	0.059	1.3	0.43 U	1.4 U
SB-2 (0-3')	0-3	0.0069	0.91	0.011	0.013	0.058	0.071	0.085	0.049	0.048	0.07	0.12	0.066	0.097	0.1	**14**	180	0.98	15	54	0.054	1.0	0.16 J	2.0 U
SB-3 (0-3')	0-3	0.0088	0.093	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.014	0.0083 U	**7.2**	220	0.73	8.8	24	0.025	0.50 U	0.50 U	2.3 J
SB-4 (0-3')	0-3	0.012 U	0.065	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	**19**	460	0.093 J	23	47	0.078	2.5	0.18 J	2.0 U
		Screening Levels (mg/kg)																						
EPA RSL for Industrial Soil[1]		19,000	670,000	3,000	230,000	21	2.1	21	NE	210	2,100	3,000	21	NE	2,300	3	22,000	98	180,000	800	4.6	580	580	420
MRBCA LDTLs		7.3	4.20	7.55	3,060	6.12	0.62	6.19	1,720	62	599	2,280	3.77	158	1,500	3.89	2,040	9.31	74,600	3.74	2.19	6.27	16.2	385
Tier 1 RBTL Non-residential Land Use, Soil Type I (Sandy)		579,000	807,000	3,590	154,000	21.1	2.11	21	16,500	211	1,990	21,800	12.8	26,900	16,400	15.9	181,000	74.8	472,000	660	630	4,780	4,480	4,650,000
Linn County, Missouri, Minimum Background		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.74	NE	NE	NE	8.08	0.01	0.10	NE	NA
Linn County, Missouri, Maximum Background		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.65	NE	NE	NE	29.52	0.02	0.48	NE	NA
Linn County, Missouri, Mean Background		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.41	NE	NE	NE	17.55	0.01	0.24	NE	NA

Notes:

Bold	Analyte concentration exceeds the EPA RSL
	Analyte concentration exceeds the MRBCA LDTL
	Analyte concentration exceeds the MRBCA LDTL and non-residential RBTL
Outlined	Analyte concentration exceeds Linn county background

[1] EPA RSL for industrial soil using a target cancer risk of 1E-06 and hazard quotient of 0.1, November 2019.

EPA	U.S. Environmental Protection Agency
ft bgs	Feet below ground surface
ID	Identification
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
LDTL	Lowest default target level
mg/kg	Milligrams per kilogram
MRBCA	Missouri Risk-Based Corrective Action
NA	Not applicable
NE	Not established
RBTL	Risk-based Target Level
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SB	Soil boring
SVOC	Semivolatile organic compound
VOC	Volatile organic compound
U	Analyte not detected at concentration above the reported sample quantitation limit.

TABLE D-2

SUBSURFACE SOIL SAMPLE ANALYTICAL SUMMARY
FORMER ST. FRANCIS HOSPITAL
MARCELINE, LINN COUNTY, MISSOURI

Sample ID	Depth (ft bgs)	VOCs	SVOCs	RCRA Metals								TPH
		Acetone	2-Methylnaphthalene	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	TPH-GRO (C6-C10)
		Results (mg/kg)										
SB-1 (30')	30	0.0048 U	0.0076 U	**5.3**	180	0.18	14	12	0.017 J	0.045 U	0.45 U	2.4 J
SB-2 (26-28')	26-30	0.011 U	0.0074 U	**4.9**	400	0.24	13	6.8	0.011 J	0.45 U	0.45 U	1.6 J
SB-3 (30')	30	0.011	0.0078 U	**7.5**	120	0.069 J	11	11	0.018 J	0.48 U	0.48 U	5.8
SB-4 (30')	30	0.0097 U	0.0074 U	**7.9**	200	0.19	12	14	0.017 J	0.39 U	0.39 U	1.4 J
SB-DUP (SB-3)	30	0.019	0.0096	**4.4**	120	0.027 J	11	12	0.031	0.45 U	0.45 U	1.9 J
		Screening Levels (mg/kg)										
EPA RSL for Industrial Soil[1]		670,000	3,000	3	22,000	98	180,000	800	4.6	580	580	420
MRBCA LDTLs		4.20	7.55	3.89	2,040	9.31	74,600	3.74	2.19	6.27	16.2	385
Tier 1 RBTL Non-residential Land Use, Soil Type I (Sandy)		14,700	5,040	NE	NE	NE	NE	660	17.6	NE	NE	3,100
Linn County, Missouri, Minimum Background		NA	NA	2.743	NE	NE	NE	8.083	0.010	0.101	NE	NA
Linn County, Missouri, Maximum Background		NA	NA	13.647	NE	NE	NE	29.524	0.019	0.476	NE	NA
Linn County, Missouri, Mean Background		NA	NA	7.411	NE	NE	NE	17.554	0.011	0.237	NE	NA

Notes:

Bold	Analyte concentration exceeds the EPA RSL
	Analyte concentration exceeds the MRBCA LDTL
Outlined	Analyte concentration exceeds Linn Count maximum background

[1] EPA RSL for industrial soil using a target cancer risk of 1E-06 and hazard quotient of 0.1, November 2019.

DUP	Field duplicate
EPA	U.S. Environmental Protection Agency
ft bgs	Feet below ground surface
ID	Identification
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
LDTL	Lowest default target level
mg/kg	Milligrams per kilogram
MRBCA	Missouri Risk-Based Corrective Action
NA	Not applicable
NE	Not established
RBTL	Risk-based Target Level
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SB	Soil boring
SVOC	Semivolatile organic compound
U	Analyte not detected at concentration above the reported sample quantitation limit.
VOC	Volatile organic compound

TABLE D-3

GROUNDWATER SAMPLE ANALYTICAL SUMMARY
FORMER ST. FRANCIS HOSPITAL
MARCELINE, LINN COUNTY, MISSOURI

Sample ID	VOCs		SVOCs	RCRA Metals								TPH
	Acetone	Carbon Disulfide	Bis(2-ethylhexyl)phthalate	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	TPH-DRO (C10-C21)
	Results (mg/L)											
				Total Metals								
GW-2 (30)	0.016	0.00063 J	0.00075 J	**0.037**	0.78	0.0037	0.046	**0.08**	0.00020 U	0.0033 J	0.0005 U	0.19
GW-DUP	0.0066 J	0.00049 U	0.001 U	**0.031**	0.43	0.0043	0.051	**0.06**	0.00026	0.0042 J	0.0050 U	0.10 U
				Dissolved Metals								
GW-2 (30)	NA	NA	NA	0.0018 J	0.085	0.0020 U	0.0050 U	0.0050 U	0.00020 U	0.0050 U	0.0050 U	NA
GW-DUP	NA	NA	NA	0.0020 J	0.083	0.0020 U	0.0050 U	0.0050 U	0.00020 U	0.0050 U	0.0050 U	NA
	Screening Levels (mg/L)											
EPA MCL[1]	1.4	0.81	6	0.01	2	0.005	0.1	0.015	0.002	0.05	0.0082	80
MRBCA LDTLs	2.97	0.52	0.006	0.01	2	0.005	0.1	0.015	0.0507	0.05	0.0781	34.3
Tier 1 RBTL Non-residential Land Use, Soil Type I (Sandy), Groundwater	262,000	114	597,000	* 0.578	* 6,190	* 2.28	* 46500	NE	0.407	* 155	* 258	1.82

Notes:

Bold	Analyte concentration exceeds the EPA MCL
	Analyte concentration exceeds the MRBCA LDTL

* Dermal Contact value used in absence of indoor inhalation vapor emission value

[1] Screening Level for Tapwater used in absence of an MCL for TPH

Tier 1 RBTL TPH-DRO compared to TPH-DRO Aliphatics >C10-C12

DUP	Field duplicate
EPA	U.S. Environmental Protection Agency
ft bgs	Feet below ground surface
GW	Groundwater
ID	Identification
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
LDTL	Lowest Default Target Level
MCL	Maximum Contaminant Level
mg/L	Milligrams per liter
MRBCA	Missouri Risk-Based Corrective Action
NE	Not established
RBTL	Risk-based Target Level
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SVOC	Semivolatile organic compound
U	Analyte not detected at concentration above the reported sample quantitation limit.

TABLE D-4

QUALITY CONTROL SAMPLE ANALYTICAL SUMMARY
FORMER ST. FRANCIS HOSPITAL
MARCELINE, LINN COUNTY, MISSOURI

Sample ID	Acetone
	Result (mg/L)
Trip Blank	0.0014 J
Field Blank	0.0047 J
Equipment Rinsate Blank	0.0018 J
Screening Levels (mg/L)	
EPA MCL	NE
MRBCA LDTLs	2.97
Tier 1 RBTL Non-residential Land Use, Soil Type 1 (Sandy), Groundwater	262,000

Notes:

EPA	U.S. Environmental Protection Agency
ID	Identification
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
LDTL	Lowest Default Target Level
MCL	Maximum Contaminant Level
mg/L	Milligrams per liter
MRBCA	Missouri Risk-Based Corrective Action
RBTL	Risk-based Target Level
U	Analyte not detected at concentration above the reported sample quantitation limit.

APPENDIX E

ANALYTICAL DATA PACKAGES AND DATA VALIDATION REPORTS

03-Nov-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **St. Francois Hospital (103X903019F0101.002)** Work Order: **19101628**

Dear Emily,

ALS Environmental received 10 samples on 21-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 69.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Ehrland Bosworth

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS Group, USA

Date: 03-Nov-19

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Work Order: **19101628**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
19101628-01	SB-1 (0-3)	Soil		10/17/2019 09:08	10/21/2019 09:30	☐
19101628-02	SB-1 (30)	Soil		10/17/2019 10:22	10/21/2019 09:30	☐
19101628-03	SB-2 (0-3)	Soil		10/17/2019 10:42	10/21/2019 09:30	☐
19101628-04	SB-2 (26-28)	Soil		10/17/2019 11:37	10/21/2019 09:30	☐
19101628-05	SB-3 (0-3)	Soil		10/17/2019 14:20	10/21/2019 09:30	☐
19101628-06	SB-3 (30)	Soil		10/17/2019 15:30	10/21/2019 09:30	☐
19101628-07	SB-4 (0-3)	Soil		10/17/2019 15:50	10/21/2019 09:30	☐
19101628-08	SB-4 (30)	Soil		10/17/2019 17:20	10/21/2019 09:30	☐
19101628-09	SB-DUP	Soil		10/17/2019	10/21/2019 09:30	☐
19101628-10	Trip Blank	Soil		10/17/2019	10/21/2019 09:30	☐

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
WorkOrder: **19101628**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Work Order: 19101628

Case Narrative

Samples for the above noted Work Order were received on 10/21/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R274062, Method VOC_8260_SLL, Sample 19101628-01A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-02A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-03A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-04A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-05A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-06A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-07A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-08A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-09A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample 19101628-10A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample VLCSS1-191029: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

No other deviations or anomalies were noted.

Extractable Organics:
Batch 144716, Method SVO_8270_S, Sample SLCSS1-144716: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for 2,4-Dimethylphenol.

No other deviations or anomalies were noted.

Metals:
No deviations or anomalies were noted.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-1 (0-3)
Collection Date: 10/17/2019 09:08 AM

Work Order: 19101628
Lab ID: 19101628-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.059**		**0.0023**	**0.023**	**mg/Kg-dry**	1	10/29/2019 16:49
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**10**		**0.052**	**0.43**	**mg/Kg-dry**	1	10/30/2019 21:23
Barium	**400**		**4.0**	**4.3**	**mg/Kg-dry**	10	10/31/2019 14:15
Cadmium	U		0.026	0.17	mg/Kg-dry	1	10/30/2019 21:23
Chromium	**21**		**1.9**	**4.3**	**mg/Kg-dry**	10	10/31/2019 14:15
Lead	**15**		**0.21**	**0.43**	**mg/Kg-dry**	1	10/30/2019 21:23
Selenium	**1.3**		**0.40**	**0.43**	**mg/Kg-dry**	1	10/31/2019 14:30
Silver	U		0.057	0.43	mg/Kg-dry	1	10/30/2019 21:23
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		2.0	6.5	mg/Kg-dry	1	10/26/2019 16:16
ORO (C21-C35)	U		2.2	6.5	mg/Kg-dry	1	10/26/2019 16:16
Surr: 4-Terphenyl-d14	*61.5*			*25-137*	*%REC*	1	10/26/2019 16:16
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		7.0	43	µg/Kg-dry	1	10/29/2019 22:39
1,2,4,5-Tetrachlorobenzene	U		33	430	µg/Kg-dry	1	10/29/2019 22:39
1,4-Dioxane	U		31	220	µg/Kg-dry	1	10/29/2019 22:39
2,2`-Oxybis(1-chloropropane)	U		10	43	µg/Kg-dry	1	10/29/2019 22:39
2,3,4,6-Tetrachlorophenol	U		11	86	µg/Kg-dry	1	10/29/2019 22:39
2,4,5-Trichlorophenol	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
2,4,6-Trichlorophenol	U		11	43	µg/Kg-dry	1	10/29/2019 22:39
2,4-Dichlorophenol	U		9.0	43	µg/Kg-dry	1	10/29/2019 22:39
2,4-Dimethylphenol	U		8.8	43	µg/Kg-dry	1	10/29/2019 22:39
2,4-Dinitrophenol	U		23	43	µg/Kg-dry	1	10/29/2019 22:39
2,4-Dinitrotoluene	U		11	43	µg/Kg-dry	1	10/29/2019 22:39
2,6-Dinitrotoluene	U		7.1	43	µg/Kg-dry	1	10/29/2019 22:39
2-Chloronaphthalene	U		6.0	8.6	µg/Kg-dry	1	10/29/2019 22:39
2-Chlorophenol	U		14	43	µg/Kg-dry	1	10/29/2019 22:39
2-Methylnaphthalene	U		4.4	8.6	µg/Kg-dry	1	10/29/2019 22:39
2-Methylphenol	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
2-Nitroaniline	U		9.8	43	µg/Kg-dry	1	10/29/2019 22:39
2-Nitrophenol	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
3&4-Methylphenol	U		8.6	43	µg/Kg-dry	1	10/29/2019 22:39
3,3´-Dichlorobenzidine	U		6.4	220	µg/Kg-dry	1	10/29/2019 22:39
3-Nitroaniline	U		9.8	43	µg/Kg-dry	1	10/29/2019 22:39
4,6-Dinitro-2-methylphenol	U		11	43	µg/Kg-dry	1	10/29/2019 22:39
4-Bromophenyl phenyl ether	U		12	43	µg/Kg-dry	1	10/29/2019 22:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (0-3) **Lab ID:** 19101628-01
Collection Date: 10/17/2019 09:08 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
4-Chloroaniline	U		6.8	86	µg/Kg-dry	1	10/29/2019 22:39
4-Chlorophenyl phenyl ether	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
4-Nitroaniline	U		67	220	µg/Kg-dry	1	10/29/2019 22:39
4-Nitrophenol	U		38	43	µg/Kg-dry	1	10/29/2019 22:39
Acenaphthene	U		6.2	8.6	µg/Kg-dry	1	10/29/2019 22:39
Acenaphthylene	U		7.5	8.6	µg/Kg-dry	1	10/29/2019 22:39
Acetophenone	U		6.7	43	µg/Kg-dry	1	10/29/2019 22:39
Anthracene	U		6.1	8.6	µg/Kg-dry	1	10/29/2019 22:39
Atrazine	U		6.8	43	µg/Kg-dry	1	10/29/2019 22:39
Benzaldehyde	U		66	86	µg/Kg-dry	1	10/29/2019 22:39
Benzo(a)anthracene	**15**		**7.4**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Benzo(a)pyrene	**15**		**5.3**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Benzo(b)fluoranthene	**21**		**6.4**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Benzo(g,h,i)perylene	U		6.6	8.6	µg/Kg-dry	1	10/29/2019 22:39
Benzo(k)fluoranthene	U		6.5	8.6	µg/Kg-dry	1	10/29/2019 22:39
Bis(2-chloroethoxy)methane	U		4.1	43	µg/Kg-dry	1	10/29/2019 22:39
Bis(2-chloroethyl)ether	U		12	43	µg/Kg-dry	1	10/29/2019 22:39
Bis(2-ethylhexyl)phthalate	U		7.5	43	µg/Kg-dry	1	10/29/2019 22:39
Butyl benzyl phthalate	U		7.3	43	µg/Kg-dry	1	10/29/2019 22:39
Caprolactam	U		15	43	µg/Kg-dry	1	10/29/2019 22:39
Carbazole	U		4.6	43	µg/Kg-dry	1	10/29/2019 22:39
Chrysene	**11**		**6.9**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Dibenzo(a,h)anthracene	U		4.6	8.6	µg/Kg-dry	1	10/29/2019 22:39
Dibenzofuran	U		6.3	43	µg/Kg-dry	1	10/29/2019 22:39
Diethyl phthalate	U		6.6	43	µg/Kg-dry	1	10/29/2019 22:39
Dimethyl phthalate	U		8.4	43	µg/Kg-dry	1	10/29/2019 22:39
Di-n-butyl phthalate	U		7.9	43	µg/Kg-dry	1	10/29/2019 22:39
Di-n-octyl phthalate	U		8.2	43	µg/Kg-dry	1	10/29/2019 22:39
Fluoranthene	**24**		**4.1**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Fluorene	U		6.2	8.6	µg/Kg-dry	1	10/29/2019 22:39
Hexachlorobenzene	U		13	43	µg/Kg-dry	1	10/29/2019 22:39
Hexachlorobutadiene	U		23	43	µg/Kg-dry	1	10/29/2019 22:39
Hexachlorocyclopentadiene	U		15	43	µg/Kg-dry	1	10/29/2019 22:39
Hexachloroethane	U		18	43	µg/Kg-dry	1	10/29/2019 22:39
Indeno(1,2,3-cd)pyrene	U		6.0	8.6	µg/Kg-dry	1	10/29/2019 22:39
Isophorone	U		8.4	220	µg/Kg-dry	1	10/29/2019 22:39
Naphthalene	U		5.5	8.6	µg/Kg-dry	1	10/29/2019 22:39
Nitrobenzene	U		14	220	µg/Kg-dry	1	10/29/2019 22:39
N-Nitrosodi-n-propylamine	U		7.1	43	µg/Kg-dry	1	10/29/2019 22:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (0-3) **Lab ID:** 19101628-01
Collection Date: 10/17/2019 09:08 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		4.1	43	µg/Kg-dry	1	10/29/2019 22:39
Pentachlorophenol	U		16	43	µg/Kg-dry	1	10/29/2019 22:39
Phenanthrene	**23**		**4.0**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Phenol	U		11	43	µg/Kg-dry	1	10/29/2019 22:39
Pyrene	**21**		**1.6**	**8.6**	**µg/Kg-dry**	1	10/29/2019 22:39
Surr: 2,4,6-Tribromophenol	*68.4*			*38-92*	*%REC*	1	10/29/2019 22:39
Surr: 2-Fluorobiphenyl	*65.3*			*44-107*	*%REC*	1	10/29/2019 22:39
Surr: 2-Fluorophenol	*79.7*			*37-109*	*%REC*	1	10/29/2019 22:39
Surr: 4-Terphenyl-d14	*55.2*			*52-123*	*%REC*	1	10/29/2019 22:39
Surr: Nitrobenzene-d5	*77.0*			*41-94*	*%REC*	1	10/29/2019 22:39
Surr: Phenol-d6	*78.0*			*28-111*	*%REC*	1	10/29/2019 22:39
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		1,400	5,500	µg/Kg-dry	1	10/29/2019 02:27
Surr: Toluene-d8	*71.0*			*70-130*	*%REC*	1	10/29/2019 02:27
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		1.0	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,1,2,2-Tetrachloroethane	U		0.82	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,1,2-Trichloroethane	U		0.86	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,1,2-Trichlorotrifluoroethane	U		1.4	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,1-Dichloroethane	U		0.80	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,1-Dichloroethene	U		1.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2,3-Trichlorobenzene	U		2.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2,4-Trichlorobenzene	U		1.4	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2-Dibromo-3-chloropropane	U		1.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2-Dibromoethane	U		0.46	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2-Dichlorobenzene	U		0.90	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2-Dichloroethane	U		0.72	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,2-Dichloropropane	U		0.56	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,3-Dichlorobenzene	U		0.78	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
1,4-Dichlorobenzene	U		0.82	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
2-Butanone	**11**	J	**6.5**	**13**	**µg/Kg-dry**	0.947	10/29/2019 19:47
2-Hexanone	U		2.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
4-Methyl-2-pentanone	U		2.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Acetone	**110**		**5.9**	**13**	**µg/Kg-dry**	0.947	10/29/2019 19:47
Benzene	U		0.67	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Bromochloromethane	U		0.69	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Bromodichloromethane	U		0.77	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Bromoform	U		0.64	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Bromomethane	U		3.2	13	µg/Kg-dry	0.947	10/29/2019 19:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (0-3) **Lab ID:** 19101628-01
Collection Date: 10/17/2019 09:08 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.76	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Carbon tetrachloride	U		1.3	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Chlorobenzene	U		0.81	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Chloroethane	U		2.4	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Chloroform	U		1.1	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Chloromethane	U		1.3	13	µg/Kg-dry	0.947	10/29/2019 19:47
cis-1,2-Dichloroethene	U		0.69	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
cis-1,3-Dichloropropene	U		0.77	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Cyclohexane	U		2.2	13	µg/Kg-dry	0.947	10/29/2019 19:47
Dibromochloromethane	U		0.65	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Dichlorodifluoromethane	U		3.2	13	µg/Kg-dry	0.947	10/29/2019 19:47
Ethylbenzene	U		1.1	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Isopropylbenzene	U		1.1	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
m,p-Xylene	U		2.8	3.2	µg/Kg-dry	0.947	10/29/2019 19:47
Methyl acetate	U		1.5	13	µg/Kg-dry	0.947	10/29/2019 19:47
Methyl tert-butyl ether	U		0.78	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Methylcyclohexane	U		1.9	13	µg/Kg-dry	0.947	10/29/2019 19:47
Methylene chloride	U		8.0	13	µg/Kg-dry	0.947	10/29/2019 19:47
o-Xylene	U		1.5	3.2	µg/Kg-dry	0.947	10/29/2019 19:47
Styrene	U		0.96	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Tetrachloroethene	U		1.1	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Toluene	U		1.1	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
trans-1,2-Dichloroethene	U		0.64	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
trans-1,3-Dichloropropene	U		0.62	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Trichloroethene	U		0.92	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Trichlorofluoromethane	U		0.91	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Vinyl chloride	U		0.90	6.4	µg/Kg-dry	0.947	10/29/2019 19:47
Surr: 1,2-Dichloroethane-d4	*101*			*83-132*	*%REC*	0.947	10/29/2019 19:47
Surr: 4-Bromofluorobenzene	*103*			*83-111*	*%REC*	0.947	10/29/2019 19:47
Surr: Dibromofluoromethane	*46.6*	S		*77-125*	*%REC*	0.947	10/29/2019 19:47
Surr: Toluene-d8	*96.3*			*86-108*	*%REC*	0.947	10/29/2019 19:47
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**26**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-1 (30)
Collection Date: 10/17/2019 10:22 AM

Work Order: 19101628
Lab ID: 19101628-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.017**	J	**0.0020**	**0.020**	**mg/Kg-dry**	1	10/29/2019 17:02
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**5.3**		**0.054**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:24
Barium	**180**		**4.2**	**4.5**	**mg/Kg-dry**	10	10/31/2019 14:17
Cadmium	**0.18**		**0.027**	**0.18**	**mg/Kg-dry**	1	10/30/2019 21:24
Chromium	**14**		**0.20**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:24
Lead	**12**		**0.22**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:24
Selenium	U		0.42	0.45	mg/Kg-dry	1	10/30/2019 21:24
Silver	U		0.060	0.45	mg/Kg-dry	1	10/30/2019 21:24
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.7	5.6	mg/Kg-dry	1	10/26/2019 16:37
ORO (C21-C35)	U		1.9	5.6	mg/Kg-dry	1	10/26/2019 16:37
Surr: 4-Terphenyl-d14	*72.9*			*25-137*	*%REC*	1	10/26/2019 16:37
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.1	37	µg/Kg-dry	1	10/29/2019 23:01
1,2,4,5-Tetrachlorobenzene	U		29	380	µg/Kg-dry	1	10/29/2019 23:01
1,4-Dioxane	U		27	190	µg/Kg-dry	1	10/29/2019 23:01
2,2`-Oxybis(1-chloropropane)	U		8.9	37	µg/Kg-dry	1	10/29/2019 23:01
2,3,4,6-Tetrachlorophenol	U		9.9	76	µg/Kg-dry	1	10/29/2019 23:01
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/29/2019 23:01
2,4,6-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/29/2019 23:01
2,4-Dichlorophenol	U		8.0	37	µg/Kg-dry	1	10/29/2019 23:01
2,4-Dimethylphenol	U		7.7	37	µg/Kg-dry	1	10/29/2019 23:01
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/29/2019 23:01
2,4-Dinitrotoluene	U		9.9	37	µg/Kg-dry	1	10/29/2019 23:01
2,6-Dinitrotoluene	U		6.2	37	µg/Kg-dry	1	10/29/2019 23:01
2-Chloronaphthalene	U		5.3	7.6	µg/Kg-dry	1	10/29/2019 23:01
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/29/2019 23:01
2-Methylnaphthalene	U		3.9	7.6	µg/Kg-dry	1	10/29/2019 23:01
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/29/2019 23:01
2-Nitroaniline	U		8.7	37	µg/Kg-dry	1	10/29/2019 23:01
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/29/2019 23:01
3&4-Methylphenol	U		7.6	37	µg/Kg-dry	1	10/29/2019 23:01
3,3´-Dichlorobenzidine	U		5.6	190	µg/Kg-dry	1	10/29/2019 23:01
3-Nitroaniline	U		8.7	37	µg/Kg-dry	1	10/29/2019 23:01
4,6-Dinitro-2-methylphenol	U		9.5	37	µg/Kg-dry	1	10/29/2019 23:01
4-Bromophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/29/2019 23:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (30) **Lab ID:** 19101628-02
Collection Date: 10/17/2019 10:22 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/29/2019 23:01
4-Chloroaniline	U		6.0	76	µg/Kg-dry	1	10/29/2019 23:01
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/29/2019 23:01
4-Nitroaniline	U		59	190	µg/Kg-dry	1	10/29/2019 23:01
4-Nitrophenol	U		34	37	µg/Kg-dry	1	10/29/2019 23:01
Acenaphthene	U		5.5	7.6	µg/Kg-dry	1	10/29/2019 23:01
Acenaphthylene	U		6.6	7.6	µg/Kg-dry	1	10/29/2019 23:01
Acetophenone	U		5.9	37	µg/Kg-dry	1	10/29/2019 23:01
Anthracene	U		5.3	7.6	µg/Kg-dry	1	10/29/2019 23:01
Atrazine	U		6.0	37	µg/Kg-dry	1	10/29/2019 23:01
Benzaldehyde	U		58	76	µg/Kg-dry	1	10/29/2019 23:01
Benzo(a)anthracene	U		6.5	7.6	µg/Kg-dry	1	10/29/2019 23:01
Benzo(a)pyrene	U		4.6	7.6	µg/Kg-dry	1	10/29/2019 23:01
Benzo(b)fluoranthene	U		5.6	7.6	µg/Kg-dry	1	10/29/2019 23:01
Benzo(g,h,i)perylene	U		5.8	7.6	µg/Kg-dry	1	10/29/2019 23:01
Benzo(k)fluoranthene	U		5.7	7.6	µg/Kg-dry	1	10/29/2019 23:01
Bis(2-chloroethoxy)methane	U		3.6	37	µg/Kg-dry	1	10/29/2019 23:01
Bis(2-chloroethyl)ether	U		11	37	µg/Kg-dry	1	10/29/2019 23:01
Bis(2-ethylhexyl)phthalate	U		6.6	37	µg/Kg-dry	1	10/29/2019 23:01
Butyl benzyl phthalate	U		6.4	37	µg/Kg-dry	1	10/29/2019 23:01
Caprolactam	U		13	37	µg/Kg-dry	1	10/29/2019 23:01
Carbazole	U		4.1	37	µg/Kg-dry	1	10/29/2019 23:01
Chrysene	U		6.1	7.6	µg/Kg-dry	1	10/29/2019 23:01
Dibenzo(a,h)anthracene	U		4.1	7.6	µg/Kg-dry	1	10/29/2019 23:01
Dibenzofuran	U		5.6	37	µg/Kg-dry	1	10/29/2019 23:01
Diethyl phthalate	U		5.8	37	µg/Kg-dry	1	10/29/2019 23:01
Dimethyl phthalate	U		7.4	37	µg/Kg-dry	1	10/29/2019 23:01
Di-n-butyl phthalate	U		6.9	37	µg/Kg-dry	1	10/29/2019 23:01
Di-n-octyl phthalate	U		7.3	37	µg/Kg-dry	1	10/29/2019 23:01
Fluoranthene	U		3.6	7.6	µg/Kg-dry	1	10/29/2019 23:01
Fluorene	U		5.5	7.6	µg/Kg-dry	1	10/29/2019 23:01
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/29/2019 23:01
Hexachlorobutadiene	U		21	37	µg/Kg-dry	1	10/29/2019 23:01
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/29/2019 23:01
Hexachloroethane	U		16	37	µg/Kg-dry	1	10/29/2019 23:01
Indeno(1,2,3-cd)pyrene	U		5.3	7.6	µg/Kg-dry	1	10/29/2019 23:01
Isophorone	U		7.4	190	µg/Kg-dry	1	10/29/2019 23:01
Naphthalene	U		4.8	7.6	µg/Kg-dry	1	10/29/2019 23:01
Nitrobenzene	U		13	190	µg/Kg-dry	1	10/29/2019 23:01
N-Nitrosodi-n-propylamine	U		6.2	37	µg/Kg-dry	1	10/29/2019 23:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (30) **Lab ID:** 19101628-02
Collection Date: 10/17/2019 10:22 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		3.6	37	µg/Kg-dry	1	10/29/2019 23:01
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/29/2019 23:01
Phenanthrene	U		3.5	7.6	µg/Kg-dry	1	10/29/2019 23:01
Phenol	U		9.4	37	µg/Kg-dry	1	10/29/2019 23:01
Pyrene	U		1.4	7.6	µg/Kg-dry	1	10/29/2019 23:01
Surr: 2,4,6-Tribromophenol	*75.7*			*38-92*	*%REC*	1	10/29/2019 23:01
Surr: 2-Fluorobiphenyl	*76.2*			*44-107*	*%REC*	1	10/29/2019 23:01
Surr: 2-Fluorophenol	*89.3*			*37-109*	*%REC*	1	10/29/2019 23:01
Surr: 4-Terphenyl-d14	*62.8*			*52-123*	*%REC*	1	10/29/2019 23:01
Surr: Nitrobenzene-d5	*78.0*			*41-94*	*%REC*	1	10/29/2019 23:01
Surr: Phenol-d6	*89.6*			*28-111*	*%REC*	1	10/29/2019 23:01
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**2,400**	J	**1,300**	**5,100**	**µg/Kg-dry**	1	10/29/2019 02:09
Surr: Toluene-d8	*73.9*			*70-130*	*%REC*	1	10/29/2019 02:09
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.75	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,1,2,2-Tetrachloroethane	U		0.61	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,1,2-Trichloroethane	U		0.64	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,1,2-Trichlorotrifluoroethane	U		1.0	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,1-Dichloroethane	U		0.59	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,1-Dichloroethene	U		0.94	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2,3-Trichlorobenzene	U		1.7	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2,4-Trichlorobenzene	U		1.0	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2-Dibromo-3-chloropropane	U		0.94	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2-Dibromoethane	U		0.34	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2-Dichlorobenzene	U		0.67	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2-Dichloroethane	U		0.53	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,2-Dichloropropane	U		0.42	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,3-Dichlorobenzene	U		0.58	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
1,4-Dichlorobenzene	U		0.61	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
2-Butanone	U		4.9	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
2-Hexanone	U		1.7	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
4-Methyl-2-pentanone	U		1.7	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Acetone	U		4.4	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
Benzene	U		0.50	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Bromochloromethane	U		0.52	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Bromodichloromethane	U		0.57	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Bromoform	U		0.48	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Bromomethane	U		2.4	9.5	µg/Kg-dry	0.818	10/29/2019 20:04

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-1 (30) **Lab ID:** 19101628-02
Collection Date: 10/17/2019 10:22 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.56	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Carbon tetrachloride	U		0.95	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Chlorobenzene	U		0.60	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Chloroethane	U		1.8	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Chloroform	U		0.78	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Chloromethane	U		0.95	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
cis-1,2-Dichloroethene	U		0.52	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
cis-1,3-Dichloropropene	U		0.57	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Cyclohexane	U		1.6	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
Dibromochloromethane	U		0.49	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Dichlorodifluoromethane	U		2.4	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
Ethylbenzene	U		0.83	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Isopropylbenzene	U		0.81	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.818	10/29/2019 20:04
Methyl acetate	U		1.1	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
Methyl tert-butyl ether	U		0.58	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Methylcyclohexane	U		1.4	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
Methylene chloride	U		5.9	9.5	µg/Kg-dry	0.818	10/29/2019 20:04
o-Xylene	U		1.1	2.4	µg/Kg-dry	0.818	10/29/2019 20:04
Styrene	U		0.72	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Tetrachloroethene	U		0.85	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Toluene	U		0.82	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
trans-1,2-Dichloroethene	U		0.48	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
trans-1,3-Dichloropropene	U		0.46	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Trichloroethene	U		0.69	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Trichlorofluoromethane	U		0.68	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Vinyl chloride	U		0.67	4.8	µg/Kg-dry	0.818	10/29/2019 20:04
Surr: 1,2-Dichloroethane-d4	*104*			*83-132*	*%REC*	0.818	10/29/2019 20:04
Surr: 4-Bromofluorobenzene	*101*			*83-111*	*%REC*	0.818	10/29/2019 20:04
Surr: Dibromofluoromethane	*55.7*	S		*77-125*	*%REC*	0.818	10/29/2019 20:04
Surr: Toluene-d8	*98.0*			*86-108*	*%REC*	0.818	10/29/2019 20:04
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**14**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (0-3) **Lab ID:** 19101628-03
Collection Date: 10/17/2019 10:42 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.054**		**0.0025**	**0.025**	**mg/Kg-dry**	1	10/29/2019 17:04
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**14**		**0.062**	**0.52**	**mg/Kg-dry**	1	10/30/2019 21:26
Barium	**180**		**4.8**	**5.2**	**mg/Kg-dry**	10	10/31/2019 14:18
Cadmium	**0.98**		**0.031**	**0.21**	**mg/Kg-dry**	1	10/30/2019 21:26
Chromium	**15**		**0.23**	**0.52**	**mg/Kg-dry**	1	10/30/2019 21:26
Lead	**54**		**0.25**	**0.52**	**mg/Kg-dry**	1	10/30/2019 21:26
Selenium	**1.0**		**0.48**	**0.52**	**mg/Kg-dry**	1	10/31/2019 14:31
Silver	**0.16**	J	**0.069**	**0.52**	**mg/Kg-dry**	1	10/30/2019 21:26
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		2.0	6.7	mg/Kg-dry	1	10/26/2019 16:57
ORO (C21-C35)	U		2.2	6.7	mg/Kg-dry	1	10/26/2019 16:57
Surr: 4-Terphenyl-d14	*67.5*			*25-137*	*%REC*	1	10/26/2019 16:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		7.3	44	µg/Kg-dry	1	10/29/2019 23:23
1,2,4,5-Tetrachlorobenzene	U		35	450	µg/Kg-dry	1	10/29/2019 23:23
1,4-Dioxane	U		32	220	µg/Kg-dry	1	10/29/2019 23:23
2,2`-Oxybis(1-chloropropane)	U		10	44	µg/Kg-dry	1	10/29/2019 23:23
2,3,4,6-Tetrachlorophenol	U		12	90	µg/Kg-dry	1	10/29/2019 23:23
2,4,5-Trichlorophenol	U		12	44	µg/Kg-dry	1	10/29/2019 23:23
2,4,6-Trichlorophenol	U		12	44	µg/Kg-dry	1	10/29/2019 23:23
2,4-Dichlorophenol	U		9.4	44	µg/Kg-dry	1	10/29/2019 23:23
2,4-Dimethylphenol	U		9.1	44	µg/Kg-dry	1	10/29/2019 23:23
2,4-Dinitrophenol	U		24	44	µg/Kg-dry	1	10/29/2019 23:23
2,4-Dinitrotoluene	U		12	44	µg/Kg-dry	1	10/29/2019 23:23
2,6-Dinitrotoluene	U		7.4	44	µg/Kg-dry	1	10/29/2019 23:23
2-Chloronaphthalene	U		6.3	8.9	µg/Kg-dry	1	10/29/2019 23:23
2-Chlorophenol	U		14	44	µg/Kg-dry	1	10/29/2019 23:23
2-Methylnaphthalene	**11**		**4.5**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
2-Methylphenol	U		12	44	µg/Kg-dry	1	10/29/2019 23:23
2-Nitroaniline	U		10	44	µg/Kg-dry	1	10/29/2019 23:23
2-Nitrophenol	U		13	44	µg/Kg-dry	1	10/29/2019 23:23
3&4-Methylphenol	U		9.0	44	µg/Kg-dry	1	10/29/2019 23:23
3,3´-Dichlorobenzidine	U		6.6	220	µg/Kg-dry	1	10/29/2019 23:23
3-Nitroaniline	U		10	44	µg/Kg-dry	1	10/29/2019 23:23
4,6-Dinitro-2-methylphenol	U		11	44	µg/Kg-dry	1	10/29/2019 23:23
4-Bromophenyl phenyl ether	U		12	44	µg/Kg-dry	1	10/29/2019 23:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (0-3) **Lab ID:** 19101628-03
Collection Date: 10/17/2019 10:42 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		13	44	µg/Kg-dry	1	10/29/2019 23:23
4-Chloroaniline	U		7.1	90	µg/Kg-dry	1	10/29/2019 23:23
4-Chlorophenyl phenyl ether	U		12	44	µg/Kg-dry	1	10/29/2019 23:23
4-Nitroaniline	U		69	220	µg/Kg-dry	1	10/29/2019 23:23
4-Nitrophenol	U		40	44	µg/Kg-dry	1	10/29/2019 23:23
Acenaphthene	U		6.5	8.9	µg/Kg-dry	1	10/29/2019 23:23
Acenaphthylene	U		7.8	8.9	µg/Kg-dry	1	10/29/2019 23:23
Acetophenone	U		7.0	44	µg/Kg-dry	1	10/29/2019 23:23
Anthracene	**13**		**6.3**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Atrazine	U		7.0	44	µg/Kg-dry	1	10/29/2019 23:23
Benzaldehyde	U		69	90	µg/Kg-dry	1	10/29/2019 23:23
Benzo(a)anthracene	**58**		**7.7**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Benzo(a)pyrene	**71**		**5.5**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Benzo(b)fluoranthene	**85**		**6.7**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Benzo(g,h,i)perylene	**49**		**6.9**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Benzo(k)fluoranthene	**48**		**6.8**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Bis(2-chloroethoxy)methane	U		4.3	44	µg/Kg-dry	1	10/29/2019 23:23
Bis(2-chloroethyl)ether	U		13	44	µg/Kg-dry	1	10/29/2019 23:23
Bis(2-ethylhexyl)phthalate	U		7.8	44	µg/Kg-dry	1	10/29/2019 23:23
Butyl benzyl phthalate	U		7.6	44	µg/Kg-dry	1	10/29/2019 23:23
Caprolactam	U		15	44	µg/Kg-dry	1	10/29/2019 23:23
Carbazole	U		4.8	44	µg/Kg-dry	1	10/29/2019 23:23
Chrysene	**70**		**7.2**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Dibenzo(a,h)anthracene	U		4.8	8.9	µg/Kg-dry	1	10/29/2019 23:23
Dibenzofuran	U		6.6	44	µg/Kg-dry	1	10/29/2019 23:23
Diethyl phthalate	U		6.8	44	µg/Kg-dry	1	10/29/2019 23:23
Dimethyl phthalate	U		8.7	44	µg/Kg-dry	1	10/29/2019 23:23
Di-n-butyl phthalate	U		8.2	44	µg/Kg-dry	1	10/29/2019 23:23
Di-n-octyl phthalate	U		8.6	44	µg/Kg-dry	1	10/29/2019 23:23
Fluoranthene	**120**		**4.3**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Fluorene	U		6.5	8.9	µg/Kg-dry	1	10/29/2019 23:23
Hexachlorobenzene	U		13	44	µg/Kg-dry	1	10/29/2019 23:23
Hexachlorobutadiene	U		24	44	µg/Kg-dry	1	10/29/2019 23:23
Hexachlorocyclopentadiene	U		15	44	µg/Kg-dry	1	10/29/2019 23:23
Hexachloroethane	U		19	44	µg/Kg-dry	1	10/29/2019 23:23
Indeno(1,2,3-cd)pyrene	**66**		**6.2**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Isophorone	U		8.7	220	µg/Kg-dry	1	10/29/2019 23:23
Naphthalene	U		5.7	8.9	µg/Kg-dry	1	10/29/2019 23:23
Nitrobenzene	U		15	220	µg/Kg-dry	1	10/29/2019 23:23
N-Nitrosodi-n-propylamine	U		7.4	44	µg/Kg-dry	1	10/29/2019 23:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (0-3) **Lab ID:** 19101628-03
Collection Date: 10/17/2019 10:42 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		4.3	44	µg/Kg-dry	1	10/29/2019 23:23
Pentachlorophenol	U		17	44	µg/Kg-dry	1	10/29/2019 23:23
Phenanthrene	**97**		**4.2**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Phenol	U		11	44	µg/Kg-dry	1	10/29/2019 23:23
Pyrene	**100**		**1.6**	**8.9**	**µg/Kg-dry**	1	10/29/2019 23:23
Surr: 2,4,6-Tribromophenol	*73.5*			*38-92*	*%REC*	1	10/29/2019 23:23
Surr: 2-Fluorobiphenyl	*73.0*			*44-107*	*%REC*	1	10/29/2019 23:23
Surr: 2-Fluorophenol	*79.5*			*37-109*	*%REC*	1	10/29/2019 23:23
Surr: 4-Terphenyl-d14	*64.3*			*52-123*	*%REC*	1	10/29/2019 23:23
Surr: Nitrobenzene-d5	*77.5*			*41-94*	*%REC*	1	10/29/2019 23:23
Surr: Phenol-d6	*77.5*			*28-111*	*%REC*	1	10/29/2019 23:23
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		2,000	8,000	µg/Kg-dry	1	10/29/2019 01:52
Surr: Toluene-d8	*71.6*			*70-130*	*%REC*	1	10/29/2019 01:52
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.99	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,1,2,2-Tetrachloroethane	U		0.80	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,1,2-Trichloroethane	U		0.84	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,1,2-Trichlorotrifluoroethane	U		1.4	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,1-Dichloroethane	U		0.77	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,1-Dichloroethene	U		1.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2,3-Trichlorobenzene	U		2.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2,4-Trichlorobenzene	U		1.4	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2-Dibromo-3-chloropropane	U		1.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2-Dibromoethane	U		0.45	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2-Dichlorobenzene	U		0.87	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2-Dichloroethane	U		0.70	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,2-Dichloropropane	U		0.55	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,3-Dichlorobenzene	U		0.76	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
1,4-Dichlorobenzene	U		0.80	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
2-Butanone	**6.9**	J	**6.4**	**12**	**µg/Kg-dry**	0.916	10/29/2019 20:21
2-Hexanone	U		2.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
4-Methyl-2-pentanone	U		2.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Acetone	**91**		**5.7**	**12**	**µg/Kg-dry**	0.916	10/29/2019 20:21
Benzene	U		0.65	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Bromochloromethane	U		0.67	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Bromodichloromethane	U		0.75	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Bromoform	U		0.62	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Bromomethane	U		3.1	12	µg/Kg-dry	0.916	10/29/2019 20:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (0-3) **Lab ID:** 19101628-03
Collection Date: 10/17/2019 10:42 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.74	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Carbon tetrachloride	U		1.2	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Chlorobenzene	U		0.79	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Chloroethane	U		2.4	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Chloroform	U		1.0	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Chloromethane	U		1.2	12	µg/Kg-dry	0.916	10/29/2019 20:21
cis-1,2-Dichloroethene	U		0.67	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
cis-1,3-Dichloropropene	U		0.75	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Cyclohexane	U		2.1	12	µg/Kg-dry	0.916	10/29/2019 20:21
Dibromochloromethane	U		0.64	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Dichlorodifluoromethane	U		3.1	12	µg/Kg-dry	0.916	10/29/2019 20:21
Ethylbenzene	U		1.1	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Isopropylbenzene	U		1.1	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
m,p-Xylene	U		2.7	3.1	µg/Kg-dry	0.916	10/29/2019 20:21
Methyl acetate	U		1.5	12	µg/Kg-dry	0.916	10/29/2019 20:21
Methyl tert-butyl ether	U		0.76	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Methylcyclohexane	U		1.9	12	µg/Kg-dry	0.916	10/29/2019 20:21
Methylene chloride	U		7.7	12	µg/Kg-dry	0.916	10/29/2019 20:21
o-Xylene	U		1.5	3.1	µg/Kg-dry	0.916	10/29/2019 20:21
Styrene	U		0.94	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Tetrachloroethene	U		1.1	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Toluene	U		1.1	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
trans-1,2-Dichloroethene	U		0.62	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
trans-1,3-Dichloropropene	U		0.60	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Trichloroethene	U		0.90	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Trichlorofluoromethane	U		0.89	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Vinyl chloride	U		0.87	6.2	µg/Kg-dry	0.916	10/29/2019 20:21
Surr: 1,2-Dichloroethane-d4	*112*			*83-132*	*%REC*	0.916	10/29/2019 20:21
Surr: 4-Bromofluorobenzene	*97.4*			*83-111*	*%REC*	0.916	10/29/2019 20:21
Surr: Dibromofluoromethane	*56.0*	S		*77-125*	*%REC*	0.916	10/29/2019 20:21
Surr: Toluene-d8	*94.2*			*86-108*	*%REC*	0.916	10/29/2019 20:21
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**27**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-2 (26-28)
Collection Date: 10/17/2019 11:37 AM

Work Order: 19101628
Lab ID: 19101628-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.011**	J	**0.0020**	**0.020**	**mg/Kg-dry**	1	10/29/2019 17:06
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**4.9**		**0.054**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:28
Barium	**400**		**4.1**	**4.5**	**mg/Kg-dry**	10	10/31/2019 14:20
Cadmium	**0.24**		**0.027**	**0.18**	**mg/Kg-dry**	1	10/30/2019 21:28
Chromium	**13**		**0.20**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:28
Lead	**6.8**		**0.22**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:28
Selenium	U		0.41	0.45	mg/Kg-dry	1	10/30/2019 21:28
Silver	U		0.059	0.45	mg/Kg-dry	1	10/30/2019 21:28
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.7	5.7	mg/Kg-dry	1	10/26/2019 17:17
ORO (C21-C35)	U		1.9	5.7	mg/Kg-dry	1	10/26/2019 17:17
Surr: 4-Terphenyl-d14	*53.9*			*25-137*	*%REC*	1	10/26/2019 17:17
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.0	37	µg/Kg-dry	1	10/29/2019 23:44
1,2,4,5-Tetrachlorobenzene	U		29	370	µg/Kg-dry	1	10/29/2019 23:44
1,4-Dioxane	U		26	180	µg/Kg-dry	1	10/29/2019 23:44
2,2`-Oxybis(1-chloropropane)	U		8.6	37	µg/Kg-dry	1	10/29/2019 23:44
2,3,4,6-Tetrachlorophenol	U		9.6	74	µg/Kg-dry	1	10/29/2019 23:44
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/29/2019 23:44
2,4,6-Trichlorophenol	U		9.8	37	µg/Kg-dry	1	10/29/2019 23:44
2,4-Dichlorophenol	U		7.8	37	µg/Kg-dry	1	10/29/2019 23:44
2,4-Dimethylphenol	U		7.5	37	µg/Kg-dry	1	10/29/2019 23:44
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/29/2019 23:44
2,4-Dinitrotoluene	U		9.6	37	µg/Kg-dry	1	10/29/2019 23:44
2,6-Dinitrotoluene	U		6.1	37	µg/Kg-dry	1	10/29/2019 23:44
2-Chloronaphthalene	U		5.2	7.4	µg/Kg-dry	1	10/29/2019 23:44
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/29/2019 23:44
2-Methylnaphthalene	U		3.8	7.4	µg/Kg-dry	1	10/29/2019 23:44
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/29/2019 23:44
2-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/29/2019 23:44
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/29/2019 23:44
3&4-Methylphenol	U		7.4	37	µg/Kg-dry	1	10/29/2019 23:44
3,3´-Dichlorobenzidine	U		5.5	180	µg/Kg-dry	1	10/29/2019 23:44
3-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/29/2019 23:44
4,6-Dinitro-2-methylphenol	U		9.3	37	µg/Kg-dry	1	10/29/2019 23:44
4-Bromophenyl phenyl ether	U		9.9	37	µg/Kg-dry	1	10/29/2019 23:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (26-28) **Lab ID:** 19101628-04
Collection Date: 10/17/2019 11:37 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/29/2019 23:44
4-Chloroaniline	U		5.8	74	µg/Kg-dry	1	10/29/2019 23:44
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/29/2019 23:44
4-Nitroaniline	U		57	180	µg/Kg-dry	1	10/29/2019 23:44
4-Nitrophenol	U		33	37	µg/Kg-dry	1	10/29/2019 23:44
Acenaphthene	U		5.3	7.4	µg/Kg-dry	1	10/29/2019 23:44
Acenaphthylene	U		6.4	7.4	µg/Kg-dry	1	10/29/2019 23:44
Acetophenone	U		5.8	37	µg/Kg-dry	1	10/29/2019 23:44
Anthracene	U		5.2	7.4	µg/Kg-dry	1	10/29/2019 23:44
Atrazine	U		5.8	37	µg/Kg-dry	1	10/29/2019 23:44
Benzaldehyde	U		57	74	µg/Kg-dry	1	10/29/2019 23:44
Benzo(a)anthracene	U		6.4	7.4	µg/Kg-dry	1	10/29/2019 23:44
Benzo(a)pyrene	U		4.5	7.4	µg/Kg-dry	1	10/29/2019 23:44
Benzo(b)fluoranthene	U		5.5	7.4	µg/Kg-dry	1	10/29/2019 23:44
Benzo(g,h,i)perylene	U		5.7	7.4	µg/Kg-dry	1	10/29/2019 23:44
Benzo(k)fluoranthene	U		5.6	7.4	µg/Kg-dry	1	10/29/2019 23:44
Bis(2-chloroethoxy)methane	U		3.5	37	µg/Kg-dry	1	10/29/2019 23:44
Bis(2-chloroethyl)ether	U		10	37	µg/Kg-dry	1	10/29/2019 23:44
Bis(2-ethylhexyl)phthalate	U		6.4	37	µg/Kg-dry	1	10/29/2019 23:44
Butyl benzyl phthalate	U		6.2	37	µg/Kg-dry	1	10/29/2019 23:44
Caprolactam	U		13	37	µg/Kg-dry	1	10/29/2019 23:44
Carbazole	U		4.0	37	µg/Kg-dry	1	10/29/2019 23:44
Chrysene	U		6.0	7.4	µg/Kg-dry	1	10/29/2019 23:44
Dibenzo(a,h)anthracene	U		4.0	7.4	µg/Kg-dry	1	10/29/2019 23:44
Dibenzofuran	U		5.4	37	µg/Kg-dry	1	10/29/2019 23:44
Diethyl phthalate	U		5.6	37	µg/Kg-dry	1	10/29/2019 23:44
Dimethyl phthalate	U		7.2	37	µg/Kg-dry	1	10/29/2019 23:44
Di-n-butyl phthalate	U		6.8	37	µg/Kg-dry	1	10/29/2019 23:44
Di-n-octyl phthalate	U		7.1	37	µg/Kg-dry	1	10/29/2019 23:44
Fluoranthene	U		3.5	7.4	µg/Kg-dry	1	10/29/2019 23:44
Fluorene	U		5.4	7.4	µg/Kg-dry	1	10/29/2019 23:44
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/29/2019 23:44
Hexachlorobutadiene	U		20	37	µg/Kg-dry	1	10/29/2019 23:44
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/29/2019 23:44
Hexachloroethane	U		15	37	µg/Kg-dry	1	10/29/2019 23:44
Indeno(1,2,3-cd)pyrene	U		5.1	7.4	µg/Kg-dry	1	10/29/2019 23:44
Isophorone	U		7.2	180	µg/Kg-dry	1	10/29/2019 23:44
Naphthalene	U		4.7	7.4	µg/Kg-dry	1	10/29/2019 23:44
Nitrobenzene	U		12	180	µg/Kg-dry	1	10/29/2019 23:44
N-Nitrosodi-n-propylamine	U		6.1	37	µg/Kg-dry	1	10/29/2019 23:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (26-28) **Lab ID:** 19101628-04
Collection Date: 10/17/2019 11:37 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		3.5	37	µg/Kg-dry	1	10/29/2019 23:44
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/29/2019 23:44
Phenanthrene	U		3.4	7.4	µg/Kg-dry	1	10/29/2019 23:44
Phenol	U		9.2	37	µg/Kg-dry	1	10/29/2019 23:44
Pyrene	U		1.3	7.4	µg/Kg-dry	1	10/29/2019 23:44
Surr: 2,4,6-Tribromophenol	*81.7*			*38-92*	*%REC*	1	10/29/2019 23:44
Surr: 2-Fluorobiphenyl	*77.2*			*44-107*	*%REC*	1	10/29/2019 23:44
Surr: 2-Fluorophenol	*94.9*			*37-109*	*%REC*	1	10/29/2019 23:44
Surr: 4-Terphenyl-d14	*66.6*			*52-123*	*%REC*	1	10/29/2019 23:44
Surr: Nitrobenzene-d5	*79.3*			*41-94*	*%REC*	1	10/29/2019 23:44
Surr: Phenol-d6	*90.2*			*28-111*	*%REC*	1	10/29/2019 23:44
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**1,600**	J	**1,300**	**5,400**	**µg/Kg-dry**	1	10/29/2019 01:35
Surr: Toluene-d8	*70.9*			*70-130*	*%REC*	1	10/29/2019 01:35
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.84	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,1,2,2-Tetrachloroethane	U		0.68	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,1,2-Trichloroethane	U		0.71	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,1,2-Trichlorotrifluoroethane	U		1.2	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,1-Dichloroethane	U		0.66	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,1-Dichloroethene	U		1.0	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2,3-Trichlorobenzene	U		1.9	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2,4-Trichlorobenzene	U		1.2	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2-Dibromo-3-chloropropane	U		1.1	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2-Dibromoethane	U		0.38	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2-Dichlorobenzene	U		0.74	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2-Dichloroethane	U		0.60	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,2-Dichloropropane	U		0.47	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,3-Dichlorobenzene	U		0.65	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
1,4-Dichlorobenzene	U		0.68	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
2-Butanone	U		5.4	11	µg/Kg-dry	0.909	10/29/2019 20:38
2-Hexanone	U		1.9	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
4-Methyl-2-pentanone	U		1.9	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Acetone	U		4.9	11	µg/Kg-dry	0.909	10/29/2019 20:38
Benzene	U		0.55	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Bromochloromethane	U		0.57	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Bromodichloromethane	U		0.64	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Bromoform	U		0.53	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Bromomethane	U		2.7	11	µg/Kg-dry	0.909	10/29/2019 20:38

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-2 (26-28) **Lab ID:** 19101628-04
Collection Date: 10/17/2019 11:37 AM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.63	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Carbon tetrachloride	U		1.1	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Chlorobenzene	U		0.67	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Chloroethane	U		2.0	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Chloroform	U		0.87	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Chloromethane	U		1.1	11	µg/Kg-dry	0.909	10/29/2019 20:38
cis-1,2-Dichloroethene	U		0.57	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
cis-1,3-Dichloropropene	U		0.64	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Cyclohexane	U		1.8	11	µg/Kg-dry	0.909	10/29/2019 20:38
Dibromochloromethane	U		0.54	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Dichlorodifluoromethane	U		2.7	11	µg/Kg-dry	0.909	10/29/2019 20:38
Ethylbenzene	U		0.93	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Isopropylbenzene	U		0.90	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
m,p-Xylene	U		2.3	2.7	µg/Kg-dry	0.909	10/29/2019 20:38
Methyl acetate	U		1.3	11	µg/Kg-dry	0.909	10/29/2019 20:38
Methyl tert-butyl ether	U		0.65	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Methylcyclohexane	U		1.6	11	µg/Kg-dry	0.909	10/29/2019 20:38
Methylene chloride	U		6.6	11	µg/Kg-dry	0.909	10/29/2019 20:38
o-Xylene	U		1.3	2.7	µg/Kg-dry	0.909	10/29/2019 20:38
Styrene	U		0.80	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Tetrachloroethene	U		0.95	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Toluene	U		0.91	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
trans-1,2-Dichloroethene	U		0.53	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
trans-1,3-Dichloropropene	U		0.51	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Trichloroethene	U		0.77	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Trichlorofluoromethane	U		0.76	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Vinyl chloride	U		0.74	5.3	µg/Kg-dry	0.909	10/29/2019 20:38
Surr: 1,2-Dichloroethane-d4	*99.8*			*83-132*	*%REC*	0.909	10/29/2019 20:38
Surr: 4-Bromofluorobenzene	*102*			*83-111*	*%REC*	0.909	10/29/2019 20:38
Surr: Dibromofluoromethane	*41.3*	S		*77-125*	*%REC*	0.909	10/29/2019 20:38
Surr: Toluene-d8	*98.8*			*86-108*	*%REC*	0.909	10/29/2019 20:38
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**15**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (0-3) **Lab ID:** 19101628-05
Collection Date: 10/17/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.025**		**0.0022**	**0.022**	**mg/Kg-dry**	1	10/29/2019 17:08
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**7.2**		**0.060**	**0.50**	**mg/Kg-dry**	1	10/30/2019 21:30
Barium	**220**		**4.6**	**5.0**	**mg/Kg-dry**	10	10/31/2019 14:22
Cadmium	**0.73**		**0.030**	**0.20**	**mg/Kg-dry**	1	10/30/2019 21:30
Chromium	**8.8**		**0.22**	**0.50**	**mg/Kg-dry**	1	10/30/2019 21:30
Lead	**24**		**0.24**	**0.50**	**mg/Kg-dry**	1	10/30/2019 21:30
Selenium	U		0.46	0.50	mg/Kg-dry	1	10/31/2019 14:33
Silver	U		0.066	0.50	mg/Kg-dry	1	10/30/2019 21:30
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.9	6.3	mg/Kg-dry	1	10/26/2019 17:37
ORO (C21-C35)	U		2.1	6.3	mg/Kg-dry	1	10/26/2019 17:37
Surr: 4-Terphenyl-d14	*68.6*			*25-137*	*%REC*	1	10/26/2019 17:37
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.7	41	µg/Kg-dry	1	10/30/2019 12:06
1,2,4,5-Tetrachlorobenzene	U		32	410	µg/Kg-dry	1	10/30/2019 12:06
1,4-Dioxane	U		30	210	µg/Kg-dry	1	10/30/2019 12:06
2,2`-Oxybis(1-chloropropane)	U		9.7	41	µg/Kg-dry	1	10/30/2019 12:06
2,3,4,6-Tetrachlorophenol	U		11	83	µg/Kg-dry	1	10/30/2019 12:06
2,4,5-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/30/2019 12:06
2,4,6-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/30/2019 12:06
2,4-Dichlorophenol	U		8.7	41	µg/Kg-dry	1	10/30/2019 12:06
2,4-Dimethylphenol	U		8.4	41	µg/Kg-dry	1	10/30/2019 12:06
2,4-Dinitrophenol	U		22	41	µg/Kg-dry	1	10/30/2019 12:06
2,4-Dinitrotoluene	U		11	41	µg/Kg-dry	1	10/30/2019 12:06
2,6-Dinitrotoluene	U		6.8	41	µg/Kg-dry	1	10/30/2019 12:06
2-Chloronaphthalene	U		5.8	8.3	µg/Kg-dry	1	10/30/2019 12:06
2-Chlorophenol	U		13	41	µg/Kg-dry	1	10/30/2019 12:06
2-Methylnaphthalene	U		4.2	8.3	µg/Kg-dry	1	10/30/2019 12:06
2-Methylphenol	U		11	41	µg/Kg-dry	1	10/30/2019 12:06
2-Nitroaniline	U		9.5	41	µg/Kg-dry	1	10/30/2019 12:06
2-Nitrophenol	U		12	41	µg/Kg-dry	1	10/30/2019 12:06
3&4-Methylphenol	U		8.3	41	µg/Kg-dry	1	10/30/2019 12:06
3,3´-Dichlorobenzidine	U		6.1	210	µg/Kg-dry	1	10/30/2019 12:06
3-Nitroaniline	U		9.5	41	µg/Kg-dry	1	10/30/2019 12:06
4,6-Dinitro-2-methylphenol	U		10	41	µg/Kg-dry	1	10/30/2019 12:06
4-Bromophenyl phenyl ether	U		11	41	µg/Kg-dry	1	10/30/2019 12:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (0-3) **Lab ID:** 19101628-05
Collection Date: 10/17/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		12	41	µg/Kg-dry	1	10/30/2019 12:06
4-Chloroaniline	U		6.5	83	µg/Kg-dry	1	10/30/2019 12:06
4-Chlorophenyl phenyl ether	U		11	41	µg/Kg-dry	1	10/30/2019 12:06
4-Nitroaniline	U		64	210	µg/Kg-dry	1	10/30/2019 12:06
4-Nitrophenol	U		37	41	µg/Kg-dry	1	10/30/2019 12:06
Acenaphthene	U		6.0	8.3	µg/Kg-dry	1	10/30/2019 12:06
Acenaphthylene	U		7.2	8.3	µg/Kg-dry	1	10/30/2019 12:06
Acetophenone	U		6.5	41	µg/Kg-dry	1	10/30/2019 12:06
Anthracene	U		5.8	8.3	µg/Kg-dry	1	10/30/2019 12:06
Atrazine	U		6.5	41	µg/Kg-dry	1	10/30/2019 12:06
Benzaldehyde	U		63	83	µg/Kg-dry	1	10/30/2019 12:06
Benzo(a)anthracene	U		7.1	8.3	µg/Kg-dry	1	10/30/2019 12:06
Benzo(a)pyrene	U		5.1	8.3	µg/Kg-dry	1	10/30/2019 12:06
Benzo(b)fluoranthene	U		6.2	8.3	µg/Kg-dry	1	10/30/2019 12:06
Benzo(g,h,i)perylene	U		6.3	8.3	µg/Kg-dry	1	10/30/2019 12:06
Benzo(k)fluoranthene	U		6.3	8.3	µg/Kg-dry	1	10/30/2019 12:06
Bis(2-chloroethoxy)methane	U		4.0	41	µg/Kg-dry	1	10/30/2019 12:06
Bis(2-chloroethyl)ether	U		12	41	µg/Kg-dry	1	10/30/2019 12:06
Bis(2-ethylhexyl)phthalate	U		7.2	41	µg/Kg-dry	1	10/30/2019 12:06
Butyl benzyl phthalate	U		7.0	41	µg/Kg-dry	1	10/30/2019 12:06
Caprolactam	U		14	41	µg/Kg-dry	1	10/30/2019 12:06
Carbazole	U		4.5	41	µg/Kg-dry	1	10/30/2019 12:06
Chrysene	U		6.7	8.3	µg/Kg-dry	1	10/30/2019 12:06
Dibenzo(a,h)anthracene	U		4.5	8.3	µg/Kg-dry	1	10/30/2019 12:06
Dibenzofuran	U		6.1	41	µg/Kg-dry	1	10/30/2019 12:06
Diethyl phthalate	U		6.3	41	µg/Kg-dry	1	10/30/2019 12:06
Dimethyl phthalate	U		8.1	41	µg/Kg-dry	1	10/30/2019 12:06
Di-n-butyl phthalate	U		7.6	41	µg/Kg-dry	1	10/30/2019 12:06
Di-n-octyl phthalate	U		7.9	41	µg/Kg-dry	1	10/30/2019 12:06
Fluoranthene	U		4.0	8.3	µg/Kg-dry	1	10/30/2019 12:06
Fluorene	U		6.0	8.3	µg/Kg-dry	1	10/30/2019 12:06
Hexachlorobenzene	U		12	41	µg/Kg-dry	1	10/30/2019 12:06
Hexachlorobutadiene	U		22	41	µg/Kg-dry	1	10/30/2019 12:06
Hexachlorocyclopentadiene	U		14	41	µg/Kg-dry	1	10/30/2019 12:06
Hexachloroethane	U		17	41	µg/Kg-dry	1	10/30/2019 12:06
Indeno(1,2,3-cd)pyrene	U		5.7	8.3	µg/Kg-dry	1	10/30/2019 12:06
Isophorone	U		8.1	210	µg/Kg-dry	1	10/30/2019 12:06
Naphthalene	U		5.3	8.3	µg/Kg-dry	1	10/30/2019 12:06
Nitrobenzene	U		14	210	µg/Kg-dry	1	10/30/2019 12:06
N-Nitrosodi-n-propylamine	U		6.8	41	µg/Kg-dry	1	10/30/2019 12:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (0-3) **Lab ID:** 19101628-05
Collection Date: 10/17/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		4.0	41	µg/Kg-dry	1	10/30/2019 12:06
Pentachlorophenol	U		15	41	µg/Kg-dry	1	10/30/2019 12:06
Phenanthrene	**14**		**3.8**	**8.3**	**µg/Kg-dry**	1	10/30/2019 12:06
Phenol	U		10	41	µg/Kg-dry	1	10/30/2019 12:06
Pyrene	U		1.5	8.3	µg/Kg-dry	1	10/30/2019 12:06
Surr: 2,4,6-Tribromophenol	*78.9*			*38-92*	*%REC*	1	10/30/2019 12:06
Surr: 2-Fluorobiphenyl	*74.6*			*44-107*	*%REC*	1	10/30/2019 12:06
Surr: 2-Fluorophenol	*84.4*			*37-109*	*%REC*	1	10/30/2019 12:06
Surr: 4-Terphenyl-d14	*63.9*			*52-123*	*%REC*	1	10/30/2019 12:06
Surr: Nitrobenzene-d5	*76.1*			*41-94*	*%REC*	1	10/30/2019 12:06
Surr: Phenol-d6	*82.3*			*28-111*	*%REC*	1	10/30/2019 12:06
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**2,300**	J	**1,700**	**6,700**	**µg/Kg-dry**	1	10/29/2019 01:18
Surr: Toluene-d8	*71.4*			*70-130*	*%REC*	1	10/29/2019 01:18
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		1.0	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,1,2,2-Tetrachloroethane	U		0.81	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,1,2-Trichloroethane	U		0.85	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,1,2-Trichlorotrifluoroethane	U		1.4	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,1-Dichloroethane	U		0.78	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,1-Dichloroethene	U		1.2	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2,3-Trichlorobenzene	U		2.3	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2,4-Trichlorobenzene	U		1.4	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2-Dibromo-3-chloropropane	U		1.3	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2-Dibromoethane	U		0.46	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2-Dichlorobenzene	U		0.89	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2-Dichloroethane	U		0.71	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,2-Dichloropropane	U		0.56	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,3-Dichlorobenzene	U		0.77	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
1,4-Dichlorobenzene	U		0.81	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
2-Butanone	**8.8**	J	**6.5**	**13**	**µg/Kg-dry**	0.98	10/29/2019 20:55
2-Hexanone	U		2.3	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
4-Methyl-2-pentanone	U		2.3	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Acetone	**93**		**5.8**	**13**	**µg/Kg-dry**	0.98	10/29/2019 20:55
Benzene	U		0.66	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Bromochloromethane	U		0.68	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Bromodichloromethane	U		0.76	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Bromoform	U		0.63	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Bromomethane	U		3.2	13	µg/Kg-dry	0.98	10/29/2019 20:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (0-3) **Lab ID:** 19101628-05
Collection Date: 10/17/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.75	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Carbon tetrachloride	U		1.3	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Chlorobenzene	U		0.80	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Chloroethane	U		2.4	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Chloroform	U		1.0	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Chloromethane	U		1.3	13	µg/Kg-dry	0.98	10/29/2019 20:55
cis-1,2-Dichloroethene	U		0.68	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
cis-1,3-Dichloropropene	U		0.76	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Cyclohexane	U		2.2	13	µg/Kg-dry	0.98	10/29/2019 20:55
Dibromochloromethane	U		0.65	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Dichlorodifluoromethane	U		3.2	13	µg/Kg-dry	0.98	10/29/2019 20:55
Ethylbenzene	U		1.1	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Isopropylbenzene	U		1.1	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
m,p-Xylene	U		2.8	3.2	µg/Kg-dry	0.98	10/29/2019 20:55
Methyl acetate	U		1.5	13	µg/Kg-dry	0.98	10/29/2019 20:55
Methyl tert-butyl ether	U		0.77	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Methylcyclohexane	U		1.9	13	µg/Kg-dry	0.98	10/29/2019 20:55
Methylene chloride	U		7.8	13	µg/Kg-dry	0.98	10/29/2019 20:55
o-Xylene	U		1.5	3.2	µg/Kg-dry	0.98	10/29/2019 20:55
Styrene	U		0.95	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Tetrachloroethene	U		1.1	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Toluene	U		1.1	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
trans-1,2-Dichloroethene	U		0.63	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
trans-1,3-Dichloropropene	U		0.61	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Trichloroethene	U		0.91	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Trichlorofluoromethane	U		0.90	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Vinyl chloride	U		0.89	6.3	µg/Kg-dry	0.98	10/29/2019 20:55
Surr: 1,2-Dichloroethane-d4	*108*			*83-132*	*%REC*	0.98	10/29/2019 20:55
Surr: 4-Bromofluorobenzene	*103*			*83-111*	*%REC*	0.98	10/29/2019 20:55
Surr: Dibromofluoromethane	*42.0*	S		*77-125*	*%REC*	0.98	10/29/2019 20:55
Surr: Toluene-d8	*96.2*			*86-108*	*%REC*	0.98	10/29/2019 20:55
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**23**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (30) **Lab ID:** 19101628-06
Collection Date: 10/17/2019 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.018**	J	**0.0021**	**0.021**	**mg/Kg-dry**	1	10/29/2019 17:10
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**7.5**		**0.057**	**0.48**	**mg/Kg-dry**	1	10/30/2019 21:31
Barium	**120**		**0.44**	**0.48**	**mg/Kg-dry**	1	10/30/2019 21:31
Cadmium	**0.069**	J	**0.029**	**0.19**	**mg/Kg-dry**	1	10/30/2019 21:31
Chromium	**11**		**0.21**	**0.48**	**mg/Kg-dry**	1	10/30/2019 21:31
Lead	**11**		**0.23**	**0.48**	**mg/Kg-dry**	1	10/30/2019 21:31
Selenium	U		0.44	0.48	mg/Kg-dry	1	10/30/2019 21:31
Silver	U		0.063	0.48	mg/Kg-dry	1	10/30/2019 21:31
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.8	6.1	mg/Kg-dry	1	10/26/2019 17:57
ORO (C21-C35)	U		2.0	6.1	mg/Kg-dry	1	10/26/2019 17:57
Surr: 4-Terphenyl-d14	*68.4*			*25-137*	*%REC*	1	10/26/2019 17:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.3	39	µg/Kg-dry	1	10/30/2019 12:28
1,2,4,5-Tetrachlorobenzene	U		30	390	µg/Kg-dry	1	10/30/2019 12:28
1,4-Dioxane	U		28	200	µg/Kg-dry	1	10/30/2019 12:28
2,2`-Oxybis(1-chloropropane)	U		9.1	39	µg/Kg-dry	1	10/30/2019 12:28
2,3,4,6-Tetrachlorophenol	U		10	78	µg/Kg-dry	1	10/30/2019 12:28
2,4,5-Trichlorophenol	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
2,4,6-Trichlorophenol	U		10	39	µg/Kg-dry	1	10/30/2019 12:28
2,4-Dichlorophenol	U		8.2	39	µg/Kg-dry	1	10/30/2019 12:28
2,4-Dimethylphenol	U		8.0	39	µg/Kg-dry	1	10/30/2019 12:28
2,4-Dinitrophenol	U		21	39	µg/Kg-dry	1	10/30/2019 12:28
2,4-Dinitrotoluene	U		10	39	µg/Kg-dry	1	10/30/2019 12:28
2,6-Dinitrotoluene	U		6.4	39	µg/Kg-dry	1	10/30/2019 12:28
2-Chloronaphthalene	U		5.4	7.8	µg/Kg-dry	1	10/30/2019 12:28
2-Chlorophenol	U		12	39	µg/Kg-dry	1	10/30/2019 12:28
2-Methylnaphthalene	U		4.0	7.8	µg/Kg-dry	1	10/30/2019 12:28
2-Methylphenol	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
2-Nitroaniline	U		8.9	39	µg/Kg-dry	1	10/30/2019 12:28
2-Nitrophenol	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
3&4-Methylphenol	U		7.8	39	µg/Kg-dry	1	10/30/2019 12:28
3,3´-Dichlorobenzidine	U		5.8	200	µg/Kg-dry	1	10/30/2019 12:28
3-Nitroaniline	U		8.9	39	µg/Kg-dry	1	10/30/2019 12:28
4,6-Dinitro-2-methylphenol	U		9.8	39	µg/Kg-dry	1	10/30/2019 12:28
4-Bromophenyl phenyl ether	U		10	39	µg/Kg-dry	1	10/30/2019 12:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (30) **Lab ID:** 19101628-06
Collection Date: 10/17/2019 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
4-Chloroaniline	U		6.2	78	µg/Kg-dry	1	10/30/2019 12:28
4-Chlorophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
4-Nitroaniline	U		60	200	µg/Kg-dry	1	10/30/2019 12:28
4-Nitrophenol	U		35	39	µg/Kg-dry	1	10/30/2019 12:28
Acenaphthene	U		5.6	7.8	µg/Kg-dry	1	10/30/2019 12:28
Acenaphthylene	U		6.7	7.8	µg/Kg-dry	1	10/30/2019 12:28
Acetophenone	U		6.1	39	µg/Kg-dry	1	10/30/2019 12:28
Anthracene	U		5.5	7.8	µg/Kg-dry	1	10/30/2019 12:28
Atrazine	U		6.1	39	µg/Kg-dry	1	10/30/2019 12:28
Benzaldehyde	U		60	78	µg/Kg-dry	1	10/30/2019 12:28
Benzo(a)anthracene	U		6.7	7.8	µg/Kg-dry	1	10/30/2019 12:28
Benzo(a)pyrene	U		4.8	7.8	µg/Kg-dry	1	10/30/2019 12:28
Benzo(b)fluoranthene	U		5.8	7.8	µg/Kg-dry	1	10/30/2019 12:28
Benzo(g,h,i)perylene	U		6.0	7.8	µg/Kg-dry	1	10/30/2019 12:28
Benzo(k)fluoranthene	U		5.9	7.8	µg/Kg-dry	1	10/30/2019 12:28
Bis(2-chloroethoxy)methane	U		3.7	39	µg/Kg-dry	1	10/30/2019 12:28
Bis(2-chloroethyl)ether	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
Bis(2-ethylhexyl)phthalate	U		6.7	39	µg/Kg-dry	1	10/30/2019 12:28
Butyl benzyl phthalate	U		6.6	39	µg/Kg-dry	1	10/30/2019 12:28
Caprolactam	U		13	39	µg/Kg-dry	1	10/30/2019 12:28
Carbazole	U		4.2	39	µg/Kg-dry	1	10/30/2019 12:28
Chrysene	U		6.3	7.8	µg/Kg-dry	1	10/30/2019 12:28
Dibenzo(a,h)anthracene	U		4.2	7.8	µg/Kg-dry	1	10/30/2019 12:28
Dibenzofuran	U		5.7	39	µg/Kg-dry	1	10/30/2019 12:28
Diethyl phthalate	U		6.0	39	µg/Kg-dry	1	10/30/2019 12:28
Dimethyl phthalate	U		7.6	39	µg/Kg-dry	1	10/30/2019 12:28
Di-n-butyl phthalate	U		7.1	39	µg/Kg-dry	1	10/30/2019 12:28
Di-n-octyl phthalate	U		7.5	39	µg/Kg-dry	1	10/30/2019 12:28
Fluoranthene	U		3.7	7.8	µg/Kg-dry	1	10/30/2019 12:28
Fluorene	U		5.7	7.8	µg/Kg-dry	1	10/30/2019 12:28
Hexachlorobenzene	U		11	39	µg/Kg-dry	1	10/30/2019 12:28
Hexachlorobutadiene	U		21	39	µg/Kg-dry	1	10/30/2019 12:28
Hexachlorocyclopentadiene	U		13	39	µg/Kg-dry	1	10/30/2019 12:28
Hexachloroethane	U		16	39	µg/Kg-dry	1	10/30/2019 12:28
Indeno(1,2,3-cd)pyrene	U		5.4	7.8	µg/Kg-dry	1	10/30/2019 12:28
Isophorone	U		7.6	200	µg/Kg-dry	1	10/30/2019 12:28
Naphthalene	U		5.0	7.8	µg/Kg-dry	1	10/30/2019 12:28
Nitrobenzene	U		13	200	µg/Kg-dry	1	10/30/2019 12:28
N-Nitrosodi-n-propylamine	U		6.4	39	µg/Kg-dry	1	10/30/2019 12:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (30) **Lab ID:** 19101628-06
Collection Date: 10/17/2019 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		3.7	39	µg/Kg-dry	1	10/30/2019 12:28
Pentachlorophenol	U		14	39	µg/Kg-dry	1	10/30/2019 12:28
Phenanthrene	U		3.6	7.8	µg/Kg-dry	1	10/30/2019 12:28
Phenol	U		9.7	39	µg/Kg-dry	1	10/30/2019 12:28
Pyrene	U		1.4	7.8	µg/Kg-dry	1	10/30/2019 12:28
Surr: 2,4,6-Tribromophenol	*69.9*			*38-92*	*%REC*	1	10/30/2019 12:28
Surr: 2-Fluorobiphenyl	*76.5*			*44-107*	*%REC*	1	10/30/2019 12:28
Surr: 2-Fluorophenol	*89.3*			*37-109*	*%REC*	1	10/30/2019 12:28
Surr: 4-Terphenyl-d14	*67.4*			*52-123*	*%REC*	1	10/30/2019 12:28
Surr: Nitrobenzene-d5	*75.3*			*41-94*	*%REC*	1	10/30/2019 12:28
Surr: Phenol-d6	*83.6*			*28-111*	*%REC*	1	10/30/2019 12:28
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**5,800**		**1,400**	**5,500**	**µg/Kg-dry**	1	10/29/2019 01:01
Surr: Toluene-d8	*73.0*			*70-130*	*%REC*	1	10/29/2019 01:01
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.83	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,1,2,2-Tetrachloroethane	U		0.67	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,1,2-Trichloroethane	U		0.70	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,1,2-Trichlorotrifluoroethane	U		1.1	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,1-Dichloroethane	U		0.65	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,1-Dichloroethene	U		1.0	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2,3-Trichlorobenzene	U		1.9	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2,4-Trichlorobenzene	U		1.1	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2-Dibromo-3-chloropropane	U		1.0	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2-Dibromoethane	U		0.38	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2-Dichlorobenzene	U		0.73	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2-Dichloroethane	U		0.59	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,2-Dichloropropane	U		0.46	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,3-Dichlorobenzene	U		0.64	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
1,4-Dichlorobenzene	U		0.67	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
2-Butanone	U		5.3	10	µg/Kg-dry	0.855	10/29/2019 21:12
2-Hexanone	U		1.9	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
4-Methyl-2-pentanone	U		1.9	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Acetone	**11**		**4.8**	**10**	**µg/Kg-dry**	0.855	10/29/2019 21:12
Benzene	U		0.54	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Bromochloromethane	U		0.56	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Bromodichloromethane	U		0.63	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Bromoform	U		0.52	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Bromomethane	U		2.6	10	µg/Kg-dry	0.855	10/29/2019 21:12

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-3 (30) **Lab ID:** 19101628-06
Collection Date: 10/17/2019 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.62	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Carbon tetrachloride	U		1.0	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Chlorobenzene	U		0.66	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Chloroethane	U		2.0	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Chloroform	U		0.86	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Chloromethane	U		1.0	10	µg/Kg-dry	0.855	10/29/2019 21:12
cis-1,2-Dichloroethene	U		0.56	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
cis-1,3-Dichloropropene	U		0.63	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Cyclohexane	U		1.8	10	µg/Kg-dry	0.855	10/29/2019 21:12
Dibromochloromethane	U		0.53	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Dichlorodifluoromethane	U		2.6	10	µg/Kg-dry	0.855	10/29/2019 21:12
Ethylbenzene	U		0.91	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Isopropylbenzene	U		0.89	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
m,p-Xylene	U		2.3	2.6	µg/Kg-dry	0.855	10/29/2019 21:12
Methyl acetate	U		1.3	10	µg/Kg-dry	0.855	10/29/2019 21:12
Methyl tert-butyl ether	U		0.64	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Methylcyclohexane	U		1.6	10	µg/Kg-dry	0.855	10/29/2019 21:12
Methylene chloride	U		6.5	10	µg/Kg-dry	0.855	10/29/2019 21:12
o-Xylene	U		1.3	2.6	µg/Kg-dry	0.855	10/29/2019 21:12
Styrene	U		0.78	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Tetrachloroethene	U		0.93	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Toluene	U		0.90	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
trans-1,2-Dichloroethene	U		0.52	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
trans-1,3-Dichloropropene	U		0.50	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Trichloroethene	U		0.75	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Trichlorofluoromethane	U		0.74	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Vinyl chloride	U		0.73	5.2	µg/Kg-dry	0.855	10/29/2019 21:12
Surr: 1,2-Dichloroethane-d4	*106*			*83-132*	*%REC*	0.855	10/29/2019 21:12
Surr: 4-Bromofluorobenzene	*101*			*83-111*	*%REC*	0.855	10/29/2019 21:12
Surr: Dibromofluoromethane	*58.2*	S		*77-125*	*%REC*	0.855	10/29/2019 21:12
Surr: Toluene-d8	*94.0*			*86-108*	*%REC*	0.855	10/29/2019 21:12
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**18**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-4 (0-3)
Collection Date: 10/17/2019 03:50 PM

Work Order: 19101628
Lab ID: 19101628-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.078**		**0.0022**	**0.022**	**mg/Kg-dry**	1	10/29/2019 17:12
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**19**		**0.062**	**0.51**	**mg/Kg-dry**	1	10/30/2019 21:33
Barium	**460**		**4.7**	**5.1**	**mg/Kg-dry**	10	10/31/2019 14:23
Cadmium	**0.093**	J	**0.031**	**0.21**	**mg/Kg-dry**	1	10/30/2019 21:33
Chromium	**23**		**2.3**	**5.1**	**mg/Kg-dry**	10	10/31/2019 14:23
Lead	**47**		**0.25**	**0.51**	**mg/Kg-dry**	1	10/30/2019 21:33
Selenium	**2.5**		**0.47**	**0.51**	**mg/Kg-dry**	1	10/31/2019 14:35
Silver	**0.18**	J	**0.068**	**0.51**	**mg/Kg-dry**	1	10/30/2019 21:33
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		2.0	6.7	mg/Kg-dry	1	10/26/2019 18:17
ORO (C21-C35)	U		2.3	6.7	mg/Kg-dry	1	10/26/2019 18:17
Surr: 4-Terphenyl-d14	*53.2*			*25-137*	*%REC*	1	10/26/2019 18:17
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		7.3	45	µg/Kg-dry	1	10/30/2019 12:49
1,2,4,5-Tetrachlorobenzene	U		35	450	µg/Kg-dry	1	10/30/2019 12:49
1,4-Dioxane	U		32	230	µg/Kg-dry	1	10/30/2019 12:49
2,2`-Oxybis(1-chloropropane)	U		11	45	µg/Kg-dry	1	10/30/2019 12:49
2,3,4,6-Tetrachlorophenol	U		12	91	µg/Kg-dry	1	10/30/2019 12:49
2,4,5-Trichlorophenol	U		12	45	µg/Kg-dry	1	10/30/2019 12:49
2,4,6-Trichlorophenol	U		12	45	µg/Kg-dry	1	10/30/2019 12:49
2,4-Dichlorophenol	U		9.5	45	µg/Kg-dry	1	10/30/2019 12:49
2,4-Dimethylphenol	U		9.3	45	µg/Kg-dry	1	10/30/2019 12:49
2,4-Dinitrophenol	U		24	45	µg/Kg-dry	1	10/30/2019 12:49
2,4-Dinitrotoluene	U		12	45	µg/Kg-dry	1	10/30/2019 12:49
2,6-Dinitrotoluene	U		7.5	45	µg/Kg-dry	1	10/30/2019 12:49
2-Chloronaphthalene	U		6.3	9.1	µg/Kg-dry	1	10/30/2019 12:49
2-Chlorophenol	U		14	45	µg/Kg-dry	1	10/30/2019 12:49
2-Methylnaphthalene	U		4.6	9.1	µg/Kg-dry	1	10/30/2019 12:49
2-Methylphenol	U		12	45	µg/Kg-dry	1	10/30/2019 12:49
2-Nitroaniline	U		10	45	µg/Kg-dry	1	10/30/2019 12:49
2-Nitrophenol	U		13	45	µg/Kg-dry	1	10/30/2019 12:49
3&4-Methylphenol	U		9.1	45	µg/Kg-dry	1	10/30/2019 12:49
3,3´-Dichlorobenzidine	U		6.7	230	µg/Kg-dry	1	10/30/2019 12:49
3-Nitroaniline	U		10	45	µg/Kg-dry	1	10/30/2019 12:49
4,6-Dinitro-2-methylphenol	U		11	45	µg/Kg-dry	1	10/30/2019 12:49
4-Bromophenyl phenyl ether	U		12	45	µg/Kg-dry	1	10/30/2019 12:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (0-3) **Lab ID:** 19101628-07
Collection Date: 10/17/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		13	45	µg/Kg-dry	1	10/30/2019 12:49
4-Chloroaniline	U		7.2	91	µg/Kg-dry	1	10/30/2019 12:49
4-Chlorophenyl phenyl ether	U		13	45	µg/Kg-dry	1	10/30/2019 12:49
4-Nitroaniline	U		70	230	µg/Kg-dry	1	10/30/2019 12:49
4-Nitrophenol	U		40	45	µg/Kg-dry	1	10/30/2019 12:49
Acenaphthene	U		6.5	9.1	µg/Kg-dry	1	10/30/2019 12:49
Acenaphthylene	U		7.9	9.1	µg/Kg-dry	1	10/30/2019 12:49
Acetophenone	U		7.1	45	µg/Kg-dry	1	10/30/2019 12:49
Anthracene	U		6.4	9.1	µg/Kg-dry	1	10/30/2019 12:49
Atrazine	U		7.1	45	µg/Kg-dry	1	10/30/2019 12:49
Benzaldehyde	U		70	91	µg/Kg-dry	1	10/30/2019 12:49
Benzo(a)anthracene	U		7.8	9.1	µg/Kg-dry	1	10/30/2019 12:49
Benzo(a)pyrene	U		5.6	9.1	µg/Kg-dry	1	10/30/2019 12:49
Benzo(b)fluoranthene	U		6.8	9.1	µg/Kg-dry	1	10/30/2019 12:49
Benzo(g,h,i)perylene	U		6.9	9.1	µg/Kg-dry	1	10/30/2019 12:49
Benzo(k)fluoranthene	U		6.9	9.1	µg/Kg-dry	1	10/30/2019 12:49
Bis(2-chloroethoxy)methane	U		4.3	45	µg/Kg-dry	1	10/30/2019 12:49
Bis(2-chloroethyl)ether	U		13	45	µg/Kg-dry	1	10/30/2019 12:49
Bis(2-ethylhexyl)phthalate	U		7.9	45	µg/Kg-dry	1	10/30/2019 12:49
Butyl benzyl phthalate	U		7.7	45	µg/Kg-dry	1	10/30/2019 12:49
Caprolactam	U		15	45	µg/Kg-dry	1	10/30/2019 12:49
Carbazole	U		4.9	45	µg/Kg-dry	1	10/30/2019 12:49
Chrysene	U		7.3	9.1	µg/Kg-dry	1	10/30/2019 12:49
Dibenzo(a,h)anthracene	U		4.9	9.1	µg/Kg-dry	1	10/30/2019 12:49
Dibenzofuran	U		6.7	45	µg/Kg-dry	1	10/30/2019 12:49
Diethyl phthalate	U		6.9	45	µg/Kg-dry	1	10/30/2019 12:49
Dimethyl phthalate	U		8.8	45	µg/Kg-dry	1	10/30/2019 12:49
Di-n-butyl phthalate	U		8.3	45	µg/Kg-dry	1	10/30/2019 12:49
Di-n-octyl phthalate	U		8.7	45	µg/Kg-dry	1	10/30/2019 12:49
Fluoranthene	U		4.3	9.1	µg/Kg-dry	1	10/30/2019 12:49
Fluorene	U		6.6	9.1	µg/Kg-dry	1	10/30/2019 12:49
Hexachlorobenzene	U		13	45	µg/Kg-dry	1	10/30/2019 12:49
Hexachlorobutadiene	U		25	45	µg/Kg-dry	1	10/30/2019 12:49
Hexachlorocyclopentadiene	U		15	45	µg/Kg-dry	1	10/30/2019 12:49
Hexachloroethane	U		19	45	µg/Kg-dry	1	10/30/2019 12:49
Indeno(1,2,3-cd)pyrene	U		6.3	9.1	µg/Kg-dry	1	10/30/2019 12:49
Isophorone	U		8.8	230	µg/Kg-dry	1	10/30/2019 12:49
Naphthalene	U		5.8	9.1	µg/Kg-dry	1	10/30/2019 12:49
Nitrobenzene	U		15	230	µg/Kg-dry	1	10/30/2019 12:49
N-Nitrosodi-n-propylamine	U		7.5	45	µg/Kg-dry	1	10/30/2019 12:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (0-3) **Lab ID:** 19101628-07
Collection Date: 10/17/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		4.3	45	µg/Kg-dry	1	10/30/2019 12:49
Pentachlorophenol	U		17	45	µg/Kg-dry	1	10/30/2019 12:49
Phenanthrene	U		4.2	9.1	µg/Kg-dry	1	10/30/2019 12:49
Phenol	U		11	45	µg/Kg-dry	1	10/30/2019 12:49
Pyrene	U		1.6	9.1	µg/Kg-dry	1	10/30/2019 12:49
Surr: 2,4,6-Tribromophenol	*75.5*			*38-92*	*%REC*	1	10/30/2019 12:49
Surr: 2-Fluorobiphenyl	*69.3*			*44-107*	*%REC*	1	10/30/2019 12:49
Surr: 2-Fluorophenol	*79.9*			*37-109*	*%REC*	1	10/30/2019 12:49
Surr: 4-Terphenyl-d14	*63.5*			*52-123*	*%REC*	1	10/30/2019 12:49
Surr: Nitrobenzene-d5	*73.0*			*41-94*	*%REC*	1	10/30/2019 12:49
Surr: Phenol-d6	*74.4*			*28-111*	*%REC*	1	10/30/2019 12:49
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		2,000	7,900	µg/Kg-dry	1	10/29/2019 12:43
Surr: Toluene-d8	*71.2*			*70-130*	*%REC*	1	10/29/2019 12:43
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.92	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,1,2,2-Tetrachloroethane	U		0.75	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,1,2-Trichloroethane	U		0.78	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,1,2-Trichlorotrifluoroethane	U		1.3	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,1-Dichloroethane	U		0.72	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,1-Dichloroethene	U		1.1	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2,3-Trichlorobenzene	U		2.1	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2,4-Trichlorobenzene	U		1.3	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2-Dibromo-3-chloropropane	U		1.2	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2-Dibromoethane	U		0.42	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2-Dichlorobenzene	U		0.82	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2-Dichloroethane	U		0.65	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,2-Dichloropropane	U		0.51	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,3-Dichlorobenzene	U		0.71	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
1,4-Dichlorobenzene	U		0.75	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
2-Butanone	U		6.0	12	µg/Kg-dry	0.858	10/29/2019 21:30
2-Hexanone	U		2.1	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
4-Methyl-2-pentanone	U		2.1	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Acetone	**65**		**5.4**	**12**	**µg/Kg-dry**	0.858	10/29/2019 21:30
Benzene	U		0.61	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Bromochloromethane	U		0.63	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Bromodichloromethane	U		0.70	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Bromoform	U		0.58	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Bromomethane	U		2.9	12	µg/Kg-dry	0.858	10/29/2019 21:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (0-3) **Lab ID:** 19101628-07
Collection Date: 10/17/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.69	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Carbon tetrachloride	U		1.2	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Chlorobenzene	U		0.74	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Chloroethane	U		2.2	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Chloroform	U		0.96	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Chloromethane	U		1.2	12	µg/Kg-dry	0.858	10/29/2019 21:30
cis-1,2-Dichloroethene	U		0.63	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
cis-1,3-Dichloropropene	U		0.70	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Cyclohexane	U		2.0	12	µg/Kg-dry	0.858	10/29/2019 21:30
Dibromochloromethane	U		0.60	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Dichlorodifluoromethane	U		2.9	12	µg/Kg-dry	0.858	10/29/2019 21:30
Ethylbenzene	U		1.0	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Isopropylbenzene	U		0.99	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
m,p-Xylene	U		2.6	2.9	µg/Kg-dry	0.858	10/29/2019 21:30
Methyl acetate	U		1.4	12	µg/Kg-dry	0.858	10/29/2019 21:30
Methyl tert-butyl ether	U		0.71	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Methylcyclohexane	U		1.7	12	µg/Kg-dry	0.858	10/29/2019 21:30
Methylene chloride	U		7.2	12	µg/Kg-dry	0.858	10/29/2019 21:30
o-Xylene	U		1.4	2.9	µg/Kg-dry	0.858	10/29/2019 21:30
Styrene	U		0.88	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Tetrachloroethene	U		1.0	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Toluene	U		1.0	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
trans-1,2-Dichloroethene	U		0.58	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
trans-1,3-Dichloropropene	U		0.56	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Trichloroethene	U		0.84	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Trichlorofluoromethane	U		0.83	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Vinyl chloride	U		0.82	5.8	µg/Kg-dry	0.858	10/29/2019 21:30
Surr: 1,2-Dichloroethane-d4	*110*			*83-132*	*%REC*	0.858	10/29/2019 21:30
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	0.858	10/29/2019 21:30
Surr: Dibromofluoromethane	*52.9*	S		*77-125*	*%REC*	0.858	10/29/2019 21:30
Surr: Toluene-d8	*98.0*			*86-108*	*%REC*	0.858	10/29/2019 21:30
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**27**		**0.10**	**0.10**	**% of sample**	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (30) **Lab ID:** 19101628-08
Collection Date: 10/17/2019 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.017**	J	**0.0018**	**0.018**	**mg/Kg-dry**	1	10/29/2019 17:14
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**7.9**		**0.047**	**0.39**	**mg/Kg-dry**	1	10/30/2019 21:35
Barium	**200**		**3.6**	**3.9**	**mg/Kg-dry**	10	10/31/2019 14:28
Cadmium	**0.19**		**0.023**	**0.16**	**mg/Kg-dry**	1	10/30/2019 21:35
Chromium	**12**		**0.17**	**0.39**	**mg/Kg-dry**	1	10/30/2019 21:35
Lead	**14**		**0.19**	**0.39**	**mg/Kg-dry**	1	10/30/2019 21:35
Selenium	U		0.36	0.39	mg/Kg-dry	1	10/30/2019 21:35
Silver	U		0.052	0.39	mg/Kg-dry	1	10/30/2019 21:35
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.7	5.7	mg/Kg-dry	1	10/26/2019 18:37
ORO (C21-C35)	U		1.9	5.7	mg/Kg-dry	1	10/26/2019 18:37
Surr: 4-Terphenyl-d14	*50.7*			*25-137*	*%REC*	1	10/26/2019 18:37
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.0	37	µg/Kg-dry	1	10/30/2019 01:11
1,2,4,5-Tetrachlorobenzene	U		29	370	µg/Kg-dry	1	10/30/2019 01:11
1,4-Dioxane	U		27	190	µg/Kg-dry	1	10/30/2019 01:11
2,2`-Oxybis(1-chloropropane)	U		8.7	37	µg/Kg-dry	1	10/30/2019 01:11
2,3,4,6-Tetrachlorophenol	U		9.6	74	µg/Kg-dry	1	10/30/2019 01:11
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/30/2019 01:11
2,4,6-Trichlorophenol	U		9.8	37	µg/Kg-dry	1	10/30/2019 01:11
2,4-Dichlorophenol	U		7.8	37	µg/Kg-dry	1	10/30/2019 01:11
2,4-Dimethylphenol	U		7.6	37	µg/Kg-dry	1	10/30/2019 01:11
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/30/2019 01:11
2,4-Dinitrotoluene	U		9.6	37	µg/Kg-dry	1	10/30/2019 01:11
2,6-Dinitrotoluene	U		6.1	37	µg/Kg-dry	1	10/30/2019 01:11
2-Chloronaphthalene	U		5.2	7.4	µg/Kg-dry	1	10/30/2019 01:11
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/30/2019 01:11
2-Methylnaphthalene	U		3.8	7.4	µg/Kg-dry	1	10/30/2019 01:11
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/30/2019 01:11
2-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/30/2019 01:11
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/30/2019 01:11
3&4-Methylphenol	U		7.4	37	µg/Kg-dry	1	10/30/2019 01:11
3,3´-Dichlorobenzidine	U		5.5	190	µg/Kg-dry	1	10/30/2019 01:11
3-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/30/2019 01:11
4,6-Dinitro-2-methylphenol	U		9.3	37	µg/Kg-dry	1	10/30/2019 01:11
4-Bromophenyl phenyl ether	U		9.9	37	µg/Kg-dry	1	10/30/2019 01:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (30) **Lab ID:** 19101628-08
Collection Date: 10/17/2019 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/30/2019 01:11
4-Chloroaniline	U		5.9	74	µg/Kg-dry	1	10/30/2019 01:11
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/30/2019 01:11
4-Nitroaniline	U		57	190	µg/Kg-dry	1	10/30/2019 01:11
4-Nitrophenol	U		33	37	µg/Kg-dry	1	10/30/2019 01:11
Acenaphthene	U		5.4	7.4	µg/Kg-dry	1	10/30/2019 01:11
Acenaphthylene	U		6.4	7.4	µg/Kg-dry	1	10/30/2019 01:11
Acetophenone	U		5.8	37	µg/Kg-dry	1	10/30/2019 01:11
Anthracene	U		5.2	7.4	µg/Kg-dry	1	10/30/2019 01:11
Atrazine	U		5.8	37	µg/Kg-dry	1	10/30/2019 01:11
Benzaldehyde	U		57	74	µg/Kg-dry	1	10/30/2019 01:11
Benzo(a)anthracene	U		6.4	7.4	µg/Kg-dry	1	10/30/2019 01:11
Benzo(a)pyrene	U		4.5	7.4	µg/Kg-dry	1	10/30/2019 01:11
Benzo(b)fluoranthene	U		5.5	7.4	µg/Kg-dry	1	10/30/2019 01:11
Benzo(g,h,i)perylene	U		5.7	7.4	µg/Kg-dry	1	10/30/2019 01:11
Benzo(k)fluoranthene	U		5.6	7.4	µg/Kg-dry	1	10/30/2019 01:11
Bis(2-chloroethoxy)methane	U		3.6	37	µg/Kg-dry	1	10/30/2019 01:11
Bis(2-chloroethyl)ether	U		10	37	µg/Kg-dry	1	10/30/2019 01:11
Bis(2-ethylhexyl)phthalate	U		6.4	37	µg/Kg-dry	1	10/30/2019 01:11
Butyl benzyl phthalate	U		6.3	37	µg/Kg-dry	1	10/30/2019 01:11
Caprolactam	U		13	37	µg/Kg-dry	1	10/30/2019 01:11
Carbazole	U		4.0	37	µg/Kg-dry	1	10/30/2019 01:11
Chrysene	U		6.0	7.4	µg/Kg-dry	1	10/30/2019 01:11
Dibenzo(a,h)anthracene	U		4.0	7.4	µg/Kg-dry	1	10/30/2019 01:11
Dibenzofuran	U		5.4	37	µg/Kg-dry	1	10/30/2019 01:11
Diethyl phthalate	U		5.7	37	µg/Kg-dry	1	10/30/2019 01:11
Dimethyl phthalate	U		7.2	37	µg/Kg-dry	1	10/30/2019 01:11
Di-n-butyl phthalate	U		6.8	37	µg/Kg-dry	1	10/30/2019 01:11
Di-n-octyl phthalate	U		7.1	37	µg/Kg-dry	1	10/30/2019 01:11
Fluoranthene	U		3.6	7.4	µg/Kg-dry	1	10/30/2019 01:11
Fluorene	U		5.4	7.4	µg/Kg-dry	1	10/30/2019 01:11
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/30/2019 01:11
Hexachlorobutadiene	U		20	37	µg/Kg-dry	1	10/30/2019 01:11
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/30/2019 01:11
Hexachloroethane	U		15	37	µg/Kg-dry	1	10/30/2019 01:11
Indeno(1,2,3-cd)pyrene	U		5.2	7.4	µg/Kg-dry	1	10/30/2019 01:11
Isophorone	U		7.2	190	µg/Kg-dry	1	10/30/2019 01:11
Naphthalene	U		4.7	7.4	µg/Kg-dry	1	10/30/2019 01:11
Nitrobenzene	U		12	190	µg/Kg-dry	1	10/30/2019 01:11
N-Nitrosodi-n-propylamine	U		6.1	37	µg/Kg-dry	1	10/30/2019 01:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (30) **Lab ID:** 19101628-08
Collection Date: 10/17/2019 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		3.6	37	µg/Kg-dry	1	10/30/2019 01:11
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/30/2019 01:11
Phenanthrene	U		3.4	7.4	µg/Kg-dry	1	10/30/2019 01:11
Phenol	U		9.2	37	µg/Kg-dry	1	10/30/2019 01:11
Pyrene	U		1.3	7.4	µg/Kg-dry	1	10/30/2019 01:11
Surr: 2,4,6-Tribromophenol	*68.8*			*38-92*	*%REC*	1	10/30/2019 01:11
Surr: 2-Fluorobiphenyl	*74.3*			*44-107*	*%REC*	1	10/30/2019 01:11
Surr: 2-Fluorophenol	*79.6*			*37-109*	*%REC*	1	10/30/2019 01:11
Surr: 4-Terphenyl-d14	*67.1*			*52-123*	*%REC*	1	10/30/2019 01:11
Surr: Nitrobenzene-d5	*75.1*			*41-94*	*%REC*	1	10/30/2019 01:11
Surr: Phenol-d6	*73.8*			*28-111*	*%REC*	1	10/30/2019 01:11
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**1,400**	J	**1,200**	**4,800**	**µg/Kg-dry**	1	10/29/2019 12:26
Surr: Toluene-d8	*72.0*			*70-130*	*%REC*	1	10/29/2019 12:26
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.76	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,1,2,2-Tetrachloroethane	U		0.62	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,1,2-Trichloroethane	U		0.65	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,1,2-Trichlorotrifluoroethane	U		1.1	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,1-Dichloroethane	U		0.60	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,1-Dichloroethene	U		0.95	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2,3-Trichlorobenzene	U		1.7	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2,4-Trichlorobenzene	U		1.1	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2-Dibromo-3-chloropropane	U		0.96	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2-Dibromoethane	U		0.35	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2-Dichlorobenzene	U		0.68	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2-Dichloroethane	U		0.54	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,2-Dichloropropane	U		0.43	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,3-Dichlorobenzene	U		0.59	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
1,4-Dichlorobenzene	U		0.62	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
2-Butanone	U		4.9	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
2-Hexanone	U		1.7	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
4-Methyl-2-pentanone	U		1.7	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Acetone	U		4.4	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
Benzene	U		0.50	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Bromochloromethane	U		0.52	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Bromodichloromethane	U		0.58	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Bromoform	U		0.48	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Bromomethane	U		2.4	9.7	µg/Kg-dry	0.839	10/29/2019 21:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-4 (30) **Lab ID:** 19101628-08
Collection Date: 10/17/2019 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.57	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Carbon tetrachloride	U		0.97	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Chlorobenzene	U		0.61	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Chloroethane	U		1.8	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Chloroform	U		0.79	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Chloromethane	U		0.97	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
cis-1,2-Dichloroethene	U		0.52	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
cis-1,3-Dichloropropene	U		0.58	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Cyclohexane	U		1.6	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
Dibromochloromethane	U		0.49	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Dichlorodifluoromethane	U		2.4	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
Ethylbenzene	U		0.84	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Isopropylbenzene	U		0.82	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.839	10/29/2019 21:47
Methyl acetate	U		1.2	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
Methyl tert-butyl ether	U		0.59	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Methylcyclohexane	U		1.4	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
Methylene chloride	U		6.0	9.7	µg/Kg-dry	0.839	10/29/2019 21:47
o-Xylene	U		1.2	2.4	µg/Kg-dry	0.839	10/29/2019 21:47
Styrene	U		0.73	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Tetrachloroethene	U		0.86	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Toluene	U		0.83	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
trans-1,2-Dichloroethene	U		0.48	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
trans-1,3-Dichloropropene	U		0.46	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Trichloroethene	U		0.70	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Trichlorofluoromethane	U		0.69	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Vinyl chloride	U		0.68	4.8	µg/Kg-dry	0.839	10/29/2019 21:47
Surr: 1,2-Dichloroethane-d4	*114*			*83-132*	*%REC*	0.839	10/29/2019 21:47
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	0.839	10/29/2019 21:47
Surr: Dibromofluoromethane	*50.2*	S		*77-125*	*%REC*	0.839	10/29/2019 21:47
Surr: Toluene-d8	*99.2*			*86-108*	*%REC*	0.839	10/29/2019 21:47
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**13**		**0.10**	**0.10**	**% of sample**	1	10/23/2019 10:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-DUP
Collection Date: 10/17/2019

Work Order: 19101628
Lab ID: 19101628-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 10/29/19		Analyst: **RSH**
Mercury	**0.031**		**0.0021**	**0.021**	**mg/Kg-dry**	1	10/29/2019 17:16
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 10/29/19		Analyst: **STP**
Arsenic	**4.4**		**0.055**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:37
Barium	**120**		**0.42**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:37
Cadmium	**0.027**	J	**0.027**	**0.18**	**mg/Kg-dry**	1	10/30/2019 21:37
Chromium	**11**		**0.20**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:37
Lead	**12**		**0.22**	**0.45**	**mg/Kg-dry**	1	10/30/2019 21:37
Selenium	U		0.42	0.45	mg/Kg-dry	1	10/30/2019 21:37
Silver	U		0.060	0.45	mg/Kg-dry	1	10/30/2019 21:37
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3550 / 10/23/19		Analyst: **RM**
DRO (C10-C21)	U		1.8	6.0	mg/Kg-dry	1	10/26/2019 18:57
ORO (C21-C35)	U		2.0	6.0	mg/Kg-dry	1	10/26/2019 18:57
Surr: 4-Terphenyl-d14	*68.1*			*25-137*	*%REC*	1	10/26/2019 18:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 10/29/19		Analyst: **EE**
1,1`-Biphenyl	U		6.5	40	µg/Kg-dry	1	10/30/2019 01:33
1,2,4,5-Tetrachlorobenzene	U		31	400	µg/Kg-dry	1	10/30/2019 01:33
1,4-Dioxane	U		29	200	µg/Kg-dry	1	10/30/2019 01:33
2,2`-Oxybis(1-chloropropane)	U		9.4	40	µg/Kg-dry	1	10/30/2019 01:33
2,3,4,6-Tetrachlorophenol	U		10	80	µg/Kg-dry	1	10/30/2019 01:33
2,4,5-Trichlorophenol	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
2,4,6-Trichlorophenol	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
2,4-Dichlorophenol	U		8.4	40	µg/Kg-dry	1	10/30/2019 01:33
2,4-Dimethylphenol	U		8.2	40	µg/Kg-dry	1	10/30/2019 01:33
2,4-Dinitrophenol	U		22	40	µg/Kg-dry	1	10/30/2019 01:33
2,4-Dinitrotoluene	U		10	40	µg/Kg-dry	1	10/30/2019 01:33
2,6-Dinitrotoluene	U		6.6	40	µg/Kg-dry	1	10/30/2019 01:33
2-Chloronaphthalene	U		5.6	8.0	µg/Kg-dry	1	10/30/2019 01:33
2-Chlorophenol	U		13	40	µg/Kg-dry	1	10/30/2019 01:33
2-Methylnaphthalene	**9.6**		**4.1**	**8.0**	**µg/Kg-dry**	1	10/30/2019 01:33
2-Methylphenol	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
2-Nitroaniline	U		9.2	40	µg/Kg-dry	1	10/30/2019 01:33
2-Nitrophenol	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
3&4-Methylphenol	U		8.0	40	µg/Kg-dry	1	10/30/2019 01:33
3,3´-Dichlorobenzidine	U		5.9	200	µg/Kg-dry	1	10/30/2019 01:33
3-Nitroaniline	U		9.2	40	µg/Kg-dry	1	10/30/2019 01:33
4,6-Dinitro-2-methylphenol	U		10	40	µg/Kg-dry	1	10/30/2019 01:33
4-Bromophenyl phenyl ether	U		11	40	µg/Kg-dry	1	10/30/2019 01:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-DUP
Collection Date: 10/17/2019

Work Order: 19101628
Lab ID: 19101628-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
4-Chloroaniline	U		6.3	80	µg/Kg-dry	1	10/30/2019 01:33
4-Chlorophenyl phenyl ether	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
4-Nitroaniline	U		62	200	µg/Kg-dry	1	10/30/2019 01:33
4-Nitrophenol	U		36	40	µg/Kg-dry	1	10/30/2019 01:33
Acenaphthene	U		5.8	8.0	µg/Kg-dry	1	10/30/2019 01:33
Acenaphthylene	U		6.9	8.0	µg/Kg-dry	1	10/30/2019 01:33
Acetophenone	U		6.3	40	µg/Kg-dry	1	10/30/2019 01:33
Anthracene	U		5.6	8.0	µg/Kg-dry	1	10/30/2019 01:33
Atrazine	U		6.3	40	µg/Kg-dry	1	10/30/2019 01:33
Benzaldehyde	U		62	80	µg/Kg-dry	1	10/30/2019 01:33
Benzo(a)anthracene	U		6.9	8.0	µg/Kg-dry	1	10/30/2019 01:33
Benzo(a)pyrene	U		4.9	8.0	µg/Kg-dry	1	10/30/2019 01:33
Benzo(b)fluoranthene	U		6.0	8.0	µg/Kg-dry	1	10/30/2019 01:33
Benzo(g,h,i)perylene	U		6.1	8.0	µg/Kg-dry	1	10/30/2019 01:33
Benzo(k)fluoranthene	U		6.1	8.0	µg/Kg-dry	1	10/30/2019 01:33
Bis(2-chloroethoxy)methane	U		3.8	40	µg/Kg-dry	1	10/30/2019 01:33
Bis(2-chloroethyl)ether	U		11	40	µg/Kg-dry	1	10/30/2019 01:33
Bis(2-ethylhexyl)phthalate	U		6.9	40	µg/Kg-dry	1	10/30/2019 01:33
Butyl benzyl phthalate	U		6.8	40	µg/Kg-dry	1	10/30/2019 01:33
Caprolactam	U		14	40	µg/Kg-dry	1	10/30/2019 01:33
Carbazole	U		4.3	40	µg/Kg-dry	1	10/30/2019 01:33
Chrysene	U		6.5	8.0	µg/Kg-dry	1	10/30/2019 01:33
Dibenzo(a,h)anthracene	U		4.3	8.0	µg/Kg-dry	1	10/30/2019 01:33
Dibenzofuran	U		5.9	40	µg/Kg-dry	1	10/30/2019 01:33
Diethyl phthalate	U		6.1	40	µg/Kg-dry	1	10/30/2019 01:33
Dimethyl phthalate	U		7.8	40	µg/Kg-dry	1	10/30/2019 01:33
Di-n-butyl phthalate	U		7.3	40	µg/Kg-dry	1	10/30/2019 01:33
Di-n-octyl phthalate	U		7.7	40	µg/Kg-dry	1	10/30/2019 01:33
Fluoranthene	U		3.8	8.0	µg/Kg-dry	1	10/30/2019 01:33
Fluorene	U		5.8	8.0	µg/Kg-dry	1	10/30/2019 01:33
Hexachlorobenzene	U		12	40	µg/Kg-dry	1	10/30/2019 01:33
Hexachlorobutadiene	U		22	40	µg/Kg-dry	1	10/30/2019 01:33
Hexachlorocyclopentadiene	U		14	40	µg/Kg-dry	1	10/30/2019 01:33
Hexachloroethane	U		17	40	µg/Kg-dry	1	10/30/2019 01:33
Indeno(1,2,3-cd)pyrene	U		5.6	8.0	µg/Kg-dry	1	10/30/2019 01:33
Isophorone	U		7.8	200	µg/Kg-dry	1	10/30/2019 01:33
Naphthalene	U		5.1	8.0	µg/Kg-dry	1	10/30/2019 01:33
Nitrobenzene	U		13	200	µg/Kg-dry	1	10/30/2019 01:33
N-Nitrosodi-n-propylamine	U		6.6	40	µg/Kg-dry	1	10/30/2019 01:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: SB-DUP **Lab ID:** 19101628-09
Collection Date: 10/17/2019 **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		3.8	40	µg/Kg-dry	1	10/30/2019 01:33
Pentachlorophenol	U		15	40	µg/Kg-dry	1	10/30/2019 01:33
Phenanthrene	U		3.7	8.0	µg/Kg-dry	1	10/30/2019 01:33
Phenol	U		9.9	40	µg/Kg-dry	1	10/30/2019 01:33
Pyrene	U		1.5	8.0	µg/Kg-dry	1	10/30/2019 01:33
Surr: 2,4,6-Tribromophenol	*70.2*			*38-92*	*%REC*	1	10/30/2019 01:33
Surr: 2-Fluorobiphenyl	*68.5*			*44-107*	*%REC*	1	10/30/2019 01:33
Surr: 2-Fluorophenol	*84.6*			*37-109*	*%REC*	1	10/30/2019 01:33
Surr: 4-Terphenyl-d14	*62.2*			*52-123*	*%REC*	1	10/30/2019 01:33
Surr: Nitrobenzene-d5	*72.2*			*41-94*	*%REC*	1	10/30/2019 01:33
Surr: Phenol-d6	*76.7*			*28-111*	*%REC*	1	10/30/2019 01:33
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	**1,900**	J	**1,400**	**5,500**	**µg/Kg-dry**	1	10/31/2019 05:27
Surr: Toluene-d8	*86.2*			*70-130*	*%REC*	1	10/31/2019 05:27
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL		Method: **SW8260C**					Analyst: **MF**
1,1,1-Trichloroethane	U		0.83	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,1,2,2-Tetrachloroethane	U		0.68	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,1,2-Trichloroethane	U		0.71	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,1,2-Trichlorotrifluoroethane	U		1.2	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,1-Dichloroethane	U		0.65	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,1-Dichloroethene	U		1.0	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2,3-Trichlorobenzene	U		1.9	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2,4-Trichlorobenzene	U		1.2	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2-Dibromo-3-chloropropane	U		1.0	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2-Dibromoethane	U		0.38	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2-Dichlorobenzene	U		0.74	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2-Dichloroethane	U		0.59	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,2-Dichloropropane	U		0.46	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,3-Dichlorobenzene	U		0.64	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
1,4-Dichlorobenzene	U		0.68	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
2-Butanone	U		5.4	11	µg/Kg-dry	0.868	10/29/2019 22:04
2-Hexanone	U		1.9	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
4-Methyl-2-pentanone	U		1.9	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Acetone	**19**		**4.9**	**11**	**µg/Kg-dry**	0.868	10/29/2019 22:04
Benzene	U		0.55	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Bromochloromethane	U		0.57	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Bromodichloromethane	U		0.63	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Bromoform	U		0.53	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Bromomethane	U		2.6	11	µg/Kg-dry	0.868	10/29/2019 22:04

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: SB-DUP
Collection Date: 10/17/2019

Work Order: 19101628
Lab ID: 19101628-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.62	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Carbon tetrachloride	U		1.1	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Chlorobenzene	U		0.67	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Chloroethane	U		2.0	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Chloroform	U		0.87	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Chloromethane	U		1.1	11	µg/Kg-dry	0.868	10/29/2019 22:04
cis-1,2-Dichloroethene	U		0.57	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
cis-1,3-Dichloropropene	U		0.63	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Cyclohexane	U		1.8	11	µg/Kg-dry	0.868	10/29/2019 22:04
Dibromochloromethane	U		0.54	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Dichlorodifluoromethane	U		2.6	11	µg/Kg-dry	0.868	10/29/2019 22:04
Ethylbenzene	U		0.92	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Isopropylbenzene	U		0.90	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
m,p-Xylene	U		2.3	2.6	µg/Kg-dry	0.868	10/29/2019 22:04
Methyl acetate	U		1.3	11	µg/Kg-dry	0.868	10/29/2019 22:04
Methyl tert-butyl ether	U		0.64	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Methylcyclohexane	U		1.6	11	µg/Kg-dry	0.868	10/29/2019 22:04
Methylene chloride	U		6.5	11	µg/Kg-dry	0.868	10/29/2019 22:04
o-Xylene	U		1.3	2.6	µg/Kg-dry	0.868	10/29/2019 22:04
Styrene	U		0.79	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Tetrachloroethene	U		0.94	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Toluene	U		0.91	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
trans-1,2-Dichloroethene	U		0.53	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
trans-1,3-Dichloropropene	U		0.51	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Trichloroethene	U		0.76	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Trichlorofluoromethane	U		0.75	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Vinyl chloride	U		0.74	5.3	µg/Kg-dry	0.868	10/29/2019 22:04
Surr: 1,2-Dichloroethane-d4	*104*			*83-132*	*%REC*	0.868	10/29/2019 22:04
Surr: 4-Bromofluorobenzene	*105*			*83-111*	*%REC*	0.868	10/29/2019 22:04
Surr: Dibromofluoromethane	*42.8*	S		*77-125*	*%REC*	0.868	10/29/2019 22:04
Surr: Toluene-d8	*96.3*			*86-108*	*%REC*	0.868	10/29/2019 22:04
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**18**		**0.10**	**0.10**	**% of sample**	1	10/23/2019 10:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Trip Blank
Collection Date: 10/17/2019

Work Order: 19101628
Lab ID: 19101628-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL	Method: **SW8260C**						Analyst: **MF**
1,1,1-Trichloroethane	U		0.79	5.0	µg/Kg	1	10/29/2019 18:21
1,1,2,2-Tetrachloroethane	U		0.64	5.0	µg/Kg	1	10/29/2019 18:21
1,1,2-Trichloroethane	U		0.67	5.0	µg/Kg	1	10/29/2019 18:21
1,1,2-Trichlorotrifluoroethane	U		1.1	5.0	µg/Kg	1	10/29/2019 18:21
1,1-Dichloroethane	U		0.62	5.0	µg/Kg	1	10/29/2019 18:21
1,1-Dichloroethene	U		0.98	5.0	µg/Kg	1	10/29/2019 18:21
1,2,3-Trichlorobenzene	U		1.8	5.0	µg/Kg	1	10/29/2019 18:21
1,2,4-Trichlorobenzene	U		1.1	5.0	µg/Kg	1	10/29/2019 18:21
1,2-Dibromo-3-chloropropane	U		0.99	5.0	µg/Kg	1	10/29/2019 18:21
1,2-Dibromoethane	U		0.36	5.0	µg/Kg	1	10/29/2019 18:21
1,2-Dichlorobenzene	U		0.70	5.0	µg/Kg	1	10/29/2019 18:21
1,2-Dichloroethane	U		0.56	5.0	µg/Kg	1	10/29/2019 18:21
1,2-Dichloropropane	U		0.44	5.0	µg/Kg	1	10/29/2019 18:21
1,3-Dichlorobenzene	U		0.61	5.0	µg/Kg	1	10/29/2019 18:21
1,4-Dichlorobenzene	U		0.64	5.0	µg/Kg	1	10/29/2019 18:21
2-Butanone	U		5.1	10	µg/Kg	1	10/29/2019 18:21
2-Hexanone	U		1.8	5.0	µg/Kg	1	10/29/2019 18:21
4-Methyl-2-pentanone	U		1.8	5.0	µg/Kg	1	10/29/2019 18:21
Acetone	U		4.6	10	µg/Kg	1	10/29/2019 18:21
Benzene	U		0.52	5.0	µg/Kg	1	10/29/2019 18:21
Bromochloromethane	U		0.54	5.0	µg/Kg	1	10/29/2019 18:21
Bromodichloromethane	U		0.60	5.0	µg/Kg	1	10/29/2019 18:21
Bromoform	U		0.50	5.0	µg/Kg	1	10/29/2019 18:21
Bromomethane	U		2.5	10	µg/Kg	1	10/29/2019 18:21
Carbon disulfide	U		0.59	5.0	µg/Kg	1	10/29/2019 18:21
Carbon tetrachloride	U		1.0	5.0	µg/Kg	1	10/29/2019 18:21
Chlorobenzene	U		0.63	5.0	µg/Kg	1	10/29/2019 18:21
Chloroethane	U		1.9	5.0	µg/Kg	1	10/29/2019 18:21
Chloroform	U		0.82	5.0	µg/Kg	1	10/29/2019 18:21
Chloromethane	U		1.0	10	µg/Kg	1	10/29/2019 18:21
cis-1,2-Dichloroethene	U		0.54	5.0	µg/Kg	1	10/29/2019 18:21
cis-1,3-Dichloropropene	U		0.60	5.0	µg/Kg	1	10/29/2019 18:21
Cyclohexane	U		1.7	10	µg/Kg	1	10/29/2019 18:21
Dibromochloromethane	U		0.51	5.0	µg/Kg	1	10/29/2019 18:21
Dichlorodifluoromethane	U		2.5	10	µg/Kg	1	10/29/2019 18:21
Ethylbenzene	U		0.87	5.0	µg/Kg	1	10/29/2019 18:21
Isopropylbenzene	U		0.85	5.0	µg/Kg	1	10/29/2019 18:21
m,p-Xylene	U		2.2	2.5	µg/Kg	1	10/29/2019 18:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101628
Sample ID: Trip Blank **Lab ID:** 19101628-10
Collection Date: 10/17/2019 **Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		1.2	10	µg/Kg	1	10/29/2019 18:21
Methyl tert-butyl ether	U		0.61	5.0	µg/Kg	1	10/29/2019 18:21
Methylcyclohexane	U		1.5	10	µg/Kg	1	10/29/2019 18:21
Methylene chloride	U		6.2	10	µg/Kg	1	10/29/2019 18:21
o-Xylene	U		1.2	2.5	µg/Kg	1	10/29/2019 18:21
Styrene	U		0.75	5.0	µg/Kg	1	10/29/2019 18:21
Tetrachloroethene	U		0.89	5.0	µg/Kg	1	10/29/2019 18:21
Toluene	U		0.86	5.0	µg/Kg	1	10/29/2019 18:21
trans-1,2-Dichloroethene	U		0.50	5.0	µg/Kg	1	10/29/2019 18:21
trans-1,3-Dichloropropene	U		0.48	5.0	µg/Kg	1	10/29/2019 18:21
Trichloroethene	U		0.72	5.0	µg/Kg	1	10/29/2019 18:21
Trichlorofluoromethane	U		0.71	5.0	µg/Kg	1	10/29/2019 18:21
Vinyl chloride	U		0.70	5.0	µg/Kg	1	10/29/2019 18:21
Surr: 1,2-Dichloroethane-d4	*106*			*83-132*	*%REC*	1	10/29/2019 18:21
Surr: 4-Bromofluorobenzene	*104*			*83-111*	*%REC*	1	10/29/2019 18:21
Surr: Dibromofluoromethane	*28.4*	S		*77-125*	*%REC*	1	10/29/2019 18:21
Surr: Toluene-d8	*98.7*			*86-108*	*%REC*	1	10/29/2019 18:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

QC BATCH REPORT

Batch ID: **144788** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-144788-144788** Units: **mg/Kg** Analysis Date: **10/29/2019 04:43 P**

Client ID: Run ID: **HG4_191029A** SeqNo: **6021254** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.002	0.020								

LCS Sample ID: **LCS-144788-144788** Units: **mg/Kg** Analysis Date: **10/29/2019 04:45 P**

Client ID: Run ID: **HG4_191029A** SeqNo: **6021256** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1769	0.002	0.020	0.167	0	106	80-120	0			

MS Sample ID: **19101628-01CMS** Units: **mg/Kg** Analysis Date: **10/29/2019 04:51 P**

Client ID: **SB-1 (0-3)** Run ID: **HG4_191029A** SeqNo: **6021261** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1844	0.0017	0.017	0.145	0.04369	97.3	75-125	0			

MSD Sample ID: **19101628-01CMSD** Units: **mg/Kg** Analysis Date: **10/29/2019 04:53 P**

Client ID: **SB-1 (0-3)** Run ID: **HG4_191029A** SeqNo: **6021263** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1664	0.0016	0.016	0.136	0.04369	90.1	75-125	0.1844	10.2	35	

The following samples were analyzed in this batch:

19101628-01C	19101628-02C	19101628-03C
19101628-04C	19101628-05C	19101628-06C
19101628-07C	19101628-08C	19101628-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144809** Instrument ID **ICPMS3** Method: **SW6020A**

MBLK Sample ID: **MBLK-144809-144809** Units: **mg/Kg** Analysis Date: **10/30/2019 08:35 P**
Client ID: Run ID: **ICPMS3_191030B** SeqNo: **6023968** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.03	0.25								
Barium	U	0.23	0.25								
Cadmium	U	0.015	0.10								
Chromium	U	0.11	0.25								
Lead	U	0.12	0.25								
Silver	U	0.033	0.25								

MBLK Sample ID: **MBLK-144809-144809** Units: **mg/Kg** Analysis Date: **10/31/2019 01:59 P**
Client ID: Run ID: **ICPMS3_191031B** SeqNo: **6025156** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	U	0.23	0.25								

LCS Sample ID: **LCS-144809-144809** Units: **mg/Kg** Analysis Date: **10/30/2019 08:37 P**
Client ID: Run ID: **ICPMS3_191030B** SeqNo: **6023969** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.991	0.03	0.25	5	0	99.8	80-120	0			
Barium	5.35	0.23	0.25	5	0	107	80-120	0			
Cadmium	4.92	0.015	0.10	5	0	98.4	80-120	0			
Chromium	5.543	0.11	0.25	5	0	111	80-120	0			
Lead	5.12	0.12	0.25	5	0	102	80-120	0			
Selenium	5.034	0.23	0.25	5	0	101	80-120	0			B
Silver	5.151	0.033	0.25	5	0	103	80-120	0			

MS Sample ID: **19101701-05BMS** Units: **mg/Kg** Analysis Date: **10/30/2019 09:43 P**
Client ID: Run ID: **ICPMS3_191030B** SeqNo: **6024009** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.5	0.043	0.36	7.153	5.207	87.9	75-125	0			
Barium	116.9	0.33	0.36	7.153	103.7	184	75-125	0			SO
Cadmium	6.027	0.021	0.14	7.153	0.1355	82.4	75-125	0			
Chromium	17.72	0.16	0.36	7.153	9.881	110	75-125	0			
Lead	17.21	0.17	0.36	7.153	11.5	79.8	75-125	0			
Selenium	6.132	0.33	0.36	7.153	0.2195	82.7	75-125	0			B
Silver	6.095	0.047	0.36	7.153	0.008396	85.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144809** Instrument ID **ICPMS3** Method: **SW6020A**

MSD Sample ID: **19101701-05BMSD** Units: **mg/Kg** Analysis Date: **10/30/2019 09:45 P**

Client ID: Run ID: **ICPMS3_191030B** SeqNo: **6024010** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.37	0.044	0.36	7.257	5.207	85	75-125	11.5	1.1	20	
Barium	85.62	0.33	0.36	7.257	103.7	-249	75-125	116.9	30.9	20	SRO
Cadmium	5.996	0.022	0.15	7.257	0.1355	80.8	75-125	6.027	0.528	20	
Chromium	17.4	0.16	0.36	7.257	9.881	104	75-125	17.72	1.83	20	
Lead	17.09	0.17	0.36	7.257	11.5	77	75-125	17.21	0.719	20	
Selenium	6.217	0.33	0.36	7.257	0.2195	82.6	75-125	6.132	1.37	20	B
Silver	6.116	0.048	0.36	7.257	0.008396	84.2	75-125	6.095	0.331	20	

The following samples were analyzed in this batch:

19101628-01C	19101628-02C	19101628-03C
19101628-04C	19101628-05C	19101628-06C
19101628-07C	19101628-08C	19101628-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144450** Instrument ID **SVMS8** Method: **SW8270**

MBLK Sample ID: **DBLKS1-144450-144450** Units: **mg/Kg** Analysis Date: **10/26/2019 04:15 A**
Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025201** Prep Date: **10/23/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	U	1.5	5.0								
ORO (C21-C35)	U	1.7	5.0								
Surr: 4-Terphenyl-d14	*2.438*	0	0	*3.333*	0	*73.1*	*25-137*	0			

LCS Sample ID: **DLCSS1-144450-144450** Units: **mg/Kg** Analysis Date: **10/26/2019 04:35 A**
Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025202** Prep Date: **10/23/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	320.5	1.5	5.0	333.3	0	96.1	31-135	0			
ORO (C21-C35)	302.5	1.7	5.0	333.3	0	90.8	31-135	0			
Surr: 4-Terphenyl-d14	*2.053*	0	0	*3.333*	0	*61.6*	*25-137*	0			

MS Sample ID: **19101554-14B MS** Units: **mg/Kg** Analysis Date: **10/26/2019 07:35 A**
Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025209** Prep Date: **10/23/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	344	1.5	4.9	324.2	0	106	31-135	0			
ORO (C21-C35)	323.8	1.6	4.9	324.2	0	99.9	31-135	0			
Surr: 4-Terphenyl-d14	*2.521*	0	0	*3.242*	0	*77.8*	*25-137*	0			

MSD Sample ID: **19101554-14B MSD** Units: **mg/Kg** Analysis Date: **10/26/2019 07:55 A**
Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025210** Prep Date: **10/23/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	312.6	1.5	4.9	329	0	95	31-135	344	9.57	30	
ORO (C21-C35)	348.2	1.7	4.9	329	0	106	31-135	323.8	7.26	30	
Surr: 4-Terphenyl-d14	*2.479*	0	0	*3.29*	0	*75.3*	*25-137*	2.521	*1.68*	*30*	

The following samples were analyzed in this batch:

19101628-01C	19101628-02C	19101628-03C
19101628-04C	19101628-05C	19101628-06C
19101628-07C	19101628-08C	19101628-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-144716-144716** Units: **µg/Kg** Analysis Date: **10/29/2019 08:50 P**

Client ID: Run ID: **SVMS7_191029B** SeqNo: **6024981** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	5.4	33								
1,2,4,5-Tetrachlorobenzene	U	26	330								
1,4-Dioxane	U	24	170								
2,2`-Oxybis(1-chloropropane)	U	7.8	33								
2,3,4,6-Tetrachlorophenol	U	8.7	67								
2,4,5-Trichlorophenol	U	9.1	33								
2,4,6-Trichlorophenol	U	8.9	33								
2,4-Dichlorophenol	U	7	33								
2,4-Dimethylphenol	U	6.8	33								
2,4-Dinitrophenol	U	18	33								
2,4-Dinitrotoluene	U	8.7	33								
2,6-Dinitrotoluene	U	5.5	33								
2-Chloronaphthalene	U	4.7	6.7								
2-Chlorophenol	U	10	33								
2-Methylnaphthalene	U	3.4	6.7								
2-Methylphenol	U	9	33								
2-Nitroaniline	U	7.6	33								
2-Nitrophenol	U	9.5	33								
3&4-Methylphenol	U	6.7	33								
3,3´-Dichlorobenzidine	U	5	170								
3-Nitroaniline	U	7.6	33								
4,6-Dinitro-2-methylphenol	U	8.4	33								
4-Bromophenyl phenyl ether	U	9	33								
4-Chloro-3-methylphenol	U	9.5	33								
4-Chloroaniline	U	5.3	67								
4-Chlorophenyl phenyl ether	U	9.2	33								
4-Nitroaniline	U	52	170								
4-Nitrophenol	U	30	33								
Acenaphthene	U	4.8	6.7								
Acenaphthylene	U	5.8	6.7								
Acetophenone	U	5.2	33								
Anthracene	U	4.7	6.7								
Atrazine	U	5.2	33								
Benzaldehyde	U	51	67								
Benzo(a)anthracene	U	5.8	6.7								
Benzo(a)pyrene	U	4.1	6.7								
Benzo(b)fluoranthene	U	5	6.7								
Benzo(g,h,i)perylene	U	5.1	6.7								
Benzo(k)fluoranthene	U	5	6.7								
Bis(2-chloroethoxy)methane	U	3.2	33								
Bis(2-chloroethyl)ether	U	9.4	33								
Bis(2-ethylhexyl)phthalate	U	5.8	33								
Butyl benzyl phthalate	U	5.6	33								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

Caprolactam	U	11	33					
Carbazole	U	3.6	33					
Chrysene	U	5.4	6.7					
Dibenzo(a,h)anthracene	U	3.6	6.7					
Dibenzofuran	U	4.9	33					
Diethyl phthalate	U	5.1	33					
Dimethyl phthalate	U	6.5	33					
Di-n-butyl phthalate	U	6.1	33					
Di-n-octyl phthalate	U	6.4	33					
Fluoranthene	U	3.2	6.7					
Fluorene	U	4.8	6.7					
Hexachlorobenzene	U	9.7	33					
Hexachlorobutadiene	U	18	33					
Hexachlorocyclopentadiene	U	11	33					
Hexachloroethane	U	14	33					
Indeno(1,2,3-cd)pyrene	U	4.6	6.7					
Isophorone	U	6.5	170					
Naphthalene	U	4.3	6.7					
Nitrobenzene	U	11	170					
N-Nitrosodi-n-propylamine	U	5.5	33					
N-Nitrosodiphenylamine	U	3.2	33					
Pentachlorophenol	U	12	33					
Phenanthrene	U	3.1	6.7					
Phenol	U	8.3	33					
Pyrene	U	1.2	6.7					
Surr: 2,4,6-Tribromophenol	*2451*	0	0	*3333*	0	*73.5*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2727*	0	0	*3333*	0	*81.8*	*44-107*	0
Surr: 2-Fluorophenol	*2985*	0	0	*3333*	0	*89.5*	*37-109*	0
Surr: 4-Terphenyl-d14	*2245*	0	0	*3333*	0	*67.4*	*52-123*	0
Surr: Nitrobenzene-d5	*2622*	0	0	*3333*	0	*78.7*	*41-94*	0
Surr: Phenol-d6	*2940*	0	0	*3333*	0	*88.2*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-144716-144716** Units: **µg/Kg** Analysis Date: **10/29/2019 09:12 P**

Client ID: Run ID: **SVMS7_191029B** SeqNo: **6024982** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1083	5.4	33	1333	0	81.2	53-97	0			
1,2,4,5-Tetrachlorobenzene	1164	26	330	1333	0	87.3	51-96	0			
2,3,4,6-Tetrachlorophenol	1086	8.7	67	1333	0	81.5	51-110	0			
2,4,5-Trichlorophenol	1206	9.1	33	1333	0	90.5	52-111	0			
2,4,6-Trichlorophenol	1135	8.9	33	1333	0	85.1	46-105	0			
2,4-Dichlorophenol	1221	7	33	1333	0	91.6	47-96	0			
2,4-Dimethylphenol	1389	6.8	33	1333	0	104	49-97	0			S
2,4-Dinitrophenol	419.3	18	33	1333	0	31.5	10-106	0			
2,4-Dinitrotoluene	1114	8.7	33	1333	0	83.6	58-110	0			
2,6-Dinitrotoluene	1147	5.5	33	1333	0	86	59-108	0			
2-Chloronaphthalene	1157	4.7	6.7	1333	0	86.8	56-104	0			
2-Chlorophenol	1101	10	33	1333	0	82.6	50-104	0			
2-Methylnaphthalene	1163	3.4	6.7	1333	0	87.3	54-96	0			
2-Methylphenol	1065	9	33	1333	0	79.9	49-105	0			
2-Nitroaniline	1279	7.6	33	1333	0	96	54-107	0			
2-Nitrophenol	1237	9.5	33	1333	0	92.8	51-94	0			
3&4-Methylphenol	1115	6.7	33	1333	0	83.7	48-105	0			
3,3´-Dichlorobenzidine	1019	5	170	1333	0	76.4	39-99	0			
3-Nitroaniline	1000	7.6	33	1333	0	75	17-92	0			
4,6-Dinitro-2-methylphenol	1035	8.4	33	1333	0	77.6	32-103	0			
4-Bromophenyl phenyl ether	1185	9	33	1333	0	88.9	60-106	0			
4-Chloro-3-methylphenol	1328	9.5	33	1333	0	99.6	51-101	0			
4-Chloroaniline	839.3	5.3	67	1333	0	63	27-110	0			
4-Chlorophenyl phenyl ether	1231	9.2	33	1333	0	92.4	58-106	0			
4-Nitroaniline	1243	52	170	1333	0	93.2	21-100	0			
4-Nitrophenol	1255	30	33	1333	0	94.1	29-120	0			
Acenaphthene	1155	4.8	6.7	1333	0	86.6	55-101	0			
Acenaphthylene	1189	5.8	6.7	1333	0	89.2	59-106	0			
Acetophenone	1050	5.2	33	1333	0	78.8	51-100	0			
Anthracene	1209	4.7	6.7	1333	0	90.7	67-105	0			
Atrazine	1100	5.2	33	1333	0	82.5	45-125	0			
Benzaldehyde	1168	51	67	1333	0	87.6	10-120	0			
Benzo(a)anthracene	1260	5.8	6.7	1333	0	94.5	68-105	0			
Benzo(a)pyrene	1283	4.1	6.7	1333	0	96.3	68-110	0			
Benzo(b)fluoranthene	1239	5	6.7	1333	0	92.9	65-110	0			
Benzo(g,h,i)perylene	1201	5.1	6.7	1333	0	90.1	60-120	0			
Benzo(k)fluoranthene	1228	5	6.7	1333	0	92.1	66-113	0			
Bis(2-chloroethoxy)methane	1203	3.2	33	1333	0	90.2	53-96	0			
Bis(2-chloroethyl)ether	1284	9.4	33	1333	0	96.3	47-108	0			
Bis(2-ethylhexyl)phthalate	1269	5.8	33	1333	0	95.2	59-117	0			
Butyl benzyl phthalate	1271	5.6	33	1333	0	95.3	59-106	0			
Caprolactam	927.3	11	33	1333	0	69.6	42-105	0			
Carbazole	1235	3.6	33	1333	0	92.7	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

Chrysene	1271	5.4	6.7	1333	0	95.4	68-108	0
Dibenzo(a,h)anthracene	1227	3.6	6.7	1333	0	92.1	62-119	0
Dibenzofuran	1169	4.9	33	1333	0	87.7	60-104	0
Diethyl phthalate	1195	5.1	33	1333	0	89.7	62-111	0
Dimethyl phthalate	1136	6.5	33	1333	0	85.2	62-106	0
Di-n-butyl phthalate	1207	6.1	33	1333	0	90.6	59-105	0
Di-n-octyl phthalate	1202	6.4	33	1333	0	90.2	51-123	0
Fluoranthene	1261	3.2	6.7	1333	0	94.6	67-106	0
Fluorene	1207	4.8	6.7	1333	0	90.6	59-107	0
Hexachlorobenzene	1145	9.7	33	1333	0	85.9	62-103	0
Hexachlorobutadiene	1133	18	33	1333	0	85	51-94	0
Hexachlorocyclopentadiene	1251	11	33	1333	0	93.8	25-120	0
Hexachloroethane	1093	14	33	1333	0	82	55-93	0
Indeno(1,2,3-cd)pyrene	1195	4.6	6.7	1333	0	89.6	56-120	0
Isophorone	1183	6.5	170	1333	0	88.8	52-99	0
Naphthalene	1189	4.3	6.7	1333	0	89.2	46-98	0
Nitrobenzene	1173	11	170	1333	0	88	53-95	0
N-Nitrosodi-n-propylamine	1142	5.5	33	1333	0	85.7	50-104	0
N-Nitrosodiphenylamine	1143	3.2	33	1333	0	85.8	63-107	0
Pentachlorophenol	994.7	12	33	1333	0	74.6	34-106	0
Phenanthrene	1166	3.1	6.7	1333	0	87.5	66-101	0
Phenol	1207	8.3	33	1333	0	90.5	44-109	0
Pyrene	1171	1.2	6.7	1333	0	87.8	60-119	0
Surr: 2,4,6-Tribromophenol	*2838*	0	0	*3333*	0	*85.1*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2787*	0	0	*3333*	0	*83.6*	*44-107*	0
Surr: 2-Fluorophenol	*2959*	0	0	*3333*	0	*88.8*	*37-109*	0
Surr: 4-Terphenyl-d14	*2249*	0	0	*3333*	0	*67.5*	*52-123*	0
Surr: Nitrobenzene-d5	*2805*	0	0	*3333*	0	*84.2*	*41-94*	0
Surr: Phenol-d6	*2974*	0	0	*3333*	0	*89.2*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

MS Sample ID: **19101993-01C MS** Units: **µg/Kg** Analysis Date: **10/29/2019 09:34 P**

Client ID: Run ID: **SVMS7_191029B** SeqNo: **6024983** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1104	5.3	32	1296	0	85.2	53-97	0			
1,2,4,5-Tetrachlorobenzene	1095	25	320	1296	0	84.5	51-96	0			
2,3,4,6-Tetrachlorophenol	1110	8.4	65	1296	0	85.6	51-110	0			
2,4,5-Trichlorophenol	1199	8.8	32	1296	0	92.5	52-111	0			
2,4,6-Trichlorophenol	1122	8.6	32	1296	0	86.6	46-105	0			
2,4-Dichlorophenol	1234	6.8	32	1296	0	95.2	47-96	0			
2,4-Dimethylphenol	1145	6.6	32	1296	0	88.4	49-97	0			
2,4-Dinitrophenol	1140	17	32	1296	0	88	10-106	0			
2,4-Dinitrotoluene	1152	8.4	32	1296	0	88.9	58-110	0			
2,6-Dinitrotoluene	1022	5.3	32	1296	0	78.9	59-108	0			
2-Chloronaphthalene	1111	4.5	6.5	1296	0	85.7	56-104	0			
2-Chlorophenol	1049	10	32	1296	0	81	50-104	0			
2-Methylnaphthalene	1108	3.3	6.5	1296	0	85.5	54-96	0			
2-Methylphenol	1011	8.8	32	1296	0	78	49-105	0			
2-Nitroaniline	1137	7.4	32	1296	0	87.8	54-107	0			
2-Nitrophenol	1226	9.2	32	1296	0	94.6	51-94	0			S
3&4-Methylphenol	1065	6.5	32	1296	0	82.2	48-105	0			
3,3´-Dichlorobenzidine	936.5	4.8	160	1296	0	72.3	39-99	0			
3-Nitroaniline	1114	7.4	32	1296	0	86	17-92	0			
4,6-Dinitro-2-methylphenol	1097	8.1	32	1296	0	84.7	32-103	0			
4-Bromophenyl phenyl ether	1172	8.7	32	1296	0	90.5	60-106	0			
4-Chloro-3-methylphenol	1181	9.2	32	1296	0	91.1	51-101	0			
4-Chloroaniline	803.6	5.1	65	1296	0	62	27-110	0			
4-Chlorophenyl phenyl ether	1087	9	32	1296	0	83.9	58-106	0			
4-Nitroaniline	1090	50	160	1296	0	84.1	21-100	0			
4-Nitrophenol	1417	29	32	1296	0	109	29-120	0			
Acenaphthene	1148	4.7	6.5	1296	0	88.6	55-101	0			
Acenaphthylene	1124	5.6	6.5	1296	0	86.7	59-106	0			
Acetophenone	990.3	5.1	32	1296	0	76.4	51-100	0			
Anthracene	1121	4.6	6.5	1296	0	86.5	67-105	0			
Atrazine	1102	5.1	32	1296	0	85.1	45-125	0			
Benzaldehyde	1118	50	65	1296	0	86.3	10-120	0			
Benzo(a)anthracene	1193	5.6	6.5	1296	0	92.1	68-105	0			
Benzo(a)pyrene	1213	4	6.5	1296	0	93.6	68-110	0			
Benzo(b)fluoranthene	1193	4.8	6.5	1296	0	92.1	65-110	0			
Benzo(g,h,i)perylene	1172	5	6.5	1296	0	90.4	60-120	0			
Benzo(k)fluoranthene	1140	4.9	6.5	1296	0	88	66-113	0			
Bis(2-chloroethoxy)methane	1050	3.1	32	1296	0	81	53-96	0			
Bis(2-chloroethyl)ether	1231	9.2	32	1296	0	95	47-108	0			
Bis(2-ethylhexyl)phthalate	1286	5.6	32	1296	0	99.2	59-117	0			
Butyl benzyl phthalate	1292	5.5	32	1296	0	99.7	59-106	0			
Caprolactam	964.4	11	32	1296	0	74.4	42-105	0			
Carbazole	1171	3.5	32	1296	0	90.4	67-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

Chrysene	1211	5.2	6.5	1296	0	93.5	68-108	0
Dibenzo(a,h)anthracene	1177	3.5	6.5	1296	0	90.8	62-119	0
Dibenzofuran	1158	4.8	32	1296	0	89.4	60-104	0
Diethyl phthalate	1174	5	32	1296	0	90.6	62-111	0
Dimethyl phthalate	1124	6.3	32	1296	0	86.8	62-106	0
Di-n-butyl phthalate	1239	5.9	32	1296	0	95.6	59-105	0
Di-n-octyl phthalate	1242	6.2	32	1296	0	95.9	51-123	0
Fluoranthene	1164	3.1	6.5	1296	0	89.8	67-106	0
Fluorene	1191	4.7	6.5	1296	0	91.9	59-107	0
Hexachlorobenzene	1178	9.4	32	1296	0	90.9	62-103	0
Hexachlorobutadiene	1014	18	32	1296	0	78.3	51-94	0
Hexachlorocyclopentadiene	1222	11	32	1296	0	94.3	25-120	0
Hexachloroethane	1104	13	32	1296	0	85.2	55-93	0
Indeno(1,2,3-cd)pyrene	1237	4.5	6.5	1296	0	95.4	56-120	0
Isophorone	1096	6.3	160	1296	0	84.6	52-99	0
Naphthalene	1052	4.1	6.5	1296	0	81.2	46-98	0
Nitrobenzene	1165	11	160	1296	0	89.9	53-95	0
N-Nitrosodi-n-propylamine	1102	5.3	32	1296	0	85	50-104	0
N-Nitrosodiphenylamine	1086	3.1	32	1296	0	83.8	63-107	0
Pentachlorophenol	1046	12	32	1296	0	80.7	34-106	0
Phenanthrene	1133	3	6.5	1296	0	87.4	66-101	0
Phenol	1132	8	32	1296	0	87.4	44-109	0
Pyrene	1126	1.2	6.5	1296	0	86.9	60-119	0
Surr: 2,4,6-Tribromophenol	*2726*	0	0	*3240*	0	*84.1*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2605*	0	0	*3240*	0	*80.4*	*44-107*	0
Surr: 2-Fluorophenol	*2767*	0	0	*3240*	0	*85.4*	*37-109*	0
Surr: 4-Terphenyl-d14	*2211*	0	0	*3240*	0	*68.2*	*52-123*	0
Surr: Nitrobenzene-d5	*2734*	0	0	*3240*	0	*84.4*	*41-94*	0
Surr: Phenol-d6	*2834*	0	0	*3240*	0	*87.5*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

MSD Sample ID: **19101993-01C MSD** Units: **µg/Kg** Analysis Date: **10/29/2019 09:56 P**

Client ID: Run ID: **SVMS7_191029B** SeqNo: **6024984** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1050	5.1	31	1264	0	83.1	53-97	1104	5	30	
1,2,4,5-Tetrachlorobenzene	1030	25	320	1264	0	81.5	51-96	1095	6.18	30	
2,3,4,6-Tetrachlorophenol	1171	8.2	64	1264	0	92.7	51-110	1110	5.4	30	
2,4,5-Trichlorophenol	1144	8.6	31	1264	0	90.5	52-111	1199	4.69	30	
2,4,6-Trichlorophenol	1165	8.4	31	1264	0	92.2	46-105	1122	3.81	30	
2,4-Dichlorophenol	1062	6.7	31	1264	0	84.1	47-96	1234	14.9	30	
2,4-Dimethylphenol	1167	6.5	31	1264	0	92.4	49-97	1145	1.92	30	
2,4-Dinitrophenol	962	17	31	1264	0	76.1	10-106	1140	16.9	30	
2,4-Dinitrotoluene	1066	8.2	31	1264	0	84.3	58-110	1152	7.76	30	
2,6-Dinitrotoluene	1028	5.2	31	1264	0	81.3	59-108	1022	0.551	30	
2-Chloronaphthalene	1049	4.4	6.3	1264	0	83	56-104	1111	5.71	30	
2-Chlorophenol	1047	10	31	1264	0	82.9	50-104	1049	0.189	30	
2-Methylnaphthalene	1074	3.2	6.3	1264	0	85	54-96	1108	3.1	30	
2-Methylphenol	970.2	8.5	31	1264	0	76.8	49-105	1011	4.12	30	
2-Nitroaniline	1156	7.2	31	1264	0	91.5	54-107	1137	1.62	30	
2-Nitrophenol	1183	9	31	1264	0	93.6	51-94	1226	3.52	30	
3&4-Methylphenol	1042	6.4	31	1264	0	82.4	48-105	1065	2.2	30	
3,3´-Dichlorobenzidine	895.6	4.7	160	1264	0	70.9	39-99	936.5	4.46	30	
3-Nitroaniline	1109	7.2	31	1264	0	87.7	17-92	1114	0.493	30	
4,6-Dinitro-2-methylphenol	1243	7.9	31	1264	0	98.4	32-103	1097	12.5	30	
4-Bromophenyl phenyl ether	1133	8.5	31	1264	0	89.6	60-106	1172	3.45	30	
4-Chloro-3-methylphenol	1215	9	31	1264	0	96.2	51-101	1181	2.89	30	
4-Chloroaniline	828	5	64	1264	0	65.5	27-110	803.6	2.98	30	
4-Chlorophenyl phenyl ether	1068	8.7	31	1264	0	84.5	58-106	1087	1.8	30	
4-Nitroaniline	1177	49	160	1264	0	93.2	21-100	1090	7.71	30	
4-Nitrophenol	1023	28	31	1264	0	81	29-120	1417	32.3	30	R
Acenaphthene	1128	4.6	6.3	1264	0	89.3	55-101	1148	1.72	30	
Acenaphthylene	1104	5.5	6.3	1264	0	87.4	59-106	1124	1.76	30	
Acetophenone	982.2	4.9	31	1264	0	77.7	51-100	990.3	0.822	30	
Anthracene	1152	4.5	6.3	1264	0	91.2	67-105	1121	2.79	30	
Atrazine	1104	5	31	1264	0	87.3	45-125	1102	0.102	30	
Benzaldehyde	1135	49	64	1264	0	89.8	10-120	1118	1.52	30	
Benzo(a)anthracene	1193	5.5	6.3	1264	0	94.4	68-105	1193	0.0408	30	
Benzo(a)pyrene	1226	3.9	6.3	1264	0	97	68-110	1213	1.06	30	
Benzo(b)fluoranthene	1210	4.7	6.3	1264	0	95.8	65-110	1193	1.43	30	
Benzo(g,h,i)perylene	1119	4.8	6.3	1264	0	88.6	60-120	1172	4.58	30	
Benzo(k)fluoranthene	1135	4.8	6.3	1264	0	89.8	66-113	1140	0.427	30	
Bis(2-chloroethoxy)methane	1085	3	31	1264	0	85.8	53-96	1050	3.25	30	
Bis(2-chloroethyl)ether	1028	8.9	31	1264	0	81.3	47-108	1231	18	30	
Bis(2-ethylhexyl)phthalate	1407	5.5	31	1264	0	111	59-117	1286	8.99	30	
Butyl benzyl phthalate	1337	5.3	31	1264	0	106	59-106	1292	3.43	30	
Caprolactam	1004	11	31	1264	0	79.4	42-105	964.4	3.99	30	
Carbazole	1183	3.4	31	1264	0	93.6	67-108	1171	0.972	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **144716** Instrument ID **SVMS7** Method: **SW846 8270D**

Chrysene	1172	5.1	6.3	1264	0	92.7	68-108	1211	3.31	30
Dibenzo(a,h)anthracene	1169	3.4	6.3	1264	0	92.5	62-119	1177	0.708	30
Dibenzofuran	1088	4.6	31	1264	0	86.1	60-104	1158	6.27	30
Diethyl phthalate	1159	4.8	31	1264	0	91.7	62-111	1174	1.3	30
Dimethyl phthalate	1063	6.2	31	1264	0	84.1	62-106	1124	5.61	30
Di-n-butyl phthalate	1256	5.8	31	1264	0	99.4	59-105	1239	1.39	30
Di-n-octyl phthalate	1351	6.1	31	1264	0	107	51-123	1242	8.35	30
Fluoranthene	1263	3	6.3	1264	0	99.9	67-106	1164	8.15	30
Fluorene	1114	4.6	6.3	1264	0	88.1	59-107	1191	6.67	30
Hexachlorobenzene	1085	9.2	31	1264	0	85.8	62-103	1178	8.22	30
Hexachlorobutadiene	1070	17	31	1264	0	84.7	51-94	1014	5.35	30
Hexachlorocyclopentadiene	1247	11	31	1264	0	98.7	25-120	1222	2	30
Hexachloroethane	1004	13	31	1264	0	79.5	55-93	1104	9.43	30
Indeno(1,2,3-cd)pyrene	1246	4.4	6.3	1264	0	98.6	56-120	1237	0.79	30
Isophorone	1073	6.2	160	1264	0	84.9	52-99	1096	2.15	30
Naphthalene	1037	4	6.3	1264	0	82.1	46-98	1052	1.41	30
Nitrobenzene	1136	11	160	1264	0	89.9	53-95	1165	2.45	30
N-Nitrosodi-n-propylamine	1023	5.2	31	1264	0	80.9	50-104	1102	7.45	30
N-Nitrosodiphenylamine	1110	3	31	1264	0	87.9	63-107	1086	2.27	30
Pentachlorophenol	1143	12	31	1264	0	90.5	34-106	1046	8.89	30
Phenanthrene	1121	2.9	6.3	1264	0	88.7	66-101	1133	1.09	30
Phenol	1163	7.8	31	1264	0	92	44-109	1132	2.68	30
Pyrene	1120	1.1	6.3	1264	0	88.6	60-119	1126	0.571	30
Surr: 2,4,6-Tribromophenol	*2795*	0	0	*3160*	0	*88.5*	*38-92*	2726	*2.52*	*40*
Surr: 2-Fluorobiphenyl	*2495*	0	0	*3160*	0	*79*	*44-107*	2605	*4.32*	*40*
Surr: 2-Fluorophenol	*2838*	0	0	*3160*	0	*89.8*	*37-109*	2767	*2.56*	*40*
Surr: 4-Terphenyl-d14	*2025*	0	0	*3160*	0	*64.1*	*52-123*	2211	*8.76*	*40*
Surr: Nitrobenzene-d5	*2653*	0	0	*3160*	0	*83.9*	*41-94*	2734	*3.03*	*40*
Surr: Phenol-d6	*2814*	0	0	*3160*	0	*89*	*28-111*	2834	*0.718*	*40*

The following samples were analyzed in this batch:

19101628-01C	19101628-02C	19101628-03C
19101628-04C	19101628-05C	19101628-06C
19101628-07C	19101628-08C	19101628-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144390b** Instrument ID **VMS10** Method: **SW8260GRO**

MBLK Sample ID: **MBLK-144390-144390b** Units: **µg/Kg-dry** Analysis Date: **10/28/2019 09:34 P**

Client ID: Run ID: **VMS10_191028A** SeqNo: **6018966** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1367	1200	5,000								J
Surr: Toluene-d8	*740.5*	0	0	*1000*	0	*74*	*70-130*	0			

LCS Sample ID: **LCS-144390-144390b** Units: **µg/Kg-dry** Analysis Date: **10/28/2019 08:43 P**

Client ID: Run ID: **VMS10_191028A** SeqNo: **6018965** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	19520	1200	5,000	25000	0	78.1	70-130	0			
Surr: Toluene-d8	*884*	0	0	*1000*	0	*88.4*	*70-130*	0			

The following samples were analyzed in this batch:

19101628-01A	19101628-02A	19101628-03A
19101628-04A	19101628-05A	19101628-06A
19101628-07A	19101628-08A	19101628-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKS2-191029-R274062** Units: **µg/Kg** Analysis Date: **10/29/2019 05:47 P**

Client ID: Run ID: **VMS8_191029A** SeqNo: **6020780** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.79	5.0								
1,1,2,2-Tetrachloroethane	U	0.64	5.0								
1,1,2-Trichloroethane	U	0.67	5.0								
1,1,2-Trichlorotrifluoroethane	U	1.1	5.0								
1,1-Dichloroethane	U	0.62	5.0								
1,1-Dichloroethene	U	0.98	5.0								
1,2,3-Trichlorobenzene	U	1.8	5.0								
1,2,4-Trichlorobenzene	U	1.1	5.0								
1,2-Dibromo-3-chloropropane	U	0.99	5.0								
1,2-Dibromoethane	U	0.36	5.0								
1,2-Dichlorobenzene	U	0.7	5.0								
1,2-Dichloroethane	U	0.56	5.0								
1,2-Dichloropropane	U	0.44	5.0								
1,3-Dichlorobenzene	U	0.61	5.0								
1,4-Dichlorobenzene	U	0.64	5.0								
2-Butanone	U	5.1	10								
2-Hexanone	U	1.8	5.0								
4-Methyl-2-pentanone	U	1.8	5.0								
Acetone	U	4.6	10								
Benzene	U	0.52	5.0								
Bromochloromethane	U	0.54	5.0								
Bromodichloromethane	U	0.6	5.0								
Bromoform	U	0.5	5.0								
Bromomethane	U	2.5	10								
Carbon disulfide	U	0.59	5.0								
Carbon tetrachloride	U	1	5.0								
Chlorobenzene	U	0.63	5.0								
Chloroethane	U	1.9	5.0								
Chloroform	U	0.82	5.0								
Chloromethane	U	1	10								
cis-1,2-Dichloroethene	U	0.54	5.0								
cis-1,3-Dichloropropene	U	0.6	5.0								
Cyclohexane	U	1.7	10								
Dibromochloromethane	U	0.51	5.0								
Dichlorodifluoromethane	U	2.5	10								
Ethylbenzene	U	0.87	5.0								
Isopropylbenzene	U	0.85	5.0								
m,p-Xylene	U	2.2	2.5								
Methyl acetate	U	1.2	10								
Methyl tert-butyl ether	U	0.61	5.0								
Methylcyclohexane	U	1.5	10								
Methylene chloride	U	6.2	10								
o-Xylene	U	1.2	2.5								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

Styrene	U	0.75	5.0					
Tetrachloroethene	U	0.89	5.0					
Toluene	U	0.86	5.0					
trans-1,2-Dichloroethene	U	0.5	5.0					
trans-1,3-Dichloropropene	U	0.48	5.0					
Trichloroethene	U	0.72	5.0					
Trichlorofluoromethane	U	0.71	5.0					
Vinyl chloride	U	0.7	5.0					
Surr: 1,2-Dichloroethane-d4	*20.23*	0	0	*20*	0	*101*	*83-132*	0
Surr: 4-Bromofluorobenzene	*18.94*	0	0	*20*	0	*94.7*	*83-111*	0
Surr: Dibromofluoromethane	*20.04*	0	0	*20*	0	*100*	*77-125*	0
Surr: Toluene-d8	*20.03*	0	0	*20*	0	*100*	*86-108*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSS1-191029-R274062** Units: **µg/Kg** Analysis Date: **10/29/2019 05:13 P**

Client ID: Run ID: **VMS8_191029A** SeqNo: **6020779** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.98	0.79	5.0	20	0	110	73-138	0			
1,1,2,2-Tetrachloroethane	18.43	0.64	5.0	20	0	92.2	71-126	0			
1,1,2-Trichloroethane	20.14	0.67	5.0	20	0	101	77-123	0			
1,1-Dichloroethane	21.66	0.62	5.0	20	0	108	63-148	0			
1,1-Dichloroethene	23.31	0.98	5.0	20	0	117	67-156	0			
1,2,3-Trichlorobenzene	20.61	1.8	5.0	20	0	103	73-129	0			
1,2,4-Trichlorobenzene	22.04	1.1	5.0	20	0	110	70-132	0			
1,2-Dibromo-3-chloropropane	18.79	0.99	5.0	20	0	94	48-127	0			
1,2-Dibromoethane	17.98	0.36	5.0	20	0	89.9	71-144	0			
1,2-Dichlorobenzene	22.38	0.7	5.0	20	0	112	77-127	0			
1,2-Dichloroethane	18.32	0.56	5.0	20	0	91.6	77-127	0			
1,2-Dichloropropane	18.92	0.44	5.0	20	0	94.6	74-130	0			
1,3-Dichlorobenzene	20.11	0.61	5.0	20	0	101	75-133	0			
1,4-Dichlorobenzene	19.19	0.64	5.0	20	0	96	74-130	0			
2-Butanone	18.97	5.1	10	20	0	94.8	55-132	0			
2-Hexanone	16.44	1.8	5.0	20	0	82.2	55-124	0			
4-Methyl-2-pentanone	22.78	1.8	5.0	20	0	114	67-159	0			
Acetone	23.73	4.6	10	20	0	119	31-156	0			
Benzene	19.95	0.52	5.0	20	0	99.8	77-133	0			
Bromochloromethane	20.38	0.54	5.0	20	0	102	72-139	0			
Bromodichloromethane	18.37	0.6	5.0	20	0	91.8	69-133	0			
Bromoform	18.94	0.5	5.0	20	0	94.7	55-126	0			
Bromomethane	30.7	2.5	10	20	0	154	31-174	0			
Carbon disulfide	22.24	0.59	5.0	20	0	111	45-160	0			
Carbon tetrachloride	18.69	1	5.0	20	0	93.4	69-140	0			
Chlorobenzene	20.63	0.63	5.0	20	0	103	76-130	0			
Chloroethane	22	1.9	5.0	20	0	110	53-150	0			
Chloroform	21.95	0.82	5.0	20	0	110	72-132	0			
Chloromethane	21.64	1	10	20	0	108	43-150	0			
cis-1,2-Dichloroethene	21.77	0.54	5.0	20	0	109	74-134	0			
cis-1,3-Dichloropropene	20.34	0.6	5.0	20	0	102	62-134	0			
Dibromochloromethane	17.72	0.51	5.0	20	0	88.6	57-118	0			
Dichlorodifluoromethane	32.87	2.5	10	20	0	164	43-126	0			S
Ethylbenzene	20.41	0.87	5.0	20	0	102	75-133	0			
Isopropylbenzene	19.93	0.85	5.0	20	0	99.6	74-137	0			
m,p-Xylene	40.06	2.2	2.5	40	0	100	75-134	0			
Methyl tert-butyl ether	18.77	0.61	5.0	20	0	93.8	62-136	0			
Methylene chloride	21.85	6.2	10	20	0	109	55-157	0			
o-Xylene	20.29	1.2	2.5	20	0	101	76-130	0			
Styrene	19.47	0.75	5.0	20	0	97.4	72-138	0			
Tetrachloroethene	21.45	0.89	5.0	20	0	107	70-171	0			
Toluene	20.88	0.86	5.0	20	0	104	76-130	0			
trans-1,2-Dichloroethene	22.05	0.5	5.0	20	0	110	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274062**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,3-Dichloropropene	18.9	0.48	5.0	20	0	94.5	58-126	0
Trichloroethene	20.78	0.72	5.0	20	0	104	75-135	0
Trichlorofluoromethane	20.43	0.71	5.0	20	0	102	62-136	0
Vinyl chloride	23.18	0.7	5.0	20	0	116	57-143	0
Surr: 1,2-Dichloroethane-d4	*18.53*	0	0	*20*	0	*92.6*	*83-132*	0
Surr: 4-Bromofluorobenzene	*19.34*	0	0	*20*	0	*96.7*	*83-111*	0
Surr: Dibromofluoromethane	*21.66*	0	0	*20*	0	*108*	*77-125*	0
Surr: Toluene-d8	*19.81*	0	0	*20*	0	*99*	*86-108*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **19101701-06A MS** Units: **µg/Kg** Analysis Date: **10/29/2019 11:30 P**

Client ID: Run ID: **VMS8_191029A** SeqNo: **6020799** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	17.49	0.79	5.0	20	0	87.4	73-138	0			
1,1,2,2-Tetrachloroethane	9.34	0.64	5.0	20	0	46.7	71-126	0			S
1,1,2-Trichloroethane	12.41	0.67	5.0	20	0	62	77-123	0			S
1,1-Dichloroethane	15.95	0.62	5.0	20	0	79.8	63-148	0			
1,1-Dichloroethene	21.17	0.98	5.0	20	0	106	67-156	0			
1,2,3-Trichlorobenzene	2.34	1.8	5.0	20	0	11.7	73-129	0			JS
1,2,4-Trichlorobenzene	2.45	1.1	5.0	20	0	12.2	70-132	0			JS
1,2-Dibromo-3-chloropropane	8.04	0.99	5.0	20	0	40.2	48-127	0			S
1,2-Dibromoethane	10.21	0.36	5.0	20	0	51	71-144	0			S
1,2-Dichlorobenzene	5.14	0.7	5.0	20	0	25.7	77-127	0			S
1,2-Dichloroethane	12.96	0.56	5.0	20	0	64.8	77-127	0			S
1,2-Dichloropropane	13.13	0.44	5.0	20	0	65.6	74-130	0			S
1,3-Dichlorobenzene	5.19	0.61	5.0	20	0	26	75-133	0			S
1,4-Dichlorobenzene	4.78	0.64	5.0	20	0	23.9	74-130	0			JS
2-Butanone	20.76	5.1	10	20	0.9619	99	55-132	0			
2-Hexanone	14.51	1.8	5.0	20	0	72.6	55-124	0			
4-Methyl-2-pentanone	14.64	1.8	5.0	20	0	73.2	67-159	0			
Acetone	107.6	4.6	10	20	2.525	525	31-156	0			SE
Benzene	14.14	0.52	5.0	20	0.3808	68.8	77-133	0			S
Bromochloromethane	14.62	0.54	5.0	20	0	73.1	72-139	0			
Bromodichloromethane	12.68	0.6	5.0	20	0	63.4	69-133	0			S
Bromoform	9.12	0.5	5.0	20	0	45.6	55-126	0			S
Bromomethane	18.75	2.5	10	20	0	93.8	31-174	0			
Carbon disulfide	18.09	0.59	5.0	20	0	90.4	45-160	0			
Carbon tetrachloride	15.21	1	5.0	20	0	76	69-140	0			
Chlorobenzene	9.23	0.63	5.0	20	0	46.2	76-130	0			S
Chloroethane	22.93	1.9	5.0	20	0	115	53-150	0			
Chloroform	15.77	0.82	5.0	20	0	78.8	72-132	0			
Chloromethane	16.12	1	10	20	0	80.6	43-150	0			
cis-1,2-Dichloroethene	15.57	0.54	5.0	20	0	77.8	74-134	0			
cis-1,3-Dichloropropene	11.81	0.6	5.0	20	0	59	62-134	0			S
Dibromochloromethane	9.88	0.51	5.0	20	0	49.4	57-118	0			S
Dichlorodifluoromethane	34.93	2.5	10	20	0	175	43-126	0			S
Ethylbenzene	10.02	0.87	5.0	20	0	50.1	75-133	0			S
Isopropylbenzene	9.27	0.85	5.0	20	0	46.4	74-137	0			S
m,p-Xylene	19.34	2.2	2.5	40	0	48.4	75-134	0			S
Methyl tert-butyl ether	15.81	0.61	5.0	20	0	79	62-136	0			
Methylene chloride	17.35	6.2	10	20	0	86.8	55-157	0			
o-Xylene	9.43	1.2	2.5	20	0	47.2	76-130	0			S
Styrene	7.97	0.75	5.0	20	0.3607	38	72-138	0			S
Tetrachloroethene	14.22	0.89	5.0	20	0	71.1	70-171	0			
Toluene	12.21	0.86	5.0	20	0	61	76-130	0			S
trans-1,2-Dichloroethene	16.71	0.5	5.0	20	0	83.6	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	9.87	0.48	5.0	20	0	49.4	58-126	0	S
Trichloroethene	13.88	0.72	5.0	20	0	69.4	75-135	0	S
Trichlorofluoromethane	19.42	0.71	5.0	20	0	97.1	62-136	0	
Vinyl chloride	22.72	0.7	5.0	20	0	114	57-143	0	
Surr: 1,2-Dichloroethane-d4	*21.72*	0	0	*20*	0	*109*	*83-132*	0	
Surr: 4-Bromofluorobenzene	*19.84*	0	0	*20*	0	*99.2*	*83-111*	0	
Surr: Dibromofluoromethane	*21.16*	0	0	*20*	0	*106*	*77-125*	0	
Surr: Toluene-d8	*18.59*	0	0	*20*	0	*93*	*86-108*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **19101701-06A MSD** Units: **µg/Kg** Analysis Date: **10/29/2019 11:47 P**

Client ID: Run ID: **VMS8_191029A** SeqNo: **6020800** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.18	0.79	5.0	20	0	95.9	73-138	17.49	9.22	30	
1,1,2,2-Tetrachloroethane	11.78	0.64	5.0	20	0	58.9	71-126	9.34	23.1	30	S
1,1,2-Trichloroethane	14.4	0.67	5.0	20	0	72	77-123	12.41	14.8	30	S
1,1-Dichloroethane	18.34	0.62	5.0	20	0	91.7	63-148	15.95	13.9	30	
1,1-Dichloroethene	21.56	0.98	5.0	20	0	108	67-156	21.17	1.83	30	
1,2,3-Trichlorobenzene	4.28	1.8	5.0	20	0	21.4	73-129	2.34	0	30	JS
1,2,4-Trichlorobenzene	4.37	1.1	5.0	20	0	21.8	70-132	2.45	0	30	JS
1,2-Dibromo-3-chloropropane	10.28	0.99	5.0	20	0	51.4	48-127	8.04	24.5	30	
1,2-Dibromoethane	12.17	0.36	5.0	20	0	60.8	71-144	10.21	17.5	30	S
1,2-Dichlorobenzene	8	0.7	5.0	20	0	40	77-127	5.14	43.5	30	SR
1,2-Dichloroethane	15.79	0.56	5.0	20	0	79	77-127	12.96	19.7	30	
1,2-Dichloropropane	16.25	0.44	5.0	20	0	81.2	74-130	13.13	21.2	30	
1,3-Dichlorobenzene	7.64	0.61	5.0	20	0	38.2	75-133	5.19	38.2	30	SR
1,4-Dichlorobenzene	7.14	0.64	5.0	20	0	35.7	74-130	4.78	39.6	30	SR
2-Butanone	26.38	5.1	10	20	0.9619	127	55-132	20.76	23.8	30	
2-Hexanone	18.71	1.8	5.0	20	0	93.6	55-124	14.51	25.3	30	
4-Methyl-2-pentanone	17.99	1.8	5.0	20	0	90	67-159	14.64	20.5	30	
Acetone	131.8	4.6	10	20	2.525	647	31-156	107.6	20.2	30	SE
Benzene	16.78	0.52	5.0	20	0.3808	82	77-133	14.14	17.1	30	
Bromochloromethane	17.79	0.54	5.0	20	0	89	72-139	14.62	19.6	30	
Bromodichloromethane	15.62	0.6	5.0	20	0	78.1	69-133	12.68	20.8	30	
Bromoform	10.68	0.5	5.0	20	0	53.4	55-126	9.12	15.8	30	S
Bromomethane	21.4	2.5	10	20	0	107	31-174	18.75	13.2	30	
Carbon disulfide	17.44	0.59	5.0	20	0	87.2	45-160	18.09	3.66	30	
Carbon tetrachloride	15.68	1	5.0	20	0	78.4	69-140	15.21	3.04	30	
Chlorobenzene	11.98	0.63	5.0	20	0	59.9	76-130	9.23	25.9	30	S
Chloroethane	23.55	1.9	5.0	20	0	118	53-150	22.93	2.67	30	
Chloroform	18.72	0.82	5.0	20	0	93.6	72-132	15.77	17.1	30	
Chloromethane	16.25	1	10	20	0	81.2	43-150	16.12	0.803	30	
cis-1,2-Dichloroethene	17.91	0.54	5.0	20	0	89.6	74-134	15.57	14	30	
cis-1,3-Dichloropropene	14.12	0.6	5.0	20	0	70.6	62-134	11.81	17.8	30	
Dibromochloromethane	11.62	0.51	5.0	20	0	58.1	57-118	9.88	16.2	30	
Dichlorodifluoromethane	34.15	2.5	10	20	0	171	43-126	34.93	2.26	30	S
Ethylbenzene	12.03	0.87	5.0	20	0	60.2	75-133	10.02	18.2	30	S
Isopropylbenzene	11.31	0.85	5.0	20	0	56.6	74-137	9.27	19.8	30	S
m,p-Xylene	23.94	2.2	2.5	40	0	59.8	75-134	19.34	21.3	30	S
Methyl tert-butyl ether	18.56	0.61	5.0	20	0	92.8	62-136	15.81	16	30	
Methylene chloride	20.74	6.2	10	20	0	104	55-157	17.35	17.8	30	
o-Xylene	11.88	1.2	2.5	20	0	59.4	76-130	9.43	23	30	S
Styrene	10.83	0.75	5.0	20	0.3607	52.3	72-138	7.97	30.4	30	SR
Tetrachloroethene	15.7	0.89	5.0	20	0	78.5	70-171	14.22	9.89	30	
Toluene	13.99	0.86	5.0	20	0	70	76-130	12.21	13.6	30	S
trans-1,2-Dichloroethene	18.93	0.5	5.0	20	0	94.6	65-137	16.71	12.5	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274062**	Instrument ID **VMS8**				Method: **SW8260C**					
trans-1,3-Dichloropropene	11.63	0.48	5.0	20	0	58.2	58-126	9.87	16.4	30
Trichloroethene	15.79	0.72	5.0	20	0	79	75-135	13.88	12.9	30
Trichlorofluoromethane	19.91	0.71	5.0	20	0	99.6	62-136	19.42	2.49	30
Vinyl chloride	22.01	0.7	5.0	20	0	110	57-143	22.72	3.17	30
Surr: 1,2-Dichloroethane-d4	*20.3*	0	0	*20*	0	*102*	*83-132*	21.72	*6.76*	*30*
Surr: 4-Bromofluorobenzene	*19.31*	0	0	*20*	0	*96.6*	*83-111*	19.84	*2.71*	*30*
Surr: Dibromofluoromethane	*21.52*	0	0	*20*	0	*108*	*77-125*	21.16	*1.69*	*30*
Surr: Toluene-d8	*18.45*	0	0	*20*	0	*92.2*	*86-108*	18.59	*0.756*	*30*

The following samples were analyzed in this batch:

19101628-01A	19101628-02A	19101628-03A
19101628-04A	19101628-05A	19101628-06A
19101628-07A	19101628-08A	19101628-09A
19101628-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R273584** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R273584** Units: **% of sample** Analysis Date: **10/22/2019 04:19 P**
Client ID: Run ID: **MOIST_191022C** SeqNo: **6005875** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS Sample ID: **LCS-R273584** Units: **% of sample** Analysis Date: **10/22/2019 04:19 P**
Client ID: Run ID: **MOIST_191022C** SeqNo: **6005874** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP Sample ID: **19101700-14B DUP** Units: **% of sample** Analysis Date: **10/22/2019 04:19 P**
Client ID: Run ID: **MOIST_191022C** SeqNo: **6005868** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.3	0.1	0.10	0	0	0	0-0	14.67	2.55	10	

DUP Sample ID: **19101700-15B DUP** Units: **% of sample** Analysis Date: **10/22/2019 04:19 P**
Client ID: Run ID: **MOIST_191022C** SeqNo: **6005870** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.4	0.1	0.10	0	0	0	0-0	5.41	0.185	10	

The following samples were analyzed in this batch:

19101628-01B	19101628-02B	19101628-03B
19101628-04B	19101628-05B	19101628-06B
19101628-07B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101628
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R273682** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R273682** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008926** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS Sample ID: **LCS-R273682** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008925** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP Sample ID: **19101700-20B DUP** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008909** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	22.56	0.1	0.10	0	0	0	0-0	22.77	0.927	10	

DUP Sample ID: **19101700-29B DUP** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008919** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	23.47	0.1	0.10	0	0	0	0-0	25.64	8.84	10	

The following samples were analyzed in this batch: 19101628-08B 19101628-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 194067

ALS Project Manager: EB | ALS Work Order #: 1910628

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	St. Francis Hospital	A	EPA 8260D
Work Order		Project Number	103X903017F0101.002	B	EPA 8270E
Company Name	Tetra Tech	Bill To Company	Tetra Tech	C	6020 / 7470
Send Report To	Megan Sawyer	Invoice Attn	Accounts Payable	D	TPH-GRO
Address	415 Oak Street	Address	415 Oak Street	E	TPH-DRO
				F	TPH-ORO
City/State/Zip	Kansas City, MO 64106	City/State/Zip	Kansas City, MO 64106	G	
Phone	(816) 412-1755	Phone	(816) 412-1755	H	
Fax	(816) 410-1748	Fax	(816) 410-1748	I	
e-Mail Address	megan.sawyer@tetratech.com	e-Mail Address	megan.sawyer@tetratech.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-1 (0-3)	10/17/19	0908	SO		5	X	X	X	X	X	X					
2	SB-1 (30)	10/17/19	1022	SO		5	X	X	X	X	X	X					
3	SB-2 (0-3)	10/17/19	1042	SO		5	X	X	X	X	X	X					
4	SB-2 (26-28)	10/17/19	1137	SO		5	X	X	X	X	X	X					
5	SB-3 (0-3)	10/17/19	1420	SO		5	X	X	X	X	X	X					
6	SB-3 (30)	10/17/19	1530	SO		5	X	X	X	X	X	X					
7	SB-4 (0-3)	10/17/19	1550	SO		5	X	X	X	X	X	X					
8	SB-4 (30)	10/17/19	1720	SO		5	X	X	X	X	X	X					
9	SB-DUP	10/17/19	0000	SO		5	X	X	X	X	X	X					
10	Trip Blank	10/17/19	0000	WT		3	X										

Sampler(s) Please Print & Sign: Madison Ericson / MEricson

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
			FED EX
Relinquished by: FED EX	Date: 10/21/19	Time: 0930	Received by (Laboratory):
Logged by (Laboratory): DS	Date: 10/21/19	Time: 1520	Checked by (Laboratory): EB

Notes:

Cooler ID	Cooler Temp.
SR2	3.2°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **TETRATECH - MO** Date/Time Received: **21-Oct-19 09:30**

Work Order: **19101628** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 21-Oct-19 (Date) Reviewed by: Ehrland Bosworth (eSignature) 21-Oct-19 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	7.2/7.2 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	10/21/2019 3:40:36 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: Temp Blank measured above 6.0C, however samples were received on ice.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Tetra Tech, Inc.
DATA VALIDATION REPORT
LEVEL II

Site:	Former St. Francois Hospital, Marceline, Linn County, Missouri			
Laboratory:	ALS Group, Inc. (Holland, Michigan)			
Data Reviewer:	Ann Weise, Tetra Tech, Inc. (Tetra Tech)			
Review Date:	December 20, 2019			
Sample Delivery Group (SDG):	19101628			
Sample Numbers:	SB-1 (0-3)	SB-1 (30)	SB-2 (0-3)	SB-2 (26-28)
	SB-3 (0-3)	SB-3 (30)	SB-4 (0-3)	SB-4 (30)
	SB-DUP	Trip Blank		
Matrix / Number of Samples:	8 Discrete Soil Samples, 1 Duplicate Soil Sample, 1 Trip Blank			

The data were qualified according to the U.S. Environmental Protection Agency (EPA) entitled "Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review", "CLP NFG for Inorganic Superfund Data Review", both dated January 2017, and "CLP NFG for High-Resolution Superfund Methods Data Review" dated April 2016. In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the applicable methods.

The review was intended to identify problems and quality control (QC) deficiencies that were apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project-specific data package.

I, Ann Weise, certify that all data validation criteria outlined in the above-referenced documents were assessed, and any qualifications made to the data accorded with those documents.

Ann Weise

20 December 2019

Certified by Ann Weise, Environmental Scientist — Date

DATA VALIDATION QUALIFIERS

U	—	The analyte was not detected above the reported sample quantitation limit.
J	—	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	—	The analyte was not detected above the reported sample quantitation limit, which is estimated.
R	—	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. Presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

Sample delivery group (SDG) 19101628 included eight (8) environmental soil samples, and two (2) QC samples (field duplicate, trip blank). The samples were analyzed for volatile organic compounds (VOC) by EPA SW-846 Method 8260D, gasoline range organics by 8260GRO, semivolatile organic compounds by EPA SW-846 Method 8270E, diesel range organics by 8270, and metals by EPA SW-846 Methods 6020A and 7470A. The following summarizes the data validation that was performed.

VOLATILE ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory at 7.2 °C, above the required temperature parameters of less than 6 °C; however the samples were received on ice. Sample jars were delivered with preservative , thus the minor temperature exceedance does not require qualification of the data.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from another SDG. The recoveries were within the control limits except for dichlorodifluoromethane and GRO. The VOC MS recovery was above the upper control limit for dichlorodifluoromethane. The corresponding results in the parent sample was nondetect, therefore no qualification is necessary for dichlorodifluoromethane. The GRO MS and/or MSD recoveries were above the upper control limit for samples 19101554-11A MS and -11A MSD. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for GRO.

III. Blanks

There was no detections of target VOC analytes in the trip blank. There were no detections of target analytes in the method blank, except GRO was detected above the quantitation limit. The detected GRO results in field samples were qualified with a J+ to indicate they may be biased high.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within QC limits except for dichlorodifluoromethane. The VOC LCS recovery for dichlorodifluoromethane was above the upper control limit. All the sample results were non-detect for dichlorodifluoromethane. No qualification is necessary.

V. Surrogate Recoveries

All surrogate recoveries were within QC limits, except for dibromofluoromethane, which was consistently below the acceptance limit. The laboratory attributed the result to preservative interference. No qualifications were applied by the laboratory. After data review, qualifiers (J- for detected results and UJ for non-detected results) were added to the samples.

VI. Comments

Some detected VOC results were below the sample reporting limits, which correspond to the lowest calibration standard. The laboratory correctly qualified these extrapolations as estimates (flagged “J”). The field duplicate results were not very comparable, likely indicating sample heterogeneity.

Analyte	Concentration/Qualifier				RPD
	SB-3 (30)		SB-DUP		
2-Methylnaphthalene	4	U	9.6		--
Acetone	11		19		53%
GRO (C6-C10)	5800		1900	J	101%
Arsenic	7.5		4.4		52%
Barium	120		120		0%
Cadmium	0.069	J	0.27	J	119%
Chromium	11		11		0%
Lead	11		12		9%
Mercury	0.018	J	0.031		53%

VII. Overall Assessment of Data

Overall data quality is acceptable, with qualifications applied as noted previously. All VOC are usable as reported for their intended purposes.

SEMIVOLATILES ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory at 7.2 °C, above the required temperature parameters of less than 6 °C; however the samples were received on ice. Samples were extracted and analyzed 12 days after collection, within the established holding times of 14 days from sample collection to extraction and 60 days to analysis. No data were qualified on the minor temperature exceedance.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from other SDGs. MS/MSD analyses were within acceptable limits except for the recovery of 2-nitrophenol in the MS sample and the relative percent difference between the MS and MSD results for 4-nitrophenol. No qualifications are applied based on the MS/MSD analyses.

III. Blanks

There were no detected results of target SVOC analytes in the method blank. No qualifications were applied.

IV. Laboratory Control Sample (LCS)

All LCS results were within QC limits except for 2,4-dimethylphenol. This analyte was not detected in any site sample. No qualifications were applied.

V. Surrogate Recoveries

Surrogate recoveries were within the control limits for all analytes for all samples. No qualifications were applied.

VI. Comments

The laboratory correctly qualified results below the sample reporting limit as estimated (flagged "J"). The field duplicate results were comparable for the samples with only a detection of bis(2-ethylhexyl)phthalate below the quantitation limit.

VII. Overall Assessment of Data

Overall data quality is acceptable, with no qualifications applied. All data are usable as reported for their intended purposes.

METALS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory and analyzed within the established holding time of 6 months (28 days for mercury) from sample collection to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD were performed on sample SB-1 (0-3) for mercury and a sample from another SDG for the method 6020A metals. All MS/MSD recoveries were within acceptable limits and the relative percent difference between the MS And MSD were also within acceptable limits for mercury. All MS/MSD recoveries were within acceptable limits and the relative percent difference between the MS And MSD except for barium. The LCS result indicates the instrument was in control. No qualifications were applied for the MS/MSD analyses.

III. Blanks

The method blank was nondetect for all metals. Thus, no qualifications were applied for the blank sample analyses.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within their limits, so no qualifications were applied.

V. Comments

The field duplicate results were comparable, except for total barium and total mercury.

VI. Overall Assessment of Data

Overall data quality is acceptable. No qualifications beyond those indicated by the laboratory are recommended. All metals data are usable as reported for their intended purposes.

03-Nov-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **St. Francois Hospital (103X903019F0101.002)** Work Order: **19101636**

Dear Emily,

ALS Environmental received 5 samples on 21-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 62.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Ehrland Bosworth

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS Group, USA

Date: 03-Nov-19

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Work Order: **19101636**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
19101636-01	GW-2 (30)	Water		10/17/2019 12:00	10/21/2019 09:30	☐
19101636-02	GW-DUP	Water		10/17/2019	10/21/2019 09:30	☐
19101636-03	Rinsate Blank	Water		10/17/2019 17:30	10/21/2019 09:30	☐
19101636-04	Field Blank	Water		10/18/2019 11:25	10/21/2019 09:30	☐
19101636-05	Trip Blank	Water		10/17/2019	10/21/2019 09:30	☐

ALS Group, USA

Date: 03-Nov-19

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
WorkOrder: **19101636**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Work Order: 19101636

Case Narrative

Samples for the above noted Work Order were received on 10/21/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R273930, Method VOC_8260_W, Sample VLCSW1-191026: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane and Hexachlorocyclopentadiene.

Batch R274019a, Method VOC_8260_W, Sample VBLKW2-191028: The VOC concentration in the Method Blank was greater than the quantitation limit. All samples in the batch were non-detect; therefore, no qualification is needed for Chloromethane.

Batch R274019b, Method GRO_8260_W, Sample 19101636-01A: Verification of sample preservation indicated a pH >2.

Batch R274019b, Method GRO_8260_W, Sample 19101636-02A: Verification of sample preservation indicated a pH >2.

Batch R274083, Method VOC_8260_W, Sample VBLKW2-191030: The VOC concentration in the Method Blank was greater than the Method Detection Limit. Positive results in the batch may be biased high for Chloromethane.

Batch R274155, Method VOC_8260_W, Sample VBLKW2-191030: The VOC concentration in the Method Blank was greater than the quantitation limit. All samples in the batch were non-detect; therefore, no qualification is needed for Chloromethane.

Batch R274155, Method VOC_8260_W, Sample VLCSW1-191030: The VOC LCS recovery

was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

No other deviations or anomalies were noted.

Extractable Organics:
Batch 144383, Method SVO_8270_WLL, Sample SLCSW1-144383: The SVOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for 2,4-Dimethylphenol.

No other deviations or anomalies were noted.

Metals:
No deviations or anomalies were noted.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-2 (30)
Collection Date: 10/17/2019 12:00 PM

Work Order: 19101636
Lab ID: 19101636-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7470A**			Prep: SW7470 / 10/28/19		Analyst: **RSH**
Mercury	U		0.00016	0.00020	mg/L	1	10/29/2019 15:41
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 10/28/19		Analyst: **RSH**
Mercury	U		0.00016	0.00020	mg/L	1	10/29/2019 15:43
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	**0.037**		**0.00019**	**0.0050**	**mg/L**	1	10/29/2019 20:32
Barium	**0.78**		**0.0020**	**0.0050**	**mg/L**	1	10/29/2019 20:32
Cadmium	**0.0037**		**0.00015**	**0.0020**	**mg/L**	1	10/29/2019 20:32
Chromium	**0.046**		**0.00061**	**0.0050**	**mg/L**	1	10/29/2019 20:32
Lead	**0.080**		**0.00072**	**0.0050**	**mg/L**	1	10/29/2019 20:32
Selenium	**0.0033**	J	**0.00048**	**0.0050**	**mg/L**	1	10/29/2019 20:32
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:32
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	**0.0018**	J	**0.00019**	**0.0050**	**mg/L**	1	10/29/2019 20:34
Barium	**0.085**		**0.0020**	**0.0050**	**mg/L**	1	10/29/2019 20:34
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:34
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:34
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:34
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:34
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:34
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3510 / 10/22/19		Analyst: **RM**
DRO (C10-C21)	**0.19**		**0.013**	**0.10**	**mg/L**	1	10/26/2019 01:35
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 01:35
Surr: 4-Terphenyl-d14	*59.8*			*23-120*	*%REC*	1	10/26/2019 01:35
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 10/22/19		Analyst: **EE**
1,1`-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 10:05
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 10:05
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 10:05
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 10:05
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 10:05
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 10:05
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 10:05
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 10:05
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 10:05
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 10:05
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 10:05
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 10:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: GW-2 (30) **Lab ID:** 19101636-01
Collection Date: 10/17/2019 12:00 PM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 10:05
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 10:05
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 10:05
2-Methylphenol	U		0.25	1.0	µg/L	1	10/23/2019 10:05
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 10:05
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 10:05
3&4-Methylphenol	U		0.21	1.0	µg/L	1	10/23/2019 10:05
3,3´-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 10:05
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 10:05
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 10:05
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 10:05
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 10:05
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 10:05
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 10:05
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 10:05
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 10:05
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 10:05
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 10:05
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 10:05
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 10:05
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 10:05
Benzaldehyde	U		0.52	1.0	µg/L	1	10/23/2019 10:05
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 10:05
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	10/23/2019 10:05
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 10:05
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	10/23/2019 10:05
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 10:05
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 10:05
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 10:05
Bis(2-ethylhexyl)phthalate	**0.75**	J	**0.40**	**1.0**	**µg/L**	1	10/23/2019 10:05
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 10:05
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 10:05
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 10:05
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 10:05
Dibenzo(a,h)anthracene	U		0.073	0.10	µg/L	1	10/23/2019 10:05
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 10:05
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 10:05
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 10:05
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 10:05
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 10:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: GW-2 (30) **Lab ID:** 19101636-01
Collection Date: 10/17/2019 12:00 PM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 10:05
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 10:05
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 10:05
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 10:05
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 10:05
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 10:05
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	10/23/2019 10:05
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 10:05
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 10:05
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 10:05
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 10:05
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 10:05
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 10:05
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 10:05
Phenol	U		0.21	1.0	µg/L	1	10/23/2019 10:05
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 10:05
Surr: 2,4,6-Tribromophenol	*79.3*			*27-83*	*%REC*	1	10/23/2019 10:05
Surr: 2-Fluorobiphenyl	*72.3*			*26-79*	*%REC*	1	10/23/2019 10:05
Surr: 2-Fluorophenol	*39.1*			*13-56*	*%REC*	1	10/23/2019 10:05
Surr: 4-Terphenyl-d14	*60.8*			*43-106*	*%REC*	1	10/23/2019 10:05
Surr: Nitrobenzene-d5	*65.3*			*29-80*	*%REC*	1	10/23/2019 10:05
Surr: Phenol-d6	*22.7*			*10-35*	*%REC*	1	10/23/2019 10:05
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		25	100	µg/L	1	10/31/2019 05:44
Surr: Toluene-d8	*82.7*			*70-130*	*%REC*	1	10/31/2019 05:44
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **JNS**
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 19:53
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/30/2019 19:53
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 19:53
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/30/2019 19:53
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 19:53
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/30/2019 19:53
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/30/2019 19:53
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/30/2019 19:53
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/30/2019 19:53
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/30/2019 19:53
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/30/2019 19:53
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 19:53
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/30/2019 19:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-2 (30)
Collection Date: 10/17/2019 12:00 PM

Work Order: 19101636
Lab ID: 19101636-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/30/2019 19:53
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/30/2019 19:53
2-Butanone	U		0.52	5.0	µg/L	1	10/30/2019 19:53
2-Hexanone	U		0.59	5.0	µg/L	1	10/30/2019 19:53
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/30/2019 19:53
Acetone	**16**		**1.1**	**10**	**µg/L**	1	10/29/2019 12:09
Benzene	U		0.46	1.0	µg/L	1	10/30/2019 19:53
Bromochloromethane	U		0.45	1.0	µg/L	1	10/30/2019 19:53
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/30/2019 19:53
Bromoform	U		0.56	1.0	µg/L	1	10/30/2019 19:53
Bromomethane	U		0.90	1.0	µg/L	1	10/30/2019 19:53
Carbon disulfide	**0.63**	J	**0.49**	**1.0**	**µg/L**	1	10/30/2019 19:53
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/30/2019 19:53
Chlorobenzene	U		0.40	1.0	µg/L	1	10/30/2019 19:53
Chloroethane	U		0.68	1.0	µg/L	1	10/30/2019 19:53
Chloroform	U		0.46	1.0	µg/L	1	10/30/2019 19:53
Chloromethane	U		0.83	1.0	µg/L	1	10/30/2019 19:53
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/30/2019 19:53
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/30/2019 19:53
Cyclohexane	U		0.63	2.0	µg/L	1	10/30/2019 19:53
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/30/2019 19:53
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/30/2019 19:53
Ethylbenzene	U		0.34	1.0	µg/L	1	10/30/2019 19:53
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/30/2019 19:53
m,p-Xylene	U		0.81	2.0	µg/L	1	10/30/2019 19:53
Methyl acetate	U		0.59	2.0	µg/L	1	10/30/2019 19:53
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/30/2019 19:53
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/30/2019 19:53
Methylene chloride	U		0.86	5.0	µg/L	1	10/30/2019 19:53
o-Xylene	U		0.31	1.0	µg/L	1	10/30/2019 19:53
Styrene	U		0.33	1.0	µg/L	1	10/30/2019 19:53
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/30/2019 19:53
Toluene	U		0.45	1.0	µg/L	1	10/30/2019 19:53
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/30/2019 19:53
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/30/2019 19:53
Trichloroethene	U		0.43	1.0	µg/L	1	10/30/2019 19:53
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/30/2019 19:53
Vinyl chloride	U		0.53	1.0	µg/L	1	10/30/2019 19:53
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	10/29/2019 12:09
Surr: 1,2-Dichloroethane-d4	*94.0*			*75-120*	*%REC*	1	10/30/2019 19:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: GW-2 (30) **Lab ID:** 19101636-01
Collection Date: 10/17/2019 12:00 PM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*95.8*			*80-110*	*%REC*	1	10/29/2019 12:09
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1	10/30/2019 19:53
Surr: Dibromofluoromethane	*97.1*			*85-115*	*%REC*	1	10/29/2019 12:09
Surr: Dibromofluoromethane	*93.0*			*85-115*	*%REC*	1	10/30/2019 19:53
Surr: Toluene-d8	*94.6*			*85-110*	*%REC*	1	10/29/2019 12:09
Surr: Toluene-d8	*96.2*			*85-110*	*%REC*	1	10/30/2019 19:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-DUP
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7470A**			Prep: SW7470 / 10/28/19		Analyst: **RSH**
Mercury	**0.00026**		**0.00016**	**0.00020**	**mg/L**	1	10/29/2019 15:45
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 10/30/19		Analyst: **RSH**
Mercury	U		0.00016	0.00020	mg/L	1	10/30/2019 13:05
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	**0.031**		**0.00019**	**0.0050**	**mg/L**	1	10/29/2019 20:36
Barium	**0.43**		**0.0020**	**0.0050**	**mg/L**	1	10/29/2019 20:36
Cadmium	**0.0043**		**0.00015**	**0.0020**	**mg/L**	1	10/29/2019 20:36
Chromium	**0.051**		**0.00061**	**0.0050**	**mg/L**	1	10/29/2019 20:36
Lead	**0.060**		**0.00072**	**0.0050**	**mg/L**	1	10/29/2019 20:36
Selenium	**0.0042**	J	**0.00048**	**0.0050**	**mg/L**	1	10/29/2019 20:36
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:36
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	**0.0020**	J	**0.00019**	**0.0050**	**mg/L**	1	10/29/2019 20:37
Barium	**0.083**		**0.0020**	**0.0050**	**mg/L**	1	10/29/2019 20:37
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:37
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:37
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:37
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:37
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:37
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3510 / 10/22/19		Analyst: **RM**
DRO (C10-C21)	U		0.013	0.10	mg/L	1	10/26/2019 01:55
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 01:55
Surr: 4-Terphenyl-d14	*66.0*			*23-120*	*%REC*	1	10/26/2019 01:55
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 10/22/19		Analyst: **EE**
1,1`-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 10:30
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 10:30
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 10:30
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 10:30
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 10:30
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 10:30
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 10:30
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 10:30
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 10:30
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 10:30
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 10:30
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 10:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-DUP
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 10:30
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 10:30
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 10:30
2-Methylphenol	U		0.25	1.0	µg/L	1	10/23/2019 10:30
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 10:30
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 10:30
3&4-Methylphenol	U		0.21	1.0	µg/L	1	10/23/2019 10:30
3,3´-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 10:30
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 10:30
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 10:30
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 10:30
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 10:30
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 10:30
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 10:30
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 10:30
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 10:30
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 10:30
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 10:30
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 10:30
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 10:30
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 10:30
Benzaldehyde	U		0.52	1.0	µg/L	1	10/23/2019 10:30
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 10:30
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	10/23/2019 10:30
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 10:30
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	10/23/2019 10:30
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 10:30
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 10:30
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 10:30
Bis(2-ethylhexyl)phthalate	U		0.40	1.0	µg/L	1	10/23/2019 10:30
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 10:30
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 10:30
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 10:30
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 10:30
Dibenzo(a,h)anthracene	U		0.073	0.10	µg/L	1	10/23/2019 10:30
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 10:30
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 10:30
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 10:30
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 10:30
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 10:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-DUP
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 10:30
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 10:30
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 10:30
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 10:30
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 10:30
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 10:30
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	10/23/2019 10:30
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 10:30
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 10:30
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 10:30
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 10:30
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 10:30
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 10:30
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 10:30
Phenol	U		0.21	1.0	µg/L	1	10/23/2019 10:30
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 10:30
Surr: 2,4,6-Tribromophenol	*71.6*			*27-83*	*%REC*	1	10/23/2019 10:30
Surr: 2-Fluorobiphenyl	*70.8*			*26-79*	*%REC*	1	10/23/2019 10:30
Surr: 2-Fluorophenol	*36.1*			*13-56*	*%REC*	1	10/23/2019 10:30
Surr: 4-Terphenyl-d14	*57.2*			*43-106*	*%REC*	1	10/23/2019 10:30
Surr: Nitrobenzene-d5	*64.8*			*29-80*	*%REC*	1	10/23/2019 10:30
Surr: Phenol-d6	*19.5*			*10-35*	*%REC*	1	10/23/2019 10:30
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		25	100	µg/L	1	10/31/2019 06:01
Surr: Toluene-d8	*81.6*			*70-130*	*%REC*	1	10/31/2019 06:01
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **SJB**
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 17:48
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/30/2019 17:48
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 17:48
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/30/2019 17:48
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 17:48
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/30/2019 17:48
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/30/2019 17:48
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/30/2019 17:48
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/30/2019 17:48
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/30/2019 17:48
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/30/2019 17:48
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 17:48
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/30/2019 17:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: GW-DUP
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/30/2019 17:48
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/30/2019 17:48
2-Butanone	U		0.52	5.0	µg/L	1	10/30/2019 17:48
2-Hexanone	U		0.59	5.0	µg/L	1	10/30/2019 17:48
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/30/2019 17:48
Acetone	**6.6**	J	**1.1**	**10**	**µg/L**	1	10/30/2019 17:48
Benzene	U		0.46	1.0	µg/L	1	10/30/2019 17:48
Bromochloromethane	U		0.45	1.0	µg/L	1	10/30/2019 17:48
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/30/2019 17:48
Bromoform	U		0.56	1.0	µg/L	1	10/30/2019 17:48
Bromomethane	U		0.90	1.0	µg/L	1	10/30/2019 17:48
Carbon disulfide	U		0.49	1.0	µg/L	1	10/30/2019 17:48
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/30/2019 17:48
Chlorobenzene	U		0.40	1.0	µg/L	1	10/30/2019 17:48
Chloroethane	U		0.68	1.0	µg/L	1	10/30/2019 17:48
Chloroform	U		0.46	1.0	µg/L	1	10/30/2019 17:48
Chloromethane	U		0.83	1.0	µg/L	1	10/30/2019 17:48
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/30/2019 17:48
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/30/2019 17:48
Cyclohexane	U		0.63	2.0	µg/L	1	10/30/2019 17:48
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/30/2019 17:48
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/30/2019 17:48
Ethylbenzene	U		0.34	1.0	µg/L	1	10/30/2019 17:48
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/30/2019 17:48
m,p-Xylene	U		0.81	2.0	µg/L	1	10/30/2019 17:48
Methyl acetate	U		0.59	2.0	µg/L	1	10/30/2019 17:48
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/30/2019 17:48
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/30/2019 17:48
Methylene chloride	U		0.86	5.0	µg/L	1	10/30/2019 17:48
o-Xylene	U		0.31	1.0	µg/L	1	10/30/2019 17:48
Styrene	U		0.33	1.0	µg/L	1	10/30/2019 17:48
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/30/2019 17:48
Toluene	U		0.45	1.0	µg/L	1	10/30/2019 17:48
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/30/2019 17:48
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/30/2019 17:48
Trichloroethene	U		0.43	1.0	µg/L	1	10/30/2019 17:48
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/30/2019 17:48
Vinyl chloride	U		0.53	1.0	µg/L	1	10/30/2019 17:48
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	1	10/30/2019 17:48
Surr: 4-Bromofluorobenzene	*95.6*			*80-110*	*%REC*	1	10/30/2019 17:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: GW-DUP **Lab ID:** 19101636-02
Collection Date: 10/17/2019 **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Dibromofluoromethane	*89.7*			*85-115*	*%REC*	1	10/30/2019 17:48
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	10/30/2019 17:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Rinsate Blank
Collection Date: 10/17/2019 05:30 PM

Work Order: 19101636
Lab ID: 19101636-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7470A**			Prep: SW7470 / 10/30/19		Analyst: **RSH**
Mercury	U		0.00016	0.00020	mg/L	1	10/30/2019 13:07
MERCURY BY CVAA (DISSOLVED)		Method: **SW7470A**			Prep: SW7470 / 10/30/19		Analyst: **RSH**
Mercury	U		0.00016	0.00020	mg/L	1	10/30/2019 13:09
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:39
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:39
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:39
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:39
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:39
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:39
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:39
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:41
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:41
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:41
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:41
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:41
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:41
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:41
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3510 / 10/22/19		Analyst: **RM**
DRO (C10-C21)	U		0.013	0.10	mg/L	1	10/26/2019 02:15
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 02:15
Surr: 4-Terphenyl-d14	*63.5*			*23-120*	*%REC*	1	10/26/2019 02:15
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 10/22/19		Analyst: **EE**
1,1`-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 10:54
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 10:54
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 10:54
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 10:54
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 10:54
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 10:54
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 10:54
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 10:54
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 10:54
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 10:54
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 10:54
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 10:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: Rinsate Blank **Lab ID:** 19101636-03
Collection Date: 10/17/2019 05:30 PM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 10:54
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 10:54
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 10:54
2-Methylphenol	U		0.25	1.0	µg/L	1	10/23/2019 10:54
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 10:54
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 10:54
3&4-Methylphenol	U		0.21	1.0	µg/L	1	10/23/2019 10:54
3,3´-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 10:54
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 10:54
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 10:54
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 10:54
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 10:54
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 10:54
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 10:54
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 10:54
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 10:54
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 10:54
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 10:54
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 10:54
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 10:54
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 10:54
Benzaldehyde	U		0.52	1.0	µg/L	1	10/23/2019 10:54
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 10:54
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	10/23/2019 10:54
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 10:54
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	10/23/2019 10:54
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 10:54
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 10:54
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 10:54
Bis(2-ethylhexyl)phthalate	U		0.40	1.0	µg/L	1	10/23/2019 10:54
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 10:54
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 10:54
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 10:54
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 10:54
Dibenzo(a,h)anthracene	U		0.073	0.10	µg/L	1	10/23/2019 10:54
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 10:54
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 10:54
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 10:54
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 10:54
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 10:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: Rinsate Blank **Lab ID:** 19101636-03
Collection Date: 10/17/2019 05:30 PM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 10:54
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 10:54
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 10:54
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 10:54
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 10:54
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 10:54
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	10/23/2019 10:54
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 10:54
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 10:54
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 10:54
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 10:54
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 10:54
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 10:54
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 10:54
Phenol	U		0.21	1.0	µg/L	1	10/23/2019 10:54
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 10:54
Surr: 2,4,6-Tribromophenol	*60.2*			*27-83*	*%REC*	1	10/23/2019 10:54
Surr: 2-Fluorobiphenyl	*55.8*			*26-79*	*%REC*	1	10/23/2019 10:54
Surr: 2-Fluorophenol	*28.4*			*13-56*	*%REC*	1	10/23/2019 10:54
Surr: 4-Terphenyl-d14	*60.2*			*43-106*	*%REC*	1	10/23/2019 10:54
Surr: Nitrobenzene-d5	*52.0*			*29-80*	*%REC*	1	10/23/2019 10:54
Surr: Phenol-d6	*15.1*			*10-35*	*%REC*	1	10/23/2019 10:54
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		25	100	µg/L	1	10/28/2019 22:26
Surr: Toluene-d8	*71.8*			*70-130*	*%REC*	1	10/28/2019 22:26
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **JNS**
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 20:38
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/30/2019 20:38
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 20:38
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/30/2019 20:38
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 20:38
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/30/2019 20:38
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/30/2019 20:38
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/30/2019 20:38
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/30/2019 20:38
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/30/2019 20:38
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/30/2019 20:38
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 20:38
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/30/2019 20:38

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Rinsate Blank
Collection Date: 10/17/2019 05:30 PM

Work Order: 19101636
Lab ID: 19101636-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/30/2019 20:38
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/30/2019 20:38
2-Butanone	U		0.52	5.0	µg/L	1	10/30/2019 20:38
2-Hexanone	U		0.59	5.0	µg/L	1	10/30/2019 20:38
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/30/2019 20:38
Acetone	**1.8**	J	**1.1**	**10**	**µg/L**	1	10/28/2019 22:26
Benzene	U		0.46	1.0	µg/L	1	10/30/2019 20:38
Bromochloromethane	U		0.45	1.0	µg/L	1	10/30/2019 20:38
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/30/2019 20:38
Bromoform	U		0.56	1.0	µg/L	1	10/30/2019 20:38
Bromomethane	U		0.90	1.0	µg/L	1	10/30/2019 20:38
Carbon disulfide	U		0.49	1.0	µg/L	1	10/30/2019 20:38
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/30/2019 20:38
Chlorobenzene	U		0.40	1.0	µg/L	1	10/30/2019 20:38
Chloroethane	U		0.68	1.0	µg/L	1	10/30/2019 20:38
Chloroform	U		0.46	1.0	µg/L	1	10/30/2019 20:38
Chloromethane	U		0.83	1.0	µg/L	1	10/30/2019 20:38
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/30/2019 20:38
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/30/2019 20:38
Cyclohexane	U		0.63	2.0	µg/L	1	10/30/2019 20:38
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/30/2019 20:38
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/30/2019 20:38
Ethylbenzene	U		0.34	1.0	µg/L	1	10/30/2019 20:38
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/30/2019 20:38
m,p-Xylene	U		0.81	2.0	µg/L	1	10/30/2019 20:38
Methyl acetate	U		0.59	2.0	µg/L	1	10/30/2019 20:38
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/30/2019 20:38
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/30/2019 20:38
Methylene chloride	U		0.86	5.0	µg/L	1	10/30/2019 20:38
o-Xylene	U		0.31	1.0	µg/L	1	10/30/2019 20:38
Styrene	U		0.33	1.0	µg/L	1	10/30/2019 20:38
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/30/2019 20:38
Toluene	U		0.45	1.0	µg/L	1	10/30/2019 20:38
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/30/2019 20:38
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/30/2019 20:38
Trichloroethene	U		0.43	1.0	µg/L	1	10/30/2019 20:38
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/30/2019 20:38
Vinyl chloride	U		0.53	1.0	µg/L	1	10/30/2019 20:38
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	10/28/2019 22:26
Surr: 1,2-Dichloroethane-d4	*91.8*			*75-120*	*%REC*	1	10/30/2019 20:38

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Rinsate Blank
Collection Date: 10/17/2019 05:30 PM

Work Order: 19101636
Lab ID: 19101636-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*95.4*			*80-110*	*%REC*	1	10/28/2019 22:26
Surr: 4-Bromofluorobenzene	*96.4*			*80-110*	*%REC*	1	10/30/2019 20:38
Surr: Dibromofluoromethane	*99.6*			*85-115*	*%REC*	1	10/28/2019 22:26
Surr: Dibromofluoromethane	*90.0*			*85-115*	*%REC*	1	10/30/2019 20:38
Surr: Toluene-d8	*98.2*			*85-110*	*%REC*	1	10/28/2019 22:26
Surr: Toluene-d8	*97.0*			*85-110*	*%REC*	1	10/30/2019 20:38

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Field Blank
Collection Date: 10/18/2019 11:25 AM

Work Order: 19101636
Lab ID: 19101636-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7470A**			Prep: SW7470 / 10/30/19		Analyst: **RSH**
Mercury	U		0.00040	0.00050	mg/L	1	10/30/2019 13:11
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3015A / 10/29/19		Analyst: **STP**
Arsenic	U		0.0019	0.050	mg/L	1	10/29/2019 20:45
Barium	U		0.020	0.050	mg/L	1	10/29/2019 20:45
Cadmium	U		0.0015	0.020	mg/L	1	10/29/2019 20:45
Chromium	U		0.0061	0.050	mg/L	1	10/29/2019 20:45
Lead	U		0.0072	0.050	mg/L	1	10/29/2019 20:45
Selenium	U		0.0048	0.050	mg/L	1	10/29/2019 20:45
Silver	U		0.0084	0.050	mg/L	1	10/29/2019 20:45
DIESEL RANGE ORGANICS BY GC-MS		Method: **SW8270**			Prep: SW3510 / 10/22/19		Analyst: **RM**
DRO (C10-C21)	U		0.052	0.40	mg/L	1	10/26/2019 02:35
ORO (C21-C35)	U		0.11	0.40	mg/L	1	10/26/2019 02:35
Surr: 4-Terphenyl-d14	*59.4*			*23-120*	*%REC*	1	10/26/2019 02:35
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3510 / 10/22/19		Analyst: **EE**
1,1`-Biphenyl	U		1.7	4.0	µg/L	1	10/23/2019 11:19
1,2,4,5-Tetrachlorobenzene	U		1.4	20	µg/L	1	10/23/2019 11:19
1,4-Dioxane	U		2.9	20	µg/L	1	10/23/2019 11:19
2,2`-Oxybis(1-chloropropane)	U		0.92	4.0	µg/L	1	10/23/2019 11:19
2,3,4,6-Tetrachlorophenol	U		1.8	4.0	µg/L	1	10/23/2019 11:19
2,4,5-Trichlorophenol	U		0.68	4.0	µg/L	1	10/23/2019 11:19
2,4,6-Trichlorophenol	U		1.0	4.0	µg/L	1	10/23/2019 11:19
2,4-Dichlorophenol	U		1.4	4.0	µg/L	1	10/23/2019 11:19
2,4-Dimethylphenol	U		1.4	4.0	µg/L	1	10/23/2019 11:19
2,4-Dinitrophenol	U		10	20	µg/L	1	10/23/2019 11:19
2,4-Dinitrotoluene	U		1.7	4.0	µg/L	1	10/23/2019 11:19
2,6-Dinitrotoluene	U		1.3	4.0	µg/L	1	10/23/2019 11:19
2-Chloronaphthalene	U		0.30	0.40	µg/L	1	10/23/2019 11:19
2-Chlorophenol	U		0.92	4.0	µg/L	1	10/23/2019 11:19
2-Methylnaphthalene	U		0.26	0.40	µg/L	1	10/23/2019 11:19
2-Methylphenol	U		1.0	4.0	µg/L	1	10/23/2019 11:19
2-Nitroaniline	U		0.84	4.0	µg/L	1	10/23/2019 11:19
2-Nitrophenol	U		1.4	4.0	µg/L	1	10/23/2019 11:19
3&4-Methylphenol	U		0.84	4.0	µg/L	1	10/23/2019 11:19
3,3´-Dichlorobenzidine	U		1.8	20	µg/L	1	10/23/2019 11:19
3-Nitroaniline	U		2.6	4.0	µg/L	1	10/23/2019 11:19
4,6-Dinitro-2-methylphenol	U		1.1	4.0	µg/L	1	10/23/2019 11:19
4-Bromophenyl phenyl ether	U		1.3	4.0	µg/L	1	10/23/2019 11:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: Field Blank **Lab ID:** 19101636-04
Collection Date: 10/18/2019 11:25 AM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Chloro-3-methylphenol	U		1.0	4.0	µg/L	1	10/23/2019 11:19
4-Chloroaniline	U		1.4	4.0	µg/L	1	10/23/2019 11:19
4-Chlorophenyl phenyl ether	U		1.2	4.0	µg/L	1	10/23/2019 11:19
4-Nitroaniline	U		2.3	4.0	µg/L	1	10/23/2019 11:19
4-Nitrophenol	U		0.96	20	µg/L	1	10/23/2019 11:19
Acenaphthene	U		0.32	0.40	µg/L	1	10/23/2019 11:19
Acenaphthylene	U		0.30	0.40	µg/L	1	10/23/2019 11:19
Acetophenone	U		1.5	4.0	µg/L	1	10/23/2019 11:19
Anthracene	U		0.11	0.40	µg/L	1	10/23/2019 11:19
Atrazine	U		1.4	4.0	µg/L	1	10/23/2019 11:19
Benzaldehyde	U		2.1	4.0	µg/L	1	10/23/2019 11:19
Benzo(a)anthracene	U		0.40	0.40	µg/L	1	10/23/2019 11:19
Benzo(a)pyrene	U		0.18	0.40	µg/L	1	10/23/2019 11:19
Benzo(b)fluoranthene	U		0.20	0.40	µg/L	1	10/23/2019 11:19
Benzo(g,h,i)perylene	U		0.12	0.40	µg/L	1	10/23/2019 11:19
Benzo(k)fluoranthene	U		0.19	0.40	µg/L	1	10/23/2019 11:19
Bis(2-chloroethoxy)methane	U		1.2	4.0	µg/L	1	10/23/2019 11:19
Bis(2-chloroethyl)ether	U		1.5	4.0	µg/L	1	10/23/2019 11:19
Bis(2-ethylhexyl)phthalate	U		1.6	4.0	µg/L	1	10/23/2019 11:19
Butyl benzyl phthalate	U		1.2	4.0	µg/L	1	10/23/2019 11:19
Caprolactam	U		3.8	20	µg/L	1	10/23/2019 11:19
Carbazole	U		0.96	4.0	µg/L	1	10/23/2019 11:19
Chrysene	U		0.19	0.40	µg/L	1	10/23/2019 11:19
Dibenzo(a,h)anthracene	U		0.29	0.40	µg/L	1	10/23/2019 11:19
Dibenzofuran	U		0.92	4.0	µg/L	1	10/23/2019 11:19
Diethyl phthalate	U		0.68	4.0	µg/L	1	10/23/2019 11:19
Dimethyl phthalate	U		0.72	4.0	µg/L	1	10/23/2019 11:19
Di-n-butyl phthalate	U		0.84	4.0	µg/L	1	10/23/2019 11:19
Di-n-octyl phthalate	U		2.1	4.0	µg/L	1	10/23/2019 11:19
Fluoranthene	U		0.15	0.40	µg/L	1	10/23/2019 11:19
Fluorene	U		0.20	0.40	µg/L	1	10/23/2019 11:19
Hexachlorobenzene	U		1.8	4.0	µg/L	1	10/23/2019 11:19
Hexachlorobutadiene	U		1.1	4.0	µg/L	1	10/23/2019 11:19
Hexachlorocyclopentadiene	U		4.4	20	µg/L	1	10/23/2019 11:19
Hexachloroethane	U		0.84	4.0	µg/L	1	10/23/2019 11:19
Indeno(1,2,3-cd)pyrene	U		0.27	0.40	µg/L	1	10/23/2019 11:19
Isophorone	U		1.4	20	µg/L	1	10/23/2019 11:19
Naphthalene	U		0.27	0.40	µg/L	1	10/23/2019 11:19
Nitrobenzene	U		1.0	4.0	µg/L	1	10/23/2019 11:19
N-Nitrosodi-n-propylamine	U		1.4	4.0	µg/L	1	10/23/2019 11:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002) **Work Order:** 19101636
Sample ID: Field Blank **Lab ID:** 19101636-04
Collection Date: 10/18/2019 11:25 AM **Matrix:** WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
N-Nitrosodiphenylamine	U		2.0	4.0	µg/L	1	10/23/2019 11:19
Pentachlorophenol	U		3.9	20	µg/L	1	10/23/2019 11:19
Phenanthrene	U		0.32	0.40	µg/L	1	10/23/2019 11:19
Phenol	U		0.84	4.0	µg/L	1	10/23/2019 11:19
Pyrene	U		0.14	0.40	µg/L	1	10/23/2019 11:19
Surr: 2,4,6-Tribromophenol	*69.9*			*27-83*	*%REC*	1	10/23/2019 11:19
Surr: 2-Fluorobiphenyl	*67.6*			*26-79*	*%REC*	1	10/23/2019 11:19
Surr: 2-Fluorophenol	*37.3*			*13-56*	*%REC*	1	10/23/2019 11:19
Surr: 4-Terphenyl-d14	*59.1*			*43-106*	*%REC*	1	10/23/2019 11:19
Surr: Nitrobenzene-d5	*62.0*			*29-80*	*%REC*	1	10/23/2019 11:19
Surr: Phenol-d6	*20.7*			*10-35*	*%REC*	1	10/23/2019 11:19
GASOLINE RANGE ORGANICS BY GC-MS		Method: **SW8260GRO**					Analyst: **WH**
GRO (C6-C10)	U		25	100	µg/L	1	10/28/2019 22:43
Surr: Toluene-d8	*70.8*			*70-130*	*%REC*	1	10/28/2019 22:43
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **JNS**
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 21:01
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/30/2019 21:01
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/30/2019 21:01
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/30/2019 21:01
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 21:01
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/30/2019 21:01
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/30/2019 21:01
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/30/2019 21:01
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/30/2019 21:01
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/30/2019 21:01
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/30/2019 21:01
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/30/2019 21:01
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/30/2019 21:01
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/30/2019 21:01
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/30/2019 21:01
2-Butanone	U		0.52	5.0	µg/L	1	10/30/2019 21:01
2-Hexanone	U		0.59	5.0	µg/L	1	10/30/2019 21:01
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/30/2019 21:01
Acetone	**4.7**	J	**1.1**	**10**	**µg/L**	1	10/28/2019 22:43
Benzene	U		0.46	1.0	µg/L	1	10/30/2019 21:01
Bromochloromethane	U		0.45	1.0	µg/L	1	10/30/2019 21:01
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/30/2019 21:01
Bromoform	U		0.56	1.0	µg/L	1	10/30/2019 21:01
Bromomethane	U		0.90	1.0	µg/L	1	10/30/2019 21:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Field Blank
Collection Date: 10/18/2019 11:25 AM

Work Order: 19101636
Lab ID: 19101636-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	U		0.49	1.0	µg/L	1	10/30/2019 21:01
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/30/2019 21:01
Chlorobenzene	U		0.40	1.0	µg/L	1	10/30/2019 21:01
Chloroethane	U		0.68	1.0	µg/L	1	10/30/2019 21:01
Chloroform	U		0.46	1.0	µg/L	1	10/30/2019 21:01
Chloromethane	U		0.83	1.0	µg/L	1	10/30/2019 21:01
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/30/2019 21:01
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/30/2019 21:01
Cyclohexane	U		0.63	2.0	µg/L	1	10/30/2019 21:01
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/30/2019 21:01
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/30/2019 21:01
Ethylbenzene	U		0.34	1.0	µg/L	1	10/30/2019 21:01
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/30/2019 21:01
m,p-Xylene	U		0.81	2.0	µg/L	1	10/30/2019 21:01
Methyl acetate	U		0.59	2.0	µg/L	1	10/30/2019 21:01
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/30/2019 21:01
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/30/2019 21:01
Methylene chloride	U		0.86	5.0	µg/L	1	10/30/2019 21:01
o-Xylene	U		0.31	1.0	µg/L	1	10/30/2019 21:01
Styrene	U		0.33	1.0	µg/L	1	10/30/2019 21:01
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/30/2019 21:01
Toluene	U		0.45	1.0	µg/L	1	10/30/2019 21:01
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/30/2019 21:01
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/30/2019 21:01
Trichloroethene	U		0.43	1.0	µg/L	1	10/30/2019 21:01
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/30/2019 21:01
Vinyl chloride	U		0.53	1.0	µg/L	1	10/30/2019 21:01
Surr: 1,2-Dichloroethane-d4	*99.4*			*75-120*	*%REC*	1	10/28/2019 22:43
Surr: 1,2-Dichloroethane-d4	*89.7*			*75-120*	*%REC*	1	10/30/2019 21:01
Surr: 4-Bromofluorobenzene	*94.8*			*80-110*	*%REC*	1	10/28/2019 22:43
Surr: 4-Bromofluorobenzene	*86.1*			*80-110*	*%REC*	1	10/30/2019 21:01
Surr: Dibromofluoromethane	*97.6*			*85-115*	*%REC*	1	10/28/2019 22:43
Surr: Dibromofluoromethane	*90.2*			*85-115*	*%REC*	1	10/30/2019 21:01
Surr: Toluene-d8	*98.4*			*85-110*	*%REC*	1	10/28/2019 22:43
Surr: Toluene-d8	*99.2*			*85-110*	*%REC*	1	10/30/2019 21:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Trip Blank
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **JNS**
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/26/2019 21:17
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/26/2019 21:17
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/26/2019 21:17
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/26/2019 21:17
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/26/2019 21:17
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/26/2019 21:17
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/26/2019 21:17
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/26/2019 21:17
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/26/2019 21:17
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/26/2019 21:17
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/26/2019 21:17
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/26/2019 21:17
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/26/2019 21:17
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/26/2019 21:17
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/26/2019 21:17
2-Butanone	U		0.52	5.0	µg/L	1	10/26/2019 21:17
2-Hexanone	U		0.59	5.0	µg/L	1	10/26/2019 21:17
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/26/2019 21:17
Acetone	**1.4**	J	**1.1**	**10**	**µg/L**	1	10/26/2019 21:17
Benzene	U		0.46	1.0	µg/L	1	10/26/2019 21:17
Bromochloromethane	U		0.45	1.0	µg/L	1	10/26/2019 21:17
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/26/2019 21:17
Bromoform	U		0.56	1.0	µg/L	1	10/26/2019 21:17
Bromomethane	U		0.90	1.0	µg/L	1	10/26/2019 21:17
Carbon disulfide	U		0.49	1.0	µg/L	1	10/26/2019 21:17
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/26/2019 21:17
Chlorobenzene	U		0.40	1.0	µg/L	1	10/26/2019 21:17
Chloroethane	U		0.68	1.0	µg/L	1	10/26/2019 21:17
Chloroform	U		0.46	1.0	µg/L	1	10/26/2019 21:17
Chloromethane	U		0.83	1.0	µg/L	1	10/26/2019 21:17
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/26/2019 21:17
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/26/2019 21:17
Cyclohexane	U		0.63	2.0	µg/L	1	10/26/2019 21:17
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/26/2019 21:17
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/26/2019 21:17
Ethylbenzene	U		0.34	1.0	µg/L	1	10/26/2019 21:17
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/26/2019 21:17
m,p-Xylene	U		0.81	2.0	µg/L	1	10/26/2019 21:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Nov-19*

Client: Tetra Tech
Project: St. Francois Hospital (103X903019F0101.002)
Sample ID: Trip Blank
Collection Date: 10/17/2019

Work Order: 19101636
Lab ID: 19101636-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		0.59	2.0	µg/L	1	10/26/2019 21:17
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/26/2019 21:17
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/26/2019 21:17
Methylene chloride	U		0.86	5.0	µg/L	1	10/26/2019 21:17
o-Xylene	U		0.31	1.0	µg/L	1	10/26/2019 21:17
Styrene	U		0.33	1.0	µg/L	1	10/26/2019 21:17
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/26/2019 21:17
Toluene	U		0.45	1.0	µg/L	1	10/26/2019 21:17
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/26/2019 21:17
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/26/2019 21:17
Trichloroethene	U		0.43	1.0	µg/L	1	10/26/2019 21:17
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/26/2019 21:17
Vinyl chloride	U		0.53	1.0	µg/L	1	10/26/2019 21:17
Surr: 1,2-Dichloroethane-d4	*108*			*75-120*	*%REC*	1	10/26/2019 21:17
Surr: 4-Bromofluorobenzene	*97.4*			*80-110*	*%REC*	1	10/26/2019 21:17
Surr: Dibromofluoromethane	*98.7*			*85-115*	*%REC*	1	10/26/2019 21:17
Surr: Toluene-d8	*99.4*			*85-110*	*%REC*	1	10/26/2019 21:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech

QC BATCH REPORT

Work Order: 19101636

Project: St. Francois Hospital (103X903019F0101.002)

Batch ID: **144711** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-144711-144711** Units: **mg/L** Analysis Date: **10/29/2019 11:28 A**

Client ID: Run ID: **HG4_191029A** SeqNo: **6019101** Prep Date: **10/28/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00016	0.00020								

LCS Sample ID: **LCS-144711-144711** Units: **mg/L** Analysis Date: **10/29/2019 03:32 P**

Client ID: Run ID: **HG4_191029A** SeqNo: **6019905** Prep Date: **10/28/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001878	0.00016	0.00020	0.002	0	93.9	80-120	0			

MS Sample ID: **19101697-02AMS** Units: **mg/L** Analysis Date: **10/29/2019 03:51 P**

Client ID: Run ID: **HG4_191029A** SeqNo: **6019917** Prep Date: **10/28/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01867	0.0016	0.0020	0.02	0.00001	93.3	75-125	0			

MSD Sample ID: **19101697-02AMSD** Units: **mg/L** Analysis Date: **10/29/2019 03:53 P**

Client ID: Run ID: **HG4_191029A** SeqNo: **6019918** Prep Date: **10/28/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01838	0.0016	0.0020	0.02	0.00001	91.8	75-125	0.01867	1.57	20	

The following samples were analyzed in this batch:

19101636-01C	19101636-01D	19101636-02C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144844** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-144844-144844** Units: **mg/L** Analysis Date: **10/30/2019 01:01 P**
Client ID: Run ID: **HG4_191030A** SeqNo: **6022080** Prep Date: **10/30/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00016	0.00020								

LCS Sample ID: **LCS-144844-144844** Units: **mg/L** Analysis Date: **10/30/2019 01:03 P**
Client ID: Run ID: **HG4_191030A** SeqNo: **6022081** Prep Date: **10/30/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001988	0.00016	0.00020	0.002	0	99.4	80-120	0			

MS Sample ID: **19101925-01AMS** Units: **mg/L** Analysis Date: **10/30/2019 01:18 P**
Client ID: Run ID: **HG4_191030A** SeqNo: **6022088** Prep Date: **10/30/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01984	0.0016	0.0020	0.02	-0.0001	99.7	75-125	0			

MSD Sample ID: **19101925-01AMSD** Units: **mg/L** Analysis Date: **10/30/2019 01:20 P**
Client ID: Run ID: **HG4_191030A** SeqNo: **6022089** Prep Date: **10/30/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.01959	0.0016	0.0020	0.02	-0.0001	98.4	75-125	0.01984	1.27	20	

The following samples were analyzed in this batch:

19101636-02D	19101636-03C	19101636-03D
19101636-04D		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144764** Instrument ID **ICPMS3** Method: **SW6020A** **(Dissolve)**

MBLK Sample ID: **MBLK-144763-144764** Units: **mg/L** Analysis Date: **10/29/2019 08:06 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020936** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.00019	0.0050								
Barium	U	0.002	0.0050								
Cadmium	U	0.00015	0.0020								
Chromium	U	0.00061	0.0050								
Lead	U	0.00072	0.0050								
Selenium	U	0.00048	0.0050								
Silver	U	0.00084	0.0050								

MBLK Sample ID: **MBLK-144764-144764** Units: **mg/L** Analysis Date: **10/29/2019 08:09 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020938** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.00019	0.0050								
Barium	U	0.002	0.0050								
Cadmium	U	0.00015	0.0020								
Chromium	U	0.00061	0.0050								
Lead	U	0.00072	0.0050								
Selenium	U	0.00048	0.0050								
Silver	U	0.00084	0.0050								

LCS Sample ID: **LCS-144763-144764** Units: **mg/L** Analysis Date: **10/29/2019 08:07 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020937** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09631	0.00019	0.0050	0.1	0	96.3	80-120	0			
Barium	0.09646	0.002	0.0050	0.1	0	96.5	80-120	0			
Cadmium	0.098	0.00015	0.0020	0.1	0	98	80-120	0			
Chromium	0.09647	0.00061	0.0050	0.1	0	96.5	80-120	0			
Lead	0.09427	0.00072	0.0050	0.1	0	94.3	80-120	0			
Selenium	0.09101	0.00048	0.0050	0.1	0	91	80-120	0			
Silver	0.1018	0.00084	0.0050	0.1	0	102	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144764** Instrument ID **ICPMS3** Method: **SW6020A** **(Dissolve)**

LCS Sample ID: **LCS-144764-144764** Units: **mg/L** Analysis Date: **10/29/2019 08:11 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020939** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09529	0.00019	0.0050	0.1	0	95.3	80-120	0			
Barium	0.09397	0.002	0.0050	0.1	0	94	80-120	0			
Cadmium	0.09613	0.00015	0.0020	0.1	0	96.1	80-120	0			
Chromium	0.09527	0.00061	0.0050	0.1	0	95.3	80-120	0			
Lead	0.09235	0.00072	0.0050	0.1	0	92.4	80-120	0			
Selenium	0.09482	0.00048	0.0050	0.1	0	94.8	80-120	0			
Silver	0.1005	0.00084	0.0050	0.1	0	101	80-120	0			

MS Sample ID: **19101554-16CMS** Units: **mg/L** Analysis Date: **10/29/2019 08:16 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020942** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09344	0.00019	0.0050	0.1	0.000066	93.4	75-125	0			
Barium	0.09248	0.002	0.0050	0.1	0.0002651	92.2	75-125	0			
Cadmium	0.09445	0.00015	0.0020	0.1	0.0000022	94.4	75-125	0			
Chromium	0.09362	0.00061	0.0050	0.1	0.0002706	93.4	75-125	0			
Lead	0.09185	0.00072	0.0050	0.1	-0.0000066	91.9	75-125	0			
Selenium	0.08651	0.00048	0.0050	0.1	-0.0003135	86.8	75-125	0			
Silver	0.09908	0.00084	0.0050	0.1	0.000011	99.1	75-125	0			

MSD Sample ID: **19101554-16CMSD** Units: **mg/L** Analysis Date: **10/29/2019 08:17 P**
Client ID: Run ID: **ICPMS3_191029A** SeqNo: **6020943** Prep Date: **10/29/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09434	0.00019	0.0050	0.1	0.000066	94.3	75-125	0.09344	0.955	20	
Barium	0.09327	0.002	0.0050	0.1	0.0002651	93	75-125	0.09248	0.857	20	
Cadmium	0.09406	0.00015	0.0020	0.1	0.0000022	94.1	75-125	0.09445	0.41	20	
Chromium	0.09349	0.00061	0.0050	0.1	0.0002706	93.2	75-125	0.09362	0.14	20	
Lead	0.09214	0.00072	0.0050	0.1	-0.0000066	92.1	75-125	0.09185	0.31	20	
Selenium	0.09276	0.00048	0.0050	0.1	-0.0003135	93.1	75-125	0.08651	6.97	20	
Silver	0.09935	0.00084	0.0050	0.1	0.000011	99.3	75-125	0.09908	0.269	20	

The following samples were analyzed in this batch:

19101636-01C	19101636-01D	19101636-02C
19101636-02D	19101636-03C	19101636-03D
19101636-04C		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144383** Instrument ID **SVMS9** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-144383-144383** Units: **µg/L** Analysis Date: **10/23/2019 01:28 A**

Client ID: Run ID: **SVMS9_191022A** SeqNo: **6006341** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	0.42	1.0								
1,2,4,5-Tetrachlorobenzene	U	0.34	5.0								
1,4-Dioxane	U	0.72	5.0								
2,2`-Oxybis(1-chloropropane)	U	0.23	1.0								
2,3,4,6-Tetrachlorophenol	U	0.45	1.0								
2,4,5-Trichlorophenol	U	0.17	1.0								
2,4,6-Trichlorophenol	U	0.25	1.0								
2,4-Dichlorophenol	U	0.35	1.0								
2,4-Dimethylphenol	U	0.36	1.0								
2,4-Dinitrophenol	U	2.6	5.0								
2,4-Dinitrotoluene	U	0.42	1.0								
2,6-Dinitrotoluene	U	0.33	1.0								
2-Chloronaphthalene	U	0.075	0.10								
2-Chlorophenol	U	0.23	1.0								
2-Methylnaphthalene	U	0.065	0.10								
2-Methylphenol	U	0.25	1.0								
2-Nitroaniline	U	0.21	1.0								
2-Nitrophenol	U	0.34	1.0								
3&4-Methylphenol	U	0.21	1.0								
3,3´-Dichlorobenzidine	U	0.46	5.0								
3-Nitroaniline	U	0.64	1.0								
4,6-Dinitro-2-methylphenol	U	0.27	1.0								
4-Bromophenyl phenyl ether	U	0.33	1.0								
4-Chloro-3-methylphenol	U	0.26	1.0								
4-Chloroaniline	U	0.34	1.0								
4-Chlorophenyl phenyl ether	U	0.31	1.0								
4-Nitroaniline	U	0.57	1.0								
4-Nitrophenol	U	0.24	5.0								
Acenaphthene	U	0.081	0.10								
Acenaphthylene	U	0.075	0.10								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	0.10								
Atrazine	U	0.35	1.0								
Benzaldehyde	U	0.52	1.0								
Benzo(a)anthracene	U	0.099	0.10								
Benzo(a)pyrene	U	0.044	0.10								
Benzo(b)fluoranthene	U	0.051	0.10								
Benzo(g,h,i)perylene	U	0.03	0.10								
Benzo(k)fluoranthene	U	0.048	0.10								
Bis(2-chloroethoxy)methane	U	0.29	1.0								
Bis(2-chloroethyl)ether	U	0.37	1.0								
Bis(2-ethylhexyl)phthalate	U	0.4	1.0								
Butyl benzyl phthalate	U	0.3	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **144383** Instrument ID **SVMS9** Method: **SW846 8270D**

Caprolactam	U	0.96	5.0					
Carbazole	U	0.24	1.0					
Chrysene	U	0.048	0.10					
Dibenzo(a,h)anthracene	U	0.073	0.10					
Dibenzofuran	U	0.23	1.0					
Diethyl phthalate	U	0.17	1.0					
Dimethyl phthalate	U	0.18	1.0					
Di-n-butyl phthalate	U	0.21	1.0					
Di-n-octyl phthalate	U	0.53	1.0					
Fluoranthene	U	0.038	0.10					
Fluorene	U	0.051	0.10					
Hexachlorobenzene	U	0.44	1.0					
Hexachlorobutadiene	U	0.28	1.0					
Hexachlorocyclopentadiene	U	1.1	5.0					
Hexachloroethane	U	0.21	1.0					
Indeno(1,2,3-cd)pyrene	U	0.067	0.10					
Isophorone	U	0.34	5.0					
Naphthalene	U	0.067	0.10					
Nitrobenzene	U	0.26	1.0					
N-Nitrosodi-n-propylamine	U	0.35	1.0					
N-Nitrosodiphenylamine	U	0.49	1.0					
Pentachlorophenol	U	0.97	5.0					
Phenanthrene	U	0.081	0.10					
Phenol	U	0.21	1.0					
Pyrene	U	0.036	0.10					
Surr: 2,4,6-Tribromophenol	*31.09*	0	0	*50*	0	*62.2*	*27-83*	0
Surr: 2-Fluorobiphenyl	*30.07*	0	0	*50*	0	*60.1*	*26-79*	0
Surr: 2-Fluorophenol	*15.92*	0	0	*50*	0	*31.8*	*13-56*	0
Surr: 4-Terphenyl-d14	*28.9*	0	0	*50*	0	*57.8*	*43-106*	0
Surr: Nitrobenzene-d5	*26.76*	0	0	*50*	0	*53.5*	*29-80*	0
Surr: Phenol-d6	*8.54*	0	0	*50*	0	*17.1*	*10-35*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144383** Instrument ID **SVMS9** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-144383-144383** Units: **µg/L** Analysis Date: **10/23/2019 01:53 A**

Client ID: Run ID: **SVMS9_191022A** SeqNo: **6006342** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	15.19	0.42	1.0	20	0	76	40-85	0			
1,2,4,5-Tetrachlorobenzene	14.64	0.34	5.0	20	0	73.2	34-82	0			
2,2`-Oxybis(1-chloropropane)	14.66	0.23	1.0	20	0	73.3	33-83	0			
2,3,4,6-Tetrachlorophenol	16.18	0.45	1.0	20	0	80.9	43-104	0			
2,4,5-Trichlorophenol	15.26	0.17	1.0	20	0	76.3	47-84	0			
2,4,6-Trichlorophenol	16.06	0.25	1.0	20	0	80.3	45-83	0			
2,4-Dichlorophenol	14.76	0.35	1.0	20	0	73.8	39-84	0			
2,4-Dimethylphenol	17.85	0.36	1.0	20	0	89.2	34-79	0			S
2,4-Dinitrophenol	17	2.6	5.0	20	0	85	11-117	0			
2,4-Dinitrotoluene	15.99	0.42	1.0	20	0	80	54-93	0			
2,6-Dinitrotoluene	16.73	0.33	1.0	20	0	83.6	51-90	0			
2-Chloronaphthalene	15.23	0.075	0.10	20	0	76.2	37-84	0			
2-Chlorophenol	13.91	0.23	1.0	20	0	69.6	38-83	0			
2-Methylnaphthalene	15.32	0.065	0.10	20	0	76.6	33-85	0			
2-Methylphenol	12.39	0.25	1.0	20	0	62	29-76	0			
2-Nitroaniline	16.15	0.21	1.0	20	0	80.8	45-94	0			
2-Nitrophenol	15.06	0.34	1.0	20	0	75.3	41-84	0			
3&4-Methylphenol	10.75	0.21	1.0	20	0	53.8	24-70	0			
3,3´-Dichlorobenzidine	15.52	0.46	5.0	20	0	77.6	39-96	0			
3-Nitroaniline	17.47	0.64	1.0	20	0	87.4	50-93	0			
4,6-Dinitro-2-methylphenol	17.39	0.27	1.0	20	0	87	23-116	0			
4-Bromophenyl phenyl ether	16.1	0.33	1.0	20	0	80.5	51-93	0			
4-Chloro-3-methylphenol	15.28	0.26	1.0	20	0	76.4	41-86	0			
4-Chloroaniline	15.66	0.34	1.0	20	0	78.3	44-92	0			
4-Chlorophenyl phenyl ether	15.96	0.31	1.0	20	0	79.8	49-89	0			
4-Nitroaniline	16.72	0.57	1.0	20	0	83.6	47-98	0			
4-Nitrophenol	6.92	0.24	5.0	20	0	34.6	10-43	0			
Acenaphthene	15.2	0.081	0.10	20	0	76	42-85	0			
Acenaphthylene	16.05	0.075	0.10	20	0	80.2	42-88	0			
Acetophenone	15.06	0.37	1.0	20	0	75.3	39-91	0			
Anthracene	16.28	0.028	0.10	20	0	81.4	55-93	0			
Atrazine	16.61	0.35	1.0	20	0	83	52-100	0			
Benzaldehyde	15.42	0.52	1.0	20	0	77.1	42-110	0			
Benzo(a)anthracene	17.14	0.099	0.10	20	0	85.7	56-91	0			
Benzo(a)pyrene	16.85	0.044	0.10	20	0	84.2	55-96	0			
Benzo(b)fluoranthene	16.98	0.051	0.10	20	0	84.9	55-99	0			
Benzo(g,h,i)perylene	16.47	0.03	0.10	20	0	82.4	44-102	0			
Benzo(k)fluoranthene	17.26	0.048	0.10	20	0	86.3	57-96	0			
Bis(2-chloroethoxy)methane	15.85	0.29	1.0	20	0	79.2	39-88	0			
Bis(2-chloroethyl)ether	14.88	0.37	1.0	20	0	74.4	36-91	0			
Bis(2-ethylhexyl)phthalate	16.31	0.4	1.0	20	0	81.6	39-113	0			
Butyl benzyl phthalate	16.22	0.3	1.0	20	0	81.1	49-97	0			
Carbazole	15.8	0.24	1.0	20	0	79	59-92	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **144383** Instrument ID **SVMS9** Method: **SW846 8270D**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chrysene	16.93	0.048	0.10	20	0	84.6	55-92	0			
Dibenzo(a,h)anthracene	16.66	0.073	0.10	20	0	83.3	47-100	0			
Dibenzofuran	15.75	0.23	1.0	20	0	78.8	44-89	0			
Diethyl phthalate	16.33	0.17	1.0	20	0	81.6	54-95	0			
Dimethyl phthalate	16.66	0.18	1.0	20	0	83.3	51-92	0			
Di-n-butyl phthalate	15.86	0.21	1.0	20	0	79.3	57-98	0			
Di-n-octyl phthalate	16.54	0.53	1.0	20	0	82.7	36-117	0			
Fluoranthene	16.3	0.038	0.10	20	0	81.5	59-93	0			
Fluorene	16.59	0.051	0.10	20	0	83	47-91	0			
Hexachlorobenzene	15.53	0.44	1.0	20	0	77.6	53-89	0			
Hexachlorobutadiene	14.3	0.28	1.0	20	0	71.5	11-83	0			
Hexachlorocyclopentadiene	15.72	1.1	5.0	20	0	78.6	14-75	0			S
Hexachloroethane	13.36	0.21	1.0	20	0	66.8	10-85	0			
Indeno(1,2,3-cd)pyrene	16.39	0.067	0.10	20	0	82	46-102	0			
Isophorone	15.42	0.34	5.0	20	0	77.1	42-90	0			
Naphthalene	14.79	0.067	0.10	20	0	74	26-78	0			
Nitrobenzene	15.13	0.26	1.0	20	0	75.6	38-86	0			
N-Nitrosodi-n-propylamine	15.17	0.35	1.0	20	0	75.8	39-95	0			
N-Nitrosodiphenylamine	15.66	0.49	1.0	20	0	78.3	47-94	0			
Pentachlorophenol	16.99	0.97	5.0	20	0	85	37-94	0			
Phenanthrene	16.22	0.081	0.10	20	0	81.1	51-90	0			
Phenol	4.69	0.21	1.0	20	0	23.4	10-40	0			
Pyrene	16.91	0.036	0.10	20	0	84.6	48-98	0			
Surr: 2,4,6-Tribromophenol	*41.3*	0	0	*50*	0	*82.6*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*38.44*	0	0	*50*	0	*76.9*	*26-79*	0			
Surr: 2-Fluorophenol	*20.07*	0	0	*50*	0	*40.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*33.06*	0	0	*50*	0	*66.1*	*43-106*	0			
Surr: Nitrobenzene-d5	*35.41*	0	0	*50*	0	*70.8*	*29-80*	0			
Surr: Phenol-d6	*12.13*	0	0	*50*	0	*24.3*	*10-35*	0			

MS Sample ID: **19101109-01A MS** Units: **µg/L** Analysis Date: **10/23/2019 03:56 A**

Client ID: Run ID: **SVMS9_191022A** SeqNo: **6006338** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	225.2	3.4	100	400	0	56.3	47-84	0			
2,4,6-Trichlorophenol	217.4	5	100	400	0	54.4	45-83	0			
2,4-Dinitrotoluene	279	8.4	100	400	0	69.8	54-93	0			
Hexachlorobenzene	266	8.8	100	400	0	66.5	53-89	0			
Hexachloroethane	182.2	4.2	100	400	0	45.6	10-85	0			
Nitrobenzene	207.8	5.2	100	400	0	52	38-86	0			
Pentachlorophenol	318.6	19	100	400	0	79.6	37-94	0			
Surr: 2,4,6-Tribromophenol	*709.8*	0	0	*1000*	0	*71*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*524.4*	0	0	*1000*	0	*52.4*	*26-79*	0			
Surr: 2-Fluorophenol	*255.8*	0	0	*1000*	0	*25.6*	*13-56*	0			
Surr: 4-Terphenyl-d14	*606*	0	0	*1000*	0	*60.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*488.4*	0	0	*1000*	0	*48.8*	*29-80*	0			
Surr: Phenol-d6	*143.2*	0	0	*1000*	0	*14.3*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144383** Instrument ID **SVMS9** Method: **SW846 8270D**

MSD Sample ID: **19101109-01A MSD** Units: **µg/L** Analysis Date: **10/23/2019 04:20 A**

Client ID: Run ID: **SVMS9_191022A** SeqNo: **6006339** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	281.4	3.4	100	400	0	70.4	47-84	225.2	22.2	30	
2,4,6-Trichlorophenol	290.4	5	100	400	0	72.6	45-83	217.4	28.8	30	
2,4-Dinitrotoluene	295.4	8.4	100	400	0	73.8	54-93	279	5.71	30	
Hexachlorobenzene	281.2	8.8	100	400	0	70.3	53-89	266	5.56	30	
Hexachloroethane	261.6	4.2	100	400	0	65.4	10-85	182.2	35.8	30	R
Nitrobenzene	282.6	5.2	100	400	0	70.6	38-86	207.8	30.5	30	R
Pentachlorophenol	321	19	100	400	0	80.2	37-94	318.6	0.75	30	
Surr: 2,4,6-Tribromophenol	*763*	0	0	*1000*	0	*76.3*	*27-83*	709.8	*7.22*	*40*	
Surr: 2-Fluorobiphenyl	*707.4*	0	0	*1000*	0	*70.7*	*26-79*	524.4	*29.7*	*40*	
Surr: 2-Fluorophenol	*353.6*	0	0	*1000*	0	*35.4*	*13-56*	255.8	*32.1*	*40*	
Surr: 4-Terphenyl-d14	*620.2*	0	0	*1000*	0	*62*	*43-106*	606	*2.32*	*40*	
Surr: Nitrobenzene-d5	*663.6*	0	0	*1000*	0	*66.4*	*29-80*	488.4	*30.4*	*40*	
Surr: Phenol-d6	*196.6*	0	0	*1000*	0	*19.7*	*10-35*	143.2	*31.4*	*40*	

The following samples were analyzed in this batch:

19101636-01B	19101636-02B	19101636-03B
19101636-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **144386** Instrument ID **SVMS8** Method: **SW8270**

MBLK Sample ID: **DBLKW1-144386-144386** Units: **mg/L** Analysis Date: **10/25/2019 11:15 P**

Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025187** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	U	0.013	0.10								
ORO (C21-C35)	U	0.027	0.10								
Surr: 4-Terphenyl-d14	*0.03038*	0	0	*0.05*	0	*60.8*	*23-120*	0			

LCS Sample ID: **DLCSW1-144386-144386** Units: **mg/L** Analysis Date: **10/25/2019 11:35 P**

Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025188** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	5.784	0.013	0.10	5	0	116	44-116	0			
ORO (C21-C35)	5.371	0.027	0.10	5	0	107	44-116	0			
Surr: 4-Terphenyl-d14	*0.03551*	0	0	*0.05*	0	*71*	*23-120*	0			

LCSD Sample ID: **DLCSDW1-144386-144386** Units: **mg/L** Analysis Date: **10/25/2019 11:55 P**

Client ID: Run ID: **SVMS8_191025A** SeqNo: **6025189** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	5.183	0.013	0.10	5	0	104	44-116	5.784	11	30	
ORO (C21-C35)	5.793	0.027	0.10	5	0	116	44-116	5.371	7.56	30	
Surr: 4-Terphenyl-d14	*0.03973*	0	0	*0.05*	0	*79.5*	*23-120*	0.03551	*11.2*		

The following samples were analyzed in this batch:

19101636-01B	19101636-02B	19101636-03B
19101636-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R273930** Instrument ID **VMS11** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-191026-R273930** Units: **µg/L** Analysis Date: **10/26/2019 08:33 P**

Client ID: Run ID: **VMS11_191026A** SeqNo: **6015930** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.46	1.0								
1,1,2,2-Tetrachloroethane	U	0.4	1.0								
1,1,2-Trichloroethane	U	0.46	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.52	1.0								
1,1-Dichloroethane	U	0.44	1.0								
1,1-Dichloroethene	U	0.4	1.0								
1,2,3-Trichlorobenzene	U	0.42	1.0								
1,2,4-Trichlorobenzene	U	0.45	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.32	1.0								
1,2-Dichloroethane	U	0.44	1.0								
1,2-Dichloropropane	U	0.48	1.0								
1,3-Dichlorobenzene	U	0.33	1.0								
1,4-Dichlorobenzene	U	0.35	1.0								
2-Butanone	U	0.52	5.0								
2-Hexanone	U	0.59	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	1.1	10								
Benzene	U	0.46	1.0								
Bromochloromethane	U	0.45	1.0								
Bromodichloromethane	U	0.49	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.9	1.0								
Carbon disulfide	U	0.49	1.0								
Carbon tetrachloride	U	0.4	1.0								
Chlorobenzene	U	0.4	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.83	1.0								
cis-1,2-Dichloroethene	U	0.42	1.0								
cis-1,3-Dichloropropene	U	0.57	1.0								
Cyclohexane	U	0.63	2.0								
Dibromochloromethane	U	0.4	1.0								
Dichlorodifluoromethane	U	0.68	1.0								
Ethylbenzene	U	0.34	1.0								
Isopropylbenzene	U	0.35	1.0								
m,p-Xylene	U	0.81	2.0								
Methyl acetate	U	0.59	2.0								
Methyl tert-butyl ether	U	0.45	1.0								
Methylcyclohexane	U	0.35	1.0								
Methylene chloride	U	0.86	5.0								
o-Xylene	U	0.31	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R273930** Instrument ID **VMS11** Method: **SW8260C**

Styrene	U	0.33	1.0					
Tetrachloroethene	U	0.39	1.0					
Toluene	U	0.45	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.38	1.0					
Trichloroethene	U	0.43	1.0					
Trichlorofluoromethane	U	0.52	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*21.49*	0	0	*20*	0	*107*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.48*	0	0	*20*	0	*97.4*	*80-110*	0
Surr: Dibromofluoromethane	*19.7*	0	0	*20*	0	*98.5*	*85-115*	0
Surr: Toluene-d8	*19.8*	0	0	*20*	0	*99*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R273930** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **VLCSW1-191026-R273930** Units: **µg/L** Analysis Date: **10/26/2019 07:26 P**

Client ID: Run ID: **VMS11_191026A** SeqNo: **6015929** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.38	0.46	1.0	20	0	96.9	75-130	0			
1,1,2,2-Tetrachloroethane	19.11	0.4	1.0	20	0	95.6	75-130	0			
1,1,2-Trichloroethane	18.26	0.46	1.0	20	0	91.3	75-125	0			
1,1-Dichloroethane	18.59	0.44	1.0	20	0	93	68-142	0			
1,1-Dichloroethene	20.63	0.4	1.0	20	0	103	70-145	0			
1,2,3-Trichlorobenzene	22.22	0.42	1.0	20	0	111	70-140	0			
1,2,4-Trichlorobenzene	21.13	0.45	1.0	20	0	106	70-135	0			
1,2-Dibromo-3-chloropropane	19.76	0.43	1.0	20	0	98.8	60-130	0			
1,2-Dibromoethane	18.63	0.41	1.0	20	0	93.2	67-155	0			
1,2-Dichlorobenzene	18.6	0.32	1.0	20	0	93	70-130	0			
1,2-Dichloroethane	18.19	0.44	1.0	20	0	91	78-125	0			
1,2-Dichloropropane	17.79	0.48	1.0	20	0	89	75-125	0			
1,3-Dichlorobenzene	18.64	0.33	1.0	20	0	93.2	75-130	0			
1,4-Dichlorobenzene	17.98	0.35	1.0	20	0	89.9	75-130	0			
2-Butanone	17.17	0.52	5.0	20	0	85.8	55-150	0			
2-Hexanone	15.26	0.59	5.0	20	0	76.3	60-135	0			
4-Methyl-2-pentanone	20.64	0.52	1.0	20	0	103	77-178	0			
Acetone	18.33	1.1	10	20	0	91.6	60-160	0			
Benzene	18.01	0.46	1.0	20	0	90	70-130	0			
Bromochloromethane	18.02	0.45	1.0	20	0	90.1	72-141	0			
Bromodichloromethane	17.67	0.49	1.0	20	0	88.4	75-125	0			
Bromoform	15.93	0.56	1.0	20	0	79.6	60-125	0			
Bromomethane	24.23	0.9	1.0	20	0	121	30-185	0			
Carbon disulfide	18.96	0.49	1.0	20	0	94.8	60-165	0			
Carbon tetrachloride	18.61	0.4	1.0	20	0	93	65-140	0			
Chlorobenzene	17.63	0.4	1.0	20	0	88.2	80-120	0			
Chloroethane	16.98	0.68	1.0	20	0	84.9	31-172	0			
Chloroform	18.15	0.46	1.0	20	0	90.8	66-135	0			
Chloromethane	22.04	0.83	1.0	20	0	110	46-148	0			
cis-1,2-Dichloroethene	17.97	0.42	1.0	20	0	89.8	75-134	0			
cis-1,3-Dichloropropene	16.03	0.57	1.0	20	0	80.2	70-130	0			
Dibromochloromethane	15.87	0.4	1.0	20	0	79.4	60-115	0			
Dichlorodifluoromethane	24.63	0.68	1.0	20	0	123	20-120	0			S
Ethylbenzene	18.61	0.34	1.0	20	0	93	76-123	0			
Isopropylbenzene	19.06	0.35	1.0	20	0	95.3	80-127	0			
m,p-Xylene	37.26	0.81	2.0	40	0	93.2	75-130	0			
Methyl tert-butyl ether	16.62	0.45	1.0	20	0	83.1	68-129	0			
Methylene chloride	17.93	0.86	5.0	20	0	89.6	72-125	0			
o-Xylene	18.62	0.31	1.0	20	0	93.1	76-127	0			
Styrene	18.64	0.33	1.0	20	0	93.2	83-137	0			
Tetrachloroethene	19.45	0.39	1.0	20	0	97.2	68-166	0			
Toluene	17.59	0.45	1.0	20	0	88	76-125	0			
trans-1,2-Dichloroethene	19.14	0.48	1.0	20	0	95.7	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R273930**	Instrument ID **VMS11**			Method: **SW8260C**				
trans-1,3-Dichloropropene	15.63	0.38	1.0	20	0	78.2	56-132	0
Trichloroethene	18.3	0.43	1.0	20	0	91.5	77-125	0
Trichlorofluoromethane	18.56	0.52	1.0	20	0	92.8	60-140	0
Vinyl chloride	19.39	0.53	1.0	20	0	97	50-136	0
Surr: 1,2-Dichloroethane-d4	*21.24*	0	0	*20*	0	*106*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.46*	0	0	*20*	0	*102*	*80-110*	0
Surr: Dibromofluoromethane	*20.62*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.87*	0	0	*20*	0	*99.4*	*85-110*	0

The following samples were analyzed in this batch: 19101636-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274019a** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-191028-R274019a** Units: **µg/L** Analysis Date: **10/28/2019 09:17 P**
Client ID: Run ID: **VMS10_191028A** SeqNo: **6018753** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetone	4.72	1.1	10								J
Surr: 1,2-Dichloroethane-d4	*20.41*	0	0	*20*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.57*	0	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*19.68*	0	0	*20*	0	*98.4*	*85-115*	0			
Surr: Toluene-d8	*19.69*	0	0	*20*	0	*98.4*	*85-110*	0			

LCS Sample ID: **VLCSW1-191028-R274019a** Units: **µg/L** Analysis Date: **10/28/2019 07:51 P**
Client ID: Run ID: **VMS10_191028A** SeqNo: **6018749** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetone	23.75	1.1	10	20	0	119	60-160	0			
Surr: 1,2-Dichloroethane-d4	*20.11*	0	0	*20*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.51*	0	0	*20*	0	*97.6*	*80-110*	0			
Surr: Dibromofluoromethane	*20.22*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.79*	0	0	*20*	0	*99*	*85-110*	0			

MS Sample ID: **19101554-20A MS** Units: **µg/L** Analysis Date: **10/29/2019 03:53 A**
Client ID: Run ID: **VMS10_191028A** SeqNo: **6018770** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetone	26.94	1.1	10	20	4.48	112	60-160	0			
Surr: 1,2-Dichloroethane-d4	*19.82*	0	0	*20*	0	*99.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.27*	0	0	*20*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*19.61*	0	0	*20*	0	*98*	*85-115*	0			
Surr: Toluene-d8	*18.75*	0	0	*20*	0	*93.8*	*85-110*	0			

The following samples were analyzed in this batch:

19101636-01A	19101636-02A	19101636-03A
19101636-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274019b** Instrument ID **VMS10** Method: **SW8260GRO**

MBLK Sample ID: **VBLKW2-191028-R274019b** Units: **µg/L** Analysis Date: **10/28/2019 09:17 P**

Client ID: Run ID: **VMS10_191028A** SeqNo: **6018959** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	25	100								
Surr: Toluene-d8	*14.25*	0	0	*20*	0	*71.2*	*70-120*	0			

LCS Sample ID: **GROLCSW1-191028-R274019b** Units: **µg/L** Analysis Date: **10/28/2019 08:25 P**

Client ID: Run ID: **VMS10_191028A** SeqNo: **6018958** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	388.5	25	100	500	0	77.7	70-130	0			
Surr: Toluene-d8	*17.14*	0	0	*20*	0	*85.7*	*70-130*	0			

The following samples were analyzed in this batch:

19101636-01A	19101636-02A	19101636-03A
19101636-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-191030-R274083** Units: **µg/L** Analysis Date: **10/30/2019 12:30 P**

Client ID: Run ID: **VMS6_191030A** SeqNo: **6023306** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.46	1.0								
1,1,2,2-Tetrachloroethane	U	0.4	1.0								
1,1,2-Trichloroethane	U	0.46	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.52	1.0								
1,1-Dichloroethane	U	0.44	1.0								
1,1-Dichloroethene	U	0.4	1.0								
1,2,3-Trichlorobenzene	U	0.42	1.0								
1,2,4-Trichlorobenzene	U	0.45	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.32	1.0								
1,2-Dichloroethane	U	0.44	1.0								
1,2-Dichloropropane	U	0.48	1.0								
1,3-Dichlorobenzene	U	0.33	1.0								
1,4-Dichlorobenzene	U	0.35	1.0								
2-Butanone	1.34	0.52	5.0								J
2-Hexanone	U	0.59	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	2.83	1.1	10								J
Benzene	U	0.46	1.0								
Bromochloromethane	U	0.45	1.0								
Bromodichloromethane	U	0.49	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.9	1.0								
Carbon disulfide	U	0.49	1.0								
Carbon tetrachloride	U	0.4	1.0								
Chlorobenzene	U	0.4	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	6.02	0.83	1.0								
cis-1,2-Dichloroethene	U	0.42	1.0								
cis-1,3-Dichloropropene	U	0.57	1.0								
Cyclohexane	U	0.63	2.0								
Dibromochloromethane	U	0.4	1.0								
Dichlorodifluoromethane	U	0.68	1.0								
Ethylbenzene	U	0.34	1.0								
Isopropylbenzene	U	0.35	1.0								
m,p-Xylene	U	0.81	2.0								
Methyl acetate	U	0.59	2.0								
Methyl tert-butyl ether	U	0.45	1.0								
Methylcyclohexane	U	0.35	1.0								
Methylene chloride	U	0.86	5.0								
o-Xylene	U	0.31	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

Styrene	U	0.33	1.0					
Tetrachloroethene	U	0.39	1.0					
Toluene	U	0.45	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.38	1.0					
Trichloroethene	U	0.43	1.0					
Trichlorofluoromethane	U	0.52	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*20.09*	0	0	*20*	0	*100*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.25*	0	0	*20*	0	*96.2*	*80-110*	0
Surr: Dibromofluoromethane	*21.2*	0	0	*20*	0	*106*	*85-115*	0
Surr: Toluene-d8	*20.81*	0	0	*20*	0	*104*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

LCS Sample ID: **VLCSW1-191030-R274083** Units: **µg/L** Analysis Date: **10/30/2019 11:16 A**

Client ID: Run ID: **VMS6_191030A** SeqNo: **6023059** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.03	0.46	1.0	20	0	95.2	75-130	0			
1,1,2,2-Tetrachloroethane	18.04	0.4	1.0	20	0	90.2	75-130	0			
1,1,2-Trichloroethane	18.35	0.46	1.0	20	0	91.8	75-125	0			
1,1-Dichloroethane	19.72	0.44	1.0	20	0	98.6	68-142	0			
1,1-Dichloroethene	18.34	0.4	1.0	20	0	91.7	70-145	0			
1,2,3-Trichlorobenzene	19.9	0.42	1.0	20	0	99.5	70-140	0			
1,2,4-Trichlorobenzene	20.36	0.45	1.0	20	0	102	70-135	0			
1,2-Dibromo-3-chloropropane	18.01	0.43	1.0	20	0	90	60-130	0			
1,2-Dibromoethane	21.38	0.41	1.0	20	0	107	67-155	0			
1,2-Dichlorobenzene	19.75	0.32	1.0	20	0	98.8	70-130	0			
1,2-Dichloroethane	19.93	0.44	1.0	20	0	99.6	78-125	0			
1,2-Dichloropropane	20.48	0.48	1.0	20	0	102	75-125	0			
1,3-Dichlorobenzene	19.85	0.33	1.0	20	0	99.2	75-130	0			
1,4-Dichlorobenzene	19.34	0.35	1.0	20	0	96.7	75-130	0			
2-Butanone	20.58	0.52	5.0	20	0	103	55-150	0			
2-Hexanone	18.64	0.59	5.0	20	0	93.2	60-135	0			
4-Methyl-2-pentanone	25.24	0.52	1.0	20	0	126	77-178	0			
Acetone	20.68	1.1	10	20	0	103	60-160	0			
Benzene	19.36	0.46	1.0	20	0	96.8	70-130	0			
Bromochloromethane	19.98	0.45	1.0	20	0	99.9	72-141	0			
Bromodichloromethane	20.48	0.49	1.0	20	0	102	75-125	0			
Bromoform	16.03	0.56	1.0	20	0	80.2	60-125	0			
Bromomethane	24.85	0.9	1.0	20	0	124	30-185	0			
Carbon disulfide	17.67	0.49	1.0	20	0	88.4	60-165	0			
Carbon tetrachloride	18.59	0.4	1.0	20	0	93	65-140	0			
Chlorobenzene	19.83	0.4	1.0	20	0	99.2	80-120	0			
Chloroethane	18.55	0.68	1.0	20	0	92.8	31-172	0			
Chloroform	19.28	0.46	1.0	20	0	96.4	66-135	0			
Chloromethane	27.07	0.83	1.0	20	0	135	46-148	0			B
cis-1,2-Dichloroethene	20.91	0.42	1.0	20	0	105	75-134	0			
cis-1,3-Dichloropropene	20.18	0.57	1.0	20	0	101	70-130	0			
Dibromochloromethane	15.87	0.4	1.0	20	0	79.4	60-115	0			
Dichlorodifluoromethane	26.61	0.68	1.0	20	0	133	20-120	0			S
Ethylbenzene	19.15	0.34	1.0	20	0	95.8	76-123	0			
Isopropylbenzene	18.7	0.35	1.0	20	0	93.5	80-127	0			
m,p-Xylene	40.43	0.81	2.0	40	0	101	75-130	0			
Methyl tert-butyl ether	21.69	0.45	1.0	20	0	108	68-129	0			
Methylene chloride	20.22	0.86	5.0	20	0	101	72-125	0			
o-Xylene	19.42	0.31	1.0	20	0	97.1	76-127	0			
Styrene	19.79	0.33	1.0	20	0	99	83-137	0			
Tetrachloroethene	18.97	0.39	1.0	20	0	94.8	68-166	0			
Toluene	19.24	0.45	1.0	20	0	96.2	76-125	0			
trans-1,2-Dichloroethene	19.52	0.48	1.0	20	0	97.6	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

trans-1,3-Dichloropropene	16.63	0.38	1.0	20	0	83.2	56-132	0
Trichloroethene	19.12	0.43	1.0	20	0	95.6	77-125	0
Trichlorofluoromethane	15.9	0.52	1.0	20	0	79.5	60-140	0
Vinyl chloride	19.06	0.53	1.0	20	0	95.3	50-136	0
Surr: 1,2-Dichloroethane-d4	*20.58*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.57*	0	0	*20*	0	*103*	*80-110*	0
Surr: Dibromofluoromethane	*20.39*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*20.05*	0	0	*20*	0	*100*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **19101714-04A MS** Units: **µg/L** Analysis Date: **10/30/2019 08:15 P**

Client ID: Run ID: **VMS6_191030A** SeqNo: **6024400** Prep Date: **10/29/2019** DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	388.2	9.2	20	400	0	97	75-130	0			
1,1,2,2-Tetrachloroethane	359.8	8	20	400	0	90	75-130	0			
1,1,2-Trichloroethane	375.6	9.2	20	400	0	93.9	75-125	0			
1,1-Dichloroethane	409.4	8.8	20	400	0	102	68-142	0			
1,1-Dichloroethene	414.2	8	20	400	0	104	70-145	0			
1,2,3-Trichlorobenzene	333	8.4	20	400	0	83.2	70-140	0			
1,2,4-Trichlorobenzene	384.4	9	20	400	0	96.1	70-135	0			
1,2-Dibromo-3-chloropropane	303	8.6	20	400	0	75.8	60-130	0			
1,2-Dibromoethane	398.6	8.2	20	400	0	99.6	67-155	0			
1,2-Dichlorobenzene	407.4	6.4	20	400	0	102	70-130	0			
1,2-Dichloroethane	392.6	8.8	20	400	0	98.2	78-125	0			
1,2-Dichloropropane	409.6	9.6	20	400	0	102	75-125	0			
1,3-Dichlorobenzene	413.2	6.6	20	400	0	103	75-130	0			
1,4-Dichlorobenzene	402.4	7	20	400	0	101	75-130	0			
2-Butanone	428	10	100	400	0	107	55-150	0			
2-Hexanone	338	12	100	400	3.8	83.6	60-135	0			
4-Methyl-2-pentanone	450.8	10	20	400	16.8	108	77-178	0			
Acetone	494.8	22	200	400	7.6	122	60-160	0			
Benzene	402.2	9.2	20	400	0	101	70-130	0			
Bromochloromethane	390.8	9	20	400	0	97.7	72-141	0			
Bromodichloromethane	347.6	9.8	20	400	0	86.9	75-125	0			
Bromoform	276	11	20	400	0	69	60-125	0			
Bromomethane	348.2	18	20	400	0	87	30-185	0			
Carbon disulfide	296.2	9.8	20	400	2	73.6	60-165	0			
Carbon tetrachloride	374.8	8	20	400	0	93.7	65-140	0			
Chlorobenzene	406.2	8	20	400	0	102	80-120	0			
Chloroethane	400.8	14	20	400	0	100	31-172	0			
Chloroform	400.2	9.2	20	400	0	100	66-135	0			
Chloromethane	457.2	17	20	400	9.8	112	46-148	0			B
cis-1,2-Dichloroethene	401	8.4	20	400	2.2	99.7	75-134	0			
cis-1,3-Dichloropropene	349.8	11	20	400	0	87.4	70-130	0			
Dibromochloromethane	279.6	8	20	400	0	69.9	60-115	0			
Dichlorodifluoromethane	552.2	14	20	400	0	138	20-120	0			S
Ethylbenzene	401.8	6.8	20	400	0	100	76-123	0			
Isopropylbenzene	415.4	7	20	400	0	104	80-127	0			
m,p-Xylene	825	16	40	800	6.2	102	75-130	0			
Methyl tert-butyl ether	393.4	9	20	400	0	98.4	68-129	0			
Methylene chloride	419.2	17	100	400	6.8	103	72-125	0			
o-Xylene	402.4	6.2	20	400	3.6	99.7	76-127	0			
Styrene	400.8	6.6	20	400	0	100	83-137	0			
Tetrachloroethene	413	7.8	20	400	0	103	68-166	0			
Toluene	422.4	9	20	400	25	99.4	76-125	0			
trans-1,2-Dichloroethene	411.8	9.6	20	400	0	103	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R274083**	Instrument ID **VMS6**			Method: **SW8260C**				
trans-1,3-Dichloropropene	286.2	7.6	20	400	7.4	69.7	56-132	0
Trichloroethene	411.4	8.6	20	400	0	103	77-125	0
Trichlorofluoromethane	356.2	10	20	400	0	89	60-140	0
Vinyl chloride	399.4	11	20	400	0	99.8	50-136	0
Surr: 1,2-Dichloroethane-d4	*393.4*	0	0	*400*	0	*98.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*405.6*	0	0	*400*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*376*	0	0	*400*	0	*94*	*85-115*	0
Surr: Toluene-d8	*377.8*	0	0	*400*	0	*94.4*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

MSD Sample ID: **19101714-04A MSD** Units: **µg/L** Analysis Date: **10/30/2019 08:40 P**

Client ID: Run ID: **VMS6_191030A** SeqNo: **6024401** Prep Date: **10/29/2019** DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	363.6	9.2	20	400	0	90.9	75-130	388.2	6.54	30	
1,1,2,2-Tetrachloroethane	387.2	8	20	400	0	96.8	75-130	359.8	7.34	30	
1,1,2-Trichloroethane	392.2	9.2	20	400	0	98	75-125	375.6	4.32	30	
1,1-Dichloroethane	383.6	8.8	20	400	0	95.9	68-142	409.4	6.51	30	
1,1-Dichloroethene	377.8	8	20	400	0	94.4	70-145	414.2	9.19	30	
1,2,3-Trichlorobenzene	377	8.4	20	400	0	94.2	70-140	333	12.4	30	
1,2,4-Trichlorobenzene	405.8	9	20	400	0	101	70-135	384.4	5.42	30	
1,2-Dibromo-3-chloropropane	324.2	8.6	20	400	0	81	60-130	303	6.76	30	
1,2-Dibromoethane	425.8	8.2	20	400	0	106	67-155	398.6	6.6	30	
1,2-Dichlorobenzene	398.8	6.4	20	400	0	99.7	70-130	407.4	2.13	30	
1,2-Dichloroethane	384	8.8	20	400	0	96	78-125	392.6	2.21	30	
1,2-Dichloropropane	378.8	9.6	20	400	0	94.7	75-125	409.6	7.81	30	
1,3-Dichlorobenzene	408.6	6.6	20	400	0	102	75-130	413.2	1.12	30	
1,4-Dichlorobenzene	394.8	7	20	400	0	98.7	75-130	402.4	1.91	30	
2-Butanone	427.8	10	100	400	0	107	55-150	428	0.0467	30	
2-Hexanone	366	12	100	400	3.8	90.6	60-135	338	7.95	30	
4-Methyl-2-pentanone	494.8	10	20	400	16.8	120	77-178	450.8	9.31	30	
Acetone	466.4	22	200	400	7.6	115	60-160	494.8	5.91	30	
Benzene	395.4	9.2	20	400	0	98.8	70-130	402.2	1.71	30	
Bromochloromethane	389.8	9	20	400	0	97.4	72-141	390.8	0.256	30	
Bromodichloromethane	354.6	9.8	20	400	0	88.6	75-125	347.6	1.99	30	
Bromoform	277.2	11	20	400	0	69.3	60-125	276	0.434	30	
Bromomethane	393.4	18	20	400	0	98.4	30-185	348.2	12.2	30	
Carbon disulfide	289.4	9.8	20	400	2	71.8	60-165	296.2	2.32	30	
Carbon tetrachloride	347.8	8	20	400	0	87	65-140	374.8	7.47	30	
Chlorobenzene	392.4	8	20	400	0	98.1	80-120	406.2	3.46	30	
Chloroethane	354.4	14	20	400	0	88.6	31-172	400.8	12.3	30	
Chloroform	386	9.2	20	400	0	96.5	66-135	400.2	3.61	30	
Chloromethane	394.6	17	20	400	9.8	96.2	46-148	457.2	14.7	30	B
cis-1,2-Dichloroethene	382.4	8.4	20	400	2.2	95	75-134	401	4.75	30	
cis-1,3-Dichloropropene	344.2	11	20	400	0	86	70-130	349.8	1.61	30	
Dibromochloromethane	285.4	8	20	400	0	71.4	60-115	279.6	2.05	30	
Dichlorodifluoromethane	504.2	14	20	400	0	126	20-120	552.2	9.09	30	S
Ethylbenzene	376.2	6.8	20	400	0	94	76-123	401.8	6.58	30	
Isopropylbenzene	414	7	20	400	0	104	80-127	415.4	0.338	30	
m,p-Xylene	786.4	16	40	800	6.2	97.5	75-130	825	4.79	30	
Methyl tert-butyl ether	388.8	9	20	400	0	97.2	68-129	393.4	1.18	30	
Methylene chloride	393.4	17	100	400	6.8	96.6	72-125	419.2	6.35	30	
o-Xylene	410.4	6.2	20	400	3.6	102	76-127	402.4	1.97	30	
Styrene	400.2	6.6	20	400	0	100	83-137	400.8	0.15	30	
Tetrachloroethene	419.4	7.8	20	400	0	105	68-166	413	1.54	30	
Toluene	410.8	9	20	400	25	96.4	76-125	422.4	2.78	30	
trans-1,2-Dichloroethene	387.2	9.6	20	400	0	96.8	80-140	411.8	6.16	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274083** Instrument ID **VMS6** Method: **SW8260C**

trans-1,3-Dichloropropene	294.6	7.6	20	400	7.4	71.8	56-132	286.2	2.89	30
Trichloroethene	385.4	8.6	20	400	0	96.4	77-125	411.4	6.53	30
Trichlorofluoromethane	331.6	10	20	400	0	82.9	60-140	356.2	7.15	30
Vinyl chloride	384.4	11	20	400	0	96.1	50-136	399.4	3.83	30
Surr: 1,2-Dichloroethane-d4	*393.2*	0	0	*400*	0	*98.3*	*75-120*	393.4	*0.0509*	*30*
Surr: 4-Bromofluorobenzene	*408*	0	0	*400*	0	*102*	*80-110*	405.6	*0.59*	*30*
Surr: Dibromofluoromethane	*379.2*	0	0	*400*	0	*94.8*	*85-115*	376	*0.847*	*30*
Surr: Toluene-d8	*403.2*	0	0	*400*	0	*101*	*85-110*	377.8	*6.5*	*30*

The following samples were analyzed in this batch: 19101636-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-191030-R274155** Units: **µg/L** Analysis Date: **10/30/2019 07:08 P**

Client ID: Run ID: **VMS11_191030A** SeqNo: **6024128** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.46	1.0								
1,1,2,2-Tetrachloroethane	U	0.4	1.0								
1,1,2-Trichloroethane	U	0.46	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.52	1.0								
1,1-Dichloroethane	U	0.44	1.0								
1,1-Dichloroethene	U	0.4	1.0								
1,2,3-Trichlorobenzene	U	0.42	1.0								
1,2,4-Trichlorobenzene	U	0.45	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.32	1.0								
1,2-Dichloroethane	U	0.44	1.0								
1,2-Dichloropropane	U	0.48	1.0								
1,3-Dichlorobenzene	U	0.33	1.0								
1,4-Dichlorobenzene	U	0.35	1.0								
2-Butanone	U	0.52	5.0								
2-Hexanone	U	0.59	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Benzene	U	0.46	1.0								
Bromochloromethane	U	0.45	1.0								
Bromodichloromethane	U	0.49	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.9	1.0								
Carbon disulfide	U	0.49	1.0								
Carbon tetrachloride	U	0.4	1.0								
Chlorobenzene	U	0.4	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	4.92	0.83	1.0								
cis-1,2-Dichloroethene	U	0.42	1.0								
cis-1,3-Dichloropropene	U	0.57	1.0								
Cyclohexane	U	0.63	2.0								
Dibromochloromethane	U	0.4	1.0								
Dichlorodifluoromethane	U	0.68	1.0								
Ethylbenzene	U	0.34	1.0								
Isopropylbenzene	U	0.35	1.0								
m,p-Xylene	U	0.81	2.0								
Methyl acetate	U	0.59	2.0								
Methyl tert-butyl ether	U	0.45	1.0								
Methylcyclohexane	U	0.35	1.0								
Methylene chloride	U	0.86	5.0								
o-Xylene	U	0.31	1.0								
Styrene	U	0.33	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R274155**	Instrument ID **VMS11**			Method: **SW8260C**				
Tetrachloroethene	U	0.39	1.0					
Toluene	U	0.45	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.38	1.0					
Trichloroethene	U	0.43	1.0					
Trichlorofluoromethane	U	0.52	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*18.39*	0	0	*20*	0	*92*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.06*	0	0	*20*	0	*95.3*	*80-110*	0
Surr: Dibromofluoromethane	*18.4*	0	0	*20*	0	*92*	*85-115*	0
Surr: Toluene-d8	*19.24*	0	0	*20*	0	*96.2*	*85-110*	0

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **VLCSW1-191030-R274155** Units: **µg/L** Analysis Date: **10/30/2019 06:00 P**

Client ID: Run ID: **VMS11_191030A** SeqNo: **6024127** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	18.66	0.46	1.0	20	0	93.3	75-130	0			
1,1,2,2-Tetrachloroethane	17.19	0.4	1.0	20	0	86	75-130	0			
1,1,2-Trichloroethane	18.11	0.46	1.0	20	0	90.6	75-125	0			
1,1-Dichloroethane	17.77	0.44	1.0	20	0	88.8	68-142	0			
1,1-Dichloroethene	17.69	0.4	1.0	20	0	88.4	70-145	0			
1,2,3-Trichlorobenzene	19.92	0.42	1.0	20	0	99.6	70-140	0			
1,2,4-Trichlorobenzene	20.36	0.45	1.0	20	0	102	70-135	0			
1,2-Dibromo-3-chloropropane	17.03	0.43	1.0	20	0	85.2	60-130	0			
1,2-Dibromoethane	19.27	0.41	1.0	20	0	96.4	67-155	0			
1,2-Dichlorobenzene	18.8	0.32	1.0	20	0	94	70-130	0			
1,2-Dichloroethane	18.57	0.44	1.0	20	0	92.8	78-125	0			
1,2-Dichloropropane	19.09	0.48	1.0	20	0	95.4	75-125	0			
1,3-Dichlorobenzene	19.62	0.33	1.0	20	0	98.1	75-130	0			
1,4-Dichlorobenzene	18.96	0.35	1.0	20	0	94.8	75-130	0			
2-Butanone	18.36	0.52	5.0	20	0	91.8	55-150	0			
2-Hexanone	16.74	0.59	5.0	20	0	83.7	60-135	0			
4-Methyl-2-pentanone	21.22	0.52	1.0	20	0	106	77-178	0			
Benzene	19.38	0.46	1.0	20	0	96.9	70-130	0			
Bromochloromethane	16.76	0.45	1.0	20	0	83.8	72-141	0			
Bromodichloromethane	18.17	0.49	1.0	20	0	90.8	75-125	0			
Bromoform	17.86	0.56	1.0	20	0	89.3	60-125	0			
Bromomethane	22.7	0.9	1.0	20	0	114	30-185	0			
Carbon disulfide	17.39	0.49	1.0	20	0	87	60-165	0			
Carbon tetrachloride	18.78	0.4	1.0	20	0	93.9	65-140	0			
Chlorobenzene	19.8	0.4	1.0	20	0	99	80-120	0			
Chloroethane	17.42	0.68	1.0	20	0	87.1	31-172	0			
Chloroform	16.38	0.46	1.0	20	0	81.9	66-135	0			
Chloromethane	29.15	0.83	1.0	20	0	146	46-148	0			B
cis-1,2-Dichloroethene	18.97	0.42	1.0	20	0	94.8	75-134	0			
cis-1,3-Dichloropropene	19.39	0.57	1.0	20	0	97	70-130	0			
Dibromochloromethane	18.14	0.4	1.0	20	0	90.7	60-115	0			
Dichlorodifluoromethane	26.87	0.68	1.0	20	0	134	20-120	0			S
Ethylbenzene	19.33	0.34	1.0	20	0	96.6	76-123	0			
Isopropylbenzene	18.99	0.35	1.0	20	0	95	80-127	0			
m,p-Xylene	38.36	0.81	2.0	40	0	95.9	75-130	0			
Methyl tert-butyl ether	16.24	0.45	1.0	20	0	81.2	68-129	0			
Methylene chloride	16.26	0.86	5.0	20	0	81.3	72-125	0			
o-Xylene	19.01	0.31	1.0	20	0	95	76-127	0			
Styrene	18.31	0.33	1.0	20	0	91.6	83-137	0			
Tetrachloroethene	22.47	0.39	1.0	20	0	112	68-166	0			
Toluene	19.65	0.45	1.0	20	0	98.2	76-125	0			
trans-1,2-Dichloroethene	17.72	0.48	1.0	20	0	88.6	80-140	0			
trans-1,3-Dichloropropene	17.96	0.38	1.0	20	0	89.8	56-132	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

Trichloroethene	22.04	0.43	1.0	20	0	110	77-125	0
Trichlorofluoromethane	15.83	0.52	1.0	20	0	79.2	60-140	0
Vinyl chloride	18.12	0.53	1.0	20	0	90.6	50-136	0
Surr: 1,2-Dichloroethane-d4	*18.98*	0	0	*20*	0	*94.9*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.07*	0	0	*20*	0	*95.4*	*80-110*	0
Surr: Dibromofluoromethane	*19.25*	0	0	*20*	0	*96.2*	*85-115*	0
Surr: Toluene-d8	*19.3*	0	0	*20*	0	*96.5*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

MS Sample ID: **19102151-02A MS** Units: **µg/L** Analysis Date: **10/31/2019 03:48 A**

Client ID: Run ID: **VMS11_191030A** SeqNo: **6024140** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.84	0.46	1.0	20	0	104	75-130	0			HHH
1,1,2,2-Tetrachloroethane	18.34	0.4	1.0	20	0	91.7	75-130	0			HHH
1,1,2-Trichloroethane	18.66	0.46	1.0	20	0	93.3	75-125	0			HHH
1,1-Dichloroethane	18.72	0.44	1.0	20	0	93.6	68-142	0			HHH
1,1-Dichloroethene	20.09	0.4	1.0	20	0	100	70-145	0			HHH
1,2,3-Trichlorobenzene	18.91	0.42	1.0	20	0	94.6	70-140	0			HHH
1,2,4-Trichlorobenzene	19.61	0.45	1.0	20	0	98	70-135	0			HHH
1,2-Dibromo-3-chloropropane	17.96	0.43	1.0	20	0	89.8	60-130	0			HHH
1,2-Dibromoethane	20.44	0.41	1.0	20	0	102	67-155	0			HHH
1,2-Dichlorobenzene	20.37	0.32	1.0	20	0	102	70-130	0			HHH
1,2-Dichloroethane	19.18	0.44	1.0	20	0	95.9	78-125	0			HHH
1,2-Dichloropropane	19.52	0.48	1.0	20	0	97.6	75-125	0			HHH
1,3-Dichlorobenzene	20.99	0.33	1.0	20	0	105	75-130	0			HHH
1,4-Dichlorobenzene	20.55	0.35	1.0	20	0	103	75-130	0			HHH
2-Butanone	17.95	0.52	5.0	20	0	89.8	55-150	0			HHH
2-Hexanone	18.81	0.59	5.0	20	0	94	60-135	0			HHH
4-Methyl-2-pentanone	24.78	0.52	1.0	20	0	124	77-178	0			HHH
Benzene	20.37	0.46	1.0	20	0	102	70-130	0			HHH
Bromochloromethane	16.22	0.45	1.0	20	0	81.1	72-141	0			HHH
Bromodichloromethane	18.62	0.49	1.0	20	0	93.1	75-125	0			HHH
Bromoform	17.62	0.56	1.0	20	0	88.1	60-125	0			HHH
Bromomethane	20.12	0.9	1.0	20	12.6	37.6	30-185	0			HHH
Carbon disulfide	17.58	0.49	1.0	20	0	87.9	60-165	0			HHH
Carbon tetrachloride	21.55	0.4	1.0	20	0	108	65-140	0			HHH
Chlorobenzene	21.63	0.4	1.0	20	0	108	80-120	0			HHH
Chloroethane	19.24	0.68	1.0	20	0	96.2	31-172	0			HHH
Chloroform	17.25	0.46	1.0	20	0	86.2	66-135	0			HHH
Chloromethane	20.91	0.83	1.0	20	0	105	46-148	0			BHHH
cis-1,2-Dichloroethene	19.12	0.42	1.0	20	0	95.6	75-134	0			HHH
cis-1,3-Dichloropropene	18.76	0.57	1.0	20	0	93.8	70-130	0			HHH
Dibromochloromethane	18.21	0.4	1.0	20	0	91	60-115	0			HHH
Dichlorodifluoromethane	28.74	0.68	1.0	20	0	144	20-120	0			SHHH
Ethylbenzene	21.72	0.34	1.0	20	0	109	76-123	0			HHH
Isopropylbenzene	21.72	0.35	1.0	20	0	109	80-127	0			HHH
m,p-Xylene	43.21	0.81	2.0	40	0	108	75-130	0			HHH
Methyl tert-butyl ether	16.64	0.45	1.0	20	0	83.2	68-129	0			HHH
Methylene chloride	17.32	0.86	5.0	20	16.2	5.6	72-125	0			SHHH
o-Xylene	21.2	0.31	1.0	20	0	106	76-127	0			HHH
Styrene	20.15	0.33	1.0	20	0	101	83-137	0			HHH
Tetrachloroethene	26.11	0.39	1.0	20	0	131	68-166	0			HHH
Toluene	21.25	0.45	1.0	20	0	106	76-125	0			HHH
trans-1,2-Dichloroethene	19.05	0.48	1.0	20	0	95.2	80-140	0			HHH
trans-1,3-Dichloropropene	16.88	0.38	1.0	20	0	84.4	56-132	0			HHH

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

Trichloroethene	23.93	0.43	1.0	20	0	120	77-125	0	HHH
Trichlorofluoromethane	18.49	0.52	1.0	20	0	92.4	60-140	0	HHH
Vinyl chloride	20.7	0.53	1.0	20	0	104	50-136	0	HHH
Surr: 1,2-Dichloroethane-d4	*18.76*	0	0	*20*	0	*93.8*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*19.63*	0	0	*20*	0	*98.2*	*80-110*	0	
Surr: Dibromofluoromethane	*18.94*	0	0	*20*	0	*94.7*	*85-115*	0	
Surr: Toluene-d8	*19.15*	0	0	*20*	0	*95.8*	*85-110*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274155** Instrument ID **VMS11** Method: **SW8260C**

MSD Sample ID: **19102151-02A MSD** Units: **µg/L** Analysis Date: **10/31/2019 04:11 A**

Client ID: Run ID: **VMS11_191030A** SeqNo: **6024141** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.85	0.46	1.0	20	0	99.2	75-130	20.84	4.87	30	HHH
1,1,2,2-Tetrachloroethane	17.72	0.4	1.0	20	0	88.6	75-130	18.34	3.44	30	HHH
1,1,2-Trichloroethane	18.16	0.46	1.0	20	0	90.8	75-125	18.66	2.72	30	HHH
1,1-Dichloroethane	17.9	0.44	1.0	20	0	89.5	68-142	18.72	4.48	30	HHH
1,1-Dichloroethene	19.43	0.4	1.0	20	0	97.2	70-145	20.09	3.34	30	HHH
1,2,3-Trichlorobenzene	18.62	0.42	1.0	20	0	93.1	70-140	18.91	1.55	30	HHH
1,2,4-Trichlorobenzene	18.87	0.45	1.0	20	0	94.4	70-135	19.61	3.85	30	HHH
1,2-Dibromo-3-chloropropane	17.87	0.43	1.0	20	0	89.4	60-130	17.96	0.502	30	HHH
1,2-Dibromoethane	19.42	0.41	1.0	20	0	97.1	67-155	20.44	5.12	30	HHH
1,2-Dichlorobenzene	19.99	0.32	1.0	20	0	100	70-130	20.37	1.88	30	HHH
1,2-Dichloroethane	18.44	0.44	1.0	20	0	92.2	78-125	19.18	3.93	30	HHH
1,2-Dichloropropane	19.18	0.48	1.0	20	0	95.9	75-125	19.52	1.76	30	HHH
1,3-Dichlorobenzene	20.95	0.33	1.0	20	0	105	75-130	20.99	0.191	30	HHH
1,4-Dichlorobenzene	19.78	0.35	1.0	20	0	98.9	75-130	20.55	3.82	30	HHH
2-Butanone	16.9	0.52	5.0	20	0	84.5	55-150	17.95	6.03	30	HHH
2-Hexanone	18.65	0.59	5.0	20	0	93.2	60-135	18.81	0.854	30	HHH
4-Methyl-2-pentanone	23.45	0.52	1.0	20	0	117	77-178	24.78	5.52	30	HHH
Benzene	20.06	0.46	1.0	20	0	100	70-130	20.37	1.53	30	HHH
Bromochloromethane	15.77	0.45	1.0	20	0	78.8	72-141	16.22	2.81	30	HHH
Bromodichloromethane	17.66	0.49	1.0	20	0	88.3	75-125	18.62	5.29	30	HHH
Bromoform	17.09	0.56	1.0	20	0	85.4	60-125	17.62	3.05	30	HHH
Bromomethane	19.85	0.9	1.0	20	12.6	36.2	30-185	20.12	1.35	30	HHH
Carbon disulfide	17	0.49	1.0	20	0	85	60-165	17.58	3.35	30	HHH
Carbon tetrachloride	20.98	0.4	1.0	20	0	105	65-140	21.55	2.68	30	HHH
Chlorobenzene	21.17	0.4	1.0	20	0	106	80-120	21.63	2.15	30	HHH
Chloroethane	18.34	0.68	1.0	20	0	91.7	31-172	19.24	4.79	30	HHH
Chloroform	16.76	0.46	1.0	20	0	83.8	66-135	17.25	2.88	30	HHH
Chloromethane	19.5	0.83	1.0	20	0	97.5	46-148	20.91	6.98	30	BHHH
cis-1,2-Dichloroethene	18.08	0.42	1.0	20	0	90.4	75-134	19.12	5.59	30	HHH
cis-1,3-Dichloropropene	17.95	0.57	1.0	20	0	89.8	70-130	18.76	4.41	30	HHH
Dibromochloromethane	17.42	0.4	1.0	20	0	87.1	60-115	18.21	4.43	30	HHH
Dichlorodifluoromethane	26.47	0.68	1.0	20	0	132	20-120	28.74	8.22	30	SHHH
Ethylbenzene	21.11	0.34	1.0	20	0	106	76-123	21.72	2.85	30	HHH
Isopropylbenzene	21.32	0.35	1.0	20	0	107	80-127	21.72	1.86	30	HHH
m,p-Xylene	42.19	0.81	2.0	40	0	105	75-130	43.21	2.39	30	HHH
Methyl tert-butyl ether	15.89	0.45	1.0	20	0	79.4	68-129	16.64	4.61	30	HHH
Methylene chloride	16.8	0.86	5.0	20	16.2	3	72-125	17.32	3.05	30	SHHH
o-Xylene	20.34	0.31	1.0	20	0	102	76-127	21.2	4.14	30	HHH
Styrene	19.72	0.33	1.0	20	0	98.6	83-137	20.15	2.16	30	HHH
Tetrachloroethene	25.16	0.39	1.0	20	0	126	68-166	26.11	3.71	30	HHH
Toluene	21.04	0.45	1.0	20	0	105	76-125	21.25	0.993	30	HHH
trans-1,2-Dichloroethene	18.24	0.48	1.0	20	0	91.2	80-140	19.05	4.34	30	HHH
trans-1,3-Dichloropropene	16.72	0.38	1.0	20	0	83.6	56-132	16.88	0.952	30	HHH

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274155**	Instrument ID **VMS11**				Method: **SW8260C**						
Trichloroethene	23.77	0.43	1.0	20	0	119	77-125	23.93	0.671	30	HHH
Trichlorofluoromethane	17.85	0.52	1.0	20	0	89.2	60-140	18.49	3.52	30	HHH
Vinyl chloride	19.65	0.53	1.0	20	0	98.2	50-136	20.7	5.2	30	HHH
Surr: 1,2-Dichloroethane-d4	*18.68*	0	0	*20*	0	*93.4*	*75-120*	18.76	*0.427*	*30*	
Surr: 4-Bromofluorobenzene	*19.25*	0	0	*20*	0	*96.2*	*80-110*	19.63	*1.95*	*30*	
Surr: Dibromofluoromethane	*19.37*	0	0	*20*	0	*96.8*	*85-115*	18.94	*2.24*	*30*	
Surr: Toluene-d8	*19.22*	0	0	*20*	0	*96.1*	*85-110*	19.15	*0.365*	*30*	

The following samples were analyzed in this batch:

19101636-01A	19101636-03A	19101636-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101636
Project: St. Francois Hospital (103X903019F0101.002)

QC BATCH REPORT

Batch ID: **R274167A** Instrument ID **VMS10** Method: **SW8260GRO**

MBLK Sample ID: **VBLKW4-191030-R274167A** Units: **µg/L** Analysis Date: **10/31/2019 04:53 A**

Client ID: Run ID: **VMS10_191030B** SeqNo: **6024160** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	25	100								
Surr: Toluene-d8	*16.67*	0	0	*20*	0	*83.4*	*70-120*	0			

LCS Sample ID: **VLCSW2-191030-R274167A** Units: **µg/L** Analysis Date: **10/31/2019 04:02 A**

Client ID: Run ID: **VMS10_191030B** SeqNo: **6024159** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	434.5	25	100	500	0	86.9	70-130	0			
Surr: Toluene-d8	*19.56*	0	0	*20*	0	*97.8*	*70-130*	0			

The following samples were analyzed in this batch:

19101636-01A	19101636-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 194068

ALS Project Manager: EB

ALS Work Order #: 19016636

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	St. Francis Hospital	A	EPA 8260D
Work Order		Project Number	103X903019F0101.002	B	EPA 8270E
Company Name	Tetra Tech	Bill To Company	Tetra Tech	C	6020/7470
Send Report To	Megan Sawyer	Invoice Attn	Accounts Payable	D	TPH-GRO
Address	415 Oak Street	Address	415 Oak Street	E	TPH-DRO
				F	TPH-ORO
City/State/Zip	Kansas City, MO 64106	City/State/Zip	Kansas City, MO 64106	G	
Phone	(816) 412-1755	Phone	(816) 412-1755	H	
Fax	(816) 410-1748	Fax	(816) 410-1748	I	
e-Mail Address	megan.sawyer@tetratech.com	e-Mail Address	megan.sawyer@tetratech.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GW-2(30)	10/17/19	1200	WT		9	X	X	X	X	X	X					
2	GW-DUP	10/17/19	0000	WT		9	X	X	X	X	X	X					
3	Rinsate Blank	10/17/19	1730	WT		9	X	X	X	X	X	X					
4	Field Blank	10/18/19	1125	WT		1	X	X	X	X	X	X					
5	Trip Blank	10/17/19	0000	WT		3	X										
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Madison Ericson / MEr

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
			FED EX
Relinquished by: FED EX	Date: 10/21/19	Time: 0930	Received by (Laboratory):
Logged by (Laboratory): DFS	Date: 10/21/19	Time: 1545	Checked by (Laboratory): EB

Notes:

Cooler ID	Cooler Temp.
SR2	7.2c
pH 1S	

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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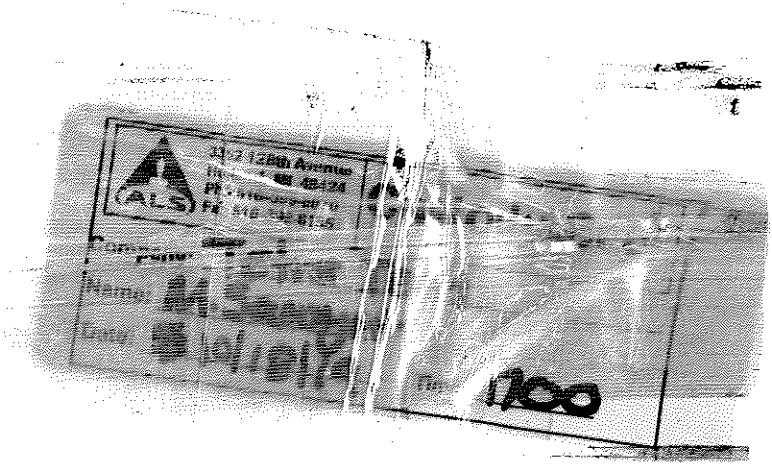

ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH - MO** Date/Time Received: **21-Oct-19 09:30**

Work Order: **19101636** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 21-Oct-19 (Date) Reviewed by: Ehrland Bosworth (eSignature) 21-Oct-19 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	7.2/7.2 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	10/21/2019 4:03:04 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes: Temp Blank measured above 6.0C, however samples were received on ice.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Tetra Tech, Inc.
DATA VALIDATION REPORT
LEVEL II

Site:	Former St. Francois Hospital, Marceline, Linn County, Missouri
Laboratory:	ALS Group, Inc. (Holland, Michigan)
Data Reviewer:	Ann Weise, Tetra Tech, Inc. (Tetra Tech)
Review Date:	December 20, 2019
Sample Delivery Group (SDG):	19101636
Sample Numbers:	GW-2 (30) GW-DUP Rinsate Blank Field Blank Trip Blank
Matrix / Number of Samples:	1 Discrete Groundwater Sample, 1 Duplicate Groundwater Sample, 1 Equipment Rinsate Sample, 1 Field Blank, and 1 Water Trip Blank

The data were qualified according to the U.S. Environmental Protection Agency (EPA) entitled "Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review", "CLP NFG for Inorganic Superfund Data Review", both dated January 2017, and "CLP NFG for High-Resolution Superfund Methods Data Review" dated April 2016. In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the applicable methods.

The review was intended to identify problems and quality control (QC) deficiencies that were apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project-specific data package.

I, Ann Weise, certify that all data validation criteria outlined in the above-referenced documents were assessed, and any qualifications made to the data accorded with those documents.

Ann Weise

20 December 2019

Certified by Ann Weise, Environmental Scientist — Date

DATA VALIDATION QUALIFIERS

U	—	The analyte was not detected above the reported sample quantitation limit.
J	—	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	—	The analyte was not detected above the reported sample quantitation limit, which is estimated.
R	—	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. Presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

Sample delivery group (SDG) 19101636 included one (1) environmental groundwater sample, and four (4) QC samples (field duplicate water sample, trip blank, field blank, and one equipment rinsate). The samples were analyzed for volatile organic compounds (VOC) by EPA SW-846 Method 8260D, gasoline range organics by 8260GRO, semivolatile organic compounds by EPA SW-846 Method 8270E, diesel range organics by 8270, and metals by EPA SW-846 Methods 6020A and 7470A. The following summarizes the data validation that was performed.

VOLATILE ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory at 7.2 °C, above the required temperature parameters of less than 6 °C; however the samples were received on ice. The samples jars were delivered with HCl, but the laboratory measured the pH at greater than 2 at time of analysis. Based on the minor temperature exceedance and the pH at the time of analysis, detected results were qualified with a J- and nondetect results were qualified with a UJ.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from another SDG except GRO. The recoveries were within the control limits except for dichlorodifluoromethane and GRO. The VOC MS recovery was above the upper control limit for dichlorodifluoromethane. The corresponding results in the parent sample was nondetect, therefore no qualification is necessary for dichlorodifluoromethane. The GRO MS and/or MSD recoveries were above the upper control limit for samples 19101554-11A MS and -11A MSD. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for GRO.

III. Blanks

Acetone was detected at low concentrations less than the quantitation limit in the rinsate blank, field blank and trip blank. There were no detections of target analytes in the method blank. The acetone detection in the field sample is more than 2 times the blank results, so it is not qualified.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within QC limits except for dichlorodifluoromethane. The VOC LCS recovery for dichlorodifluoromethane was above the upper control limit. All the sample results were non-detect for dichlorodifluoromethane. No qualification is necessary.

V. Surrogate Recoveries

All surrogate recoveries were within QC limits. No qualifications is necessary.

VI. Comments

Some detected VOC results were below the sample reporting limits, which correspond to the lowest calibration standard. The laboratory correctly qualified these extrapolations as estimates (flagged “J”). The field duplicate results were not very comparable, likely indicating sample heterogeneity.

Analyte	Concentration (µg/L)/Qualifier		RPD
	SB7 18-19 feet bgs	SB7 18-19 feet bgs duplicate	
Acetone	16 J-	6.6 J-	83%
Carbon disulfide	0.63 J-	0.49 UJ	--

VII. Overall Assessment of Data

Overall data quality is acceptable, with qualifications applied as noted previously. All VOC data are usable as reported for their intended purposes.

SEMIVOLATILES ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory at 7.2 °C, above the required temperature parameters of less than 6 °C; however the samples were received on ice. Samples were extracted 4 days after collection and analyzed 1 day after extraction, well within the established holding times of 14 days from sample collection to extraction and 60 days to analysis. No data were qualified on the minor temperature exceedance.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from other SDGs. MS/MSD analyses were within acceptable limits except for the relative percent difference between the MS and MSD results for hexachloroethane and nitrobenzene. No qualifications are applied based on the MS/MSD analyses.

III. Blanks

There were no detected results of target SVOC analytes in the equipment rinsate, field blank, or method blank. No qualifications were applied.

IV. Laboratory Control Sample (LCS)

All LCS results were within QC limits except for 2,4-dimethylphenol and hexachlorocyclopentadiene. Neither of the analytes were detected in any site sample. No qualifications were applied.

V. Surrogate Recoveries

Surrogate recoveries were within the control limits for all analytes for all samples. No qualifications were applied.

VI. Comments

The laboratory correctly qualified results below the sample reporting limit as estimated (flagged “J”). The field duplicate results were comparable for the samples with only a detection of bis(2-ethylhexyl)phthalate below the quantitation limit.

VII. Overall Assessment of Data

Overall data quality is acceptable, with no qualifications applied. All data are usable as reported for their intended purposes.

METALS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory and analyzed within the established holding time of 6 months (28 days for mercury) from sample collection to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD were performed on a sample from a different delivery group. All MS/MSD recoveries were within acceptable limits and the relative percent difference between the MS And MSD were also within acceptable limits. No qualifications were applied for the MS/MSD analyses.

III. Blanks

The equipment rinsate sample and the field blank sample were nondetect for all target metals. The method blank was also nondetect for all metals. Thus, no qualifications were applied for the blank sample analyses.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within their limits, so no qualifications were applied.

V. Comments

The field duplicate results were comparable, except for total barium and total mercury.

Analyte	Concentration (mg/kg)/Qualifier				RPD
	GW-2 (30)		GW-DUP		
Arsenic (dissolved)	0.0018	J	0.002	J	11%
Barium (dissolved)	0.085		0.083		2%
Arsenic (total)	0.037		0.031		18%
Barium (total)	0.78		0.43		58%
Cadmium (total)	0.0037		0.0043		15%
Chromium (total)	0.046		0.051		10%
Lead (total)	0.08		0.06		29%
Mercury (total)	0.00016	U	0.00026		--
Selenium (total)	0.0033	J	0.0042	J	24%

VI. Overall Assessment of Data

Overall data quality is acceptable. No qualifications beyond those indicated by the laboratory are recommended. All metals data are usable as reported for their intended purposes.

30-Oct-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **St. Francois Hospital** Work Order: **19101634**

Dear Emily,

ALS Environmental received 2 samples on 21-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Ehrland Bosworth

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS Group, USA

Date: 30-Oct-19

Client: Tetra Tech
Project: St. Francois Hospital
Work Order: **19101634**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
19101634-01	PCB-1-Additional	Solid		10/18/2019 12:00	10/21/2019 09:30	☐
19101634-02	PCB-2-Original	Solid		10/18/2019 12:10	10/21/2019 09:30	☐

ALS Group, USA

Date: 30-Oct-19

Client: Tetra Tech
Project: St. Francois Hospital
WorkOrder: **19101634**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

ALS Group, USA

Date: 30-Oct-19

Client: Tetra Tech
Project: St. Francois Hospital
Work Order: 19101634

Case Narrative

Samples for the above noted Work Order were received on 10/21/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Extractable Organics:
No deviations or anomalies were noted.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *30-Oct-19*

Client: Tetra Tech
Project: St. Francois Hospital
Sample ID: PCB-1-Additional
Collection Date: 10/18/2019 12:00 PM

Work Order: 19101634
Lab ID: 19101634-01
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**					Analyst: **KB**
Aroclor 1016	U		63	160	µg/Kg-dry	1	10/23/2019 05:27
Aroclor 1221	U		63	160	µg/Kg-dry	1	10/23/2019 05:27
Aroclor 1232	U		63	160	µg/Kg-dry	1	10/23/2019 05:27
Aroclor 1242	U		63	160	µg/Kg-dry	1	10/23/2019 05:27
Aroclor 1248	U		63	160	µg/Kg-dry	1	10/23/2019 05:27
Aroclor 1254	**560**		**43**	**160**	**µg/Kg-dry**	1	10/23/2019 05:27
Aroclor 1260	U		43	160	µg/Kg-dry	1	10/23/2019 05:27
Surr: Decachlorobiphenyl	*84.1*			*40-140*	*%REC*	1	10/23/2019 05:27
Surr: Tetrachloro-m-xylene	*72.1*			*45-124*	*%REC*	1	10/23/2019 05:27
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**1.8**		**0.10**	**0.10**	**% of sample**	1	10/23/2019 10:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *30-Oct-19*

Client: Tetra Tech
Project: St. Francois Hospital
Sample ID: PCB-2-Original
Collection Date: 10/18/2019 12:10 PM

Work Order: 19101634
Lab ID: 19101634-02
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**					Analyst: **KB**
Aroclor 1016	U		74	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1221	U		74	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1232	U		74	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1242	U		74	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1248	U		74	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1254	U		51	190	µg/Kg-dry	1	10/23/2019 05:41
Aroclor 1260	U		51	190	µg/Kg-dry	1	10/23/2019 05:41
Surr: Decachlorobiphenyl	*81.1*			*40-140*	*%REC*	1	10/23/2019 05:41
Surr: Tetrachloro-m-xylene	*77.1*			*45-124*	*%REC*	1	10/23/2019 05:41
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**2.1**		**0.10**	**0.10**	**% of sample**	1	10/23/2019 10:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 30-Oct-19

Client: Tetra Tech

Work Order: 19101634

Project: St. Francois Hospital

QC BATCH REPORT

Batch ID: **144392a** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-144392-144392a** Units: **µg/Kg** Analysis Date: **10/23/2019 04:15 A**

Client ID: Run ID: **GC14_191022B** SeqNo: **6005928** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	33	83								
Aroclor 1221	U	33	83								
Aroclor 1232	U	33	83								
Aroclor 1242	U	33	83								
Aroclor 1248	U	33	83								
Aroclor 1254	U	23	83								
Aroclor 1260	U	23	83								
Surr: Decachlorobiphenyl	*37.33*	0	0	*33.3*	0	*112*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.67*	0	0	*33.3*	0	*86.1*	*45-124*	0			

LCS Sample ID: **PLCSS1-144392-144392a** Units: **µg/Kg** Analysis Date: **10/23/2019 04:29 A**

Client ID: Run ID: **GC14_191022B** SeqNo: **6005929** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	853	33	83	833	0	102	50-130	0			
Aroclor 1260	913	23	83	833	0	110	50-130	0			
Surr: Decachlorobiphenyl	*36*	0	0	*33.3*	0	*108*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.33*	0	0	*33.3*	0	*85.1*	*45-124*	0			

LCSD Sample ID: **PLCSDS1-144392-144392a** Units: **µg/Kg** Analysis Date: **10/23/2019 04:44 A**

Client ID: Run ID: **GC14_191022B** SeqNo: **6005930** Prep Date: **10/22/2019** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	902	33	83	833	0	108	50-130	853	5.58	0	
Aroclor 1260	894.3	23	83	833	0	107	50-130	913	2.07	0	
Surr: Decachlorobiphenyl	*36.33*	0	0	*33.3*	0	*109*	*40-140*	36	*0.922*	*0*	
Surr: Tetrachloro-m-xylene	*30.67*	0	0	*33.3*	0	*92.1*	*45-124*	28.33	*7.91*	*0*	

The following samples were analyzed in this batch:

19101634-01A	19101634-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101634
Project: St. Francois Hospital

QC BATCH REPORT

Batch ID: **R273682** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R273682** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008926** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS Sample ID: **LCS-R273682** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008925** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP Sample ID: **19101700-20B DUP** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008909** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	22.56	0.1	0.10	0	0	0	0-0	22.77	0.927	10	

DUP Sample ID: **19101700-29B DUP** Units: **% of sample** Analysis Date: **10/23/2019 10:19 A**
Client ID: Run ID: **MOIST_191023A** SeqNo: **6008919** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	23.47	0.1	0.10	0	0	0	0-0	25.64	8.84	10	

The following samples were analyzed in this batch: 19101634-01A 19101634-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page _____ of _____

COC ID: 194069

ALS Project Manager: EB

ALS Work Order #: 19101634

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	ST. Francis Hospital	A	EPA 8082A
Work Order		Project Number		B	
Company Name	Tetra Tech	Bill To Company	Tetra Tech	C	
Send Report To	Megan Sawyer	Invoice Attn	Accounts Payable	D	
Address	415 Oak Street	Address	415 Oak Street	E	
				F	
City/State/Zip	Kansas City, MO 64106	City/State/Zip	Kansas City, MO 64106	G	
Phone	(816) 412-1755	Phone	(816) 412-1755	H	
Fax	(816) 410-1748	Fax	(816) 410-1748	I	
e-Mail Address	megan.sawyer@tetratech.com	e-Mail Address	megan.sawyer@tetratech.com		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	PCB-1-Additional	10/18/19	1200				X										
2	PCB-2-Original	10/18/19	1210				X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Megan Sawyer

Shipment Method: FedEx

Required Turnaround Time: (Check Box) [X] Std 10 WK Days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other _____

Results Due Date:

Relinquished by:		Date:	Time:	Received by: FED EX
Relinquished by: FED EX		Date: 10/21/19	Time: 0930	Received by (Laboratory):
Logged by (Laboratory): DFS		Date: 10/21/19	Time: 1545	Checked by (Laboratory): EB

Notes:

Cooler ID	Cooler Temp.
SB2	17.0°C

QC Package: (Check One Box Below)
[ ] Level II Std QC
[ ] Level III Std QC/Raw Data
[ ] Level IV SW846/CLP
[ ] Other _____
[ ] TPRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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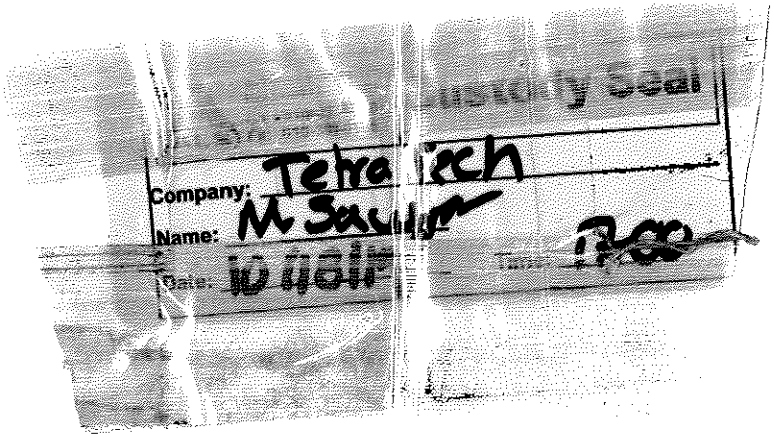
Company:
Name:
Date:

ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH - MO** Date/Time Received: **21-Oct-19 09:30**

Work Order: **19101634** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 21-Oct-19 (Date) Reviewed by: Ehrland Bosworth (eSignature) 21-Oct-19 (Date)

Matrices: Solid

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	17.0/17.0 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	10/21/2019 3:43:32 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Tetra Tech, Inc.
DATA VALIDATION REPORT
LEVEL II

Site:	Former St. Francois Hospital, Marceline, Linn County, Missouri
Laboratory:	ALS Group, Inc. (Holland, Michigan)
Data Reviewer:	Ann Weise, Tetra Tech, Inc. (Tetra Tech)
Review Date:	December 19, 2019
Sample Delivery Group (SDG):	19101634
Sample Numbers:	PCB-1-Additional PCB-2-Original
Matrix / Number of Samples:	2 Discrete Caulk Samples

The data were qualified according to the U.S. Environmental Protection Agency (EPA) entitled "Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review", dated January 2017, and "CLP NFG for High-Resolution Superfund Methods Data Review" dated April 2016. In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the applicable methods.

The review was intended to identify problems and quality control (QC) deficiencies that were apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project-specific data package.

I, Ann Weise, certify that all data validation criteria outlined in the above-referenced documents were assessed, and any qualifications made to the data accorded with those documents.

Ann Weise

19 December 2019

Certified by Ann Weise, Environmental Scientist — Date

DATA VALIDATION QUALIFIERS

U — The analyte was not detected above the reported sample quantitation limit.

J — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ — The analyte was not detected above the reported sample quantitation limit, which is estimated.

R — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. Presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

Sample delivery group (SDG) 19101554 included two caulk samples. The samples were analyzed for polychlorinated biphenyls (PCB) as Aroclors by EPA SW-846 Method 8082A. The following summarizes the data validation that was performed.

POLYCHLORINATED BIPHENYLS (AROCLORS) ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received intact by the laboratory. Samples were received at 17 °C, which is above the required temperature parameter of less than 6 °C. However, the samples were extracted and analyzed within 5 days which is within the holding time for unpreserved samples. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were not performed. The Laboratory Control Sample (LCS)/ LCS Duplicate (LCSD) indicate the instrument was in control. Result are not qualified based on MS/MSD results; thus, no qualifications were applied.

III. Blanks

No analytes were detected in the method blanks. No qualifications were applied.

IV. Laboratory Control Sample (LCS)

All LCS results were within QC limits. No qualifications were applied.

V. Surrogate Recoveries

All surrogate recoveries were within limits. No qualifications were applied.

VI. Comments

No Aroclors were detected in the sample PCB-2-Original. Aroclor 1254 was identified in sample PCB-1-Additional.

VII. Overall Assessment of Data

Overall data quality is acceptable, with no qualifications applied. All data are usable as reported for their intended purposes.

APPENDIX F

PROPERTY PROFILE FORM

United States
ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

Form Approved
OMB Number No. 2050-0192
Expires 07-31-2012

PROPERTY PROFILE FORM—Brownfields

Public reporting burden for this collection of information is estimated to average 1.50 hours per response, including the time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate, or any other aspect of this collection of information, including suggestions for reducing this burden, to the Environmental Protection Agency, Office of Environmental Information, Code 2822T, Washington, DC 20460 and to the Paperwork Reduction Project, Office of Management and Budget, Washington, DC 20503. DO NOT RETURN your form to either of these addresses. Send your completed form to the address provided by the issuing office.

PART I- PROPERTY INFORMATION

COOPERATIVE AGREEMENT RECIPIENT INFORMATION

1. Cooperative Agreement Recipient Name (State/Tribe for Section 128(a) Cooperative Agreements; requestor/contractor for TBAs):

Former St. Francis Hospital

2. Cooperative Agreement Number (contract number for TBAs):

EP-S7-19-07

3. What type of cooperative agreement funding is being used for this property?

- ☐ Assessment
- ☐ Revolving Loan Fund
- ☐ Cleanup
- ☐ Section 128(a) – State and Tribal Response
- ☑ TBA (EPA Regions Only)

4. For Assessment, Cleanup, and Revolving Loan Fund cooperative agreements, what type of funding is being used at this property?

- ☑ Hazardous Substance
- ☐ Petroleum
- ☐ Both

5a. Indicate if this form is the initial or Updated Form:

- ☑ Initial Form
- ☐ Updated Form

5b. If "Updated Form," what's the ACRES Property ID?

PROPERTY BACKGROUND INFORMATION

6. Property Name: Livestock Exchange Building

7a. Street Address: 108 E Howell Avenue

7b. City: Marceline

7c. County: Linn

7d. State: MO

7e. Zip code: 64658

8. Size (in acres): 1.80

9. Parcel Number(s): 2.00932E+16

STATE & TRIBAL BROWNFIELDS/VOLUNTARY RESPONSE PROGRAM INFORMATION

10. State & Tribal Program Enrollment (If the property is not enrolled in a state program, check Property Not Enrolled check box):

Date of Enrollment:

ID Number (if applicable):

☑ Property Not Enrolled in a State or Tribal Program

PROPERTY GEOGRAPHIC INFORMATION *(EPA Brownfields Program, or its contractors, will provide complete latitude/longitude information if cooperative agreement recipients are unable)*

11a. Latitude (use 00.000000 decimal degree format):
39.713804

11b. Longitude (use -000.000000 decimal degree format):
-92.950723

11c. Horizontal Collection Method:
Global Positioning Method- Unspecified Parameters

11d. Source Map Scale Number (Only if a map/photo was used):

11e. Reference Point (e.g., Center of Facility or Station):
Center of a Facility or Station

11f. Horizontal Reference Datum (Choose one):

- ☐ NAD27-North American Datum of 1927
- ☐ NAD83-North American Datum of 1983
- ☑ WGS84-World Geodetic System of 1984

PART II- ENVIRONMENTAL ACTIVITIES

ENVIRONMENTAL ASSESSMENT INFORMATION *(mandatory for Assessment Cooperative Agreements, State & Tribal Property-Specific Assessments, and TBAs; as available for Cleanup and RLF cooperative agreement recipients; CA = Cooperative Agreement)*

Table A – Environmental Assessment Activity (If there are multiple assessments, please use a separate line for each assessment)

Environmental Assessment Detail			Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this						
Activity	Start Date	Completion Date	This US EPA CA	Other Federal	State/Tribal (exclude §128(a) funds)	Local Gov't	Private/ Other	Name of Entity Providing Funds	Amount of Funding Expended on this Activity
Phase I	12/15/2019		☐	☐	☐	☐	☑	Michael Wrenn	
Phase II	11/5/2019	1/5/2020	☑	☐	☐	☐	☐	U.S. EPA Region 7	$54,122.99
Cleanup Planning	1/5/2019		☑	☐	☐	☐	☐		

12. Indicate whether cleanup is required: ☑ Yes ☐ No ☐ Unknown

CONTAMINANTS & MEDIA AFFECTED INFORMATION *(mandatory for all cooperative agreement types)*

Table B - Contaminants and Media Affected (check all that apply):

Contaminants

Class of Contaminant	REC*	Found	Cleaned Up
Petroleum/Petroleum Products	☐	☐	☐
Controlled Substances	☐	☐	☐
Asbestos	☐	☑	☐
PCBs	☐	☐	☐
VOCs	☐	☐	☐
Lead	☑	☐	☐
Other Metals	☐	☑	☐
PAHs	☐	☐	☐
Other Contaminants	☐	☐	☐
No Contaminants	☐		
Unknown	☐		

Media

Media	Affected	Cleaned Up
Soil	☑	☐
Air	☐	☐
Surface Water	☐	☐
Ground Water	☑	☐
Drinking Water	☐	☐
Sediments	☐	☐
No Media Affected	☐	
Unknown	☐	

*REC = Recognized Environmental Conditions

ENVIRONMENTAL CLEANUP INFORMATION *(mandatory for Cleanup and RLF Cooperative Agreements and State & Tribal Property-Specific Cleanups; as available for Assessment Cooperative Agreements and TBAs)*

13. Cleanup Activity Start Date: _____

14. Cleanup Activity Completion Date: _____

15. Acres Cleaned Up: _____

16. Date No Further Action/Cleanup Completion Document Issued
(If the property was not enrolled in a state or tribal program, leave blank): Date: _____

17. Number of Cleanup Jobs Leveraged: _____

18. If EPA Brownfields funding was used, indicate the type and amount (If any non-EPA funding was used, fill out Table C):

Type	Amount	Type	Amount
☐ Cleanup Cooperative Agreement		☐ RLF Subgrant	
☐ RLF Loan	Date RLF Loan Signed	☐ Section 128(a) State/Tribal Cooperative Agreement	

Table C - Environmental Cleanup Leveraged Funding Detail

Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this EPA Cooperative Agreement)					
Other Federal	State/Tribal (exclude §128(a) funds)	Local Gov't	Private/ Other	Name of Entity Providing Funds	Amount of Funding Expended on this Activity
☐	☐	☐	☐		
☐	☐	☐	☐		
☐	☐	☐	☐		

PART II- ENVIRONMENTAL ACTIVITIES (continued)

INSTITUTIONAL & ENGINEERING CONTROLS INFORMATION *(mandatory for all cooperative agreement types)*

19a. Indicate whether Institutional Controls are required: ☐ Yes ☐ No ☑ Unknown

19b. If Institutional Controls were required, indicate the category (check all that apply):

☐ Proprietary Controls (e.g., easements, covenants) ☐ Governmental Controls (e.g., zoning, building codes)

☐ Informational Devices (e.g., state registries, deed notices) ☐ Enforcement/Permit Tools (e.g., permits, consent decrees)

Additional Institutional Controls Information:

Address of Data Source (URL if available): _____

19c. Indicate whether Institutional Controls in place: ☐ Yes ☑ No Date: _____

20a. Indicate whether Engineering Controls are required: ☐ Yes ☐ No ☑ Unknown

20b. If Engineering Controls were required, indicate the category (check all that apply):

☐ Cover Technologies (e.g., Capping) ☐ Immobilization Process (e.g., Encapsulation, In-Situ Solidification) ☐ Engineered Barriers (e.g., Slurry Walls, Sheet)

☐ Security (e.g., Guard, Fences) ☐ Other _____

Additional Engineering Controls Information:

Address of Data Source (URL if available): _____

20c. Indicate whether Engineering Controls in place: ☐ Yes ☑ No Date: _____

REDEVELOPMENT AND OTHER LEVERAGED ACCOMPLISHMENTS *(Mandatory for Assessment, Cleanup and RLF Cooperative Agreements; as available for State and Tribal Property Specific Activities and TBAs)*

21. Redevelopment Start Date: _____ **22.** Redevelopment Completion Date: _____

Table D- Redevelopment Leveraged Funding Detail

Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this EPA Cooperative Agreement)				Name of Entity Providing Funds	Amount of Funding Expended on this Activity
Other Federal	State/Tribal	Local Gov't	Private/ Other		
☐	☐	☐	☐		
☐	☐	☐	☐		
☐	☐	☐	☐		
☐	☐	☐	☐		

23. Number of Redevelopment Jobs Leveraged: _____

24. Future Use and Estimated Acreage (check all that apply; For properties with multi-story buildings only, please indicate also the square footage for each type of reuse (e.g. a three story building with first floor commercial and remaining floors residential).

☑ Multi-story building

☐ Greenspace _____ acres _____ sq. ft. ☑ Commercial 1.80 acres 18250.00 sq. ft.

☐ Industrial _____ acres _____ sq. ft. ☐ Residential _____ acres _____ sq. ft.

25. Actual Acreage(s) and Type(s) of Greenspace Created: _____

PART II- ENVIRONMENTAL ACTIVITIES (continued)

ANECDOTAL PROPERTY INFORMATION *(as available for all cooperative agreement types)*

26. Property Highlights:

The approximate 1.8-acre Former St. Francis Hospital site is in Marceline, Linn County, Missouri. Historically, the site was developed as a Hospital between 1923 and 1950. Chemicals of concern include metals.

PROPERTY PHOTOGRAPH INFORMATION

27. Indicate whether photographs are available ☑ Yes ☐ No **28.** Indicate whether video is available: ☐ Yes ☑ No

PART III- ADDITIONAL PROPERTY INFORMATION

PROPERTY HISTORY INFORMATION

29. Property Description / History / Past Ownership:

See anecdotal property information above.

30. Predominant Past Use(s) (check all that apply; For properties with multi-story buildings only, please indicate also the square footage for each type of reuse (e.g. a three story building with first floor commercial and remaining floors residential):

☑ Multi-story building

☐ Greenspace _____ acres _____ sq. ft. ☐ Commercial _____ acres _____ sq. ft.

☐ Residential _____ acres _____ sq. ft. ☑ Industrial 1.80 acres 18250.00 sq. ft.

OWNERSHIP & SUPERFUND LIABILITY *(Mandatory for Cleanup and RLF Cooperative Agreements)*

31a. Ownership Entity:

☐ Government (Tribal, State, Local) ☑ Private

31b.Current Owner:

Michael Wrenn

32a. During the life of the cooperative agreement, did ownership change?

☐ Yes ☐ No

32b. If "yes," did Superfund federal landowner liability protections factor into the ownership change?

☐ Yes ☐ No ☐ Unknown

PART IV- APPROVALS

33. Cooperative Agreement Recipient Project Manager

Name (please print):	Signature	Date:
Randy Brown		

34. US EPA Regional Representative

Name (please print):	Signature	Date:
Todd Davis, Project Manager		