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November 3, 2015
File No. 05.0045441.00

Town of Vernon
Mr. John D. Ward, Town Administrator
Memorial Building
14 Park Place, 3rd Floor
Vernon, CT 06066

Re: Supplemental Phase III Investigations
Former Amerbelle Mill Property
104 East Main Street
Vernon, Connecticut

Dear Mr. Ward:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide this letter report to The Town of Vernon summarizing Supplemental Phase III Environmental Site Assessment (ESA) investigations completed at the Former Amerbelle Mill Property at 104 East Main Street, Vernon, Connecticut (Site) in accordance with Change Order #5, authorized on September 11, 2015. This report provides data to supplemental our findings regarding Site conditions presented in our Phase III Data Assessment Report submitted in July 2015 and is subject to the Terms and Conditions of our contract and to the Limitations in Appendix A.

Supplemental Site investigations completed under Change Order 5:

Soil Borings and Analysis

AOC-1: Advancement of six (6) GeoProbe® soil borings to the bedrock surface and laboratory analysis of six (6) soil samples for Extractable Petroleum Hydrocarbons (ETPH) sampled from above the bedrock surface to more fully characterize the release of petroleum within the former 5,000 and 3,000-gallon solvent underground storage tank (UST) locations, identified under Phase III Data Gap Investigations.

AOC-4: Advancement of four (4) manual soil borings to the bedrock surface and laboratory analysis of seven (7) soil samples for ETPH to more fully characterize the release of petroleum at boring AOC-4-3, located within the former Dye Mixing Room in Bldg. 14, identified during our Phase III Data Gaps investigation.

AOC-7: Advancement of one (1) soil GeoProbe® boring to below the water table and laboratory analysis of one (1) soil sample for ETPH to determine whether the release of petroleum identified within Bldg. 12, during our Phase III Data Gaps investigation, extends outside the footprint of that building.

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Groundwater Well Installations:

GZ-6 - Upgradient bedrock well south of Bldg. 14 to replace destroyed well AM-1 and provide data upgradient of the Site.

GZ-7 - Deep bedrock well downgradient of AOC 4 to assess groundwater downgradient of reported aniline dye spill in northwest corner of Building 14 at ME-2.

GZ-8 - Overburden well downgradient of Building 12 to assess impacts to groundwater from the petroleum release identified at AOC-7.

GZ-9 - Bedrock well downgradient of Bldg. 11 to assess groundwater downgradient of the solvent and petroleum release identified below that building (AOC 19).

Groundwater Sampling:

Collected groundwater samples from the four newly installed monitoring wells (GZ-6, GZ-7, GZ-8 and GZ-9) and two pre-existing monitoring wells (GZ-4, and ME-6) and laboratory analysis of the samples for subsets of the following parameters: Volatile Organic Compounds (VOCs) via Method 8260B, Polynuclear Aromatic Hydrocarbons (PAHs) via Method 8270C, including aniline, and metals (lead, copper, mercury, and/or zinc) via Method 6010 or 7471A (mercury).

A summary of the investigations completed and our findings follow.

SOIL EXPLORATIONS AND ANALYSES

Soil sampled from Geoprobe soil borings were obtained using a five-foot long Macro Core® sampler outfitted with acetate liners. Soil samples collected manually inside Building 14 were obtained using a 2-foot long GeoProbe® MC5 soil sampler outfitted with acetate liners driven into the ground with an electric hammer drill.

The samples collected from the borings were evaluated in the field for visual and olfactory evidence of contamination. In addition, the soil samples were screened using a MiniRae Lite 3000, portable, photo-ionization detector (PID) outfitted with a 10.6 eV lamp. [1]

[1] A PID is a screening instrument that is capable of detecting certain organic vapors which are constituents of petroleum fuels, oils, paints and aromatic and chlorinated solvents. A PID is used as a screening instrument only and does not provide absolute values for concentrations in soil samples. The PID was calibrated to a 100 parts per million (ppm) isobutylene standard prior to sample screening.

Subsurface materials generally consisted of sands with varying amounts of silt or silts with varying amounts of sand. Gravel was also observed at lesser amounts. The locations of the borings/monitoring wells are shown on Figure 2 and boring logs are provided in Appendix B.

AOC-1 – Former Xylene USTs South of Bldg. 14

Former 5,000-gallon and former 3,000-gallon steel underground storage tanks (USTs), used for the storage of xylenes, were located below the parking lot south of Building 14 and west of the southern loading dock. Information presented in previous investigation reports indicate one tank failed tank tightness tests, conducted in July 1989. The tanks (installed in 1972) were reportedly removed in July 1993. Upon the July 1993 removal of the tanks, it was reported there were no records indicating post-excavation soil sampling was completed within the tank grave to document whether or not a release from the tanks had occurred.

As part of the previous Phase III Data Gap Investigation, GZA completed two soil borings (AOC-1-1 and AOC-1-2) in the footprint of the former USTs and sampled soil at depths inferred to be below the base of the former tanks (approximately 11.3 feet and 14.7 feet below the ground surface, respectively). Soil samples were submitted for laboratory analysis of VOCs, PAHs and ETPH. No VOCs or PAHs were detected in the two soil samples submitted to the laboratory. ETPH was reported at 74 and 340 mg/kg in the samples from AOC-1-1 and AOC-1-2, respectively, below R-DEC and GB-PMC. Although the concentrations of ETPH were reported below the applicable R-DEC and GB-PMC, the concentrations reported indicate a release of petroleum oils is present at this AOC and additional assessment was required to fully assess the extent of ETPH impacts to soil at the former xylene USTs.

On September 23, 2015, GZA advanced six borings (AOC-1-3 through AOC-1-8) to the bed rock surface and from 8 to 10 feet below the ground surface within the footprint and area surrounding the former xylene storage tanks (see Figure 2). Soils were observed to consist typically of brown to red brown fine to medium sand with little fine to coarse gravel and silt. No stains or odors were observed in the soils sampled. VOC soil vapors were not detected through PID field screening. Copies of soil boring logs with soil observations and PID screening results are presented in Appendix B.

The soil were sampled from 8 to 10 feet below ground surface (bgs), inferred to be below the level of the former tanks, and were submitted for laboratory analysis of ETPH. As summarized in Table 2A, the concentration of ETPH in all six samples were reported to be below the laboratory minimum reportable limit (MRL). Copies of soil laboratory analytical reports are presented in Appendix C.

Based upon the soil sampling results, it appears a release of ETPH was detected at borings AOC-1-1 and AOC-1-2 and it is confined to the former tank grave location. The concentrations do not exceed remedial criteria applicable to these soils under the Connecticut Remediation Standard Regulations (RSRs). Therefore, no further action is recommended with regard to this AOC.

AOC-4 – Former Dye Mixing Room Northwest Corner of Bldg. 14

The former dye/mixing room and textile dyeing storage areas were located in the northwest corner of Building 14 and were formerly used for textile dyeing and finishing operations. As part of the previous Phase III Data Gap Investigation, GZA sampled soils from below the floor slab to 4 feet bgs at two borings within the Former Dye Mixing Room; AOC-4-2 and AOC-4-3. Laboratory analyses of the soils sampled from those borings detected moderately elevated concentrations of ETPH, below the DEC and PMC, in soil sampled from 0 to 0.5 feet bgs at AOC-4-3 (470 mg/Kg). The reported concentration of ETPH in the soil, although below RSR remedial criteria, indicated the presence of a release of petroleum hydrocarbons there. Soils sampled previously outside the west wall at ME-1 indicated only trace concentration of ETPH at that location.

On September 17, 2015 GZA conducted explorations of soils at borings (AOC-4-3A through AOC-4-3D) within the northwestern corner of the Dye Mixing room to further assess the extent of ETPH impacts to soil reported at boring AOC-4-3. Soil boring AOC-4-3A was advanced through the location of boring AOC-4-3 and soils were sampled from 2 to 4 feet bgs (to sampler refusal) to further evaluate the vertical extent of impacts there. Additionally, soil was collected from 0 to 2 and 2 to 4 feet bgs at borings AOC-4-3B through AOC-4-3D, to the north, east, and south of AOC-4-3, and submitted for laboratory analysis of ETPH to further assess the horizontal and vertical extent of the petroleum release surrounding the boring. A sample could not be collected to the west of AOC-4-3 due to the exterior wall. Boring locations are shown on Figure 2.

The soil was observed to consist typically of dark brown silt with little fine to coarse sand and gravel. No stains or odors were observed in the soil sampled. PID field screening ranged from not detected at boring AOC-4-3C to 24.7 ppm at AOC-4-3A. A drain pipe was encountered from 3.5 to 4 feet of depth at AOC-4-3D which was observed to contain approximately two inches of darkly tinted purple water, assumed to be waste dye solution. A second offset boring was installed immediately adjacent to the pipe and soil from 2 to 4 feet were collected for analysis. Copies of soil boring logs with soil observations and PID screening results are presented in Appendix B.

As summarized in Table 2B, ETPH was reported at 130 mg/kg in soil sampled from AOC-4-3B from 0.66 to 2 feet (below R-DEC and GB-PMC) and was not detected in the remaining six samples. Copies of soil laboratory analytical reports are presented in Appendix C.

Based upon the soil sampling results, it appears a release of ETPH is primarily limited to the shallow soil in the vicinity of borings AOC-4-3 and AOC-4-3B at concentrations below R-DEC and GB-PMC. As such, no further action is recommended.

AOC-7 – Former Maintenance/Machine Shop Bldg. 12

The former Maintenance/Machine Shop located within the lower floor of Building 12 was used for repair maintenance of equipment and machining of parts formerly used in operations throughout the facility.

As part of the previous Phase III Data Gap Investigation, GZA completed two soil borings (AOC-7-1 and AOC-7-2) in the basement of Building 12 to 2 feet below the floor. Soil samples were submitted for laboratory analysis of VOCs, PAHs and ETPH. No VOCs or PAHs were detected in the two soil samples submitted to the laboratory. ETPH was reported at 8,000 mg/Kg in sample AOC-7-2(0.5-2), above the R-DEC of 500 mg/kg and GB-PMC of 2,500 mg/Kg. ETPH was reported below the laboratory MRL in sample AOC-7-1(0.5-2). The ETPH concentration at AOC-7-2(0.5-2) indicates that some form of remedial action will be required to address that release.

On September 23, 2015 GZA sampled soil at boring GZ-8, located outside the northern wall of Building 12, to assess the extent of ETPH impacts to soils outside the building footprint from the release reported at AOC-7-2. The boring was advanced below the water table (encountered at approximately 9.7 feet bgs) to 25 feet below grade. Soils encountered were observed to consist typically of red brown fine to medium sand with varying amounts of gravel and silt. A strong petroleum order was noted in the soil and PID screening results ranged from not detected at the surface to 398.2 ppm at 20 – 25 feet below the ground surface and below the water table. A monitoring well was constructed within that boring to provide further data in the assessment of that release. Results of the analysis of groundwater from that well is discussed later within this report. Soil observations, PID screening results and well construction details were recorded on a boring log, a copy of which is presented in Appendix B.

A soil sample was collected from 5 -7 feet below the ground surface, just above the inferred water table, and submitted to the laboratory for ETPH analysis. The PID field screening reading for that sample was reported at 225.7 ppm. A grab sample was also obtained at that depth and submitted for analysis of VOCs. As indicated on Table 2C, concentrations of ETPH and VOCs in that sample were reported below laboratory MRLs. The observations made at boring GZ-8 indicated that the release of petroleum was present outside the northern wall of Building 12. However, laboratory analyses indicate that concentrations of VOC and petroleum constituents exceeding RSR criteria are limited to the building footprint. Based upon these results, no further exploration of this location is recommended.

MONITORING WELLS

On September 21 through 24, 2015, GZA installed groundwater monitoring wells GZ-6 through GZ-9 to provide additional data upgradient and down gradient of release areas identified at the Site. Well GZ-6 was installed south of Bldg. 14 to replace destroyed well AM-1 and provide data upgradient of the Site. The well was installed to 32 feet of depth into the bedrock and screened across the water table from 17 to 23 feet bgs.

GZ-7 was installed downgradient of AOC-4 to assess the release of aniline dye within the deeper bedrock downgradient well ME-2. We note that initially a deeper bedrock well (ME-2A) was first attempted approximately 20 feet northwest of ME-2. The borehole for that well was drilled to 37 feet and no water was encountered. Therefore GZ-7 was moved further to the northwest at the southwest corner of Building.

Well GZ-8 was installed within the overburden downgradient of Building 12 to assess impacts to groundwater from the petroleum release identified at AOC-7. The well was installed to a depth of 25 feet without encountering bedrock. A strong petroleum odor was noted in soils above and below the water table and PID readings as 398 ppm were recorded. Based on those observations, the well was screened across the water table from 7 to 17 feet bgs.

GZ-9 was installed within the bedrock downgradient of Building 11 to assess groundwater downgradient of the solvent and petroleum release identified below that building (AOC 19). GZ-9 was installed to a depth of 33.7 feet bgs and screened from 28.7 to 33.7 feet bgs.

Wells GZ-6, GZ-7, and GZ-9 were installed into the bedrock aquifer using an air rotary drilling methods. Well GZ-8 was installed within overburden soil using a hollow stem auger drill rig.

The monitoring wells were constructed to standard specifications using 2-inch diameter, schedule 40 PVC flush threaded riser and No. 10 slotted screen sections. At each well, a sand filter pack of washed silica sand was installed around the well screen typically to a depth 2 feet above the top of the screen. An approximately two foot thick bentonite seal was installed above the sand filter pack and the wells were finished with a protective, steel, road box flush-mounted with the ground surface and set in concrete. Monitoring well construction details are summarized in boring logs presented in Appendix B and Table 1.

After completion, the monitoring wells were developed by alternately surging and pumping water from the wells to remove fines within the aquifer matrix materials

surrounding the wells. This procedure is performed to minimize load of suspended particles in groundwater sampled from the wells and to increase the hydraulic communication between the well and aquifer. The location and elevation of the top of the PVC riser was then surveyed relative to an established benchmark at the Site to allow the relative elevation of the groundwater table to be measured at the wells.

GROUNDWATER ELEVATION MEASUREMENTS

On October 2, 2015, prior to sampling, GZA measured the depth to static groundwater in the seventeen on-Site monitoring wells and two offsite monitoring wells (at the abutting Daniel's Mill property to the north). Groundwater was encountered at depths ranging from 3.19 to 32.50 feet below grade. Recorded depth to groundwater measurements are shown on a copy of a field log presented in Appendix D. Depth to groundwater data, along with well construction data and the calculated relative elevation of the groundwater at each well is presented in Table 1. A groundwater elevation contour plan for the Site was constructed based on that data and is presented in Figure 2.

As indicated on the plan presented in Figure 2, groundwater is inferred to flow across the Site generally to the north/northwest towards American Mill Pond. Flow off Site and to the northeast in the northeast corner of the site is inferred to flow back toward American Mill Pond to the southwest, creating a zone of convergence to the northwest of Building 11, with flow within that zone being generally to the west to American Mill Pond.

GROUNDWATER SAMPLING

On October 2, 2015, groundwater was sampled from the newly installed wells GZ-6 through GZ-9 and pre-existing Site wells ME-2 and GZ-4. Wells GZ-8 and ME-2, located within the aniline plume, were sampled for EPA Method 8260 VOCs, Method 8270 PAHs, aniline and metals (lead copper, mercury, zinc); Well GZ-8, installed downgradient of the ETPH release below Building 12, was sampled for EPA Method 8270 PAHs and well GZ-9, located downgradient of the petroleum and solvent release area, was sampled for Method 8260 VOCs, Method 8270 PAHs and metals (lead copper, mercury, zinc).

Groundwater was sampled from the wells using EPA Low Stress/Low Flow sampling methods and following GZA's Standard Operating Procedure (SOP). Under this method, groundwater was purged from the wells at a low flow rate (typically less than 150 ml/min) while inducing a low drawdown of water within the well (<0.3 feet) so that representative samples of groundwater are obtained from the wells at the screened interval of the aquifer and with a limited suspended sediment load.

Prior to collecting samples, groundwater was withdrawn from the wells using a Geotech peristaltic pump and groundwater quality parameters (pH, oxidation/reduction potential

(ORP), specific conductivity, temperature, and dissolved oxygen) were monitored at 5 to 10 minute intervals. Additionally, turbidity of the water was also monitored using a MicroTPI Turbidimeter. Groundwater was purged from the wells and water quality parameters were monitored and recorded on field data sheets until measured parameters were shown to have stabilized within method performance standards and the turbidity of the water had dropped to less than 5 NTUs (see field data sheets in Appendix D).

Upon achieving stabilization of the above listed parameters, groundwater samples were collected and placed in preserved containers and submitted to Phoenix Environmental Laboratories under chain of custody control for analysis. Groundwater sampling field data sheets are provided in Appendix D and laboratory reports for groundwater samples with chain of custody records are provided in Appendix E.

SUMMARY OF GROUNDWATER INVESTIGATIONS

A summary of groundwater laboratory analytical results in comparison to the applicable remedial criteria established within the RSRs is presented in Table 3. A summary of analytical results for each of the three plume areas follows.

<u>Wells ME-1, ME-2, GZ-1, GZ-2, and MW-02 – AOC 4 Potential Releases from Historical Fabric Dyeing and Coating Operations at Building 14</u>:

Groundwater in the area north and west of Building 14 is characterized by generally low concentrations of metals, SVOCs and ammonia below SWPC. Additionally, low levels of phenols and an elevated concentration of ammonia were detected in ME-2 and aniline was detected at 0.47 mg/L above the SWPC in April 2015 (see Table 3). A black/blue color has been observed in the well purge water at ME-2 (inferred to be residual dye) and likely indicative of the presence of aniline dye there. Based upon our groundwater sample results, it appears a release of dye is present beneath Building 14 upgradient (southeast) of that well likely from the conveyance trenches or piping at AOC-4.

Although aniline was reported at a concentration above the SWPC in well ME-2 in April 2015, analysis of groundwater at downgradient well MW-2 during that same event showed aniline to be below laboratory reportable limits at that well. Therefore, no actual exceedance of the SWPC was inferred as the concentration of aniline was shown to be below the SWPC prior to the point of discharge of groundwater to the American Mill Pond.

An investigation of groundwater quality in the deeper bedrock aquifer was conducted downgradient of ME-2 as part of the supplemental Phase III data gap investigations to determine if aniline reported in ME-2 was not being conveyed downward below the depth

of the downgradient well screens by a steep downward vertical gradient in the groundwater flow as it discharges to American Mill Pond.

As indicated in Table 1, well ME-2 is screened from 8 to 18 feet bgs. Groundwater is observed in that well at approximate 6 to 8 feet bgs, approximately at or below the level of the surrounding bedrock surface. As part of the additional Phase III data gap investigations of this plume, GZA attempted to install a deeper bedrock well approximately 20 feet northwest and downgradient of ME-2 to assess deeper groundwater quality downgradient of that well. The well borehole was drilled to a depth of 37 feet. However, after 24 hours groundwater did not enter the bore hole due to the apparent competent (non-fractured) bedrock. That well was abandoned and deeper bedrock well GZ-7 was installed adjacent to the southwest corner of Building 13, 35 feet to the northwest of ME-2 and screened within the deeper bedrock aquifer, from 21 to 31 feet bgs.

Sampling and analysis of groundwater in October 2015 indicated that aniline was again present above the SWPC in well ME-2. However, aniline was again reported below the laboratory MRL and SWPC in both downgradient well MW-02 and newly installed well GZ-7. As the concentration of aniline was shown to be below SWPC in these latter wells located upgradient of the point of discharge to the American Mill Pond, no exceedance of the SWPC was indicated and impacts from this plume to Site groundwater quality are not inferred by this data set to require a remedial response. We note however, four seasonal quarters of groundwater sampling are required to be completed to demonstrate compliance. Additional quarterly sampling of these wells will be conducted as part of the post-remedial groundwater monitoring program after completion of remedial actions at other AOCs at the Site.

<u>Wells GZ-8 – AOC 7 Petroleum Hydrocarbon Release Building 12</u>

GZA installed monitoring well GZ-8 outside the northern wall of Building 12 to assess potential impacts to groundwater from the release of petroleum hydrocarbons identified in soil below the floor of the northwestern portion of that building. The well boring was advanced below the water table (encountered at approximately 9.7 feet bgs) and the well screened from 7 to 17 feet below grade. As noted above, a strong petroleum order was noted in the soil sampled from that boring and elevated PID screening results, up to 398.2 ppm, were recorded (see the well boring log in Appendix B). However, laboratory analysis of soils, sampled from above the water table from 5 to 7 feet bgs, indicated that concentrations of ETPH and VOCs were below laboratory reportable limits within that sample.

To further assess the apparent impacts at that location, groundwater from GZ-8 was sampled and analyzed for PAHs[2]. Laboratory analysis of that sample indicated that concentrations of PAHs were below laboratory minimum reportable limits. Therefore, no need for remedial action outside the building footprint and downgradient of the petroleum release at AOC-7 was indicated by the data set.

Wells AM-7, ME-6, and GZ-4 – AOC 19 Building 11

As indicated above, investigations at the property have identified elevated concentrations of chlorinated VOCs (particularly PCE), petroleum hydrocarbons and metals in soil and groundwater below the floor of Building 11. Groundwater sampling completed in April 2015 reported PCE in groundwater at GZ-4 (screened within the saturated overburden in the northeastern portion of the building) at a concentrations of 5,900 µg/L, greater than the SWPC and the R-GWVC. Concentrations of copper, lead, mercury and zinc and several PAHs were reported at concentrations above the SWPC in groundwater from well AM-7, located within the southwestern half of the building.

The concentration of contaminant constituents were found to be lower in downgradient well ME-6, located outside the building to the northwest and screened across the water table (within the bedrock). PAHs, metals and VOCs were reported below the SWPC, however, the concentration of vinyl chloride was reported above the R-GWVC in groundwater from ME-6, during the April 2015 sampling event.

Based on groundwater elevation data collected during the April 2015 sampling round, the direction of groundwater flow within that area of Building 11 was apparently to the northeast toward East Main Street. Shallow bedrock well GZ-9 was installed in the loading area to the northwest of Building 11 to assess groundwater quality in that direction down gradient of the building.

Sampling and analysis of groundwater from that well in October of 2015 showed concentrations of VOCs, PAHs and metals (with the exception of zinc) to be below laboratory minimum reportable limits and below SWPC and or GWVC. Zinc was reported at a trace concentration of 0.003 mg/L, below the SWPC for that parameter.

Based on the results of that program, concentrations of constituents of concern were not indicated to be present in groundwater at levels above the SWPC or GWVC at well GZ-9, downgradient of the AOC 19 release area. We note that groundwater was not sampled from well ME-6 during the October 2015 round. Additional quarterly monitoring of groundwater is required to further characterize groundwater quality downgradient of this

[2] Note: no groundwater remedial criteria are established for ETPH in GB areas.

AOC and determine the status of compliance with applicable groundwater remedial standards.

FINDINGS AND CONCLUSIONS

The following findings are presented based on the Supplemental Phase III Data Gap Investigation completed at the Site:

- A release of ETPH was identified in soils below the former solvent UST locations at AOC-1 at concentrations below applicable RSR remedial criteria. Additional sampling and analyses of soils at six (6) borings (AOC-1-3 through AOC-1-8) advanced within the area surrounding the former USTs did not detect ETPH at concentrations above laboratory minimum reportable limits. Based on the data collected, it appears the release of petroleum identified at this AOC is limited to the footprint of the former USTs at concentrations below R-DEC and GB-PMC. No further action is therefore recommended with regard to this AOC.

- A release of ETPH was identified in soil below the floor of the former Dye Mixing Room at boring AOC-4-3 (in the northwestern corner of Building 14) at concentrations below applicable RSR remedial criteria. Laboratory analysis of soil sampled at four (4) borings (AOC-4-3-A through AOC-4-3-D) advanced within the area surrounding AOC-4-3 reported concentrations of ETPH to be either below laboratory minimum reportable limits or below applicable remedial criteria (ETPH was reported at 130 mg/kg in sample AOC-4-3B from 0.66 to 2 feet bgs). Based on this data set it appears a release of ETPH at AOC 4 is limited to the upper two feet of soil at borings AOC-4-3 and AOC-4-3B at concentrations below R-DEC and GB-PMC. No further action is recommended with regard to this AOC.

- Soils and groundwater were sampled at boring/well GZ-8 outside the northwest wall of Building 12 to determine if the release of petroleum identified in soil at AOC-7-2 (located in the northwestern portion of that building) was confined to the footprint of the building or extended beyond. Soils sampled from boring GZ-8 were reported to have a strong petroleum odor and elevated PID readings were recorded for soil sampled from above and below the water table there. Laboratory analysis of soil sampled from the boring at 5-7 feet bgs (with a recorded PID screening value of 225.7 ppm) reported ETPH and VOCs to be below laboratory detection limits. In addition, analysis of groundwater sampled from the well GZ-8 indicated concentrations of PAHs to also be below the laboratory reportable limits. Based upon those data, it appears the release of ETPH below Building 12 at concentrations exceeding applicable RSR remedial criteria is limited to the building footprint. No further investigations of this area are therefore recommended.

- Sampling and analysis of groundwater at the four newly installed and two pre-existing monitoring wells at the Site yielded the following results:

    - Aniline was not detected in the deeper bedrock groundwater at newly installed monitoring GZ-7, well located northwest and downgradient of ME-2. This, combined with earlier sample results from well MW-02 does not indicate concentrations of aniline in groundwater exceed SWPC at the point of discharge to the American Mill Pond.

    - Concentrations of PAHs in groundwater were found to be below the laboratory reportable limits and the SWPC at well GZ-8, located immediately to the northwest and downgradient of the ETPH release identified in soil below the northwestern portion of Building 12 (AOC 7).

    - VOCs were not detected above laboratory detection limits in any of the wells tested with the exception of GZ-4. Tetrachloroethylene (PCE) was detected at 2,300 µ/L and trichloroethylene (TCE) was detected at 1.0 µ/L. The PCE detection was above the SWPC and R-GWVC.

    - Concentrations of VOCs, PAHs and metals were reported to be below laboratory minimum reportable limits and/or below SWPC and or GWVC in groundwater sampled from newly installed well GZ-9, north and downgradient of the release area below Building 11.

The above data did not indicate the need for additional investigation or for the implementation of remedial activities beyond what had been previously indicated by data collected at the Site under Phase III data Gap Investigations. This report summarizes our findings and provides recommendations based on the observed conditions and results of the Supplemental Phase III Assessment performed in September and October 2015. This report is subject to the limitations included in Appendix A.

If you need any additional information, please call us at (860) 286-8900.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Benjamin A. Graham
Environmental Scientist

Christopher J. Frey, LEP
Senior Project Manager

Gordon T. Brookman, LEP
Principal

Gary J. Cluen, LEP
Reviewer/Consultant

Tables:

Table 1	Monitoring Well Construction Table
Table 2A	AOC-1 Soil Summary Table
Table 2B	AOC-4 Soil Summary Table
Table 2C	AOC-7 Soil Summary Table
Table 3	Groundwater Summary Table

Figures:

Figure 1	Site Locus
Figure 2	Bedrock Groundwater Contours as of October 2, 2015

Appendices:

Appendix A	Limitations
Appendix B	Boring Logs
Appendix C	Soil Laboratory Reports
Appendix D	Groundwater Data Sheets
Appendix E	Groundwater Laboratory Reports

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TABLES

Table 1
Monitoring Well Construction Summary and Groundwater Elevation Measurements
Amerbelle Mill
104 East Main Street
Vernon, Connecticut

Well Location	Monitoring Well No.	Installation Date	PVC Elevation (feet)	Borehole Depth (feet)	Depth to Bedrock (feet)	Bedrock Elevation (feet)	Screened Medium	Screen Length (feet)	Screen Interval (feet)	Screened Elevation Interval	Nominal Well Diameter (inches)	Screen Slot Size (inches)	July 27, 2015		August 4, 2015		August 5, 2015		October 2, 2015	
													DTW (feet)	GW Elevation (feet)	DTW (feet)	GW Elevation (feet)	DTW (feet)	GW Elevation (feet)	DTW (feet)	GW Elevation (feet)
Daniel's Mill	MW-1	7/22/2015	84.33	32.25	20	64.33	BR	10	22.25-32.25	52.08-62.08	2	0.010	19.87	64.5	19.91	64.4	19.92	64.4	17.98	66.4
	MW-2	7/22/2015	100.86	33.75	20	80.86	BR	10	23.75-33.75	67.11-77.11	2	0.010	32.84	68.0	32.65	68.2	32.66	68.2	32.50	68.4
	American Mill Pond	-	78.3	33.75	20	80.86	BR	-	-	-	-	-	NM	-	NM	-	13.98	95-64.3	13.90	64.4
Amerbelle	GZ-1	4/7/15	120.19	18.08	4.22	115.97	BR	10	8.08-18.08	92.11-102.11	2	0.010	NM	-	8.97	111.2	8.98	111.2	9.02	111.2
	GZ-2	4/7 to 4/8/14	121	24.33	5.17	115.83	BR	15	9.33-24.33	84.67-96.67	2	0.010	NM	-	4.53	116.5	8.48	112.5	6.21	114.8
	GZ-3	4/8 to 4/9/15	119.02	20.2	7.19	111.83	BR	10	10.2-20.2	88.82-98.82	2	0.010	NM	-	NM	-	11.94	107.1	11.91	107.1
	GZ-4	4/24/15	103.31	10.54	10.54	92.77	OB	8	2.54-10.54	84.77-92.77	2	0.010	NM	-	NM	-	9.56	93.8	8.65	94.7
	GZ-5	4/24/15	100.55	16.2	16.2	84.35	OB	10	6.2-16.2	74.35-84.35	2	0.010	NM	-	NM	-	Dry At 16.22		Dry At 16.22	
	GZ-6	9/21/15	137.14	32.3	2	135.14	BR	15	17.3-32.3	104.84-119.84	2	0.010	NM	-	NM	-	NM	-	21.62	115.5
	GZ-7	9/22/15	119.93	32	6	113.93	BR	10	21.1-31.1	88.83-98.83	2	0.010	NM	-	NM	-	NM	-	12.49	107.4
	GZ-8	9/23/15	118.06	25	>25	NE	OB	10	7-17	101.06-111.06	2	0.010	NM	-	NM	-	NM	-	9.34	108.7
	GZ-9	9/24/15	103.38	33.7	23.3	80.08	BR	5	28.7-33.7	69.68-74.68	2	0.010	NM	-	NM	-	NM	-	17.49	85.9
	AM-1	1/22/04	115.59	12.5	10.30	105.29	OB	5	7.5-12.5	98.09-103.09	2	Not Reported	NM	-	NM	-	10.52	105.1	10.68	104.9
	AM-7	1/23/04	103.33	11	>11	NE	OB	5	4.5-9.5	88.93-93.83	2	Not Reported	NM	-	NM	-	8.72	94.6	8.23	95.1
	ME-1	11/29/05	122.65	15.8	2.8	119.85	BR	10	4.9-14.9	97.75-107.75	2	0.010	NM	-	5.71	116.9	5.72	116.9	5.81	116.8
	ME-2	11/29/05	121.53	18	5.1	116.43	BR	10	8-18	93.53-103.53	2	0.010	NM	-	7.02	114.5	7.09	114.4	3.19	118.3
	ME-6	11/30/05	100	25.5	13.2	86.80	BR	10	15.5-25.5	64.5-74.5	2	0.010	18.32	81.7	18.31	81.7	18.35	81.7	18.21	81.8
	MW-01	6/26/09	99.68	49.4	13.4	86.28	BR	10	39.4-49.4	40.28-50.28	2	0.010	NM	-	7.49	92.2	7.58	92.1	7.60	92.1
	MW-02	6/29/09	114.06	32.6	18.6	95.46	BR	10	22.6-32.6	71.46-81.46	2	0.010	NM	-	NM	-	19.06	95.0	19.01	95.1
	MW-03	6/29/09	122.25	36.7	23.2	99.05	BR	10	26.7-36.7	75.55-85.55	2	0.010	NM	-	NM	-	10.69	111.6	10.70	111.6

Notes:
1. OB indicates well screen is installed in overburden material.
   BR indicates well screen is installed in bedrock.
2. NE indicates bedrock was not encountered in the test boring.
3. Top of PVC riser pipe elevations were surveyed by GZA relative to a benchmark at ME-6 which was assigned an arbitrary elevation of 100 feet.
4. Measurements are from the top of the PVC riser pipe.
5. Depth to bedrock and screened interval elevations are based on field observations and measurements made during well construction.
6. MW-1, MW-2, and GZ-1 through GZ-5 were installed by GZA, MW-01 to MW-03 was installed by Fuss&O'Neill, ME-1, ME-2 and ME-6 were installed by Metcalf and Eddy and AM-1 and AM-7 were installed by GeoDesign
7. DTW = Depth to Water GW Elevation = Groundwater Elevation

Table 2A
Summary of Soil Analytical Data For AOC-1

Amerbelle Mills
Rockville, Connecticut

Client Id:	AOC 1-1 (8-10)	AOC 1-2 (8-10)	AOC-1-3 (8-10)	AOC-1-4 (8-10)	AOC-1-5 (8-10)	AOC-1-6 (8-10)	AOC-1-7 (8-10)	AOC-1-8 (8-10)	CT RSR Criteria			
Depth (feet):	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	R-DEC	I/C DEC	GA PMC	GB PMC
Date:	3/30/2015	3/30/2015	9/23/2015	9/23/2015	9/23/2015	9/23/2015	9/23/2015	9/23/2015				
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)												
ETPH	**74**	**340**	< 52	< 58	< 51	< 54	< 52	< 53	500	2,500	500	2,500
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)												
PAHs	< 0.25	< 0.24	--	--	--	--	--	--	Varies	Varies	Varies	Varies
Aromatic Volatiles Organic Compounds (AVOCs) (mg/kg)												
AVOCs	< 0.0052	< 0.0045	--	--	--	--	--	--	Varies	Varies	Varies	Varies

Notes:
1. **Bolded** values detected above laboratory detection limits.
2. CT RSR = Connectiut Remediation Standard Regulations
3. R = Residential I/C = Industrial/Commercial DEC = Direct Exposure Criteria
4. GB PMC = GB Pollutant Mobility Criteria
5. < 0.005 = Sample was not detected above the laboratory detection limits.
6. Only those compounds detected are shown. For a full list of analytes tested for, refer to the Phoenix Laboratories analytical report.
7. "--" = Sample was not tested for this parameter

Table 2B
Summary of Soil Analytical Data For AOC-4

Amerbelle Mills
Rockville, Connecticut

Client Id:	AOC-4-1 (4-6)	AOC 4-2 (0.5-2)	AOC 4-3 (0.5-2)	AOC-4-3A (2-4)	AOC-4-3B (0.66-2)	AOC-4-3B (2-4)	AOC-4-3C (0.66-2)	AOC-4-3C (2-4)	AOC-4-3D (0.5-2)	AOC-4-3D (2-4)	AOC 4-4 (2-4)	AOC 4-5 (4-6)	CT RSR Criteria		
Depth (feet):	4-6	0.5-2	0.5-2	2-4	0.66-2	2-4	0.66-2	2-4	0.5-2	2-4	2-4	4-6	R-DEC	I/C DEC	GB PMC
Date:	4/8/2015	4/16/2015	4/16/2015	9/17/2015	9/17/2015	9/17/2015	9/17/2015	9/17/2015	9/17/2015	9/17/2015	4/16/2015	4/16/2015			
Miscellaneous/Inorganics (mg/kg)															
Formaldehyde	--	--	< 2.2	--	--	--	--	--	--	--	--	**9**	1,000^	2,500^	2,000^
Methanol	--	--	< 5.0	--	--	--	--	--	--	--	--	< 5.0	1,000^	2,500^	660^
Metals, Total (mg/kg)															
Arsenic	**2**	**0.7**	**1.6**	--	--	--	--	--	--	--	**2.1**	**2**	10	10	NA
Barium	**83**	**56.6**	**37.8**	--	--	--	--	--	--	--	**57.1**	**62.3**	4,700	140,000	NA
Cadmium	< 0.34	< 0.35	< 0.39	--	--	--	--	--	--	--	< 0.38	< 0.38	34	1,000	NA
Chromium	**14.8**	**54.2**	**67.4**	--	--	--	--	--	--	--	**17.1**	**19.9**	100*	100*	NA
Lead	**113**	**9.63**	**11.3**	--	--	--	--	--	--	--	**18.5**	**13.3**	400	1,000	NA
Mercury	**0.12**	**0.09**	**0.07**	--	--	--	--	--	--	--	**0.05**	< 0.03	20	610	NA
Selenium	< 1.4	< 1.4	< 1.6	--	--	--	--	--	--	--	< 1.5	< 1.5	340	10,000	NA
Silver	< 0.34	< 0.35	< 0.39	--	--	--	--	--	--	--	**0.9**	**0.6**	340	10,000	NA
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)															
ETPH	**230**	< 55	**470**	< 270	**130**	< 53	< 55	< 52	< 57	< 55	< 57	< 54	500	2,500	2,500
Aromatic Volatiles Organic Compounds (AVOCs) (mg/kg)															
1,2,4-Trichlorobenzene	< 0.0041	< 0.0054	**0.017**	--	--	--	--	--	--	--	< 6.7	< 7.5	116.2	1,000	2.4
Ethylbenzene	< 0.0041	< 0.0054	**0.03**	--	--	--	--	--	--	--	< 6.7	< 7.5	500	1,000	10.1
Naphthalene	**0.042**	< 0.0054	< 0.005	--	--	--	--	--	--	--	< 6.7	< 7.5	1,000	2,500	56
Total Xylenes	< 0.0041	**0.038**	**0.197**	--	--	--	--	--	--	--	< 6.7	< 7.5	500	1,000	19.5
Semi Volatiles Organic Compounds (SVOCs) (mg/kg)															
SVOCs	--	--	< 0.5 to < 2.1	--	--	--	--	--	--	--	--	< 0.26 to < 1.1	Varies	Varies	Varies
Glycols (mg/kg)															
Ethylene glycol	--	--	< 11	--	--	--	--	--	--	--	--	< 11	1,000^	2,500^	2,000^
Propylene glycol	--	--	< 11	--	--	--	--	--	--	--	--	< 11	1,000^	2,500^	142^

Notes:
1. **Bolded** values detected above laboratory detection limits.
2. CT RSR = Connectiut Remediation Standard Regulations
3. R = Residential I/C = Industrial/Commercial DEC = Direct Exposure Criteria
4. GB PMC = GB Pollutant Mobility Criteria
5. < 0.005 = Sample was not detected above the laboratory detection limits.
6. Only those compounds detected are shown. For a full list of analytes tested for, refer to the Phoenix Laboratories analytical report.
7. "--" = Sample was not tested for this parameter
8. * = criteria is for hexavalent chromium
9. ^ = Criteria are from the 2008 Draft RSR Criteria, not promulgated. In order to use these criteria, permission must be granted by the CT DEEP
10. NA = Not applicable

Table 2C

Summary of Soil Analytical Data For AOC-7

Amerbelle Mills

Rockville, Connecticut

Client Id:	AOC-7-1 (0.5-2)	AOC-7-2 (0.5-2)	GZ-8 (5-7)	CT RSR Criteria		
Depth (feet):	0.5-2	0.5-2	5-7	R-DEC	I/C DEC	GB PMC
Date:	3/31/2015	3/31/2015	9/23/2015			
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)						
ETPH	< 54	**8,000**	< 55	500	2,500	2,500
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)						
PAHs	< 0.25	< 2.5	--	Varies	Varies	Varies
Aromatic Volatiles Organic Compounds (AVOCs) (mg/kg)						
AVOCs	< 0.0046	< 0.26	<0.0056[8]	Varies	Varies	Varies

Notes:

1. **Bolded** values detected above laboratory detection limits.
2. CT RSR = Connectiut Remediation Standard Regulations
3. R = Residential I/C = Industrial/Commercial DEC = Direct Exposure Criteria
4. GB PMC = GB Pollutant Mobility Criteria
5. < 0.005 = Sample was not detected above the laboratory detection limits.
6. Only those compounds detected are shown. For a full list of analytes tested for, refer to the Phoenix Laboratories analytical report.
7. Yellow highlighted values exceed one or more CT RSR Criteria.
8. Sample GZ-8 (5-7) was tested for the full range of VOCs which includes the AVOC subset. No VOCs were detected in the sample.
9. "--" = Sample was not tested for this parameter

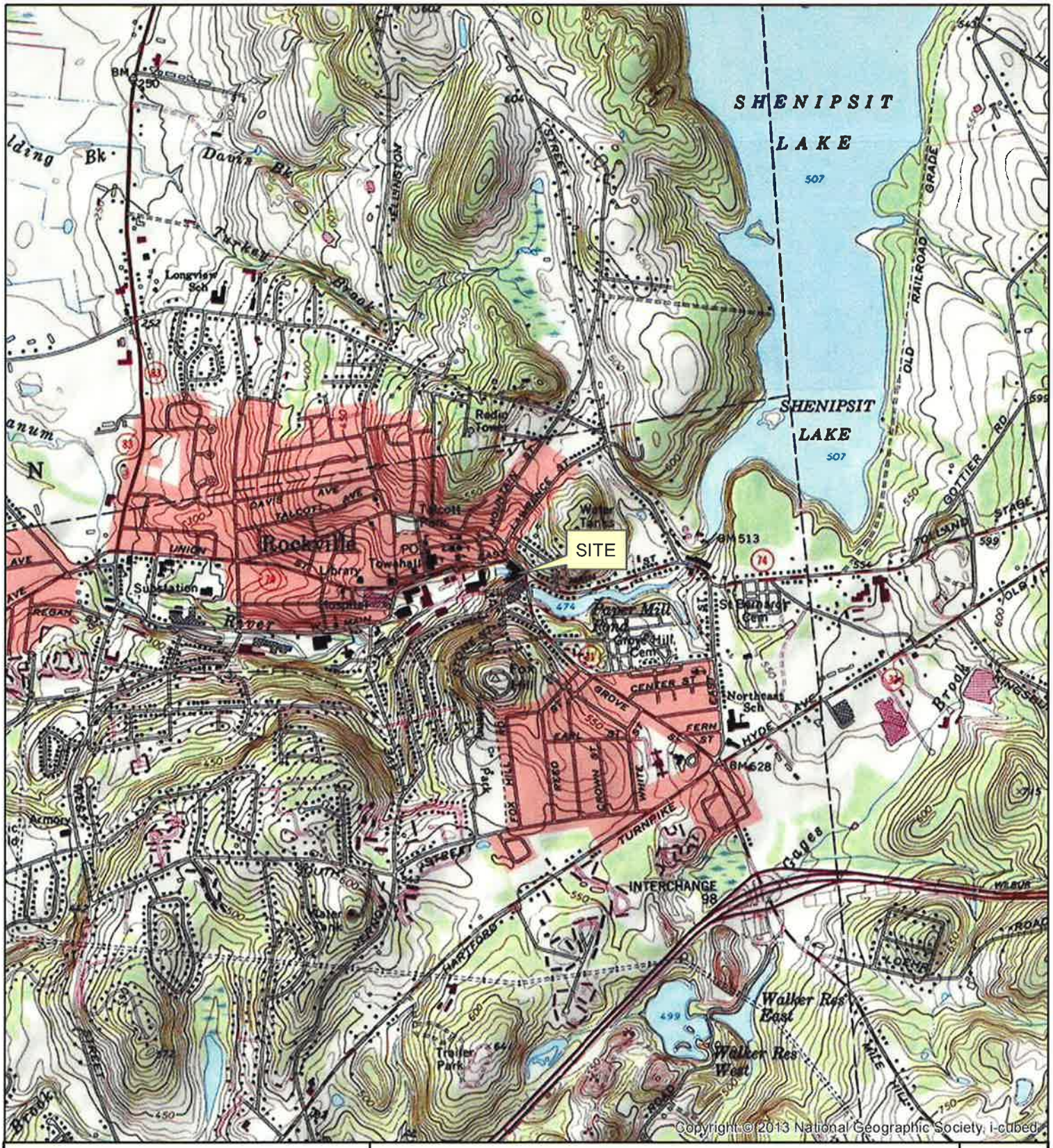
Table 3
Summary of Groundwater Analytical Data AOC-23

Amerbelle Mills
Rockville, Connecticut

Client Id	AM-1	AM-7	ME-1	ME-2		ME-6 (12)		MW-01	MW-02	MW-03	GZ-1 (12)		GZ-2 (12)		GZ-3	GZ-4		GZ-6	GZ-7	GZ-8	GZ-9	CT RSR Criteria		
Collection Date	4/30/2015	4/30/2015	4/30/2015	4/30/2015	10/2/2015	4/30/2015	5/18/2015	4/30/2015	4/30/2015	4/30/2015	4/30/2015	5/18/2015	4/30/2015	5/18/2015	4/30/2015	4/30/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	SWPC	R-GWVC	I/C-GWVC
Miscellaneous/Inorganics (mg/L)																								
Aniline	--	--	< 0.01	**0.047**	<0.005	--	--	--	< 0.01	< 0.01	< 0.01	--	< 0.01	--	--	--	<0.005	<0.005	<0.005	--	<0.005	0.013^	NE	NE
Formaldehyde	--	--	--	< 0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10^	NE	NE
Methanol	--	--	< 1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3^	NE	NE
Ammonia as Nitrogen	**0.21**	--	< 0.05	**4.8**	--	--	--	--	**0.13**	< 0.05	**0.06**	--	**0.27**	--	--	--	--	--	--	--	--	10^	NE	NE
Phenolics	--	--	< 0.015	**0.027**	--	--	--	--	< 0.015	< 0.015	< 0.015	--	< 0.015	--	--	--	--	--	--	--	--	10^	NE	NE
Metals, Total (mg/L)																								
Arsenic	**0.01**	**0.009**	< 0.004	< 0.004	--	< 0.004	--	< 0.004	< 0.004	< 0.004	< 0.004	--	< 0.004	--	< 0.004	< 0.004	--	--	--	--	--	0.004	NE	NE
Barium	**0.076**	**1.13**	**0.307**	**0.027**	--	**0.246**	--	**0.012**	**0.036**	**0.232**	**0.113**	--	**0.338**	--	**0.113**	**0.765**	--	--	--	--	--	2.2^	NE	NE
Cadmium	< 0.001	**0.005**	< 0.001	< 0.001	--	< 0.001	--	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.001	--	< 0.001	**0.001**	--	--	--	--	--	0.006	NE	NE
Chromium	**0.004**	**0.035**	**0.002**	**0.046**	--	**0.002**	--	< 0.001	**0.001**	**0.003**	< 0.001	--	**0.006**	--	< 0.001	**0.001**	--	--	--	--	--	0.110*	NE	NE
Copper	**0.016**	**1.1**	**0.009**	**0.016**	**0.005**	**0.005**	--	< 0.005	**0.005**	**0.013**	< 0.005	--	**0.014**	--	< 0.005	**0.005**	<0.005	<0.005	<0.005	--	<0.005	0.048	NE	NE
Lead	**0.031**	**0.835**	< 0.002	< 0.002	**0.003**	< 0.002	--	< 0.002	< 0.002	< 0.002	< 0.002	--	< 0.002	--	**0.002**	< 0.002	<0.002	<0.002	<0.002	--	<0.002	0.013	NE	NE
Mercury	< 0.0002	**0.0016**	< 0.0002	< 0.0004	<0.0002	< 0.0002	--	< 0.0002	< 0.0002	< 0.0002	< 0.0002	--	< 0.0002	--	< 0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	0.0004	NE	NE
Selenium	< 0.010	< 0.010	< 0.010	< 0.010	--	< 0.010	--	< 0.010	< 0.010	< 0.010	< 0.010	--	< 0.010	--	< 0.010	< 0.010	--	--	--	--	--	0.05	NE	NE
Silver	< 0.001	**0.005**	< 0.001	< 0.001	--	< 0.001	--	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.001	--	< 0.001	< 0.001	--	--	--	--	--	0.012	NE	NE
Zinc	**0.062**	**2.98**	**0.097**	**0.071**	**0.015**	**0.004**	--	**0.005**	**0.015**	**0.037**	< 0.002	--	**0.018**	--	**0.002**	**0.068**	**0.025**	**0.004**	<0.002	--	**0.003**	0.123	NE	NE
Volatiles Organic Compounds (VOCs) (ug/L)																								
1,1,2-Trichloroethane	--	< 1.0	--	--	< 1.0	< 1.0	--	< 1.0	--	--	--	--	--	--	--	**24**	< 1.0	< 1.0	< 1.0	--	<1.0	1,260	8,000	19,600
1,2,3-Trichlorobenzene	--	< 1.0	--	--	< 1.0	**1.6**	< 5.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	--	<1.0	NE	NE	NE
1,2,4-Trichlorobenzene	--	< 1.0	--	--	< 1.0	**19**	< 5.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	--	<1.0	50^	122^	1,485^
1,3-Dichlorobenzene	--	< 1.0	--	--	< 1.0	**3.6**	< 5.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	--	<1.0	26,000	24,200	50,000
cis-1,2-Dichloroethene	--	< 1.0	--	--	< 1.0	**160**	--	< 1.0	--	--	--	--	--	--	--	< 1.0	< 1.0	< 1.0	< 1.0	--	<1.0	6,200^	928^	11,472^
Tetrachloroethene	--	**1.8**	--	--	< 1.0	**29**	--	< 1.0	--	--	--	--	--	--	--	**5,900**	**2,000**	< 1.0	< 1.0	--	<1.0	88	1,500	3,820
trans-1,2-Dichloroethene	--	< 1.0	--	--	< 1.0	**1.9**	--	< 1.0	--	--	--	--	--	--	--	< 1.0	< 1.0	< 1.0	< 1.0	--	<1.0	5,600^	536^	6,673^
Trichloroethene	--	< 1.0	--	--	< 1.0	**15**	--	< 1.0	--	--	--	--	--	--	--	< 1.0	**1.0**	< 1.0	< 1.0	--	<1.0	2,340	219	540
Vinyl chloride	--	< 1.0	--	--	< 1.0	**41**	--	< 1.0	--	--	--	--	--	--	--	< 1.0	<1.0	< 1.0	< 1.0	--	<1.0	15,750	2	2
Semi Volatiles Organic Compounds (SVOCs) (ug/L)																								
Acenaphthylene	< 0.10	**0.66**	< 0.05	< 0.05	<0.05	< 0.10	--	< 0.10	< 0.05	< 0.05	< 0.05	--	< 0.05	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	48,935^	50,000^
Acenaphthene	<0.05	**0.13**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	150^	33,383^	50,000^
Anthracene	< 0.10	**1.2**	**0.04**	**0.08**	**0.06**	< 0.10	--	< 0.10	< 0.02	**0.02**	**0.09**	--	**0.05**	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	1,100,000	50,000^	50,000^
Benzo(a)anthracene	**0.06**	**5.9**	**0.08**	**0.06**	**0.07**	**0.02**	--	< 0.02	**0.03**	**0.04**	**0.04**	--	**0.03**	--	**0.02**	**0.02**	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	NE	NE
Benzo(a)pyrene	**0.06**	**5.4**	**0.07**	< 0.02	**0.08**	< 0.02	--	< 0.02	< 0.02	< 0.02	< 0.02	--	< 0.02	--	< 0.02	< 0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	NE	NE
Benzo(b)fluoranthene	**0.09**	**8**	**0.13**	< 0.02	**0.11**	< 0.02	--	< 0.02	< 0.02	**0.04**	**0.02**	--	< 0.02	--	< 0.02	< 0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	NE	NE
Benzo(ghi)perylene	< 0.10	**4.1**	< 0.50	< 0.50	**0.10**	< 0.10	--	< 0.10	< 0.50	< 0.50	< 0.50	--	< 0.50	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	4.92^	NE	NE
Benzo(k)fluoranthene	**0.03**	**2.8**	**0.04**	< 0.02	**0.18**	< 0.02	--	< 0.02	< 0.02	< 0.02	< 0.02	--	< 0.02	--	< 0.02	< 0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	NE	NE
Chrysene	**0.06**	**6.3**	**0.07**	**0.03**	**0.09**	< 0.02	--	< 0.02	< 0.02	**0.02**	**0.02**	--	< 0.02	--	< 0.02	< 0.02	<0.05	<0.05	<0.05	<0.05	<0.05	47^	NE	NE
Dibenz(a,h)anthracene	< 0.01	< 0.01	< 0.01	< 0.01	**0.02**	< 0.01	--	< 0.01	< 0.01	< 0.01	< 0.01	--	< 0.01	--	< 0.01	< 0.01	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	NE	NE
Fluoranthene	**0.11**	**13**	**0.2**	**0.05**	**0.16**	< 0.10	--	< 0.10	< 0.04	< 0.04	< 0.04	--	< 0.04	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	3,700	NE	NE
Fluorene	< 0.10	**0.27**	< 0.10	< 0.10	<0.05	< 0.10	--	< 0.10	< 0.10	< 0.10	< 0.10	--	< 0.10	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	140,000	37,642^	50,000^
Indeno(1,2,3-cd)pyrene	**0.04**	**3.5**	**0.06**	< 0.02	**0.09**	< 0.02	--	< 0.02	< 0.02	**0.03**	< 0.02	--	< 0.02	--	< 0.02	< 0.02	<0.05	<0.05	<0.05	<0.05	<0.05	14.8^	NE	NE
Naphthalene	< 0.10	**0.15**	< 0.10	**0.21**	<0.10	< 0.10	--	< 0.10	< 0.10	< 0.10	< 0.10	--	< 0.10	--	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	210^	259^	3,099^
Phenanthrene	< 0.07	**5.1**	**0.06**	< 0.05	**0.07**	< 0.07	--	< 0.07	< 0.05	< 0.05	< 0.05	--	< 0.05	--	< 0.07	< 0.07	<0.05	<0.05	<0.05	<0.05	<0.05	0.077	50,000^	50,000^
Pyrene	**0.11**	**9.8**	**0.17**	**0.04**	**0.14**	< 0.10	--	< 0.10	< 0.02	< 0.02	< 0.02	--	**0.03**	--	< 0.10	< 0.10	<0.05	<0.05	<0.05	<0.05	<0.05	110,000	NE	NE
2-Methylphenol (o-cresol)	--	--	< 1.0	**2**	--	--	--	--	< 1.0	< 1.0	< 1.0	--	< 1.0	--	--	--	--	--	--	--	--	670^	NE	NE
Dimethylphthalate	--	--	< 5.0	**9.9**	--	--	--	--	< 5.0	< 5.0	< 5.0	--	< 5.0	--	--	--	--	--	--	--	--	3,100^	NE	NE

Notes:
1. **Bolded** values detected above laboratory detection limits.
2. CT RSR = Connectiut Remediation Standard Regulations
3. R = Residential I/C = Industrial/Commercial GWVC = Groundwater Volatilization Criteria
4. SWPC = Surface Water Protection Criteria
5. < 0.005 = Sample was not detected above the laboratory detection limits.
6. Only those compounds detected are shown. For a full list of analytes tested for, refer to the Phoenix Laboratories analytical report.
7. "--" = Sample was not tested for this parameter
8. * = criteria is for hexavalent chromium. There is no SWPC for total chromium.
9. ^ = Criteria are from the 2008 Draft RSR Criteria, not promulgated. In order to use these criteria, permission must be granted by the CT DEEP
10. NE = Non Existent
11. Yellow highlighted values exceed one or more CT RSR Criteria.
12. Groundwater from these 3 wells was sampled for aromatic VOCs on 5/18/15.

FIGURES



GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

USGS 7.5 MINUTE QUADRANGLE BASE MAP: ROCKVILLE, CONNECTICUT 1997

SITE LOCUS

104 EAST MAIN STREET
VERNON, CONNECTICUT

Source: TOPO! maps are USGS topographic maps, Copyright:© 2011 National Geographic Society, i-cubed and are provided by arcgisonline.com.

PROJ MGR: CJF	REVIEWED BY: GTB	PROJECT NO. 05.0045441.00
DESIGNED BY: AJT	DRAWN BY: MJS	DATE: 04-30-15

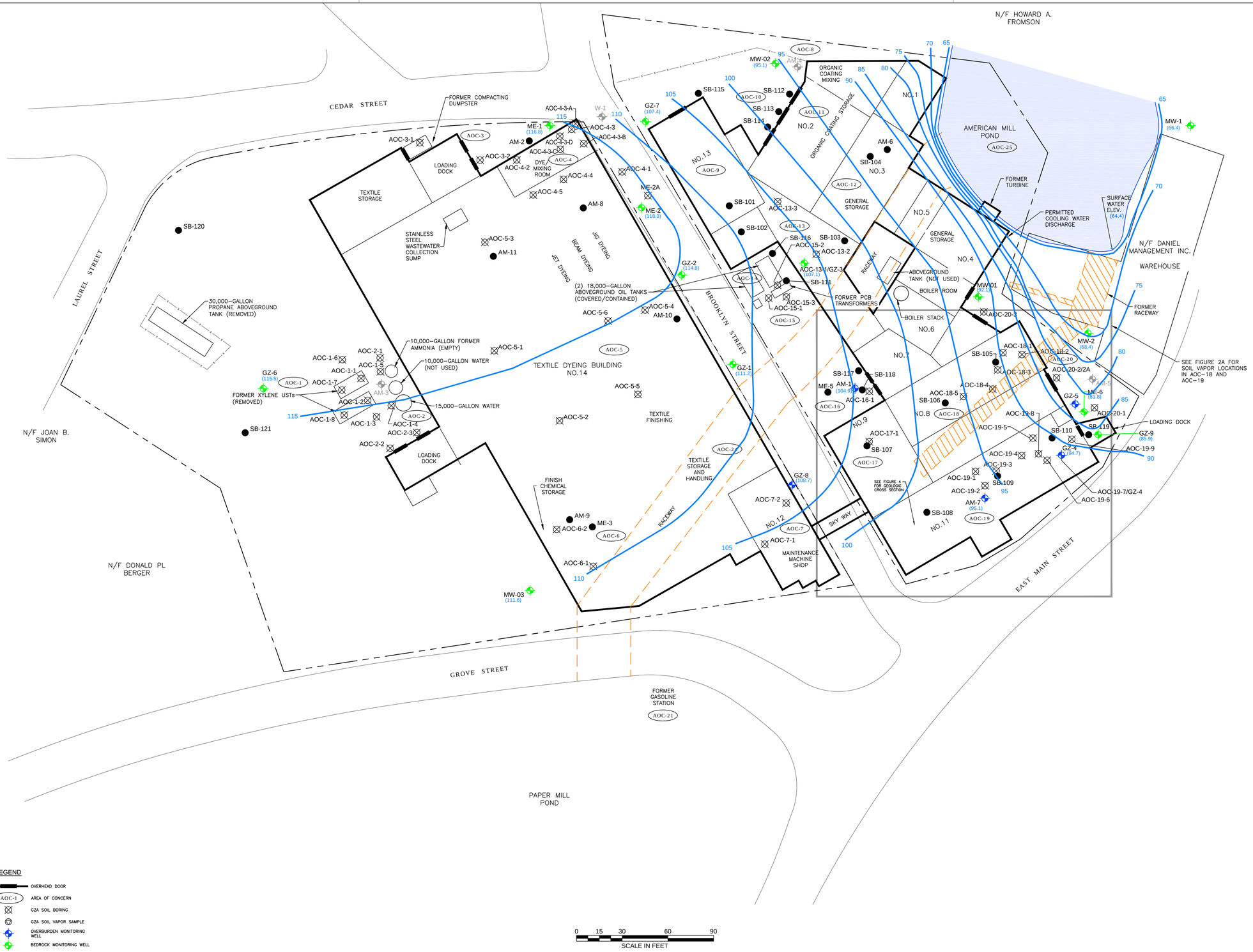
THIS MAP HAS BEEN COMPILED FROM OTHER MAPS AND/OR SOURCES OF INFORMATION.
THIS MAP SHOULD NOT BE CONSTRUED AS A PROPERTY SURVEY, NOR USED FOR CONSTRUCTION PURPOSES.

0 1,000 2,000 4,000 6,000 8,000
Scale in Feet

N

FIGURE
1

© 2015 - GZA GeoEnvironmental, Inc. J:_45,000-45,499\45441 Amerbelle\GIS\mxd\FIG 1 SITE LOCUS.mxd, 4/30/2015, 3:00:53 PM, max.strubel



LEGEND

- OVERHEAD DOOR
- AOC-1 — AREA OF CONCERN
- GZA SOIL BORING
- GZA SOIL VAPOR SAMPLE
- OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- SOIL BORING BY OTHERS
- DESTROYED MONITORING WELL
- (115.5) — GROUNDWATER ELEVATION (FEET) AS OF 10/2/2015
- 115 — GROUNDWATER CONTOUR

NOTE:

AOCs NOT SHOWN ON PLAN ARE SITE-WIDE AOCs
AOC-22 SITE-WIDE FILL
AOC-23 SITE-WIDE GROUNDWATER

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PDF OF A FIGURE PROVIDED BY FUSS & O'NEILL ENTITLED "PROPOSED AND EXISTING SAMPLING LOCATIONS, AMERBELLE TEXTILES", DATED AUGUST 2009, ORIGINAL SCALE: 1"=60', FIGURE 2. ALL SITE FEATURE LOCATIONS ARE APPROXIMATE.

NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

TOWN OF VERNON
VERNON, CONNECTICUT

BEDROCK GROUNDWATER CONTOURS AS OF (OCTOBER 2, 2015)

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:

PROJ MGR: CJF	REVIEWED BY: GTB	CHECKED BY:	FIGURE
DESIGNED BY: AJT	DRAWN BY: MJS	SCALE: 1"=30'	2
DATE: 10-16-2015	PROJECT NO. 05.0045441.00	REVISION NO.	SHEET NO.

©2015 – GZA GeoEnvironmental, Inc. GZA-\\GZAGLAST\Jobs_45,000-45,499\45441 Amerbelle\45441-00.qtb\CAD\Figures\FIG 2-SP_10-2015.dwg [2] October 15, 2015 – 4:02pm michael.cubin

APPENDIX A
LIMITATIONS

GEOHYDROLOGICAL LIMITATIONS

Use of Report

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

Standard of Care

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

Subsurface Conditions

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.

6. Water level readings have been made in test holes (as described in the Report) and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

Compliance with Codes and Regulations

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

Screening and Analytical Testing

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

Interpretation of Data

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

Additional Information

12. In the event that the Client or others authorized to use this report obtain information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

Additional Services

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

Conceptual Site Model

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.

APPENDIX B
BORING LOGS

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-3
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	36	0.0 0.0	S-1 : Top 3": ASPHALT Middle 21": Brown, fine to medium SAND, some fine to coarse Gravel, trace Silt Bottom 12": Red-brown, fine to medium SAND, little fine to coarse Gravel, trace Silt	1		ASPHALT	0.25
5	S-2	5-10	60	30	0.0 0.0	S-2 : Red-brown, fine to medium SAND, some fine to coarse Gravel, trace Silt, trace Asphalt (15-18")			SAND	
10										10
						End of exploration at 10 feet.				
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-3

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/2/2015 12:04:12 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-4
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	30	0.0 0.0	S-1 : Top 3": ASPHALT Middle 12": Red-brown, fine to medium SAND, some Silt, little fine to coarse Gravel Bottom 15": Red-brown, fine SAND and SILT, little fine to coarse Gravel	1		ASPHALT SAND	0.25 1.25
5	S-2	5-10	60	46	0.0 0.0	S-2 : Top 24": Red-brown, fine to medium SAND and SILT, little fine to coarse Gravel Bottom 22": Red-brown, fine SAND and SILT, little fine to coarse Gravel			SAND AND SILT	
10						End of exploration at 10 feet.				10
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-4

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:09:06 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-5
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	46	0.0 0.0	S-1 : Top 3": ASPHALT Middle 21": Red-brown, fine to medium SAND, little Silt and fine to coarse Gravel Bottom 22": Red-brown, fine SAND, some Silt, little fine to coarse Gravel	1		ASPHALT	0.25
5	S-2	5-10	60	36	0.0 0.0	S-2 : Red-brown, fine to medium SAND, little Silt, and fine to coarse Gravel			SAND	
10						End of exploration at 10 feet.				10
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-5

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:09:31 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-6
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	48	0.0 0.0 0.0	S-1 : Top 4": ASPHALT Next 20": Brown, fine to medium SAND, trace Silt Next 6": Brown, fine SAND, little Silt Bottom 18": Brown, fine to medium SAND, trace Silt	1		ASPHALT	0/3
5	S-2	5-10	60	48	0.0 0.0 0.0	S-2 : Top 24": Brown, fine to medium SAND, trac Silt Bottom 24": Brown, fine to medium SAND, some fine to coarse Gravel, trace Silt Weathered Rock in tip of spoon			SAND	
10						End of exploration at 10 feet.				10
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-6

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/2/2015 12:05:05 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-7
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Driect Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	50	0.0 0.0 0.0	S-1 : Top 3": ASPHALT Middle 19": Brown, fine to medium SAND, some fine to coarse Gravel, little Silt Bottom 28": Brown, fine to medium SAND	1		ASPHALT	0.25
5	S-2	5-10	60	48	0.0 0.0 0.0	S-2 : Top 32": Brown, fine to medium SAND Middle 6": Brown, fine SAND and SILT Bottom 10": Brown, fine to medium SAND, some fine to coarse Gravel, trace Silt			SAND	7.5
									SAND AND SILT	8
10									SAND	10
						End of exploration at 10 feet.				
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-7

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/2/2015 12:05:21 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-1-8
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 10
Date Start - Finish: 9/23/2015 - 9/23/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	46	0.0 0.0 0.0	S-1 : Top 3": ASPHALT Bottom 43": Brown, fine to medium SAND, trace Silt	1		ASPHALT	0.25
5	S-2	5-10	60	45	0.0 0.0 0.0	S-2 : Top 32": Brown, fine to medium SAND, trace Silt Bottom 13": Brown, fine to medium SAND, little fine to coarse Grave and Silt			SAND	
10						End of exploration at 10 feet.				10
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-1-8

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/2/2015 12:05:36 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-4-3-A
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: Anthony Trani
Drilling Co.: Not Applicable
Foreman: Not Applicable

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 9/17/2015 - 9/17/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe Manual Sampler
Rig Model: NA
Drilling Method: Bosch Hammer Drill

Sampler Type: Large Bore Soil Sampler
Sampler O.D. (in.): 1.25
Sampler Length (in.): 24
Rock Core Size: NA

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
NA			

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-2				S-1 : No Sample Retained (see Boring AOC-4-3)	1			
	S-2*	2-4	24	21	24.7	S-2* : Dark brown SILT, little-trace fine to coarse Sand, trace fine Gravel			FILL	4
5						End of exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-4-3-A

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 9/29/2015 9:00:39 AM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-4-3-B
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: Anthony Trani
Drilling Co.: Not Applicable
Foreman: Not Applicable

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 9/17/2015 - 9/17/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe Manual Sampler
Rig Model: NA
Drilling Method: Bosch Hammer Drill

Sampler Type: Large Bore Soil Sampler
Sampler O.D. (in.): 1.25
Sampler Length (in.): 24
Rock Core Size: NA

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
NA			

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1*	0-2	24	9	1.6	S-1* : Top 8": CONCRETE Bottom 9": Dark brown SILT, little-trace fine to coarse Sand, trace fine Gravel	1		FILL	
	S-2*	2-4	24	15	0.1	S-2* : Top 7": Dark brown SILT, trace fine to coarse Sand, fine Gravel Bottom 8": Red-brown, fine to coarse SAND, little Silt, little-trace Gravel, trace Brick				4
5						End of exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-4-3-B

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:09:56 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-4-3-C
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: Anthony Trani
Drilling Co.: Not Applicable
Foreman: Not Applicable

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 9/17/2015 - 9/17/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe Manual Sampler
Rig Model: NA
Drilling Method: Bosch Hammer Drill

Sampler Type: Large Bore Soil Sampler
Sampler O.D. (in.): 1.25
Sampler Length (in.): 24
Rock Core Size: NA

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
NA			

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1*	0-2	24	12	ND	S-1* : Top 8": CONCRETE Bottom 12": Dark brown SILT, little fine to coarse Sand, trace Gravel	1		FILL	
	S-2*	2-4	24	17	ND	S-2* : Top 7": Dark brown SILT, little fine to coarse Sand, little Gravel Bottom 10": Dark red-brown, fine to coarse SAND, little-some Silt, little Gravel				4
5						End of exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-4-3-C

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:10:12 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-4-3-D
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: Anthony Trani
Drilling Co.: Not Applicable
Foreman: Not Applicable

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 9/17/2015 - 9/17/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe Manual Sampler
Rig Model: NA
Drilling Method: Bosch Hammer Drill

Sampler Type: Large Bore Soil Sampler
Sampler O.D. (in.): 1.25
Sampler Length (in.): 24
Rock Core Size: NA

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
NA			

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1*	0-2	24	9	21.7	S-1* : Top 6": CONCRETE Bottom 9": Dark brown, fine to coarse SAND, some Silt, trace Gravel, moist	1		FILL	
	S-2	2-4	24	17	11.5	S-2 : Dark brown SILT, little fine to coarse Sand, trace Gravel, trace Concrete.				
						Void encountered 18-24" with 3" water. Inferred drain pipe. Moved boring to AOC-4-3-D Off Set.				4
5						End of exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-4-3-D

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 9/29/2015 9:00:48 AM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: AOC-4-3-D Off Set
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: Athony Trani
Drilling Co.: Not Applicable
Foreman: Not Applicable

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 9/17/2015 - 9/17/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe Manual Sampler
Rig Model: NA
Drilling Method: Bosch Hammer Drill

Sampler Type: Large Bore Soil Sampler
Sampler O.D. (in.): 1.25
Sampler Length (in.): 24
Rock Core Size: NA

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
NA			

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-2				S-1 : No Sample Retained (see Boring AOC-4-3-D)	1			
	S-2*	2-4	18	13	9.3	S-2* : Top 4": Dark brown SILT, little-trace fine Sand, trace Gravel Bottom 9": Dark brown with black mottling SILT, trace fine to coarse Sand, trace Gravel			FILL	4
5						End of exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

AOC-4-3-D Off Set

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 9/29/2015 9:00:51 AM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: ME-2A
SHEET: 1 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 5.5
Date Start - Finish: 9/22/2015 - 9/22/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	26	ND ND ND	S-1 : Top 3": ASPHALT Middle 24": Red-brown, fine to coarse SAND and SILT, some Gravel Bottom 2": Moist, fine to medium SAND, little Silt	1 2		ASPHALT	0.25
									SAND AND SILT	2.25
									SAND AND GRAVEL	5.25
5	S-2	5-5.5	6	6	ND	S-2 : Top 3": Red-brown, fine to coarse SAND and GRAVEL, little Silt, Moist Bottom 3": BEDROCK (Schist)				
						End of exploration at 5.5 feet.				
10									BEDROCK	
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings.
2 - No water in borehole. ADT abandoned borehole/filled with grout.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

ME-2A

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:10:27 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: ME-2A
SHEET: 2 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 5.5
Date Start - Finish: 9/22/2015 - 9/22/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
35									BEDROCK	37
40										
45										
50										
55										
60										

REMARKS

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

ME-2A

GZA TEMPLATE GEOPROBE BORING LOGS.GPJ LIBRARY 012111.GLB 10/28/2015 12:10:27 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-6
SHEET: 1 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 32.3
Date Start - Finish: 9/21/2015 - 9/21/2015

H. Datum:
V. Datum:

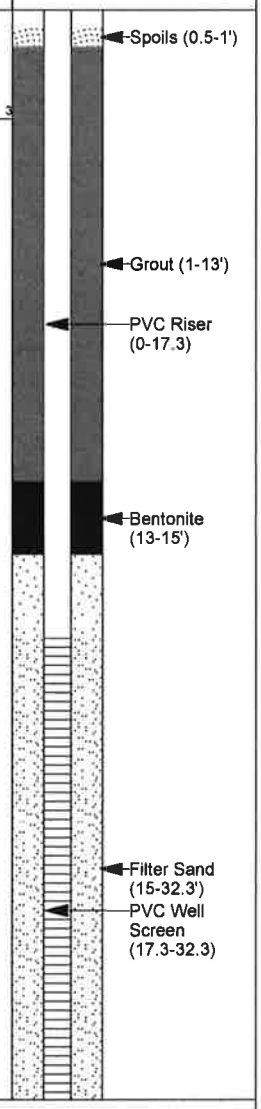
Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-3	36	26	ND ND	Top 2": ASPHALT Next 14": Red-brown, fine SAND and SILT Next 8": Red-brown, fine SAND, some Silt Bottom 2": ROCK (Schist)	1 2		SAND BEDROCK	

Equipment Installed



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.
2 - GeoProbe direct push to 3', 4" casing was driven to 35' and air rotary was used to drill bedrock to 32.3'.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-6

GZADEPTH.GDT: GZA TEMPLATE GEOPROBE W/EQUIP: 10/2/2015: 12:06:29 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-6
SHEET: 2 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 32.3
Date Start - Finish: 9/21/2015 - 9/21/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
									BEDROCK	32.3	
						End of exploration at 32.3 feet.	3				
35											
40											
45											
50											
55											
60											

REMARKS

3 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 32.3 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 15 to 32.3 feet below grade. Bentonite seal installed from 13 to 15 feet below grade. Remaining annulus filled with grout from 1 to 13 feet below grade. Well protected with flush mount road box.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-6

GZADEPTH.GDT: GZA TEMPLATE GEOPROBE W/EQUIP: 10/2/2015; 12:06:29 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-7
SHEET: 1 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 31.1
Date Start - Finish: 9/22/2015 - 9/22/2015

H. Datum:
V. Datum:

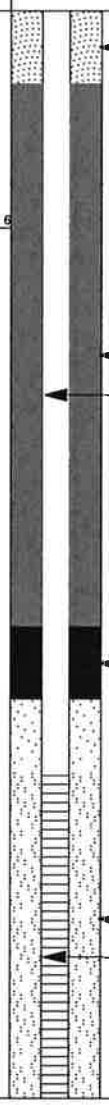
Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	25	ND ND	Top 3": ASPHALT Middle 22": Red-brown, fine to medium SAND, some Silt, trace Gravel, Brick @ 22-23" Bottom 3": Red-brown, moist, fine SAND and SILT	1		SAND	
5	S-2	5-6	12	10	ND	Top 8": Red-brown, fine to medium SAND and SILT, trace Gravel Bottom 2": Brown SCHIST (Bedrock)				6
10										
15									BEDROCK	
20										
							2 3			
25										
30							4			

Equipment Installed



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.
2 - GeoProbe direct push to 6'; 4" casing was driven to 6.5' and air rotary was used to drill bedrock to 31.1'.
3 - Suspected water fracture at 22-23' bgs.
4 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 31.1 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 19 to31.1 feet below grade. Bentonite seal installed from 17 to 19 feet below grade. Remaining annulus filled with grout from 2 to 17 feet below grade. Well protected with flush mount road box.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-7

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 10/28/2015; 12:10:56 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-7
SHEET: 2 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 31.1
Date Start - Finish: 9/22/2015 - 9/22/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
									BEDROCK	31.1	
						End of exploration at 31.1 feet.					
35											
40											
45											
50											
55											
60											

REMARKS

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-7

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 10/28/2015; 12:10:56 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-8
SHEET: 1 of 1
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 25
Date Start - Finish: 9/23/2015 - 9/23/2015

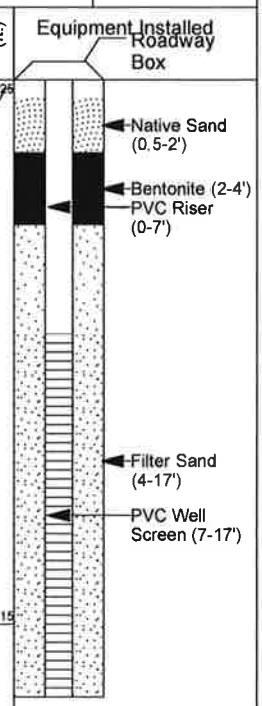
H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
9/23/15	1235	9.7'	15 min.

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-5	60	30	0.0 219.7	Top 3": ASPHALT Middle 22": Red-brown, fine to medium SAND, little Silt and fine to coarse Gravel Bottom 5": Red-brown, fine to medium SAND, little fine to coarse Gravel, trace Silt	1 24		ASPHALT	0.25
5	S-2	5-10	60	27	225.7	Red-brown, fine to medium SAND, little fine to coarse Gravel, trace Silt, wet @ ~8' bg			SAND	
10	S-3	10-15	60	24	365.4	Top 18": Red-brown, fine SAND, little fine to coarse Gravel Bottom 6": Red-brown, fine to medium SAND, little fine to coarse Gravel & Silt				15
15	S-4	15-20	60	24	321.7	Red-brown, fine to medium SAND and fine to coarse Gravel			SAND AND GRAVEL	
20	S-5	20-25	60	24	398.2	0-12": Red-brown, fine to medium SAND and fine to coarse Gravel 12-24": Red-brown, fine to medium SAND, little fine to coarse Gravel and Silt			SAND	22
25						End of exploration at 25 feet.				25
30										



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.
24 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 17 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 4 to 17 feet below grade. Bentonite seal installed from 2 to 4 feet below grade. Remaining annulus filled with native sand from 0.5 to 2 feet below grade. Well protected with roadbox.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-8

GZADEPTH.GDT: GZA TEMPLATE GEOPROBE W/EQUIP; 10/2/2015; 12:07:29 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-9
SHEET: 1 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 33.7
Date Start - Finish: 9/24/2015 - 9/24/2015

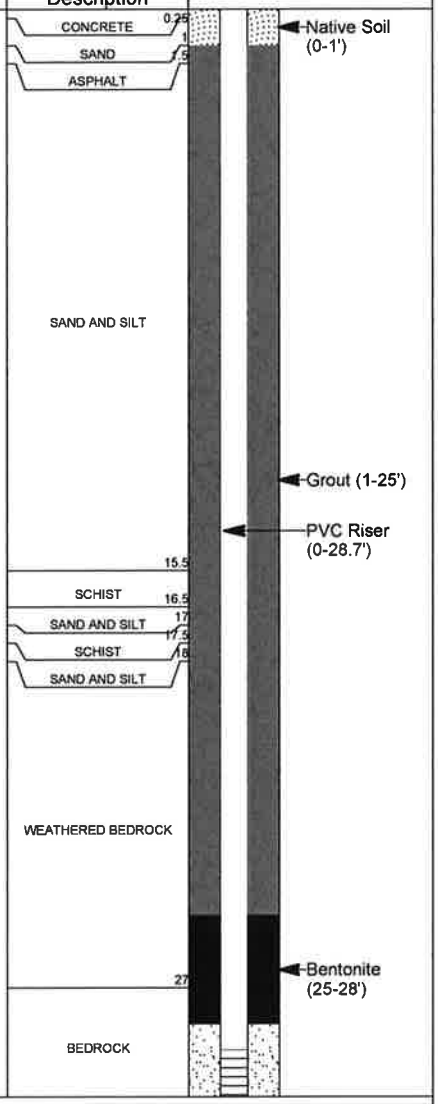
H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark
	S-1	0-5	60	30	ND ND ND	Top 3": CONCRETE Next 11": Red-brown, fine to coarse SAND, some Silt, little Gravel Next 1": ASPHALT Bottom 15": Red-brown, fine to coarse SAND and SILT, little Gravel	1
5	S-2	5-10	60	16	ND ND	Top 6": Red-brown, fine to coarse SAND and SILT, little Gravel Middle 6": SCHIST fragments (suspected Cobble) Bottom 4": Red-brown, fine to coarse SAND and SILT, some Gravel	
10	S-3	10-15	60	15	ND 27.3	Top 10": Red-brown, fine to coarse SAND and SILT, little Gravel, no odor Bottom 5": Wet, brown, fine to medium SAND and SILT, trace Gravel, petroleum odor	
15	S-4	15-20	60	28	29.6 0.2 7.6 ND	Top 6": Wet, brown, fine to coarse SAND and SILT, little Gravel, petroleum odor Next 13": Weathered SCHIST Next 3": red-brown, fine to coarse SAND and SILT, trace Gravel Bottom 6": Weathered SCHIST	
20	S-5	20-22	24	24	10.3 380.6	Top 5": Red-brown, fine to coarse SAND and SILT, little Gravel, petroleum odor Bottom 19": Weathered SCHIST; 1" red-brown SAND and SILT at 14-15", solvent odor	2
25							3
30							



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.
2 - GeoProbe direct push to 22'; 4" casing driven to 23.7'; and air rotary was used to drill bedrock to 33.7'.
3 - More composite rock encountered at 27' bgs.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-9

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 10/30/2015; 12:50:25 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Amerbelle Mills
Vernon, CT

EXPLORATION NO.: GZ-9
SHEET: 2 of 2
PROJECT NO: 05.0045441.00
REVIEWED BY:

Logged By: B. Rach
Drilling Co.: Aquifer Drilling and Testing, Inc.
Foreman: Scott Przbylski

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 33.7
Date Start - Finish: 9/24/2015 - 9/24/2015

H. Datum:
V. Datum:

Type of Rig: GeoProbe
Rig Model: 7720 DT
Drilling Method: Direct Push/Air Rotary

Sampler Type: Macro
Sampler O.D. (in.): 2.0
Sampler Length (in.): 60
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
							4		BEDROCK	33.7	Filter Sand (28-33.7) PVC Well Screen (28.7-33.7')
35						End of exploration at 33.7 feet.					
40											
45											
50											
55											
60											

REMARKS

4 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 33.7 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 28 to 33.7 feet below grade. Bentonite seal installed from 25 to 28 feet below grade. Remaining annulus filled with grout from 1 to 25 feet below grade. Well protected with flush mount road box.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-9

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 10/30/2015; 12:50:25 PM

APPENDIX C
SOIL LABORATORY REPORTS

PHOENIX
Environmental Laboratories, Inc.

Thursday, September 24, 2015

Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Project ID: AMERBELLE
Sample ID#s: BJ93189 - BJ93195

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	7:40
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93189

Project ID: AMERBELLE
Client ID: AOC-4-3A (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	270	mg/Kg	5	09/19/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	09/19/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	5	09/19/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	7:50
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93190

Project ID: AMERBELLE
Client ID: AOC-4-3B (0.66-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	130	54	mg/Kg	1	09/19/15	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	09/19/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	88		%	1	09/19/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	7:55
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93191

Project ID: AMERBELLE
Client ID: AOC-4-3B (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	53	mg/Kg	1	09/18/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/18/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	82		%	1	09/18/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	8:05
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93192

Project ID: AMERBELLE
Client ID: AOC-4-3C (0.66-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	90		%		09/17/15	i	SW846-%Solid	
Extraction of CT ETPH	Completed				09/21/15	BJ/V	SW3545A	
TPH by GC (Extractable Products)								
Ext. Petroleum HC	ND	55	mg/Kg	1	09/22/15	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	1	09/22/15	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	34		%	1	09/22/15	JRB	50 - 150 %	3

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

ETPH Comment:
Low surrogate reported. Sample was re-extracted with similar results.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller

Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

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Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	8:10
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93193

Project ID: AMERBELLE
Client ID: AOC-4-3C (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	52	mg/Kg	1	09/18/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/18/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	91		%	1	09/18/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	8:20
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93194

Project ID: AMERBELLE
Client ID: AOC-4-3D (0.5-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	88		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	57	mg/Kg	1	09/19/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/19/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	09/19/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

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Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 24, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BR	09/17/15	8:40
Location Code:	GZA-AMER	Received by:	LK	09/17/15	11:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ93189
Phoenix ID: BJ93195

Project ID: AMERBELLE
Client ID: AOC-4-3D (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		09/17/15	i	SW846-%Solid
Extraction of CT ETPH	Completed				09/17/15	JJ/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	55	mg/Kg	1	09/19/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/19/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	09/19/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 24, 2015
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

September 24, 2015

QA/QC Data

SDG I.D.: GBJ93189

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 320550 (mg/Kg), QC Sample No: BJ92910 (BJ93189, BJ93190, BJ93191, BJ93192, BJ93193, BJ93194, BJ93195)											
TPH by GC (Extractable Products) - Solid											
Unidentified	ND	50	71	77	8.1	90	65	32.3	60 - 120	30	r
% n-Pentacosane	74	%	105	95	10.0	112	82	30.9	50 - 150	30	r

r = This parameter is outside laboratory rpd specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
September 24, 2015

Thursday, September 24, 2015

Criteria: CT: GAM, RC

State: CT

Sample Criteria Exceedences Report

GBJ93189 - GZA-AMER

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** GZA GeoEnvironmental, Inc.

Project Location: AMERBELLE **Project Number:**

Laboratory Sample ID(s): BJ93189, BJ93190, BJ93191, BJ93192, BJ93193, BJ93194, BJ93195

Sampling Date(s): 9/17/2015

RCP Methods Used:

☐ 1311/1312 ☐ 6010 ☐ 7000 ☐ 7196 ☐ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15

☐ 8082 ☐ 8151 ☐ 8260 ☐ 8270 ☑ ETPH ☐ 9010/9012 ☐ VPH

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Section: ETPH Narration.	☐ Yes ☑ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Date: Thursday, September 24, 2015

Authorized Signature: Ethan Lee

Printed Name: Ethan Lee

Position: Project Manager

Nov 2007

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 24, 2015

SDG I.D.: GBJ93189

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

BJ93192 - The surrogate recovery is below the method criteria for %n-Pentacosane. The sample was re-extracted with similar results. A low bias is possible.

Instrument: Au-fid1 09/18/15-2 (BJ93189)

The initial calibration (ETPH909I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (918A016_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: BJ93189
Preceding CC 918A028 - ETPH (C9-C36) (35%H)
Succeeding CC 918A039 - ETPH (C9-C36) (44%H)

Printed Name Jeff Bucko
Position: Chemist
Date: 9/18/2015

Instrument: Au-fid11 09/18/15-1 (BJ93191, BJ93193)

The initial calibration (ETPH915I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (918A003_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/18/2015

Instrument: Au-fid11 09/18/15-2 (BJ93190, BJ93194, BJ93195)

The initial calibration (ETPH915I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (918A016_1) and contained the following outliers:
C36 (30%L)

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/18/2015

Instrument: Aufid-d1 09/22/15-1 (BJ93192)

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 24, 2015

SDG I.D.: GBJ93189

Initial Calibration (FID1 - ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

The initial calibration (ETPH915I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (922B003_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/22/2015

QC (Batch Specific)

---------- Sample No: BJ92910, QA/QC Batch: 320550 ----------

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 1C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Coolant: IPK [ ] ICE [X] No [ ]
Temp °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
[ ] Fax:
[X] Phone: 860-858-3103
[ ] Email: christopher.frey@gza.com

Customer: GZA
Address: 655 WINDSOR BROOK DR, STE 402
GLASTONBURY, CT

Project: AMERBELLE
Report to: CHRIS FREY
Invoice to: ↓

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9-17-15

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	ETPH	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (4) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
93189	AOC-4-3A (2-4)	S	9/17/15	0740	X		1								
93190	AOC-4-3 B (0.66-2)	↓	↓	0750	↓		↓								
93191	AOC-4-3 B (2-4)			0755											
93192	AOC-4-3 C (0.66-2)			0805											
93193	AOC-4-3 C (2-4)			0810											
93194	AOC-4-3 D (0.5-2)			0820											
93195	AOC-4-3 D (2-4)	↓	↓	0840	↓		↓								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	CParadise	9/17/15	1144

Comments, Special Requirements or Regulations:

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard ★5 days★
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[X] GA Mobility
[ ] GB Mobility
[X] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[X] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

State where samples were collected: CT

PHOENIX
Environmental Laboratories, Inc.

Tuesday, September 29, 2015

Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Project ID: AMERBELLE
Sample ID#s: BJ96980 - BJ96986

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

SDG Comments

September 29, 2015

SDG I.D.: GBJ96980

BJ96980 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	10:10
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96980

Project ID: AMERBELLE
Client ID: GZ-8 (5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	55	mg/Kg	1	09/29/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/29/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	67		%	1	09/29/15	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,1-Dichloropropene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2-Dibromoethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2-Dichloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C

Project ID: AMERBELLE
Client ID: GZ-8 (5-7)

Phoenix I.D.: BJ96980

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
2,2-Dichloropropane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
2-Chlorotoluene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	09/25/15	JLI	SW8260C
2-Isopropyltoluene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
4-Chlorotoluene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	09/25/15	JLI	SW8260C
Acetone	ND	50	ug/Kg	1	09/25/15	JLI	SW8260C
Acrylonitrile	ND	10	ug/Kg	1	09/25/15	JLI	SW8260C
Benzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Bromobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Bromodichloromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Bromoform	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Bromomethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Chloroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Chloroform	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Chloromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Dibromochloromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Dibromomethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Hexachlorobutadiene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
m&p-Xylene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	09/25/15	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/25/15	JLI	SW8260C
Methylene chloride	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Naphthalene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
n-Butylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
n-Propylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
o-Xylene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
p-Isopropyltoluene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
sec-Butylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Styrene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
tert-Butylbenzene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/25/15	JLI	SW8260C
Toluene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Total Xylenes	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/25/15	JLI	SW8260C

Project ID: AMERBELLE
Client ID: GZ-8 (5-7)

Phoenix I.D.: BJ96980

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/Kg	1	09/25/15	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	09/25/15	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	09/25/15	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	09/25/15	JLI	70 - 130 %
% Toluene-d8	95		%	1	09/25/15	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	13:55
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96981

Project ID: AMERBELLE
Client ID: AOC-1-3 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	52	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	14:05
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96982

Project ID: AMERBELLE
Client ID: AOC-1-4 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	58	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	14:15
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96983

Project ID: AMERBELLE
Client ID: AOC-1-5 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	96		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	51	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	14:51
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96984

Project ID: AMERBELLE
Client ID: AOC-1-6 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	54	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	53		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

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Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	14:50
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96985

Project ID: AMERBELLE
Client ID: AOC-1-7 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	52	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	61		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller

Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 29, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/23/15	15:05
Location Code:	GZACTENG	Received by:	SW	09/23/15	16:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0045441.00				

Laboratory Data

SDG ID: GBJ96980
Phoenix ID: BJ96986

Project ID: AMERBELLE
Client ID: AOC-1-8 (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		09/23/15	I	SW846-%Solid
Extraction of CT ETPH	Completed				09/23/15	JC/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum HC	ND	53	mg/Kg	1	09/24/15	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/24/15	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	89		%	1	09/24/15	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 29, 2015
Reviewed and Released by: Sarah Bell, Project Manager

PHOENIX

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QA/QC Report

September 29, 2015

QA/QC Data

SDG I.D.: GBJ96980

QA/QC Batch 321280 (mg/Kg), QC Sample No: BJ96806 (BJ96980, BJ96981, BJ96982, BJ96983, BJ96984, BJ96985, BJ96986)

TPH by GC (Extractable Products) - Solid

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Unidentified	ND	50	75	71	5.5				60 - 120	30	
% n-Pentacosane	61	%	106	101	4.8		/		50 - 150	30	

Comment:

*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.

QA/QC Batch 321492 (ug/kg), QC Sample No: BJ97455 (BJ96980)

Volatiles - Solid

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	5.0	91	92	1.1	90	88	2.2	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	89	92	3.3	84	83	1.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	88	93	5.5	92	86	6.7	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	87	89	2.3	91	89	2.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	88	90	2.2	82	80	2.5	70 - 130	30	
1,1-Dichloroethene	ND	5.0	90	91	1.1	76	75	1.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	92	93	1.1	88	88	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	96	103	7.0	104	114	9.2	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	85	91	6.8	87	82	5.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	95	102	7.1	102	113	10.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	90	92	2.2	87	86	1.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	89	99	10.6	86	84	2.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	90	93	3.3	90	87	3.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	89	91	2.2	89	88	1.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	87	89	2.3	86	83	3.6	70 - 130	30	
1,2-Dichloropropane	ND	5.0	87	88	1.1	85	83	2.4	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	91	93	2.2	89	87	2.3	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	89	91	2.2	90	89	1.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	87	90	3.4	87	84	3.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	88	89	1.1	88	88	0.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	89	90	1.1	82	81	1.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	90	92	2.2	89	88	1.1	70 - 130	30	
2-Hexanone	ND	25	77	85	9.9	75	69	8.3	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	93	96	3.2	93	91	2.2	70 - 130	30	
4-Chlorotoluene	ND	5.0	86	88	2.3	85	84	1.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	80	87	8.4	82	77	6.3	70 - 130	30	
Acetone	ND	10	75	84	11.3	52	50	3.9	70 - 130	30	m
Acrylonitrile	ND	5.0	85	94	10.1	89	84	5.8	70 - 130	30	
Benzene	ND	1.0	86	88	2.3	84	84	0.0	70 - 130	30	
Bromobenzene	ND	5.0	88	90	2.2	90	88	2.2	70 - 130	30	
Bromochloromethane	ND	5.0	89	91	2.2	89	87	2.3	70 - 130	30	
Bromodichloromethane	ND	5.0	90	93	3.3	91	89	2.2	70 - 130	30	
Bromoform	ND	5.0	92	97	5.3	91	87	4.5	70 - 130	30	
Bromomethane	ND	5.0	91	93	2.2	56	62	10.2	70 - 130	30	m

QA/QC Data

SDG I.D.: GBJ96980

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	5.0	96	99	3.1	82	81	1.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	90	92	2.2	86	84	2.4	70 - 130	30	
Chlorobenzene	ND	5.0	88	88	0.0	86	85	1.2	70 - 130	30	
Chloroethane	ND	5.0	86	83	3.6	23	24	4.3	70 - 130	30	m
Chloroform	ND	5.0	87	89	2.3	79	82	3.7	70 - 130	30	
Chloromethane	ND	5.0	84	86	2.4	83	78	6.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	87	88	1.1	88	83	5.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	88	89	1.1	88	86	2.3	70 - 130	30	
Dibromochloromethane	ND	3.0	93	95	2.1	93	89	4.4	70 - 130	30	
Dibromomethane	ND	5.0	87	89	2.3	90	87	3.4	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	93	98	5.2	92	89	3.3	70 - 130	30	
Ethylbenzene	ND	1.0	90	92	2.2	87	86	1.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	92	97	5.3	100	101	1.0	70 - 130	30	
Isopropylbenzene	ND	1.0	90	92	2.2	87	86	1.2	70 - 130	30	
m&p-Xylene	ND	2.0	90	90	0.0	87	86	1.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	72	83	14.2	75	70	6.9	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	89	94	5.5	86	83	3.6	70 - 130	30	
Methylene chloride	ND	5.0	77	78	1.3	59	59	0.0	70 - 130	30	m
Naphthalene	ND	5.0	102	111	8.5	99	105	5.9	70 - 130	30	
n-Butylbenzene	ND	1.0	92	95	3.2	93	92	1.1	70 - 130	30	
n-Propylbenzene	ND	1.0	87	89	2.3	85	84	1.2	70 - 130	30	
o-Xylene	ND	2.0	89	90	1.1	87	85	2.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	93	96	3.2	92	90	2.2	70 - 130	30	
sec-Butylbenzene	ND	1.0	93	96	3.2	91	90	1.1	70 - 130	30	
Styrene	ND	5.0	91	92	1.1	91	89	2.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	91	92	1.1	87	86	1.2	70 - 130	30	
Tetrachloroethene	ND	5.0	88	90	2.2	89	89	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	82	90	9.3	85	79	7.3	70 - 130	30	
Toluene	ND	1.0	88	90	2.2	88	87	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	91	93	2.2	84	83	1.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	89	91	2.2	91	89	2.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	98	106	7.8	100	94	6.2	70 - 130	30	
Trichloroethene	ND	5.0	90	91	1.1	89	89	0.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	91	90	1.1	19	19	0.0	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	92	92	0.0	81	81	0.0	70 - 130	30	
Vinyl chloride	ND	5.0	92	94	2.2	89	87	2.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	101	1.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	99	99	0.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	100	%	101	102	1.0	102	101	1.0	70 - 130	30	
% Toluene-d8	97	%	99	100	1.0	99	100	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

m = This parameter is outside laboratory ms/msd specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller

Phyllis Shiller, Laboratory Director
September 29, 2015

Tuesday, September 29, 2015

Criteria: CT: GAM, RV

State: CT

Sample Criteria Exceedences Report

GBJ96980 - GZACTENG

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** GZA GeoEnvironmental, Inc.

Project Location: AMERBELLE **Project Number:**

Laboratory Sample ID(s): BJ96980, BJ96981, BJ96982, BJ96983, BJ96984, BJ96985, BJ96986

Sampling Date(s): 9/23/2015

RCP Methods Used:

☐ 1311/1312 ☐ 6010 ☐ 7000 ☐ 7196 ☐ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15

☐ 8082 ☐ 8151 ☑ 8260 ☐ 8270 ☑ ETPH ☐ 9010/9012 ☐ VPH

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☐ Yes ☑ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Date: Tuesday, September 29, 2015

Authorized Signature: Ethan Lee

Printed Name: Ethan Lee

Position: Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 29, 2015

SDG I.D.: GBJ96980

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-fid84 09/24/15-1 (BJ96980)

Initial Calibration (FID84 - ETPH_413) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

The initial calibration (ETPH917I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (924A003_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/24/2015

Instrument: Au-fid84 09/28/15-3 (BJ96980)

Initial Calibration (FID84 - ETPH_413) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

As per section 7.2.3, a discrimination check standard was run (928A024) and contained the following outliers:
C30 (28.3%L), C36 (103.7%L)

The initial calibration (ETPH917I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/28/2015

Instrument: Aufid-d1 09/24/15-2 (BJ96981, BJ96982, BJ96983)

Initial Calibration (FID1 - ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

The initial calibration (ETPH915I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (924B016_1) and contained the following outliers:
C36 (28.2%L)

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 29, 2015

SDG I.D.: GBJ96980

The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/24/2015

Instrument: Au-xl2 09/24/15-1 (BJ96984, BJ96985, BJ96986)

Initial Calibration (FID1 - ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

The initial calibration (ETPH813I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (924A003_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: BJ96984, BJ96985, BJ96986
Preceding CC 924A017 - ETPH (C9-C36) (37%H), Pentacosane (100%L)
Succeeding CC 924A022 - Pentacosane (100%L)
A low "1A" standard was run to demonstrate capability to detect these compounds at the indicated RL. All reported samples were ND for these compounds.

Printed Name Jeff Bucko
Position: Chemist
Date: 9/24/2015

QC Comments: QC Batch 321280 09/23/15 (BJ96980, BJ96981, BJ96982, BJ96983, BJ96984, BJ96985, BJ96986)

*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.

QC (Batch Specific)

---------- Sample No: BJ96806, QA/QC Batch: 321280 ----------

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

RCP Certification Report

September 29, 2015

SDG I.D.: GBJ96980

Instrument: Chem03 09/24/15-1 (BJ96980)

Initial Calibration Verification (CHEM03/VT-L0924):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2,3-Trichlorobenzene (24%), 1,2,4-Trichlorobenzene (22%), Acetone (22%), Methylene Chloride (28%), Naphthalene (31%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0924L21-VT-L0924):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Jane Li
Position: Chemist
Date: 9/24/2015

QC (Batch Specific)

---------- Sample No: BJ97455, QA/QC Batch: 321492 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 4C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: service@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 4CC Pg 1 of 1

Data Delivery: ☐ Fax #: WC ICE
☒ Email: christopher.frey@gza.com

Customer: GZA
Address: 655 Winding Brook Drive, Glastonbury CT 06033

Project: Amerbelle 05.00 45441.00
Report to: Chris Frey - GZA
Invoice to: GZA

Project P.O:
Phone #: 860 286 8500
Fax #:

Client Sample - Information - Identification

Sampler's Signature: [signature] Date 9/23/15

Matrix Code: ✓
DW=drinking water **WW**=wastewater **S**=soil/solid **O**=other
GW=groundwater **SL**=sludge **A**=air

Analysis Request

Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	ETPH	Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H20	GL Soil container (4) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
96980	GZ-8 (5-7)	S	9/23/15	1010	X		2								①
96981	AOC-1-3 (8-10)	S	↓	1355	X		1								
96982	AOC-1-4 (8-10)	S		1405	X		1								
96983	AOC-1-5 (8-10)	S		1415	X		1								
96984	AOC-1-6 (8-10)	S		1431	X		1								
96985	AOC-1-7 (8-10)	S		1450	X		1								
96986	AOC-1-8 (8-10)	S		1505	X		1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TFCMMM	9/23/15	16:39

Comments, Special Requirements or Regulations:
① Hold extra soil for potential analysis

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other

* SURCHARGE APPLIES

CT/RI
☒ RCP Cert.
☐ GW Protect.
☒ GA Mobility
☐ GB Mobility
☐ SW Protect.
☒ Res. Vol.
☐ Ind. Vol.
☐ Res. Criteria
☐ Other

MA
☐ MCP Cert.
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ ASP-A
☐ NJ Reduced Deliv. *
☐ NJ Hazsite EDD
☐ Phoenix Std Report
☐ Other

State where samples were collected: CT

GBJ 96980

Shannon - Phoenixlabs

From: Christopher Frey [christopher.frey@gza.com]
Sent: Thursday, September 24, 2015 11:10 AM
To: Shannon - Phoenixlabs (shannon@phoenixlabs.com)
Subject: FW: Phoenix Labs - GBJ96980, AMERBELLE - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Hi Shannon,

Can you please take an aliquot from the GZ-8(5-7) sample on hold and run for EPA 8260 VOCs? We understand that the sample is not in a correct container for this analyses, but would like the sample run to provide a screening result.

Additionally, can you please be sure that results for that sample and the others on the COC turned around within the standard 5 days? Or timing is short on this project.

Thank you,

Christopher J. Frey
Senior Project Manager
Direct Dial: (860) 858-3103
Cell Phone: (860) 250-6867

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Thursday, September 24, 2015 9:56 AM
To: Christopher Frey <christopher.frey@gza.com>
Subject: Phoenix Labs - GBJ96980, AMERBELLE - COC Acknowledgement

Chris,

Delivery group GBJ96980 (AMERBELLE) has been logged in for the following samples:

Phoenix Id	Client Id
BJ96980	GZ-8 (5-7)
BJ96981	AOC-1-3 (8-10)
BJ96982	AOC-1-4 (8-10)
BJ96983	AOC-1-5 (8-10)
BJ96984	AOC-1-6 (8-10)
BJ96985	AOC-1-7 (8-10)
BJ96986	AOC-1-8 (8-10)

The samples in this delivery group were received at 4°C. (Note acceptance criteria is above freezing up to 6°C)

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374

John Siedel

From: DeltekVisionAdmin_deltekvisionsupport@gza.com
Sent: Thursday, October 22, 2015 5:16 AM
To: John Siedel
Subject: AR Aging Alert Notification from Deltek Vision

The following Project records have invoices totaling over 2500 between 31 and 75 days old:

Project	Amount
Dattco-SW Compliance Services Year 3	4255.65
Northeast Metal Works-Air Monitoring	4900.00

Database: Vision
DB Server: Vision4
App Server: VISION1

APPENDIX D
GROUNDWATER DATA SHEETS

WATER LEVEL MEASUREMENT LOG

GZA GeoEnvironmental, Inc.
655 Winding Brook Dr, Suite 402
Glastonbury, CT 06033
Phone: (860) 286-8900

PROJECT
Project Name: Amerbelle Mills
Location: Rockville, Connecticicut

Date: 10-2-2015 Page 1 of 1
File No. 45441
GZA Staff/Sampler BR/MSNW

Air Temperature (°F): 50s
Weather Conditions: Overcast/Rain

MEASURING EQUIPMENT
Measuring Device: Keck
FiberglassTape **Electric Tape** Interface Meter Other

Abbreviations:
PVC = Top of PVC well riser.
Stl = Top of steel well casing/protector.
Grnd = Relative to ground surface.

Time	Well/Stream Gauge I.D.	Depth to Water (ft)	Total Depth of Well (ft)	Measmnt. Datum PVC/Stl/Grnd	DNAPL Thickness (ft)	LNAPL Thickness (ft)	Correct. Factor (ft)	Comments/Well Condition
	GZ-6	21.62	-	PVC	-	-	-	Good
	GZ-8	9.34	-	PVC	-	-	-	Good
	AM-1	10.68	-	PVC	-	-	-	Protective casing need replacement
	GZ-1	9.02	-	PVC	-	-	-	Good
	GZ-2	6.210	-	PVC	-	-	-	Good
	ME-2	3.19	-	PVC	-	-	-	Protective casing need replacement
	ME-1	5.81	-	PVC	-	-	-	Protective casing need replacement
	MW-02	19.01	-	PVC	-	-	-	Good
	GZ-7	12.99	-	PVC	-	-	-	Good
	MW-1	19.98	-	PVC	-	-	-	Good
	Pond	13.90	-	PVC	-	-	-	Good
	MW-2	32.50	-	PVC	-	-	-	Good
	MW-01	7.60	-	PVC	-	-	-	Good
	GZ-5	Dry	16.2	PVC	-	-	-	Good
	ME-6	18.21	-	PVC	-	-	-	Good
	GZ-9	17.49	-	PVC	-	-	-	Good
	GZ-4	8.65	-	PVC	-	-	-	Good
	AM-7	8.23	-	PVC	-	-	-	Good
	GZ-3	11.91	-	PVC	-	-	-	Good
	MW-03	10.70	-	PVC	-	-	-	Good

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: GZ-4
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS Measurement Date/Time: 10/2/2015 Collector Initials: BR

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)

Difference Between PVC and Casing Top (feet): Difference in Elevation (feet):

Well Screened Interval (fbg) (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	10.59	
Depth to Water (feet):	8.65	
Standing Water in Well (feet):	1.89	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 3.5 gallons or ☐ liters ☐

Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / good; Lock - Yes / No; Expansion Cap - Yes/No; Well ID - Yes / No; Concrete Collar - Yes / No; Well - poor / good

Well head vapors: VOCs (PID/FID) ppmv Methane (FID/Other) ppmv Other ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐

Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐

CALIBRATION DATA:

					Temp/time (#1)		Temp/time (#2)
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1000	Reading (#1)	1000	Reading (#2)
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	3.98	pH 7: (1/2)	7.02	pH 10: (1/2) 10.07
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	99.40%	(#2)
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:		Reading (#1)		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	200	Reading (#1)	199.9	(#2)

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	1234	1249	1254	1259	1304	1309				1309
Depth to Water (ft) below Ref. point (drawdown <0.3)	8.65	9.07	9.26	9.35	9.44	9.52				9.52
Volume Purged (L)		1.5	2.0	2.5	3.0	3.5				3.5
Purge Rate (ml/min)		100	100	100	100	100				100
Temperature (3%) °C		15.09	15.14	15.17	15.17	15.13				15.13
Spec. Cond. (3%) (µS)		1429	1428	1415	1411	1407				1407
Salinity (3%) (ppt)		0.72	0.72	0.71	0.71	0.71				0.71
DO (10%) (mg/L)		6.67	6.02	6.01	5.96	6.01				6.01
pH (+/- 0.1) (s.u.)		7.04	6.75	6.58	6.52	6.48				6.48
ORP** (+/- 10) (mvolts)		138.6	141.9	145.7	148.1	149.8				149.8
Turbidity (<5) (10%) (ntu)		6.85	7.75	6.20	6.01	4.95				4.95

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** 10' (below grade ___ or ref. pt. _X__) **Sample Time:** **Sample ID:** GZ-4

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
Metals		1	Plastic	250-mL	HNO3	Ice/Cooler
PAHs + Analine	8270	2	Amber	1000 ml	None	Ice/Cooler
VOCs	8260	3	VOA	40 ml	HCL	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: No Product Thickness: -- (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: GZ-6
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS Measurement Date/Time: 10/2/2015 Collector Initials: BR/KMA

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)

Difference Between PVC and Casing Top (feet): 0.4 Difference in Elevation (feet):

Well Screened Interval (fbg) 17.5-32.5 (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	31.83	
Depth to Water (feet):	21.62	22.07
Standing Water in Well (feet):	10.21	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 6.3 gallons or ☐ liters ☐
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - **poor / good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - Yes / **No**; Concrete Collar - **Yes** / No; Well - **poor / good**

Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐ ____

Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____

CALIBRATION DATA:

					Temp/time (#1) _____		Temp/time (#2) _____
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1000	Reading (#1)	1000	Reading (#2)
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	3.98	pH 7: (1/2)	7.02	pH 10: (1/2) 10.07
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	99.40%	(#2)
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:		Reading (#1)		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	200	Reading (#1)	199.9	(#2)

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	0740	0800	0805	0810	0815	0820	0825			0825
Depth to Water (ft) below Ref. point (drawdown <0.3)	21.62	23.01	23.61	24.01	24.43	24.76	25.01			25.01
Volume Purged (L)		2.80	0.7	0.7	0.7	0.7	0.7			0.7
Purge Rate (ml/min)		140	140	140	140	140	140			140
Temperature (3%) °C		12.25	12.14	12.14	12.11	12.17	12.13			12.13
Spec. Cond. (3%) (µS)		532	529	528	526	525	526			526
Salinity (3%) (ppt)		0.26	0.26	0.26	0.26	0.26	0.26			0.26
DO (10%) (mg/L)		5.94	6.04	6.22	6.27	6.33	6.37			6.37
pH (+/- 0.1) (s.u.)		8.53	7.99	7.73	7.47	7.46	7.47			7.47
ORP** (+/- 10) (mvolts)		17.7	16.4	15.0	14.6	14.4	14.8			14.8
Turbidity (<5) (10%) (ntu)		7.16	6.12	5.00	4.73	4.10	3.73			3.73

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** 27' (below grade ___ or ref. pt. _X__) **Sample Time:** 0825 **Sample ID:** GZ-6

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
Metals		1	Plastic	250-mL	HNO3	Ice/Cooler
PAHs + Analine	8270	2	Amber	1000 ml	None	Ice/Cooler
VOCs	8260	3	VOA	40 ml	HCL	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: No Product Thickness: -- (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: GZ-7
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS Measurement Date/Time: 10/2/2015 Collector Initials: BR

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)

Difference Between PVC and Casing Top (feet): 0.35 Difference in Elevation (feet):

Well Screened Interval (fbg) 21-31 (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	30.7	
Depth to Water (feet):	12.51	
Standing Water in Well (feet):	18.14	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 8.46 gallons or ☐ liters ☐
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / **good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - Yes / **No**; Concrete Collar - **Yes** / No; Well - poor / **good**

Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐

Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐

CALIBRATION DATA:

					Temp/time (#1)		Temp/time (#2)
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1000	Reading (#1)	1000	Reading (#2)
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	3.98	pH 7: (1/2)	7.02	pH 10: (1/2) 10.07
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	99.40%	(#2)
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:		Reading (#1)		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	200	Reading (#1)	199.9	(#2)

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	0926	0953	0958	1003	1008	1013				1013
Depth to Water (ft) below Ref. point (drawdown <0.3)	12.51	19.19	19.44	19.63	19.81	19.96				19.96
Volume Purged (L)		4.86	5.76	6.66	7.56	9.46				9.46
Purge Rate (ml/min)		180	180	180	150	150				150
Temperature (3%) °C		15.23	15.28	15.27	15.24	15.31				15.31
Spec. Cond. (3%) (µS)		8917	8800	8800	8801	8802				8802
Salinity (3%) (ppt)		5.01	4.94	4.94	4.94	4.95				4.95
DO (10%) (mg/L)		3.48	3.61	3.59	3.52	3.53				3.53
pH (+/- 0.1) (s.u.)		6.33	6.38	6.38	6.39	6.39				6.39
ORP** (+/- 10) (mvolts)		126.6	129.2	129.3	131.0	132.4				132.4
Turbidity (<5) (10%) (ntu)		5.62	4.97	4.23	3.76	3.12				3.12

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** 11.5' (below grade ___ or ref. pt. _X__) **Sample Time:** 1013 **Sample ID:** GZ-7

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
Metals		1	Plastic	250-mL	HNO3	Ice/Cooler
PAHs + Analine	8270	2	Amber	1000 ml	None	Ice/Cooler
VOCs	8260	3	VOA	40 ml	HCL	Ice/Cooler
MS/MSD						

NOTES/OBSERVATIONS:

Color: Clear Odor: No Product Thickness: -- (Call PM if present) Well Condition:

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: GZ-8
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS Measurement Date/Time: 10/2/2015 Collector Initials: BR

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet) _____

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet) _____

Difference Between PVC and Casing Top (feet): _____ Difference in Elevation (feet): _____

Well Screened Interval (fbg) _____ (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	16.40	
Depth to Water (feet):	9.34	
Standing Water in Well (feet):	7.06	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 3.6 gallons or ☐ liters ☐
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / good; Lock - Yes / No; Expansion Cap - Yes/No; Well ID - Yes / No; Concrete Collar - Yes / No; Well - poor / good
Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐ ____
Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____

CALIBRATION DATA:

					Temp/time (#1) _____		Temp/time (#2) _____
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1413	Reading (#1)	1413	Reading (#2) _____
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	4	pH 7: (1/2)	7	pH 10: (1/2) 10.03
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	100.00%	(#2) _____
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:	1000/10/0.02	Reading (#1)	1000/10/0.02	
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	237.5	Reading (#1)	237.4	(#2) _____

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	0840	0855	0858	0901	0903					0903
Depth to Water (ft) below Ref. point (drawdown <0.3)	9.34	9.54	9.54	9.54	9.54					9.54
Volume Purged (L)		2.25	2.7	3.15	3.6					3.6
Purge Rate (ml/min)		150	150	150	150					150
Temperature (3%) °C		14.81	14.74	14.75	14.74					14.74
Spec. Cond. (3%) (µS)		244	241	241	240					240
Salinity (3%) (ppt)		0.12	0.12	0.11	0.11					0.11
DO (10%) (mg/L)		1.47	0.96	0.99	0.98					0.98
pH (+/- 0.1) (s.u.)		6.82	6.70	6.68	6.67					6.67
ORP** (+/- 10) (mvolts)		17.6	11.7	11.4	11.5					11.5
Turbidity (<5) (10%) (ntu)		5.22	4.56	4.23	4.01					4.01

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** 12' (below grade ___ or ref. pt. _X__) **Sample Time:** **Sample ID:** GZ-8

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling

NOTES/OBSERVATIONS:

Color: Clear Odor: Septic Odor Product Thickness: -- (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: GZ-9
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/2/2015 Collector Initials: BR

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet) _____

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet) _____

Difference Between PVC and Casing Top (feet): _____ Difference in Elevation (feet): _____

Well Screened Interval (fbg) _____ (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	31.1	
Depth to Water (feet):	12.49	
Standing Water in Well (feet):	13.61	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 4.0 gallons or ☐ liters ☐
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - **poor / good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - Yes / **No**; Concrete Collar - **Yes** / No; Well - **poor / good**

Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐ ____

Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____

CALIBRATION DATA:

				Temp/time (#1) _____		Temp/time (#2) _____	
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1000	Reading (#1)	1000	Reading (#2)
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	3.98	pH 7: (1/2)	7.02	pH 10: (1/2) 10.07
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	99.40%	(#2)
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:		Reading (#1)		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	200	Reading (#1)	199.9	(#2)

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	1107	1122	1127	1132	1137	1142	1147			1147
Depth to Water (ft) below Ref. point (drawdown <0.3)	17.49	20.96	21.59	22.18	22.76	22.99	23.10			23.10
Volume Purged (L)		1.5	2.0	2.5	3.0	3.5	4.0			4.0
Purge Rate (ml/min)		100	100	100	100	100	100			100
Temperature (3%) °C		13.07	13.23	13.23	13.23	13.24	13.24			13.24
Spec. Cond. (3%) (µS)		1896	1898	1905	1907	1906	1906			1906
Salinity (3%) (ppt)		0.97	0.97	0.98	0.98	0.98	0.98			0.98
DO (10%) (mg/L)		8.05	8.68	8.76	8.66	8.70	8.71			8.71
pH (+/- 0.1) (s.u.)		11.94	11.94	11.94	11.94	11.94	11.94			11.94
ORP** (+/- 10) (mvolts)		-11.9	-8.6	-4.3	-3.9	-2.1	-1.6			-1.6
Turbidity (<5) (10%) (ntu)		4.60	3.38	3.12	2.93	2.83	2.71			2.71

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION

Sample Depth: (below grade ___ or ref. pt. _X__) **Sample Time:** 1147 **Sample ID:** GZ-9

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
Metals		1	Plastic	250-mL	HNO3	Ice/Cooler
PAHs + Analine	8270	2	Amber	1000 ml	None	Ice/Cooler
VOCs	8260	3	VOA	40 ml	HCL	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: No Product Thickness: -- (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: ME-2
Sample Date: 10/2/2015

PROJECT INFORMATION

Project Name: Amerbelle Location: Rockville, CT File No. 45441

WATER LEVEL OBSERVATIONS Measurement Date/Time: 10/2/2015 Collector Initials: BR

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)

Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)

Difference Between PVC and Casing Top (feet): Difference in Elevation (feet):

Well Screened Interval (fbg) 8-18 (Reference Elevation - Ground Elevation)

HACH Kit Type NA Other Field Method NA

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	18	
Depth to Water (feet):	3.19	
Standing Water in Well (feet):	14.81	

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 4.5 gallons or ☐ liters ☐
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / good; Lock - Yes / No; Expansion Cap - Yes/No; Well ID - Yes / No; Concrete Collar - Yes / No; Well - poor / good
Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☑ Other: ☐ ____
Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____

CALIBRATION DATA:

					Temp/time (#1)		Temp/time (#2)
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1000	Reading (#1)	1000	Reading (#2)
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	3.98	pH 7: (1/2)	7.02	pH 10: (1/2) 10.07
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	99.40%	(#2)
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:		Reading (#1)		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	200	Reading (#1)	199.9	(#2)

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	931	946	956	1006	1011	1016				1016
Depth to Water (ft) below Ref. point (drawdown <0.3)	3.25	6.67	8.55	8.55	8.55	8.55				8.55
Volume Purged (L)		1.5	2.5	3.5	4.0	4.5				4.5
Purge Rate (ml/min)		100	100	100	100	100				100
Temperature (3%) °C		16.48	16.50	16.54	16.60	16.61				16.61
Spec. Cond. (3%) (µS)		6481	2765	1117	1106	1108				1108
Salinity (3%) (ppt)		1.81	1.44	0.56	0.55	0.55				0.55
DO (10%) (mg/L)		3.47	3.4	4.25	4.28	4.30				4.30
pH (+/- 0.1) (s.u.)		6.89	6.89	6.90	6.88	6.87				6.87
ORP** (+/- 10) (mvolts)		-76.9	-72.6	-29.0	-20.1	-17.9				-17.9
Turbidity (<5) (10%) (ntu)		36.61	36.17	30.24	31.18	30.61				30.61

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** 13' (below grade ___ or ref. pt. _X__) **Sample Time:** **Sample ID:** ME-2

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
Metals		1	Plastic	250-mL	HNO3	Ice/Cooler
PAHs + Analine	8270	2	Amber	1000 ml	None	Ice/Cooler
VOCs	8260	3	VOA	40 ml	HCL	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Blue Odor: Septic Odor Product Thickness: -- (Call PM if present) Well Condition: Casing in poor shape

APPENDIX E
GROUNDWATER LABORATORY REPORTS

PHOENIX
Environmental Laboratories, Inc.

Wednesday, October 14, 2015

Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Project ID: AMERBELLE
Sample ID#s: BK01721 - BK01727

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	8:25
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01721

Project ID: AMERBELLE
Client ID: GZ-6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	< 0.005	0.005	mg/L	1	10/05/15	TH	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/05/15	MA	SW7470A
Lead	< 0.002	0.002	mg/L	1	10/05/15	TH	SW6010C
Zinc	0.004	0.002	mg/L	1	10/05/15	TH	SW6010C
Mercury Digestion	Completed				10/05/15	I/I	SW7470A
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C
Total Metals Digestion	Completed				10/02/15	AG	SW3050B
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/05/15	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/05/15	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-6

Phoenix I.D.: BK01721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
Acetone	ND	25	ug/L	1	10/05/15	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/05/15	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/05/15	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/05/15	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/05/15	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/05/15	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/05/15	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/05/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/05/15	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/05/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-6

Phoenix I.D.: BK01721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Trichlorofluoromethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/05/15	MH	SW8260C	
Vinyl chloride	ND	1.0	ug/L	1	10/05/15	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	99		%	1	10/05/15	MH	70 - 130 %	
% Bromofluorobenzene	96		%	1	10/05/15	MH	70 - 130 %	
% Dibromofluoromethane	100		%	1	10/05/15	MH	70 - 130 %	
% Toluene-d8	103		%	1	10/05/15	MH	70 - 130 %	
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Chrysene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	65		%	1	10/07/15	DD	30 - 130 %	
% Nitrobenzene-d5	86		%	1	10/07/15	DD	30 - 130 %	
% Terphenyl-d14	87		%	1	10/07/15	DD	30 - 130 %	
Aniline	ND	5.0	ug/L	1	10/12/15	DD	SW8270D	

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	10:13
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01722

Project ID: AMERBELLE
Client ID: GZ-7

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	< 0.005	0.005	mg/L	1	10/05/15	TH	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/05/15	MA	SW7470A
Lead	< 0.002	0.002	mg/L	1	10/05/15	TH	SW6010C
Zinc	< 0.002	0.002	mg/L	1	10/05/15	TH	SW6010C
Mercury Digestion	Completed				10/05/15	I/I	SW7470A
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C
Total Metals Digestion	Completed				10/02/15	AG	SW3050B
Volatiles							
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,1,1-Trichloroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	2	10/06/15	MH	SW8260C
1,1,2-Trichloroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,1-Dichloroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,1-Dichloroethene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,1-Dichloropropene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2,3-Trichloropropane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2,4-Trimethylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2-Dibromoethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2-Dichlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,2-Dichloroethane	ND	1.2	ug/L	2	10/06/15	MH	SW8260C
1,2-Dichloropropane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,3-Dichlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
1,3-Dichloropropane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-7

Phoenix I.D.: BK01722

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
2,2-Dichloropropane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
2-Chlorotoluene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
2-Hexanone	ND	10	ug/L	2	10/06/15	MH	SW8260C
2-Isopropyltoluene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
4-Chlorotoluene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
4-Methyl-2-pentanone	ND	10	ug/L	2	10/06/15	MH	SW8260C
Acetone	ND	50	ug/L	2	10/06/15	MH	SW8260C
Acrylonitrile	ND	10	ug/L	2	10/06/15	MH	SW8260C
Benzene	ND	1.4	ug/L	2	10/06/15	MH	SW8260C
Bromobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Bromochloromethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Bromodichloromethane	ND	1.0	ug/L	2	10/06/15	MH	SW8260C
Bromoform	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Bromomethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Carbon Disulfide	ND	10	ug/L	2	10/06/15	MH	SW8260C
Carbon tetrachloride	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Chlorobenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Chloroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Chloroform	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Chloromethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.80	ug/L	2	10/06/15	MH	SW8260C
Dibromochloromethane	ND	1.0	ug/L	2	10/06/15	MH	SW8260C
Dibromomethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Dichlorodifluoromethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Ethylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Hexachlorobutadiene	ND	0.80	ug/L	2	10/06/15	MH	SW8260C
Isopropylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
m&p-Xylene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Methyl ethyl ketone	ND	10	ug/L	2	10/06/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Methylene chloride	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Naphthalene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
n-Butylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
n-Propylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
o-Xylene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
p-Isopropyltoluene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
sec-Butylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Styrene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
tert-Butylbenzene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Tetrachloroethene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	5.0	ug/L	2	10/06/15	MH	SW8260C
Toluene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
Total Xylenes	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.80	ug/L	2	10/06/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/L	2	10/06/15	MH	SW8260C
Trichloroethene	ND	2.0	ug/L	2	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-7

Phoenix I.D.: BK01722

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Trichlorofluoromethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C	
Trichlorotrifluoroethane	ND	2.0	ug/L	2	10/06/15	MH	SW8260C	
Vinyl chloride	ND	2.0	ug/L	2	10/06/15	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	96		%	2	10/06/15	MH	70 - 130 %	
% Bromofluorobenzene	90		%	2	10/06/15	MH	70 - 130 %	
% Dibromofluoromethane	93		%	2	10/06/15	MH	70 - 130 %	
% Toluene-d8	99		%	2	10/06/15	MH	70 - 130 %	
Client MS/MSD	Completed				10/07/15			
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Chrysene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	80		%	1	10/12/15	DD	30 - 130 %	
% Nitrobenzene-d5	76		%	1	10/12/15	DD	30 - 130 %	
% Terphenyl-d14	91		%	1	10/12/15	DD	30 - 130 %	
Aniline	ND	5.0	ug/L	1	10/12/15	DD	SW8270D	

Project ID: AMERBELLE
Client ID: GZ-7

Phoenix I.D.: BK01722

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Elevated reporting limits due to the foamy nature of the sample.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	9:03
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01723

Project ID: AMERBELLE
Client ID: GZ-8

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C	
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Chrysene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	69		%	1	10/07/15	DD	30 - 130 %	
% Nitrobenzene-d5	103		%	1	10/07/15	DD	30 - 130 %	
% Terphenyl-d14	90		%	1	10/07/15	DD	30 - 130 %	

Project ID: AMERBELLE
Client ID: GZ-8

Phoenix I.D.: BK01723

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	11:47
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01724

Project ID: AMERBELLE
Client ID: GZ-9

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	< 0.005	0.005	mg/L	1	10/05/15	TH	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/05/15	MA	SW7470A
Lead	< 0.002	0.002	mg/L	1	10/05/15	TH	SW6010C
Zinc	0.003	0.002	mg/L	1	10/05/15	TH	SW6010C
Mercury Digestion	Completed				10/05/15	I/I	SW7470A
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C
Total Metals Digestion	Completed				10/02/15	AG	SW3050B
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	5	10/05/15	MH	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,1-Dichloroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,1-Dichloroethene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,1-Dichloropropene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2-Dibromoethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,2-Dichloroethane	ND	3.0	ug/L	5	10/05/15	MH	SW8260C
1,2-Dichloropropane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
1,3-Dichloropropane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-9

Phoenix I.D.: BK01724

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
2,2-Dichloropropane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
2-Chlorotoluene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
2-Hexanone	ND	25	ug/L	5	10/05/15	MH	SW8260C
2-Isopropyltoluene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
4-Chlorotoluene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
4-Methyl-2-pentanone	ND	25	ug/L	5	10/05/15	MH	SW8260C
Acetone	ND	130	ug/L	5	10/05/15	MH	SW8260C
Acrylonitrile	ND	25	ug/L	5	10/05/15	MH	SW8260C
Benzene	ND	3.5	ug/L	5	10/05/15	MH	SW8260C
Bromobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Bromochloromethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Bromodichloromethane	ND	2.5	ug/L	5	10/05/15	MH	SW8260C
Bromoform	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Bromomethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Carbon Disulfide	ND	25	ug/L	5	10/05/15	MH	SW8260C
Carbon tetrachloride	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Chlorobenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Chloroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Chloroform	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Chloromethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	2.0	ug/L	5	10/05/15	MH	SW8260C
Dibromochloromethane	ND	2.5	ug/L	5	10/05/15	MH	SW8260C
Dibromomethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Ethylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Hexachlorobutadiene	ND	2.0	ug/L	5	10/05/15	MH	SW8260C
Isopropylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
m&p-Xylene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Methyl ethyl ketone	ND	25	ug/L	5	10/05/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Methylene chloride	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Naphthalene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
n-Butylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
n-Propylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
o-Xylene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
p-Isopropyltoluene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
sec-Butylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Styrene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
tert-Butylbenzene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Tetrachloroethene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/L	5	10/05/15	MH	SW8260C
Toluene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
Total Xylenes	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	2.0	ug/L	5	10/05/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	25	ug/L	5	10/05/15	MH	SW8260C
Trichloroethene	ND	5.0	ug/L	5	10/05/15	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Trichlorofluoromethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C	
Trichlorotrifluoroethane	ND	5.0	ug/L	5	10/05/15	MH	SW8260C	
Vinyl chloride	ND	5.0	ug/L	5	10/05/15	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	98		%	5	10/05/15	MH	70 - 130 %	
% Bromofluorobenzene	92		%	5	10/05/15	MH	70 - 130 %	
% Dibromofluoromethane	94		%	5	10/05/15	MH	70 - 130 %	
% Toluene-d8	103		%	5	10/05/15	MH	70 - 130 %	
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Chrysene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	10/12/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	74		%	1	10/12/15	DD	30 - 130 %	
% Nitrobenzene-d5	62		%	1	10/12/15	DD	30 - 130 %	
% Terphenyl-d14	90		%	1	10/12/15	DD	30 - 130 %	
Aniline	ND	5.0	ug/L	1	10/12/15	DD	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Elevated reporting limits due to the foamy nature of the sample.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	10:16
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01725

Project ID: AMERBELLE
Client ID: ME-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	0.005	0.005	mg/L	1	10/05/15	TH	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/05/15	MA	SW7470A
Lead	0.003	0.002	mg/L	1	10/05/15	TH	SW6010C
Zinc	0.015	0.002	mg/L	1	10/05/15	TH	SW6010C
Mercury Digestion	Completed				10/05/15	I/I	SW7470A
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C
Total Metals Digestion	Completed				10/02/15	AG	SW3050B
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,4-Trimethylbenzene	1.6	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: ME-2

Phoenix I.D.: BK01725

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Acetone	ND	25	ug/L	1	10/06/15	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/06/15	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/06/15	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: ME-2

Phoenix I.D.: BK01725

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Trichlorofluoromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
Vinyl chloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	10/06/15	MH	70 - 130 %	
% Bromofluorobenzene	95		%	1	10/06/15	MH	70 - 130 %	
% Dibromofluoromethane	95		%	1	10/06/15	MH	70 - 130 %	
% Toluene-d8	102		%	1	10/06/15	MH	70 - 130 %	
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Anthracene	0.06	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benz(a)anthracene	0.07	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	B*
Benzo(a)pyrene	0.08	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	0.11	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	0.10	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	0.18	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Chrysene	0.09	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	0.02	0.01	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluoranthene	0.16	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	0.09	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Phenanthrene	0.07	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Pyrene	0.14	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	70		%	1	10/07/15	DD	30 - 130 %	
% Nitrobenzene-d5	104		%	1	10/07/15	DD	30 - 130 %	
% Terphenyl-d14	66		%	1	10/07/15	DD	30 - 130 %	
Aniline	ND	5.0	ug/L	1	10/12/15	DD	SW8270D	

B* = Present in blank, a bias is possible.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	13:09
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01726

Project ID: AMERBELLE
Client ID: GZ-4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	< 0.005	0.005	mg/L	1	10/05/15	TH	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/05/15	MA	SW7470A
Lead	< 0.002	0.002	mg/L	1	10/05/15	TH	SW6010C
Zinc	0.025	0.002	mg/L	1	10/05/15	TH	SW6010C
Mercury Digestion	Completed				10/05/15	I/I	SW7470A
Semi-Volatile Extraction	Completed				10/06/15	E/D	SW3520C
Total Metals Digestion	Completed				10/02/15	AG	SW3050B
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/06/15	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-4

Phoenix I.D.: BK01726

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Acetone	ND	25	ug/L	1	10/06/15	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/06/15	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/06/15	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Tetrachloroethene	2000	100	ug/L	100	10/06/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/06/15	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/06/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/06/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/06/15	MH	SW8260C
Trichloroethene	1.0	1.0	ug/L	1	10/06/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: GZ-4

Phoenix I.D.: BK01726

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Trichlorofluoromethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
Vinyl chloride	ND	1.0	ug/L	1	10/06/15	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	98		%	1	10/06/15	MH	70 - 130 %	
% Bromofluorobenzene	97		%	1	10/06/15	MH	70 - 130 %	
% Dibromofluoromethane	92		%	1	10/06/15	MH	70 - 130 %	
% Toluene-d8	87		%	1	10/06/15	MH	70 - 130 %	
Semivolatiles by SIM								
2-Methylnaphthalene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Chrysene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Fluorene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	10/07/15	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2-Fluorobiphenyl	72		%	1	10/07/15	DD	30 - 130 %	
% Nitrobenzene-d5	106		%	1	10/07/15	DD	30 - 130 %	
% Terphenyl-d14	87		%	1	10/07/15	DD	30 - 130 %	
Aniline	ND	5.0	ug/L	1	10/12/15	DD	SW8270D	

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller

Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

October 14, 2015

FOR: Attn: Mr Chris Frey
GZA GeoEnvironmental, Inc.
655 Winding Brook Drive
Suite 402
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	BR	10/02/15	
Location Code:	GZA-AMER	Received by:	SW	10/02/15	15:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	45441.00				

Laboratory Data

SDG ID: GBK01721
Phoenix ID: BK01727

Project ID: AMERBELLE
Client ID: TB-100215

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/03/15	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/03/15	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/03/15	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/03/15	MH	SW8260C

Project ID: AMERBELLE
Client ID: TB-100215

Phoenix I.D.: BK01727

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	10/03/15	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	10/03/15	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/03/15	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/03/15	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/03/15	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/03/15	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/03/15	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/03/15	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/03/15	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/03/15	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/03/15	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/03/15	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/03/15	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	10/03/15	MH	70 - 130 %
% Bromofluorobenzene	92		%	1	10/03/15	MH	70 - 130 %
% Dibromofluoromethane	105		%	1	10/03/15	MH	70 - 130 %

Project ID: AMERBELLE
Client ID: TB-100215

Phoenix I.D.: BK01727

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	84		%	1	10/03/15	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
October 14, 2015
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

October 14, 2015

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 322378 (mg/L), QC Sample No: BK01722 (BK01721, BK01722, BK01724, BK01725, BK01726)													
ICP Metals - Aqueous													
Copper	BRL	0.005	<0.005	<0.005	NC	102	101	1.0	105	104	1.0	75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	99.2	98.1	1.1	90.4	89.3	1.2	75 - 125	20
Zinc	BRL	0.002	<0.002	<0.002	NC	98.4	98.0	0.4	96.4	95.2	1.3	75 - 125	20
QA/QC Batch 322434 (mg/L), QC Sample No: BK01722 (BK01721, BK01722, BK01724, BK01725, BK01726)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.0	89.0	5.5	92.3	90.4	2.1	70 - 130	20

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

PHOENIX

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QA/QC Report

October 14, 2015

QA/QC Data

SDG I.D.: GBK01721

QA/QC Batch 322492 (ug/L), QC Sample No: BJ99926 (BK01727)

Volatiles - Ground Water

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	1.0	100	86	15.1				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	88	81	8.3				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	98	78	22.7				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	93	78	17.5				70 - 130	30	
1,1-Dichloroethane	ND	1.0	102	91	11.4				70 - 130	30	
1,1-Dichloroethene	ND	1.0	101	91	10.4				70 - 130	30	
1,1-Dichloropropene	ND	1.0	85	82	3.6				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	109	88	21.3				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	97	81	18.0				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	102	88	14.7				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	93	88	5.5				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	99	75	27.6				70 - 130	30	
1,2-Dibromoethane	ND	1.0	91	80	12.9				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	94	82	13.6				70 - 130	30	
1,2-Dichloroethane	ND	1.0	95	75	23.5				70 - 130	30	
1,2-Dichloropropane	ND	1.0	95	83	13.5				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	91	90	1.1				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	94	85	10.1				70 - 130	30	
1,3-Dichloropropane	ND	1.0	89	79	11.9				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	92	83	10.3				70 - 130	30	
2,2-Dichloropropane	ND	1.0	94	87	7.7				70 - 130	30	
2-Chlorotoluene	ND	1.0	92	88	4.4				70 - 130	30	
2-Hexanone	ND	5.0	86	64	29.3				70 - 130	30	I
2-Isopropyltoluene	ND	1.0	89	90	1.1				70 - 130	30	
4-Chlorotoluene	ND	1.0	90	86	4.5				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	97	68	35.2				70 - 130	30	I,r
Acetone	ND	5.0	83	65	24.3				70 - 130	30	I
Acrylonitrile	ND	5.0	114	90	23.5				70 - 130	30	
Benzene	ND	0.70	86	79	8.5				70 - 130	30	
Bromobenzene	ND	1.0	93	84	10.2				70 - 130	30	
Bromochloromethane	ND	1.0	97	83	15.6				70 - 130	30	
Bromodichloromethane	ND	0.50	99	89	10.6				70 - 130	30	
Bromoform	ND	1.0	114	84	30.3				70 - 130	30	
Bromomethane	ND	1.0	157	140	11.4				70 - 130	30	I
Carbon Disulfide	ND	1.0	103	95	8.1				70 - 130	30	
Carbon tetrachloride	ND	1.0	93	88	5.5				70 - 130	30	
Chlorobenzene	ND	1.0	93	83	11.4				70 - 130	30	
Chloroethane	ND	1.0	116	103	11.9				70 - 130	30	
Chloroform	ND	1.0	92	77	17.8				70 - 130	30	
Chloromethane	ND	1.0	99	82	18.8				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	89	81	9.4				70 - 130	30	

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
cis-1,3-Dichloropropene	ND	0.40	97	83	15.6				70 - 130	30
Dibromochloromethane	ND	0.50	93	84	10.2				70 - 130	30
Dibromomethane	ND	1.0	92	82	11.5				70 - 130	30
Dichlorodifluoromethane	ND	1.0	118	115	2.6				70 - 130	30
Ethylbenzene	ND	1.0	91	87	4.5				70 - 130	30
Hexachlorobutadiene	ND	0.40	91	103	12.4				70 - 130	30
Isopropylbenzene	ND	1.0	86	90	4.5				70 - 130	30
m&p-Xylene	ND	1.0	92	86	6.7				70 - 130	30
Methyl ethyl ketone	ND	5.0	93	70	28.2				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	112	82	30.9				70 - 130	30
Methylene chloride	ND	1.0	94	73	25.1				70 - 130	30
Naphthalene	ND	1.0	105	85	21.1				70 - 130	30
n-Butylbenzene	ND	1.0	88	94	6.6				70 - 130	30
n-Propylbenzene	ND	1.0	85	90	5.7				70 - 130	30
o-Xylene	ND	1.0	90	84	6.9				70 - 130	30
p-Isopropyltoluene	ND	1.0	91	94	3.2				70 - 130	30
sec-Butylbenzene	ND	1.0	90	96	6.5				70 - 130	30
Styrene	ND	1.0	94	83	12.4				70 - 130	30
tert-Butylbenzene	ND	1.0	87	91	4.5				70 - 130	30
Tetrachloroethene	ND	1.0	86	90	4.5				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	99	68	37.1				70 - 130	30
Toluene	ND	1.0	91	89	2.2				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	96	90	6.5				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	97	81	18.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	124	98	23.4				70 - 130	30
Trichloroethene	ND	1.0	88	83	5.8				70 - 130	30
Trichlorofluoromethane	ND	1.0	120	111	7.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	101	95	6.1				70 - 130	30
Vinyl chloride	ND	1.0	116	108	7.1				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0				70 - 130	30
% Bromofluorobenzene	92	%	100	100	0.0				70 - 130	30
% Dibromofluoromethane	96	%	105	92	13.2				70 - 130	30
% Toluene-d8	106	%	100	110	9.5				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 322625 (ug/L), QC Sample No: BK01323 (BK01721, BK01724 (5X) , BK01725, BK01726)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	108	106	1.9				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	113	94	18.4				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	99	96	3.1				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	102	86	17.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	110	95	14.6				70 - 130	30
1,1-Dichloroethene	ND	1.0	108	93	14.9				70 - 130	30
1,1-Dichloropropene	ND	1.0	109	105	3.7				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	105	106	0.9				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	103	99	4.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	106	106	0.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	98	97	1.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	114	111	2.7				70 - 130	30
1,2-Dibromoethane	ND	1.0	109	105	3.7				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	98	97	1.0				70 - 130	30

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dichloroethane	ND	1.0	118	106	10.7				70 - 130	30
1,2-Dichloropropane	ND	1.0	90	76	16.9				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	98	96	2.1				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	98	96	2.1				70 - 130	30
1,3-Dichloropropane	ND	1.0	105	102	2.9				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	97	96	1.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	93	79	16.3				70 - 130	30
2-Chlorotoluene	ND	1.0	96	94	2.1				70 - 130	30
2-Hexanone	ND	5.0	100	93	7.3				70 - 130	30
2-Isopropyltoluene	ND	1.0	99	98	1.0				70 - 130	30
4-Chlorotoluene	ND	1.0	91	92	1.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	95	79	18.4				70 - 130	30
Acetone	ND	5.0	118	103	13.6				70 - 130	30
Acrylonitrile	ND	5.0	124	107	14.7				70 - 130	30
Benzene	ND	0.70	92	101	9.3				70 - 130	30
Bromobenzene	ND	1.0	97	97	0.0				70 - 130	30
Bromochloromethane	ND	1.0	102	88	14.7				70 - 130	30
Bromodichloromethane	ND	0.50	111	95	15.5				70 - 130	30
Bromoform	ND	1.0	116	114	1.7				70 - 130	30
Bromomethane	ND	1.0	59	52	12.6				70 - 130	30
Carbon Disulfide	ND	1.0	105	90	15.4				70 - 130	30
Carbon tetrachloride	ND	1.0	114	96	17.1				70 - 130	30
Chlorobenzene	ND	1.0	97	95	2.1				70 - 130	30
Chloroethane	ND	1.0	117	102	13.7				70 - 130	30
Chloroform	ND	1.0	110	94	15.7				70 - 130	30
Chloromethane	ND	1.0	118	100	16.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	110	96	13.6				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	93	80	15.0				70 - 130	30
Dibromochloromethane	ND	0.50	115	111	3.5				70 - 130	30
Dibromomethane	ND	1.0	103	87	16.8				70 - 130	30
Dichlorodifluoromethane	ND	1.0	166	146	12.8				70 - 130	30
Ethylbenzene	ND	1.0	99	97	2.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	107	105	1.9				70 - 130	30
Isopropylbenzene	ND	1.0	93	91	2.2				70 - 130	30
m&p-Xylene	ND	1.0	98	96	2.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	100	93	7.3				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	127	111	13.4				70 - 130	30
Methylene chloride	ND	1.0	110	97	12.6				70 - 130	30
Naphthalene	ND	1.0	111	108	2.7				70 - 130	30
n-Butylbenzene	ND	1.0	95	95	0.0				70 - 130	30
n-Propylbenzene	ND	1.0	88	91	3.4				70 - 130	30
o-Xylene	ND	1.0	100	97	3.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	99	98	1.0				70 - 130	30
sec-Butylbenzene	ND	1.0	96	97	1.0				70 - 130	30
Styrene	ND	1.0	102	100	2.0				70 - 130	30
tert-Butylbenzene	ND	1.0	97	96	1.0				70 - 130	30
Tetrachloroethene	ND	1.0	98	87	11.9				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	111	101	9.4				70 - 130	30
Toluene	ND	1.0	96	81	16.9				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	115	102	12.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	100	87	13.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	96	92	4.3				70 - 130	30
Trichloroethene	ND	1.0	97	98	1.0				70 - 130	30

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorofluoromethane	ND	1.0	129	111	15.0				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	110	95	14.6				70 - 130	30	
Vinyl chloride	ND	1.0	133	114	15.4				70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	99	100	1.0				70 - 130	30	
% Bromofluorobenzene	94	%	106	106	0.0				70 - 130	30	
% Dibromofluoromethane	99	%	118	103	13.6				70 - 130	30	
% Toluene-d8	102	%	100	87	13.9				70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 322761 (ug/L), QC Sample No: BK01722 (BK01722 (2X))

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	102	110	7.5	94	104	10.1	70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	90	94	4.3	94	104	10.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	93	91	2.2	98	106	7.8	70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	99	95	4.1	95	103	8.1	70 - 130	30	
1,1-Dichloroethane	ND	1.0	95	96	1.0	94	102	8.2	70 - 130	30	
1,1-Dichloroethene	ND	1.0	86	91	5.6	90	101	11.5	70 - 130	30	
1,1-Dichloropropene	ND	1.0	96	98	2.1	97	104	7.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	88	96	8.7	78	91	15.4	70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	96	93	3.2	94	101	7.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	98	103	5.0	82	92	11.5	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	98	100	2.0	86	94	8.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	101	99	2.0	92	103	11.3	70 - 130	30	
1,2-Dibromoethane	ND	1.0	104	121	15.1	93	104	11.2	70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	95	96	1.0	90	97	7.5	70 - 130	30	
1,2-Dichloroethane	ND	1.0	99	97	2.0	94	100	6.2	70 - 130	30	
1,2-Dichloropropane	ND	1.0	98	98	0.0	94	105	11.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	96	99	3.1	88	94	6.6	70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	96	98	2.1	86	94	8.9	70 - 130	30	
1,3-Dichloropropane	ND	1.0	105	122	15.0	97	107	9.8	70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	96	97	1.0	85	94	10.1	70 - 130	30	
2,2-Dichloropropane	ND	1.0	89	92	3.3	87	94	7.7	70 - 130	30	
2-Chlorotoluene	ND	1.0	94	96	2.1	89	96	7.6	70 - 130	30	
2-Hexanone	ND	5.0	98	107	8.8	96	104	8.0	70 - 130	30	
2-Isopropyltoluene	ND	1.0	98	100	2.0	91	98	7.4	70 - 130	30	
4-Chlorotoluene	ND	1.0	91	94	3.2	85	92	7.9	70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	94	87	7.7	94	101	7.2	70 - 130	30	
Acetone	ND	5.0	79	104	27.3	95	106	10.9	70 - 130	30	
Acrylonitrile	ND	5.0	97	99	2.0	98	106	7.8	70 - 130	30	
Benzene	ND	0.70	96	97	1.0	93	102	9.2	70 - 130	30	
Bromobenzene	ND	1.0	93	96	3.2	91	99	8.4	70 - 130	30	
Bromochloromethane	ND	1.0	91	94	3.2	89	98	9.6	70 - 130	30	
Bromodichloromethane	ND	0.50	102	102	0.0	97	104	7.0	70 - 130	30	
Bromoform	ND	1.0	95	111	15.5	92	100	8.3	70 - 130	30	
Bromomethane	ND	1.0	62	62	0.0	30	46	42.1	70 - 130	30	l,m,r
Carbon Disulfide	ND	1.0	88	88	0.0	82	91	10.4	70 - 130	30	
Carbon tetrachloride	ND	1.0	93	97	4.2	96	106	9.9	70 - 130	30	
Chlorobenzene	ND	1.0	97	98	1.0	92	101	9.3	70 - 130	30	
Chloroethane	ND	1.0	96	86	11.0	88	99	11.8	70 - 130	30	
Chloroform	ND	1.0	93	94	1.1	92	100	8.3	70 - 130	30	
Chloromethane	ND	1.0	71	70	1.4	40	56	33.3	70 - 130	30	m,r
cis-1,2-Dichloroethene	ND	1.0	94	95	1.1	93	103	10.2	70 - 130	30	

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	0.40	93	91	2.2	87	96	9.8	70 - 130	30	
Dibromochloromethane	ND	0.50	107	129	18.6	95	104	9.0	70 - 130	30	
Dibromomethane	ND	1.0	97	95	2.1	93	100	7.3	70 - 130	30	
Dichlorodifluoromethane	ND	1.0	116	120	3.4	105	121	14.2	70 - 130	30	
Ethylbenzene	ND	1.0	98	100	2.0	94	103	9.1	70 - 130	30	
Hexachlorobutadiene	ND	0.40	101	105	3.9	80	92	14.0	70 - 130	30	
Isopropylbenzene	ND	1.0	91	93	2.2	90	97	7.5	70 - 130	30	
m&p-Xylene	ND	1.0	95	100	5.1	93	101	8.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	86	86	0.0	90	92	2.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	103	102	1.0	106	115	8.1	70 - 130	30	
Methylene chloride	ND	1.0	95	96	1.0	96	103	7.0	70 - 130	30	
Naphthalene	ND	1.0	93	98	5.2	88	102	14.7	70 - 130	30	
n-Butylbenzene	ND	1.0	94	96	2.1	84	91	8.0	70 - 130	30	
n-Propylbenzene	ND	1.0	89	91	2.2	85	92	7.9	70 - 130	30	
o-Xylene	ND	1.0	83	102	20.5	93	102	9.2	70 - 130	30	
p-Isopropyltoluene	ND	1.0	97	100	3.0	88	96	8.7	70 - 130	30	
sec-Butylbenzene	ND	1.0	95	98	3.1	91	99	8.4	70 - 130	30	
Styrene	ND	1.0	85	103	19.1	92	104	12.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	93	98	5.2	91	98	7.4	70 - 130	30	
Tetrachloroethene	ND	1.0	93	92	1.1	89	96	7.6	70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	92	87	5.6	93	97	4.2	70 - 130	30	
Toluene	ND	1.0	98	98	0.0	94	99	5.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	101	104	2.9	100	110	9.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	94	91	3.2	87	94	7.7	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	83	80	3.7	53	58	9.0	70 - 130	30	m
Trichloroethene	ND	1.0	94	96	2.1	92	100	8.3	70 - 130	30	
Trichlorofluoromethane	ND	1.0	102	106	3.8	103	114	10.1	70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	88	90	2.2	84	97	14.4	70 - 130	30	
Vinyl chloride	ND	1.0	100	95	5.1	86	107	21.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	99	1.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	94	%	90	104	14.4	102	102	0.0	70 - 130	30	
% Dibromofluoromethane	97	%	97	98	1.0	99	100	1.0	70 - 130	30	
% Toluene-d8	101	%	101	99	2.0	100	100	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 322626 (ug/L), QC Sample No: BK01722 (BK01721, BK01722, BK01723, BK01724, BK01725, BK01726)

Semivolatiles by SIM - Ground Water

2-Methylnaphthalene	ND	0.02	81	90	10.5	93	96	3.2	30 - 130	20	
Acenaphthene	ND	0.02	75	80	6.5	80	82	2.5	30 - 130	20	
Acenaphthylene	ND	0.02	65	68	4.5	69	70	1.4	30 - 130	20	
Anthracene	ND	0.02	88	90	2.2	83	85	2.4	30 - 130	20	
Benz(a)anthracene	0.02	0.02	88	91	3.4	67	86	24.8	30 - 130	20	r
Benzo(a)pyrene	ND	0.02	84	86	2.4	44	74	50.8	30 - 130	20	r
Benzo(b)fluoranthene	ND	0.02	94	94	0.0	55	89	47.2	30 - 130	20	r
Benzo(ghi)perylene	ND	0.02	85	85	0.0	42	80	62.3	30 - 130	20	r
Benzo(k)fluoranthene	ND	0.02	96	99	3.1	53	94	55.8	30 - 130	20	r
Chrysene	ND	0.02	89	90	1.1	61	85	32.9	30 - 130	20	r
Dibenz(a,h)anthracene	ND	0.01	91	92	1.1	43	85	65.6	30 - 130	20	r
Fluoranthene	ND	0.02	88	91	3.4	88	93	5.5	30 - 130	20	
Fluorene	ND	0.02	84	87	3.5	86	87	1.2	30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	90	90	0.0	44	83	61.4	30 - 130	20	r
Naphthalene	ND	0.02	55	62	12.0	62	65	4.7	30 - 130	20	

QA/QC Data

SDG I.D.: GBK01721

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Phenanthrene	ND	0.02	81	82	1.2	79	81	2.5	30 - 130	20
Pyrene	ND	0.02	85	88	3.5	85	90	5.7	30 - 130	20
% 2-Fluorobiphenyl	67	%	61	66	7.9	68	70	2.9	30 - 130	20
% Nitrobenzene-d5	97	%	70	80	13.3	82	84	2.4	30 - 130	20
% Terphenyl-d14	88	%	93	94	1.1	69	90	26.4	30 - 130	20 r
QA/QC Batch 322713 (ug/L), QC Sample No: BK02351 (BK01726 (100X))										
Volatiles - Ground Water										
Tetrachloroethene	ND	1.0	93	92	1.1	102	98	4.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory lcs/lcsd specified recovery limits.
m = This parameter is outside laboratory ms/msd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller

Phyllis Shiller, Laboratory Director
October 14, 2015

Sample Criteria Exceedences Report

GBK01721 - GZA-AMER

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BK01721	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK01721	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK01722	$8260GWR	Bromodichloromethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.56	0.56	ug/L
BK01722	$8260GWR	trans-1,3-Dichloropropene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	0.80	0.5	0.5	ug/L
BK01722	$8260GWR	Hexachlorobutadiene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	0.80	0.45	0.45	ug/L
BK01722	$8260GWR	cis-1,3-Dichloropropene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	0.80	0.5	0.5	ug/L
BK01722	$8260GWR	Benzene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.4	1	1	ug/L
BK01722	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	10	0.5	0.5	ug/L
BK01722	$8260GWR	1,2-Dichloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.2	1	1	ug/L
BK01722	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.0	0.05	0.05	ug/L
BK01722	$8260GWR	1,1,2,2-Tetrachloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.5	0.5	ug/L
BK01722	$8260GWR	1,1,1,2-Tetrachloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.0	1	1	ug/L
BK01722	$8260GWR	Dibromochloromethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.5	0.5	ug/L
BK01724	$8260GWR	Bromodichloromethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.5	0.56	0.56	ug/L
BK01724	$8260GWR	1,1,1,2-Tetrachloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	1	1	ug/L
BK01724	$8260GWR	1,1,2,2-Tetrachloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.5	0.5	0.5	ug/L
BK01724	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.05	0.05	ug/L
BK01724	$8260GWR	1,2-Dichloroethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	3.0	1	1	ug/L
BK01724	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	25	0.5	0.5	ug/L
BK01724	$8260GWR	Bromoform	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	4	4	ug/L
BK01724	$8260GWR	Chloromethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	2.7	2.7	ug/L
BK01724	$8260GWR	cis-1,3-Dichloropropene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.0	0.5	0.5	ug/L
BK01724	$8260GWR	Dibromochloromethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.5	0.5	0.5	ug/L
BK01724	$8260GWR	Hexachlorobutadiene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.0	0.45	0.45	ug/L
BK01724	$8260GWR	trans-1,3-Dichloropropene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	2.0	0.5	0.5	ug/L
BK01724	$8260GWR	Vinyl chloride	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	2	2	ug/L
BK01724	$8260GWR	Benzene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	3.5	1	1	ug/L
BK01724	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / SWPC (ug/L)	ND	25	20	20	ug/L
BK01725	$8100CTSIMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GWPC (µg/L)	0.07	0.05	0.06	0.06	ug/L
BK01725	$8100CTSIMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GWPC (µg/L)	0.11	0.05	0.08	0.08	ug/L
BK01725	$8100CTSIMR	Dibenz(a,h)anthracene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	0.02	0.01	0.01	0.01	ug/L
BK01725	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK01725	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK01726	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK01726	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK01726	$8260GWR	Tetrachloroethene	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	2000	100	5	5	ug/L
BK01726	$8260GWR	Tetrachloroethene	CT / VOLATILE ORGANIC COMPOUND / SWPC (ug/L)	2000	100	88	88	ug/L
BK01727	$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L

Sample Criteria Exceedences Report

GBK01721 - GZA-AMER

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BK01727	$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** GZA GeoEnvironmental, Inc.

Project Location: AMERBELLE **Project Number:**

Laboratory Sample ID(s): BK01721, BK01722, BK01723, BK01724, BK01725, BK01726, BK01727

Sampling Date(s): 10/2/2015

RCP Methods Used:

☐ 1311/1312 ☑ 6010 ☐ 7000 ☐ 7196 ☑ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15

☐ 8082 ☐ 8151 ☑ 8260 ☑ 8270 ☐ ETPH ☐ 9010/9012 ☐ VPH

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: PAHSIM Narration, VOA Narration.	☐ Yes ☑ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☐ Yes ☑ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☑ Yes ☐ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Maryam Taylor

Date: Wednesday, October 14, 2015

Printed Name: Maryam Taylor

Position: Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

RCP Certification Report

October 14, 2015

SDG I.D.: GBK01721

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list.

8270 Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody. In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via 8270 selective ion monitoring (SIM).

Volatile 8260 analysis:
The reporting level for Acrylonitrile is above the GWP criteria.
1,2-Dibromoethane does not meet GWP criteria, this compound is analyzed by GC/ECD to achieve this criteria.

Due the presence of surfactants in some of the samples which cause the sample to "foam" on the instrument, some samples required a dilution and not all requested criteria was achieved.

Mercury Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Merlin 10/05/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726)

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interfernce for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

Printed Name Mike Arsenault
Position: Chemist
Date: 10/5/2015

PHOENIX

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 14, 2015

SDG I.D.: GBK01721

QC (Site Specific)

---------- Sample No: BK01722, QA/QC Batch: 322434 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

All MSD recoveries were within 75 - 125 with the following exceptions: None.

All MS/MSD RPDs were less than 20% with the following exceptions: None.

ICP Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Arcos 10/02/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726)

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.

Printed Name Laura Kinnin
Position: Chemist
Date: 10/2/2015

Instrument: Arcos 10/03/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726)

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.

Printed Name Laura Kinnin
Position: Chemist
Date: 10/3/2015

Instrument: Arcos 10/05/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726)

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 14, 2015

SDG I.D.: GBK01721

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.

Printed Name	Laura Kinnin
Position:	Chemist
Date:	10/5/2015

QC (Site Specific)

---------- Sample No: BK01722, QA/QC Batch: 322378 ----------

All LCS recoveries were within 75 - 125 with the following exceptions: None.

All LCSD recoveries were within 75 - 125 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

All MSD recoveries were within 75 - 125 with the following exceptions: None.

All MS/MSD RPDs were less than 20% with the following exceptions: None.

PAHSIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 322626 (Samples: BK01721, BK01722, BK01723, BK01724, BK01725, BK01726): -----

Analyte was found in blank. A high bias is suspected. (Benz(a)anthracene(BK01725))

Instrument: Chem04 10/07/15-1 (BK01721, BK01722, BK01723, BK01725, BK01726)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were not evaluated in the DFTPP tune.

If PAH/base neutral were requested, Phoenix utilized a method that contained a shortened list , so some of the compounds in the narrative may be non-applicable.
In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

Initial Calibration Verification (CHEM04/BNSIM_0925):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene (29%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/1007_02-BNSIM_0925):
95% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: % Nitrobenzene-d5 (32%H)[30%]
The following compounds did not meet maximum % deviations: None.

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October 14, 2015

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The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 10/7/2015

QC (Site Specific)

---------- Sample No: BK01722, QA/QC Batch: 322626 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

All MS recoveries were within 30 - 130 with the following exceptions: None.

All MSD recoveries were within 30 - 130 with the following exceptions: None.

All MS/MSD RPDs were less than 20% with the following exceptions: % Terphenyl-d14(26.4%), Benz(a)anthracene(24.8%), Benzo(a)pyrene(50.8%), Benzo(b)fluoranthene(47.2%), Benzo(ghi)perylene(62.3%), Benzo(k)fluoranthene(55.8%), Chrysene(32.9%), Dibenz(a,h)anthracene(65.6%), Indeno(1,2,3-cd)pyrene(61.4%)

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Chem05 10/12/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726)

Initial Calibration Verification (CHEM05/SV_1009):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Bis(2-chloroethoxy)methane (.291)[0.3]
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/1012_02-SV_1009):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 10/12/2015

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October 14, 2015

SDG I.D.: GBK01721

QC (Site Specific)

---------- Sample No: BK01722, QA/QC Batch: 322626 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

All MS recoveries were within 30 - 130 with the following exceptions: None.

All MSD recoveries were within 30 - 130 with the following exceptions: None.

All MS/MSD RPDs were less than 20% with the following exceptions: % Terphenyl-d14(26.4%), Benz(a)anthracene(24.8%), Benzo(a)pyrene(50.8%), Benzo(b)fluoranthene(47.2%), Benzo(ghi)perylene(62.3%), Benzo(k)fluoranthene(55.8%), Chrysene(32.9%), Dibenz(a,h)anthracene(65.6%), Indeno(1,2,3-cd)pyrene(61.4%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 322492 (Samples: BK01727): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Bromomethane)

The LCS and/or the LCSD recovery is below the method criteria. A slight low bias is possible. (2-Hexanone, 4-Methyl-2-pentanone, Acetone, Tetrahydrofuran (THF))

QC Batch 322625 (Samples: BK01721, BK01724, BK01725, BK01726): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (Bromomethane)

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane, Vinyl chloride)

QC Batch 322761 (Samples: BK01722): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Chloromethane, trans-1,4-dichloro-2-butene)

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Bromomethane)

Instrument: Chem17 10/03/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726, BK01727)

Initial Calibration Verification (CHEM17/VT-S01002):
93% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,4-Dioxane (36%), Acetone (29%), Acrylonitrile (22%), Bromomethane (24%),

Chloromethane (31%), trans-1,4-Dichloro-2-butene (23%)
The following compounds did not meet recommended response factors: Acetone (.051)[0.1], Methyl Ethyl Ketone (.095)[0.1]
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1003S07-VT-S01002):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Michael Hahn
Position: Chemist
Date: 10/3/2015

Instrument: Chem17 10/05/15-1 (BK01721, BK01722, BK01724, BK01725, BK01726, BK01727)

Initial Calibration Verification (CHEM17/VT-S01005):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone (27%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-Chloropropane (.049)[0.05], Acetone (.055)[0.1]
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1005S19-VT-S01005):
99% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: Bromomethane (55%L)[30%]
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Michael Hahn
Position: Chemist
Date: 10/5/2015

Instrument: Chem17 10/06/15-1 (BK01726)

Initial Calibration Verification (CHEM17/VT-S01005):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone (27%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-Chloropropane (.049)[0.05], Acetone (.055)[0.1]
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1006S06-VT-S01005):
98% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following

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compounds did not meet % deviation criteria: Bromomethane (46%L)[30%], Chloromethane (35%L)[30%]
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Michael Hahn
Position: Chemist
Date: 10/6/2015

Instrument: Chem17 10/06/15-2 (BK01722)

Initial Calibration Verification (CHEM17/VT-S01005):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone (27%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-Chloropropane (.049)[0.05], Acetone (.055)[0.1]
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1006S06-VT-S01005):
98% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: Bromomethane (46%L)[30%], Chloromethane (35%L)[30%]
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Michael Hahn
Position: Chemist
Date: 10/6/2015

QC Comments: QC Batch 322492 10/03/15 (BK01727)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

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QC (Site Specific)

---------- Sample No: BK01722, QA/QC Batch: 322761 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(62%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(62%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 70 - 130 with the following exceptions: Bromomethane(30%), Chloromethane(40%), trans-1,4-dichloro-2-butene(53%)

All MSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(46%), Chloromethane(56%), trans-1,4-dichloro-2-butene(58%)

All MS/MSD RPDs were less than 30% with the following exceptions: Bromomethane(42.1%), Chloromethane(33.3%)

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

QC (Batch Specific)

---------- Sample No: BJ99926, QA/QC Batch: 322492 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(157%)

All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(64%), 4-Methyl-2-pentanone(68%), Acetone(65%), Bromomethane(140%), Tetrahydrofuran (THF)(68%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: 4-Methyl-2-pentanone(35.2%), Methyl t-butyl ether (MTBE)(30.9%), Tetrahydrofuran (THF)(37.1%)

---------- Sample No: BK01323, QA/QC Batch: 322625 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(59%), Dichlorodifluoromethane(166%), Vinyl chloride(133%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(52%), Dichlorodifluoromethane(146%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

---------- Sample No: BK02351, QA/QC Batch: 322713 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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SDG I.D.: GBK01721

Temperature Narration

The samples were received at 2C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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CHAIN OF CUSTODY RECORD

2W/CHIP

Temp

Pg 1 of 1

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: service@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
- [ ] Fax #:
- [ ] Email: christopher.frey@gza.com

Customer: GZA
Address: Glastonbury, CT

Project: Amerbelle
Report to: Chris Frey
Invoice to: Same

Project P.O: 45441.00
Phone #:
Fax #:

Client Sample - Information - Identification

Sampler's Signature: [signature] Date 10-2-15

Matrix Code:
DW=drinking water WW=wastewater S=soil/solid O=other
GW=groundwater SL=sludge A=air

Analysis Request

Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260	8270 PAH list plus Analine	8270 PAH list	Metals (see list below)						MS/MSD					Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H20	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
01721	GZ-6	GW	10-2-15	825	X	X		X													3	2			1			
01722	GZ-7			1013	X	X		X						X							9	6			3			
01723	GZ-8			903			X														~~3~~	2			~~1~~ BK			
01724	GZ-9			1147	X	X		X													3	2			1			
01725	MB-2			1016	X	X		X													3	2			1			
01726	GZ-4			1309	X	X		X													3	2			1			
01727	TB-100215	DI		—	X																2							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Claudine	10/2/15	1506

Comments, Special Requirements or Regulations:
Metals = lead, copper, mecury, zinc

Turnaround:
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [X] Standard
- [ ] Other

5 days

* SURCHARGE APPLIES

CT/RI
- [ ] RCP Cert.
- [X] GW Protect.
- [ ] GA Mobility
- [ ] GB Mobility
- [X] SW Protect.
- [ ] Res. Vol.
- [ ] Ind. Vol.
- [ ] Res. Criteria
- [ ] Other

MA
- [ ] MCP Cert.
- [ ] GW-1
- [ ] GW-2
- [ ] GW-3
- [ ] S-1
- [ ] S-2
- [ ] S-3
- [ ] MWRA eSMART
- [ ] Other

Data Format
- [X] Excel
- [X] PDF
- [ ] GIS/Key
- [ ] EQuIS
- [ ] Other

Data Package
- [ ] ASP-A
- [ ] NJ Reduced Deliv. *
- [ ] NJ Hazsite EDD
- [X] Phoenix Std Report
- [ ] Other

State where samples were collected: CT