



Confidential

Limited Site Assessment

Commercial Property

41 Kensico Drive

Mount Kisco, Westchester County, New York

Prepared for:

AutoNation, Inc.

May 8, 2017

Prepared by:

AECOM Technical Services, Inc.

AECOM Job No. 60536364

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1.0 INTRODUCTION/BACKGROUND

AECOM Technical Services, Inc. (AECOM), through URS Corporation (URS), a wholly-owned subsidiary of AECOM, has performed a Limited Site Assessment (LSA) for the Commercial Property located at 41 Kensico Drive, Mount Kisco, Westchester County, New York (subject property) to further evaluate if the subsurface has been impacted by contaminants. The LSA was conducted in general accordance with the proposal to AutoNation, Inc. (AutoNation) dated January 17, 2017. URS, an AECOM company, previously completed Phase I and Phase II Environmental Site Assessment (ESA) reports for the subject property, dated September 21, 2016 and December 14, 2016, respectively.

The subject property encompasses approximately 1.7 acres with an approximate 13,000 square foot slab-on-grade commercial building. The building is currently occupied by Human Relations Media, a commercial and movie production company. The exterior of the subject property is developed with asphalt-paved parking and drive areas and associated landscaping. The terrain at the site slopes to the east toward the unnamed creek and railroad tracks. Kensico Drive followed by the Holiday Inn and Lexus of Mt. Kisco lie to the west and an office building and Suburban Propane neighbor the property to the north and south, respectively.

Historical information was reviewed for the subject property dating back to 1892. The subject property appeared to be undeveloped land in the historical sources reviewed from 1892 through 1975. The subject building was constructed in 1976 and was originally occupied by a veterinary hospital. In 1982, Design for Leisure, a pool table and bar stool manufacturer took occupancy of the subject property until 1998 when Human Relations Media took occupancy. The western portion of the subject building is currently vacant and, according to the site contact, was previously occupied by a home health care company and then a coin and stamp dealer. It was also reported that fill material was brought in during the initial site development in the 1970s to raise the site elevation to the current grade. Site representatives reported that during previous excavations performed on the property, the subsurface soils were noted to contain construction debris including concrete, brick, and wood.

Based on information from the Phase I ESA, two heating oil underground storage tanks (USTs) were removed from an area east of the subject property building in 1998 along with an unspecified volume of contaminated soil. On August 26, 1998, following removal, the New York State Department of Environmental Conservation (NYSDEC) granted a No Further Action (NFA) status. These steel USTs were replaced with a 1,000-gallon fiberglass heating oil UST. According to city records, the fiberglass UST was removed in 2008 when the subject property converted to natural gas. Envirostar Corporation submitted a letter to the Village of Mount Kisco, dated July 30, 2008, indicating that the UST was removed and no holes were found in the UST. A post-removal soil sample was below the regulatory cleanup criteria for total petroleum hydrocarbons (TPH) of 100 parts per million (ppm) (residential) and 500 ppm (commercial) and, on August 11, 2016, the Village of Mount Kisco issued a Certificate of Compliance regarding the removal of the UST. Based on the historical operation of the three heating oil USTs and former presence of petroleum-impacted soil, it was URS' opinion that shallow groundwater in the vicinity of the UST may have been potentially impacted.

Subsequently, a Phase II ESA was completed on the property which included the collection of soil and

groundwater samples across the property and sub-slab vapor samples within the building. The results of the Phase II ESA included the following:

- Volatile organic halocarbons (VOHs) were detected in nine of 10 grab groundwater samples at concentrations in excess of NYSDEC Groundwater Standards.
- The highest concentrations of VOHs included cis-1,2 dichloroethene (cis-1,2-DCE) at 454 micrograms per liter (ug/l) and trichloroethene (TCE) at 683 ug/l in B-1 located in the center of the former UST area. The second highest concentration of TCE (563 ug/l) was detected in B-9 located in the western upgradient portion of the subject property.
- Relatively high concentrations of TCE ranging from 81.7 ug/l to 563 ug/l and cis-1,2-DCE ranging from 94.8 ug/l to 333 ug/l were detected above the regulatory standards in several other locations on the site, including up-gradient and downgradient of the former UST area and along the perimeters of the property.
- No concentrations of VOHs were detected above laboratory detection limits in the two soil samples, B-3(1-2) and B-3(3-4) collected from the area downgradient of the former UST area.
- The sub-slab vapor sampling and analysis indicated TCE was detected in the two samples at 20 micrograms per cubic meter (ug/m³) and 28 ug/m³ which exceed the indoor air guideline value of 2 ug/m³. Additional indoor air samples would need to be collected and analyzed to determine if the NYSDOH Decision Matrix would require no action, monitoring, or mitigation for this facility.

The soil, groundwater, and sub-slab sampling locations from the previous investigation are provided in **Figure 1**.

2.0 OBJECTIVE

The primary objective of this LSA was to further evaluate shallow groundwater conditions across the site through the installation of a network of permanent monitoring wells.

3.0 FIELD ACTIVITIES

The subsurface investigation activities performed during this LSA included monitoring well installation, sampling of the wells, and surveying the well elevations to determine shallow groundwater flow direction beneath the site.

3.1 Monitoring Well Installation & Deep Test Boring

On March 9 and 10, 2017, AECOM personnel provided oversight for the installation of six permanent shallow monitoring wells across the site by Subsurface Environmental Technologies, LLC (SET). Prior to the installation of the wells, SET performed a private utility locate for potential subsurface utilities in the vicinity of the proposed well locations. Monitoring well MW-1 was installed adjacent to the previously-installed test borings B-1 within the former UST tank hold; MW-5 was installed adjacent to the previous boring B-9, southwest of the building, along the western property boundary. Monitoring well MW-4 was installed southeast of the building in the south-central portion of the parking lot. The

remaining three monitoring wells, MW-2, MW-3 and MW-6 were installed near the property boundaries in the northeast, southeast, and northwest corners of the property, respectively. The locations of the monitoring wells are depicted on **Figure 1**.

After hand-clearing the boreholes to approximately five feet below ground surface (bgs), the monitoring wells were installed using a track-mounted direct-push rig and 5.75-inch diameter hollow-stem augers. The monitoring wells are 2-inch diameter and constructed with 10 feet of 0.10-inch slotted PVC screen, and approximately 1.5 to 4 feet of solid PVC riser. Total well depth for the six monitoring wells ranged from approximately 11.5 feet to 14 bgs. The screen is constructed with a 20/30 silica sand filter pack which was placed in the annular space between the borehole and the monitoring well from the base to approximately one to two feet above the screen. A half-foot to one-foot thick filter pack seal of bentonite was added followed by a half-foot to one-foot thick surface seal of Portland Cement. Each monitoring well was secured beneath a locking bolt-down manhole cover within a 2x2 foot concrete pad finished flush to grade. The wells were developed a minimum of 24 hours after installation by purging approximately 35 to 50 gallons of groundwater. With the exception of MW-5, all wells were pumped continuously during development until the turbidity was below 50 national turbidity units (NTUs). Pumping of MW-5 was intermittent during development since the well went dry several times, and, therefore the turbidity at the conclusion of development was elevated at 451 NTUs. Copies of the Well Construction and Development Logs are included in **Appendix A**.

One deep groundwater probe boring (B-1D) was completed in the vicinity of test Boring B-1, within the former UST tank hold east of the building. The boring was hand cleared to 5 feet bgs and completed with a direct-push rig to the termination depth of 50 feet bgs. On March 9, 2017, two groundwater probe grab samples were collected from this test boring at 30 feet and 50 feet bgs. A continuous core sample was retrieved from this boring and the lithology consisted of brown fine to coarse-grained sand and fill material with brick fragments and gravel to five feet bgs, followed by fine-grained sand to approximately 10 feet bgs, and gray silt to the end of the boring at 50 feet bgs. One-inch thick interbedded lenses of clay were noted at 42 and 44 feet bgs and the silt in the bottom foot of the boring began to become denser. A copy of the boring log is included in **Appendix A**.

Soil cuttings and development water were stored separately in 55-gallon metal drums and staged onsite pending disposal.

3.2 Groundwater Sampling

On March 28, 2017, after sufficient development and a two-week stabilization period, groundwater samples were collected from the six wells (MW-1 through MW-6). Prior to purging, each well was gauged for depth to groundwater. Groundwater samples were collected following EPA's low-stress (purge) groundwater sampling procedures. Each well was purged with a peristaltic pump and polyethylene tubing at a rate of approximately 200 milliliters per minute. Field measurements were collected with a multi-parameter meter and flow-through cell. Along with depth to water and flow rate, the following parameters were monitored: pH, specific conductance, dissolved oxygen (DO), oxidation reduction potential (ORP), temperature, and turbidity. Once the parameters were stabilized, samples were collected in laboratory-supplied bottles. Stabilization was achieved when three consecutive readings, taken at (5) minute intervals, were within the following limits:

- DO ($\pm 10\%$)
- pH (± 0.1 unit)
- Specific Conductance ($\pm 3\%$)
- ORP (± 10 mV)
- Turbidity ($\pm 10\%$ for values greater than 5 NTU)
- Temperature ($\pm 3\%$)
- Drawdown (< 0.3 ft)

Samples and a trip blank were packed in a cooler with ice and submitted to an analytical laboratory. Groundwater samples were analyzed for VOHs by EPA Method 8260.

Purge water was stored in 55-gallon drums staged on the Property pending disposal. The groundwater-sampling logs are presented in **Appendix B**.

3.3 Groundwater Level Measurements

On March 28, and April 3, 2017, water level measurements were recorded from the six monitoring wells. The six shallow monitoring wells are screened in the shallow aquifer to a total depth that ranges between approximately 11.5 feet and 14 feet bgs. Based on the gauging data collected on March 28, 2017, the elevation of the water table across the site ranges between a high of 291.38 feet above mean sea level (msl) in MW-5 and a low of 287.63 feet above msl in MW-2. A similar spread was noted during the subsequent April 3, 2017 gauging event. Water table elevation data are presented in **Table 1**.

Horizontal hydraulic gradient (i) for the surficial aquifer interval of the Site was calculated using data from March 28, 2017 and the following formula:

i = shallow well highest water level elevation minus shallow well lowest water level elevation (on a specific gauging event), divided by the distance between the two wells (in ft)

$$i = \frac{291.38 \text{ [MW - 5]} - 287.63 \text{ [MW - 2]}}{292} = 0.013 \text{ feet / foot}$$

The horizontal hydraulic gradient for the April 3, 2017 event was similar at 0.012 feet/foot.

The top of casing elevation for each of the six monitoring wells were surveyed by a State-Licensed surveyor, C.T. Male and Associates (CT Male) and referenced to the NAVD 88 vertical datum. Water table elevation contour maps based on the full round of groundwater levels collected on March 28 and April 3, 2017, are provided on **Figures 2** and **3**, respectively. Based on these data, shallow groundwater generally flows from the west-southwest (upgradient) to the east-northeast (downgradient). During both sampling events, the hydraulic low points were at monitoring wells MW-1, located in the former tank pit area east of the building and MW-2 in the northeast corner of the property. These low measurements, indicate that a hydraulic low area extends from the former tank pit to the northeast corner of the property.

A copy of the survey from CT Male is included in **Appendix C**.

4.0 EVALUATION OF ANALYTICAL RESULTS

Groundwater contaminant concentrations were compared to applicable groundwater standards and guidance values as defined in Table 1 of the NYSDEC Ambient Water Quality Standards and Guidance Values. VOH concentrations in four (MW-1, MW-2, MW-5, and MW-6) of the six monitoring wells exceeded the NYSDEC Groundwater Standards. Similar to the data from the Phase II ESA collected in October and November 2016, the highest concentrations of VOHs in the shallow aquifer were detected in the center of the property in the former UST Area (B-1 and MW-1), while the second highest VOH concentrations were detected along the west-central portion of the property boundary (B-9 and MW-5). TCE concentrations in B-1 and MW-1 were detected at 683 ug/l and 2,370 ug/l during the two sampling events, respectively, and exceeded its Groundwater Standard of 5 ug/l. Likewise, the second highest TCE concentrations were detected in B-9 and MW-5 at 563 ug/l and 847 ug/l, respectively, over the two sampling events. TCE degradation compound cis-1,2-DCE was detected in MW-5, MW-1, and MW-2 at the respective concentrations of 720 ug/l, 145 ug/l, and 283 ug/l which exceed the Groundwater Standard of 5 ug/l. Degradation compound vinyl chloride was detected at concentrations above the Groundwater Standard of 2 ug/l in monitoring wells MW-2, MW-5, and MW-6, with the highest concentration of vinyl chloride at 119 ug/l in upgradient well MW-5. Similarly, degradation compounds 1,1-dichloroethane, and 1,1-dichloroethene were detected above the Groundwater Standard of 5 ug/l only in upgradient well MW-5. Therefore, VOH concentrations across the site were generally higher in the recent sampling event conducted in March 2017, than the previous sampling conducted in October and November 2016. This increase in VOH concentrations between the two sampling events may represent migration of groundwater impacts and/or seasonal fluctuation in concentrations. No other VOCs were detected in the monitoring well samples at concentrations in excess of the Groundwater Standards or Guidance Values.

A deep test boring (B-1D) was advanced in the center of the former tank pit in the location of the previously high VOH concentrations detected in the samples collected during the recent Phase II investigation. Two groundwater grab samples were collected from B-1D at 30 feet and 50 feet bgs. The sample from 30 feet bgs had a TCE concentration of 104 ug/l which exceeded the Groundwater Standard of 5 ug/l. Likewise, the TCE concentration from the deeper grab sample B-1D (50') is 2,940 ug/l which was the highest detected VOH concentration from the site. VOH compounds tetrachloroethene (PCE), cis-1,2-DCE, 1,1-dichloroethane, 1,1-dichloroethene, and vinyl chloride from B-1D (50') also exceeded their respective Groundwater Standards. These elevated concentrations of VOHs indicate that the groundwater impacts extend deeper than 50 feet bgs, appear to be increasing with depth, and are currently not vertically defined beneath the center of the subject property.

A summary of the groundwater analytical results from the LSA along with results from the previous Phase II ESA is provided in **Table 2**. Groundwater concentrations for TCE, cis-1,2-DCE, and vinyl chloride are shown on the Groundwater Analytical Summary Map as **Figure 4**. A copy of the laboratory analytical reports are provided in **Appendix D**.

5.0 CONCLUSIONS

Based on the information obtained during the completion of field activities and the results of the LSA, AECOM presents the following summary:

- Based on groundwater elevation data from March 28, 2017 and April 3, 2017, shallow groundwater generally flows from the west-southwest (upgradient) to the east-northeast (downgradient) across the site.
- VOH concentrations in four (MW-1, MW-2, MW-5, and MW-6) of the six monitoring wells exceeded the NYSDEC Groundwater Standards. Similar to the data from the Phase II ESA collected in October and November 2016, the highest concentrations of VOHs in the shallow aquifer were detected in the center of the property in the former UST Area (B-1 and MW-1), while the second highest VOH concentrations were detected along the west-central portion of the upgradient property boundary (B-9 and MW-5). TCE was detected at a concentration 2,370 ug/l in MW-1 and 847 ug/l in MW-5, these concentrations are the two highest for the shallow aquifer and exceed the Groundwater Standard of 5 ug/l.
- VOH concentrations across the site were generally higher in the recent sampling event conducted in March 2017, than the previous sampling conducted in October and November 2016. This increase in VOH concentrations may represent migration of groundwater impacts and/or seasonal fluctuation in concentrations. This included an increase in VOH concentrations at the upgradient western property boundary.
- The highest concentrations of VOH degradation compounds cis-1,2 DCE (720 ug/l), 1,1-dichloroethane (5.39 ug/l), 1,1-dichloroethene (15.5 ug/l), and vinyl chloride (119 ug/l) in the shallow aquifer were detected in the western upgradient well MW-5. These concentrations all exceeded their respective Groundwater Standards.
- Two groundwater grab samples were collected from B-1D located in the center of the former UST tank pit east of the building at 30 feet and 50 feet bgs. The sample from 30 feet bgs had a TCE concentration of 104 ug/l which exceeded the Groundwater Standard. Likewise, the TCE concentration from the deeper grab sample B-1D (50') is 2,940 ug/l which was the highest detected VOH concentration from the site. VOH compounds tetrachloroethene (PCE), cis-1,2-DCE, 1,1-dichloroethane, 1,1-dichloroethene, and vinyl chloride from B-1D (50') also exceeded their respective Groundwater Standards.
- The elevated concentrations of VOHs in B-1D (50') indicate that the groundwater impacts extend deeper than 50 feet bgs, appear to be increasing with depth, and are currently not vertically defined beneath the center of the subject property.
- Based on the data collected to date, the shallow groundwater flows from west to east across the site, and with the relatively high concentrations of VOHs along the western property boundary, it appears that the VOH groundwater impacts are migrating onto the subject property from an offsite source to the west-southwest.

6.0 REFERENCES

New York State Department of Environmental Conservation, June 1998. Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

New York State Department of Health (NYSDOH), October 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

URS, 2016 Phase I Environmental Site Assessment (ESA) Report, Commercial Building, 41 Kensico Drive, Mount Kisco, Westchester County, New York, dated September 21, 2016. URS Job No. 60517657.

URS, 2016 Phase II Environmental Site Assessment (ESA) Report, Commercial Property, 41 Kensico Drive, Mount Kisco, Westchester County, New York, dated December 14, 2016. URS Job No. 60522492.

7.0 LIMITATIONS AND EXPECTATIONS

This Limited Site Assessment report has been prepared for the exclusive use of AutoNation, Inc. and its affiliates. It is intended to provide these parties with an understanding of the potential for environmental contamination by hazardous materials at the property assessed. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user. The findings and recommendations in this report are based upon data and information obtained during site visits by AECOM personnel to the property identified herein and the condition of the property on the date of such visits, supplemented by information and data obtained by URS and described herein.

The findings and recommendations contained in this report are based on the expertise and experience of AECOM in conducting similar site assessments. In assessing the subject property, AECOM has also relied upon representations and information furnished by individuals noted in the report with respect to existing operations and property conditions and the historic uses of the properties to the extent that the information obtained has not been contradicted by data obtained from other sources. Accordingly, AECOM accepts no responsibility for any deficiency, misstatements or inaccuracy contained in this report as a result of misstatements, omissions, misrepresentations or fraudulent information provided by the persons interviewed.

This report was prepared by:

AECOM Technical Services, Inc.



Michael Emilio
Project Manager



William C. Kelly
Senior Project Geologist

TABLES

TABLE 1
WATER TABLE ELEVATION SUMMARY
Commercial Property
41 Kensico Drive
Mount Kisco, West Chester County, New York

WELL NO.	MW-1			MW-2			MW-3			MW-4			MW-5			MW-6		
DIAMETER	2			2			2			2			2			2		
WELL DEPTH	11.55			11.80			12.70			11.80			13.00			13.80		
SCREEN INTERVAL	1.55-11.55			1.8-11.8			2.7-12.7			1.80-11.80			3.00-13.00			3.80-13.80		
TOC ELEVATION	291.52			290.11			292.25			289.91			292.55			292.34		

DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
3/28/2017	287.58	3.94	0.00	287.63	2.48	0.00	289.85	2.40	0.00	289.91	0.00	0.00	291.38	1.17	0.00	289.71	2.63	0.00
4/3/2017	287.71	3.81	0.00	287.61	2.50	0.00	289.50	2.75	0.00	289.56	0.35	0.00	291.24	1.31	0.00	289.74	2.60	0.00

Elevation Datum Reference =NAVD 88
All Measurements = Feet
Elev = Elevation
DTW = Depth to Water
FP = Free Product

Commercial Property
41 Kensico Drive
Mount Kisco, West Chester County, New York

Notes	
¹	New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (1.1.1) <i>Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations</i> (Effective June 1998)
Bold	Indicates an exceedance of the NYSDEC Groundwater Standards
< or U	Below Detection Limit
NA	Sample not analyzed for the parameter
J	The reported value is an estimate
Collected during the Limited Site Assessment	

FIGURES

OFFICE BUILDINGS -
FORMER MARATHON
BRAKE SYASTEMS INC.

HOLIDAY INN
(ONE HOLIDAY INN DRIVE)

HOLIDAY INN
DRIVE

LEXUS OF MT. KISCO
(275 KISCO AVENUE)

KENSICO DRIVE

SUBURBAN PROPANE
(25 KENSICO DRIVE)

LEGEND

- BM

CBCI

CBR

CB

EMH

GMTR

GV

HP

HYD

LP

MW-3

SS-1

TPED

TMH

B-2

TRANS

UMH

WV

UE

G

UT

T&CTV

W
- BENCHMARK

CATCH BASIN CURB INLET

CATCH BASIN ROUND

CATCH BASIN SQUARE

ELECTRIC MANHOLE

GAS METER

GAS VALVE

HEAT PUMP

HYDRANT

LIGHT POLE

MONITOR WELL

SUB SLAB SOIL VAPOR PROBE

TELEPHONE PEDESTAL

TELEPHONE MANHOLE

TEST BORING

TRANSFORMER

UNKNOWN MANHOLE

WATER VALVE

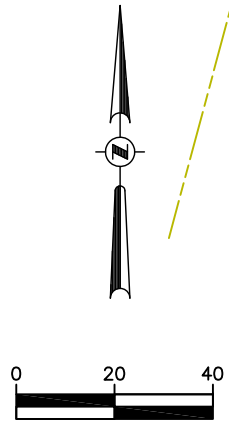
UNDERGROUND ELECTRIC LINE

UNDERGROUND GAS LINE

UNDERGROUND TELEPHONE LINE

UNDERGROUND TELEPHONE & CABLE TV LINE (COMMUNICATIONS)

UNDERGROUND WATER LINE



△			
△			
△			
△			
△			
REV	DESCRIPTION OF REVISION	BY	DATE

COMMERCIAL PROPERTY
41 KENSICO DRIVE
MOUNT KISCO, NEW YORK

AECOM

4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE AS SHOWN	DRAWN BY: RSB CHECKED BY: BJW	DATE: 4/4/2017
G:\PROJECT\AUTONATION\2017\NY-MT. KISCO		

SITE PLAN

PROJECT NUMBER 60536364
FIGURE NUMBER 1

HOLIDAY INN
(ONE HOLIDAY INN DRIVE)

HOLIDAY INN
DRIVE

LEXUS OF MT. KISCO
(275 KISCO AVENUE)

OFFICE BUILDINGS -
FORMER MARATHON
BRAKE SYASTEMS INC.

KENSICO DRIVE

SUBURBAN PROPANE
(25 KENSICO DRIVE)

LEGEND

- BM
CBCI
CBR
CB
EMH
GMTR
GV
HP
HYD
LP
MW-3
SS-1
TPED
TMH
B-2
TRANS
UMH
WV
- UE
G
UT
T&CTV
W
- 0.4
287.71
288.00
- BENCHMARK
CATCH BASIN CURB INLET
CATCH BASIN ROUND
CATCH BASIN SQUARE
ELECTRIC MANHOLE
GAS METER
GAS VALVE
HEAT PUMP
HYDRANT
LIGHT POLE
MONITOR WELL
SUB SLAB SOIL VAPOR PROBE
TELEPHONE PEDESTAL
TELEPHONE MANHOLE
TEST BORING
TRANSFORMER
UNKNOWN MANHOLE
WATER VALVE
UNDERGROUND ELECTRIC LINE
UNDERGROUND GAS LINE
UNDERGROUND TELEPHONE LINE
UNDERGROUND TELEPHONE & CABLE TV LINE (COMMUNICATIONS)
UNDERGROUND WATER LINE
CONTOUR INTERVAL (FEET)
WATER TABLE ELEVATION (FT)
WATER TABLE CONTOUR, ELEVATION AND DIRECTION OF FLOW



COMMERCIAL PROPERTY
41 KENSICO DRIVE
MOUNT KISCO, NEW YORK

AECOM

4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE AS
SHOWN

DRAWN BY: RSB
CHECKED BY: BJW

DATE: 4/4/2017

G:\PROJECT\AUTONATION\2017\NY-MT. KISCO

SHALLOW GROUNDWATER ELEVATION
CONTOUR MAP,
APRIL 3, 2017

PROJECT NUMBER
60536364

FIGURE NUMBER
3

△			
△			
△			
△			
△			
REV	DESCRIPTION OF REVISION	BY	DATE

HOLIDAY INN
(ONE HOLIDAY INN DRIVE)

HOLIDAY INN
DRIVE

LEXUS OF MT. KISCO
(275 KISCO AVENUE)

OFFICE BUILDINGS -
FORMER MARATHON
BRAKE SYASTEMS INC.

KENSICO DRIVE

SUBURBAN PROPANE
(25 KENSICO DRIVE)

LEGEND

- BM BENCHMARK
CBCT CATCH BASIN CURB INLET
CBR CATCH BASIN ROUND
CB CATCH BASIN SQUARE
EMH ELECTRIC MANHOLE
GMTR GAS METER
GV GAS VALVE
HP HEAT PUMP
HYD HYDRANT
LP LIGHT POLE
MW-3 MONITOR WELL
SS-1 SUB SLAB SOIL VAPOR PROBE
TPED TELEPHONE PEDESTAL
TMH TELEPHONE MANHOLE
B-2 TEST BORING
TRANS TRANSFORMER
UMH UNKNOWN MANHOLE
WV WATER VALVE
UE UNDERGROUND ELECTRIC LINE
G UNDERGROUND GAS LINE
UT UNDERGROUND TELEPHONE LINE
T&CTV UNDERGROUND TELEPHONE & CABLE TV LINE (COMMUNICATIONS)
W UNDERGROUND WATER LINE

ID	
DATE	
TCE	5 ug/L *
CIS-1,2 DCE	5 ug/L *
VINYL CHLORIDE	2 ug/L *

* NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC) AMBIENT WATER QUALITY
STANDARDS AND GUIDANCE VALUES

J - ESTIMATED VALUE

U - LESS THAN THE LABORATORY DETECTION LIMIT

BOLD - EXCEEDS NYSDES WATER STADARDS

EXCEEDS NYSDES WATER STANDARDS

COMMERCIAL PROPERTY
41 KENSICO DRIVE
MOUNT KISCO, NEW YORK

AECOM

4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE AS SHOWN
DRAWN BY: RSB
CHECKED BY: BJW
DATE: 4/4/2017
G:\PROJECT\AUTONATION\2017\NY-MT. KISCO


GROUNDWATER ANALYTICAL
SUMMARY


PROJECT NUMBER
60536364


FIGURE NUMBER
4

REV	DESCRIPTION OF REVISION	BY	DATE

APPENDIX A

		Client: AutoNation				BORING ID: B-1 D		
		Project Number: 60536364						
		Site Location: 41 Kensico Drive, Mt Kisco, NY						
		Drilling Method: Geoprobe				Sheet: 1 of 3		
		Sample Type(s): Continuous		Elevation (ft):		Monitoring Well Installed: No		
		Coordinates:				Screened Interval: N/A		
Weather: 40 Degrees Fahrenheit, Fog / Rain		Logged By: SW		Start Date: 3/9/17		Depth of Boring: 50'		
Drilling Contractor: SET				Finish Date: 3/9/17		Water Level: 6.5'		
Depth (ft)	Sample	Sample Depth (ft)	Recovery	Headspace (ppm)	Blow count/ Direct Push	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, sorting, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)		Lab Sample ID (Depth)
1	N/A	0-5	N/A	N/A	Hand Auger	Grass at surface		
2						Gray SILT (ML), medium density, wet, no odor		
3						Brown f-c SAND, some f-c Gravel, some Silt, brick fragments (FILL), dry, no odor		
4								
5	S-1	5-10	15	N/A	Direct Push			
6								
7								
8								
9	S-2	10-15	36	N/A	Direct Push	Dark gray silty fine SAND (SP-SM), wet, no odor		
10								
11								
12								
13			60			Grayish brown/gray SILT (ML), wet, no odor		
14								
15								
16								
17	Gray SILT (ML), medium density. Wet, no odor							
18								
19								
20								
NOTES: Groundwater sample collected from temporary well for VOC/SVOC analysis						Date/Time	Depth to groundwater while drilling	
f-fine, m-medium, c-coarse						Checked by _____	Date: _____	

		Client: AutoNation		BORING ID: B-1 D				
		Project Number: 60536364						
		Site Location: 41 Kensico Drive, Mt Kisco, NY						
		Drilling Method: Geoprobe		Sheet: 2 3				
		Sample Type(s): Continuous		Elevation (ft):		Monitoring Well Installed: No		
Coordinates:				Screened Interval: N/A				
Weather: 40 Degrees Fahrenheit, Fog / Rain		Logged By: SW		Start Date: 3/9/17		Depth of Boring: 50'		
Drilling Contractor: SET				Finish Date: 3/9/17		Water Level: 6.5'		
Depth (ft)	Sample	Sample Depth (ft)	Recovery	Headspace (ppm)	Blow count/ Direct Push	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, sorting, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)		Lab Sample ID (Depth)
21						Gray SILT (ML), medium density, wet, no odor		B-1D (30')
22								
23			48					
24								
25								
26						Gray SILT (ML), medium density, wet, no odor		
27								
28			48					
29								
30								
31						Gray SILT (ML), medium density, wet, no odor		
32								
33			60					
34								
35								
36						Gray SILT (ML), medium density, wet, no odor		
37								
38			60					
39								
40								
NOTES: Groundwater sample collected from temporary well for VOC/SVOC analysis						Date/Time	Depth to groundwater while drilling	
f-fine, m-medium, c-coarse						Checked by _____ Date: _____		

		Client: AutoNation		BORING ID: B-1 D				
		Project Number: 60536364						
		Site Location: 41 Kensico Drive, Mt Kisco, NY						
		Drilling Method: Geoprobe		Sheet: 3 3				
		Sample Type(s): Continuous		Elevation (ft):		Monitoring Well Installed: No		
Coordinates:				Screened Interval: N/A				
Weather: 40 Degrees Fahrenheit, Fog / Rain		Logged By: SW		Start Date: 3/9/17		Depth of Boring: 50'		
Drilling Contractor: SET				Finish Date: 3/9/17		Water Level: 6.5'		
Depth (ft)	Sample	Sample Depth (ft)	Recovery	Headspace (ppm)	Blow count/ Direct Push	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, sorting, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)		Lab Sample ID (Depth)
41						Gray SILT (ML), medium density, wet, no odor		
42			60					
43								
44								
45								
46						Gray SILT (ML), medium density, wet, no odor		B-1 D (50')
47			60					
48								
49								
50								
						Bottom of boring @ 50', no refusal; however, silt was becoming denser towards end of boring		
NOTES: Groundwater sample collected from temporary well for VOC/SVOC analysis						Date/Time	Depth to groundwater while drilling	
f-fine, m-medium, c-coarse						Checked by _____ Date: _____		

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-1		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger	
If AG, list feet of riser above land surface:				Surface Casing Install Method:	
Borehole Depth (feet): 12	Well Depth (feet): 12	Borehole Diameter (inches): 5.75	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet	
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-T Threaded <input type="checkbox"/> Other (describe)		Riser Length: 2 feet from 0 feet to 2 feet	
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"		Screen Length: 10 feet from 2 feet to 12 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from _____ feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet	
Filter Pack Material and Size: 20/30		Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 1 feet to 12 feet	
Filter Pack Seal Material and Size: Bentonite				Filter Pack Seal Length: 0.5 feet from 0.5 feet to 1 feet	
Surface Seal Material: Neat Cement Grout				Surface Seal Length: 0.5 feet from 0 feet to 0.5 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 4.62	
Pumping Rate (gallons per minute): ~1		Maximum Drawdown of Groundwater During Development (feet): 7.11	
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Total Development Water Removed (gallons): 50		Development Duration (minutes):	
Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Water Turbidity At Start of Development: 484 NTU		Water Turbidity At End of Development: 26.8 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-2		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger	
If AG, list feet of riser above land surface:				Surface Casing Install Method:	
Borehole Depth (feet): 12	Well Depth (feet): 12	Borehole Diameter (inches): 5.75	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet	
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-T Threaded <input type="checkbox"/> Other (describe)	Riser Length: 2 feet from 0 feet to 2 feet		
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"	Screen Length: 10 feet from 2 feet to 12 feet		
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from _____ feet to _____ feet		
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet		
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet		
Filter Pack Material and Size: 20/30	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 1 feet to 12 feet		
Filter Pack Seal Material and Size:		Bentonite	Filter Pack Seal Length: 0.5 feet from 0.5 feet to 1 feet		
Surface Seal Material:		Neat Cement Grout	Surface Seal Length: 0.5 feet from 0 feet to 0.5 feet		

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pu <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 4.10	
Pumping Rate (gallons per minute): ~1	Maximum Drawdown of Groundwater During Development (feet): 7.44		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 50	Development Duration (minutes):	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Turbidity At Start of Development: 1,000 + NTU		Water Turbidity At End of Development: 39.8 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-3		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade If AG, list feet of riser above land surface:		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger	
Borehole Depth (feet): 13		Well Depth (feet): 13		Borehole Diameter (inches): 5.75	
Manhole Diameter (inches): 8		Well Pad Size: 2 feet by 2 feet			
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-T Threaded <input type="checkbox"/> Other (describe)		Riser Length: 3 feet from 0 feet to 3 feet	
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"		Screen Length: 10 feet from 3 feet to 13 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from _____ feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet	
Filter Pack Material and Size: 20/30		Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 2 feet to 13 feet	
Filter Pack Seal Material and Size:		Bentonite		Filter Pack Seal Length: 1 feet from 1 feet to 2 feet	
Surface Seal Material:		Neat Cement Grout		Surface Seal Length: 1 feet from 0 feet to 1 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 4.25	
Pumping Rate (gallons per minute): ~1		Maximum Drawdown of Groundwater During Development (feet): DRY	
Well Purged Dry (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Pumping Condition (check one): <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent		Total Development Water Removed (gallons): 45	
Development Duration (minutes):		Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water Turbidity At Start of Development: 1,000 + NTU		Water Turbidity At End of Development: 48.2 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-4		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger	
If AG, list feet of riser above land surface:				Surface Casing Install Method:	
Borehole Depth (feet): 12	Well Depth (feet): 12	Borehole Diameter (inches): 5.75	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet	
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-T Threaded <input type="checkbox"/> Other (describe)		Riser Length: 2 feet from 0 feet to 2 feet	
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"		Screen Length: 10 feet from 2 feet to 12 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from _____ feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet	
Filter Pack Material and Size: 20/30	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 1 feet to 12 feet		
Filter Pack Seal Material and Size: Bentonite			Filter Pack Seal Length: 0.5 feet from 0.5 feet to 1 feet		
Surface Seal Material: Neat Cement Grout			Surface Seal Length: 0.5 feet from 0 feet to 0.5 feet		

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 1.68	
Pumping Rate (gallons per minute): ~1	Maximum Drawdown of Groundwater During Development (feet): 5.63		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 50	Development Duration (minutes):	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Turbidity At Start of Development: 1,000 + NTU		Water Turbidity At End of Development: 36.8 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-5		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade If AG, list feet of riser above land surface:		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger	
Borehole Depth (feet): 13		Well Depth (feet): 13		Borehole Diameter (inches): 5.75	
Manhole Diameter (inches): 8		Well Pad Size: 2 feet by 2 feet			
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: 3 feet from 0 feet to 3 feet	
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"		Screen Length: 10 feet from 3 feet to 13 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: feet from feet to feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: feet from feet to feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: feet from feet to feet	
Filter Pack Material and Size: 20/30		Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 2 feet to 13 feet	
Filter Pack Seal Material and Size:		Bentonite		Filter Pack Seal Length: 1 feet from 1 feet to 2 feet	
Surface Seal Material:		Neat Cement Grout		Surface Seal Length: 1 feet from 0 feet to 1 feet	

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 2.32	
Pumping Rate (gallons per minute): ~1		Maximum Drawdown of Groundwater During Development (feet): DRY	
Well Purged Dry (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Pumping Condition (check one): <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent		Total Development Water Removed (gallons): 35	
Development Duration (minutes):		Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water Turbidity At Start of Development: 1,000 + NTU		Water Turbidity At End of Development: 451 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: MW-6		Site Name: 41 Kensico Drive, Mount Kisco, NY		Well Install Date(s): 3/9/17	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input checked="" type="checkbox"/> Flush-to-Grade If AG, list feet of riser above land surface:		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: Hollow Stem Auger Surface Casing Install Method:	
Borehole Depth (feet): 14	Well Depth (feet): 14	Borehole Diameter (inches): 5.75	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet	
Riser Diameter and Material: 2" Schedule 40 PVC		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: 4 feet from 0 feet to 4 feet	
Screen Diameter and Material: 2" Schedule 40 PVC		Screen Slot Size: 0.01"		Screen Length: 10 feet from 4 feet to 14 feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from _____ feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet	
Filter Pack Material and Size: 20/30	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Filter Pack Length: 11 feet from 3 feet to 14 feet		
Filter Pack Seal Material and Size: Bentonite			Filter Pack Seal Length: 1 feet from 2 feet to 3 feet		
Surface Seal Material: Neat Cement Grout			Surface Seal Length: 2 feet from 0 feet to 2 feet		

WELL DEVELOPMENT DATA			
Well Development Date: 03/10/17		Well Development Method (check one): <input type="checkbox"/> Surge/Pum <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input checked="" type="checkbox"/> Other (describe) Surge Block		Depth to Groundwater (before developing in feet): 3.38	
Pumping Rate (gallons per minute): ~1	Maximum Drawdown of Groundwater During Development (feet): 4.70		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 45	Development Duration (minutes):	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Turbidity At Start of Development: 1,000 + NTU		Water Turbidity At End of Development: 32.9 NTU	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Appendix B

AECOM

Well ID: MW-1

Low Flow Ground Water Sample Collection Record

Client: Auto Nation Date: 3/28/17 Time: Start 11:35 am/pm
 Project No: 6053634 Finish 12:20 am/pm
 Site Location: MT KISCO NY
 Weather Conds: RAINY, CLOUDY 40's Collector(s): CFOSTER / R PAPAGIAN

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 11.55 c. Length of Water Column 7.62 (a-b) Casing Diameter/Material 2" PVC
 b. Water Table Depth 3.93 d. Calculated System Volume (see back) 1.24 gal

2. WELL PURGE DATA

a. Purge Method: LOW FLOW

b. Acceptance Criteria defined (see workplan)

- Temperature 3% -D.O. 10%
 - pH ± 1.0 unit - ORP ± 10 mV
 - Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

Make

Model

Serial Number

HORIBAU-5000033538GEOTECHGEOPUMP036783SOLINISTWLM

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1140		10.24	6.63	0.906	0.41	62	67.1	250	3.93	
1145		10.43	6.59	0.894	0.00	62	44.7	250	2.93	
1150		10.50	6.58	0.896	0.00	62	31.3	250	3.93	
1155		10.53	6.58	0.898	0.00	61	19.6	250	3.93	
1200		10.47	6.59	0.898	0.00	56	14.7	250	3.93	
1205		10.44	6.58	0.897	0.00	43	3.6	250	3.93	
1210		10.40	6.58	0.898	0.00	42	3.0	250	3.93	

d. Acceptance criteria pass/fail

Yes No N/A

(continued on back)

Has required volume been removed ☒ ☐ ☐Has required turbidity been reached ☒ ☐ ☐Have parameters stabilized ☒ ☐ ☐

If no or N/A - Explain below.

1215 LOW FLOW 41 3.2 250 3.93
10.41 6.58 0.899 0.00 41

3. SAMPLE COLLECTION:

Method: LOW FLOW

Sample ID MW-1 Container Type 40 mL vial No. of Containers 2 Preservation HCl Analysis Req. VOLs Time 1215

Comments

Signature

Date

3/28/17

AECOM

Well ID: MW-2

Low Flow Ground Water Sample Collection Record

Client: Autonation Date: 3-28-17 Time: Start 1140 am/pm
 Project No: 60536364 Finish 1225 am/pm
 Site Location: Mt Kisco
 Weather Conds: 40's Rain Collector(s): RP/LF

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 11.8 c. Length of Water Column 9.32 (a-b) Casing Diameter/Material 2" PVC
 b. Water Table Depth 2.48 d. Calculated System Volume (see back) 1.52 gal

2. WELL PURGE DATA

a. Purge Method: Geo pump

b. Acceptance Criteria defined (see workplan)

- Temperature 3% -D.O. 10%
 - pH ± 1.0 unit - ORP ± 10 mV
 - Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

Make	Model	Serial Number
Geotech	Pump	20356
Horri la	U52	019564

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1140										Pump on
1145		9.84	7.10	0.629	0	-42	121	250	2.57	Clear
1155		9.84	7.12	0.625	0	-49	43	250	2.55	'
1200		9.87	7.15	0.623	0	-56	22.2	250	2.55	Clear
1210		9.89	7.15	0.622	0	-58	21.9	250	2.55	Clear
1215		1.35	7.15	0.625	0	-55	21.3	250	2.55	

d. Acceptance criteria pass/fail

Has required volume been removed

Yes No N/A

☐☐☒

Has required turbidity been reached

☒☐☐

Have parameters stabilized

☒☐☐

If no or N/A - Explain below.

(continued on back)

3. SAMPLE COLLECTION:

Method: Low Flow

Sample ID	Container Type	No. of Containers	Preservation	Analysis Req.	Time
MW-2	Voa	2	HCl	DOC	1220

Comments

Signature

Rita Papad

Date

3-28-17

AECOM

Well ID: MW-3

Low Flow Ground Water Sample Collection Record

Client: AUTO NATION Date: 3/28/17 Time: Start 1345 am/pm
 Project No: _____ Finish _____ am/pm
 Site Location: MT Kisco NY
 Weather Conds: 40's Rainy, overcast Collector(s): C Foster R Papagian

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 12.7 c. Length of Water Column 10.43 (a-b) Casing Diameter/Material
 b. Water Table Depth 2.27 d. Calculated System Volume (see back) 1.70 2" PVC

2. WELL PURGE DATA

a. Purge Method: LOW FLOW

b. Acceptance Criteria defined (see workplan)

- Temperature 3% -D.O. 10%
 - pH ± 1.0 unit - ORP ± 10 mV
 - Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

Make

Model

Serial Number

HORIBAV5000235.3 BGastekgeopump03678 ESolinstWLM21948

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
<u>1300</u>		<u>7.01</u>	<u>6.54</u>	<u>0.351</u>	<u>1.50</u>	<u>-27</u>	<u>184</u>	<u>250</u>	<u>2.35</u>	
<u>1305</u>		<u>6.57</u>	<u>6.45</u>	<u>0.347</u>	<u>0.44</u>	<u>-34</u>	<u>136</u>	<u>250</u>	<u>2.35</u>	
<u>1310</u>		<u>6.41</u>	<u>6.46</u>	<u>0.352</u>	<u>0.20</u>	<u>-38</u>	<u>109</u>	<u>250</u>	<u>2.35</u>	
<u>1315</u>		<u>6.28</u>	<u>6.44</u>	<u>0.352</u>	<u>0.20</u>	<u>-41</u>	<u>34.4</u>	<u>250</u>	<u>2.35</u>	
<u>1320</u>		<u>6.21</u>	<u>6.44</u>	<u>0.352</u>	<u>0.23</u>	<u>-42</u>	<u>33.1</u>	<u>250</u>	<u>2.35</u>	
<u>1325</u>		<u>6.19</u>	<u>6.44</u>	<u>0.353</u>	<u>0.24</u>	<u>-42</u>	<u>31.2</u>	<u>250</u>	<u>2.35</u>	

d. Acceptance criteria pass/fail

Has required volume been removed

Yes

No

N/A

Has required turbidity been reached

Have parameters stabilized

If no or N/A - Explain below.

(continued on back)

3. SAMPLE COLLECTION:

Method: Low Flow

Sample ID MW-3 Container Type 40 ml vial No. of Containers 2 Preservation HU Analysis Req. VOCs Time 1427

Comments

Signature

Date

3/28/17

AECOM

Well ID: MW-4

Low Flow Ground Water Sample Collection Record

Client: Autonation Date: 3-28-17 Time: Start 1350 am/pm
 Project No: 6053131-4 Finish 1425 am/pm
 Site Location: Mt. Ki's Co
 Weather Conds: 40's Rain Collector(s): RP CF

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 11.8 c. Length of Water Column 11.8 (a-b) Casing Diameter/Material
 b. Water Table Depth Top of PVC d. Calculated System Volume (see back) 1.92 gal 2" PVC

2. WELL PURGE DATA

a. Purge Method: Geopump - Low Flow

b. Acceptance Criteria defined (see workplan)

- Temperature 3% -D.O. 10%
 - pH ± 1.0 unit - ORP ± 10 mV
 - Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

Make

Model

Serial Number

Hosco2500019564Geotech Pump20356SelinstWLM

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1355										
1400		9.06	6.37	0.888	1.45	-45	60.1	250	<u>Pump on</u>	<u>Reddish/H2O at top of PVC</u>
1405		8.99	6.38	0.883	0	-51	32.6	250		"
1410		9.00	6.37	0.882	0	-50	30.5	250		"
1415		9.00	6.37	0.882	0	-51	29.4	250		
1420		8.93	6.38	0.882	0	-53	29.1	250		
1425	<u>Sample</u>									

d. Acceptance criteria pass/fail

Yes No N/A

(continued on back)

Has required volume been removed

☒☐☐

Has required turbidity been reached

☒☐☐

Have parameters stabilized

☒☐☐

If no or N/A - Explain below.

3. SAMPLE COLLECTION:

Method: Low Flow

Sample ID MW-4 Container Type Voa No. of Containers 2 Preservation HCl Analysis Req. Time 1425

Comments

Signature

Red Paper

Date

3-28-17

Along
Kensico Dr
By Entrance

AECOM

Well ID: MW-5

Low Flow Ground Water Sample Collection Record

Client: Auto Nation Date: 3/28/2017 Time: Start 10:00 am/pm
Project No: 60536364 Finish 11:00 am/pm
Site Location: MT KISCO, NY
Weather Conds: SCATTERED RAIN 40's OVERCAST Collector(s): (FOS TEK / RITA PAPAGIAN)

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 13 c. Length of Water Column 11.82 (a-b) Casing Diameter/Material
2" PVC
b. Water Table Depth 1.18 d. Calculated System Volume (see back) 1.92

2. WELL PURGE DATA

a. Purge Method: LOW FLOW

b. Acceptance Criteria defined (see workplan)

- Temperature 3% - D.O. 10%
- pH ± 1.0 unit - ORP ± 10 mV
- Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

✓ Make

Model

Serial Number

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (μ S/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
10:10		9.98	6.39	0.677	1.13	55	71000	250	2.21	
10:15		9.68	6.43	0.673	0	49	961	250	2.21	
10:20		9.41	6.47	0.677	0	33	400	250	2.21	
10:30		9.15	6.47	0.678	0.00	20	119	250	2.20	
10:35		9.00	6.43	0.675	0.00	12	96.6	250	2.20	
10:40		8.97	6.44	0.676	0.00	2	72.5	250	2.20	
10:45		9.00	6.44	0.678	0.00	1	66.7	250	2.20	

d. Acceptance criteria pass/fail

Has required volume been removed

Has required turbidity been reached

Have parameters stabilized

If no or N/A - Explain below.

Yes No N/A

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(continued on back)

3. SAMPLE COLLECTION:

Method: Low Flow

Sample ID 11:08 Container Type 40mL vial No. of Containers 2 Preservation HCl Analysis Req. VOCs Time 11:08

Comments

Signature

Rita Papagian

Date

3-28-17

Purge Volume Calculation

AECOM

Well ID: MW-6

Low Flow Ground Water Sample Collection Record

Client: Auto Nation Date: 3/28/2017 Time: Start 10:10 am/pm
 Project No: 60536364 Finish 1055 am/pm
 Site Location: MT KISCO NY
 Weather Conds: RAINY, OVERCAST 40's Collector(s): C. FOSTER / R. PAPAGIAN

1. WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 13.8 c. Length of Water Column 11.7 (a-b) Casing Diameter/Material
2" PVC
 b. Water Table Depth 2.63 d. Calculated System Volume (see back) 1.82

2. WELL PURGE DATA

a. Purge Method: LOW FLOW

b. Acceptance Criteria defined (see workplan)

- Temperature 3% -D.O. 10%
 - pH ± 1.0 unit - ORP ± 10 mV
 - Sp. Cond. 3% - Drawdown $< 0.3'$

c. Field Testing Equipment used:

Make

Model

Serial Number

HORIBAU5000268729GEOTECHGEO PUMP036783SOLINISTWLMWGDUEY

Time (24hr)	Volume Removed (Liters)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
10:20		9.27	6.80	0.907	12.80	-83	320	250	2.68	
10:25		9.16	6.71	0.908	11.78	-97	187	250	2.65	
10:30		8.73	6.72	0.910	11.28	-100	90.2	250	2.65	
10:35		8.40	6.71	0.912	10.88	-100	62.9	250	2.65	
10:40		8.14	6.71	0.916	10.60	-100	54.5	250	2.65	
10:45		7.99	6.71	0.919	10.35	-99	59.3	250	2.65	
10:50		7.91	6.71	0.922	10.16	-99	59.6	250	2.65	

d. Acceptance criteria pass/fail

Yes No N/A

(continued on back)

Has required volume been removed

☒☐☐

Has required turbidity been reached

☒☐☐

Have parameters stabilized

☒☐☐

If no or N/A - Explain below.

3. SAMPLE COLLECTION:

Method: LOW FLOW

Sample ID Container Type No. of Containers Preservation Analysis Req. Time
MW-6 40mL vial 2 HCl VOCs 1052

Comments

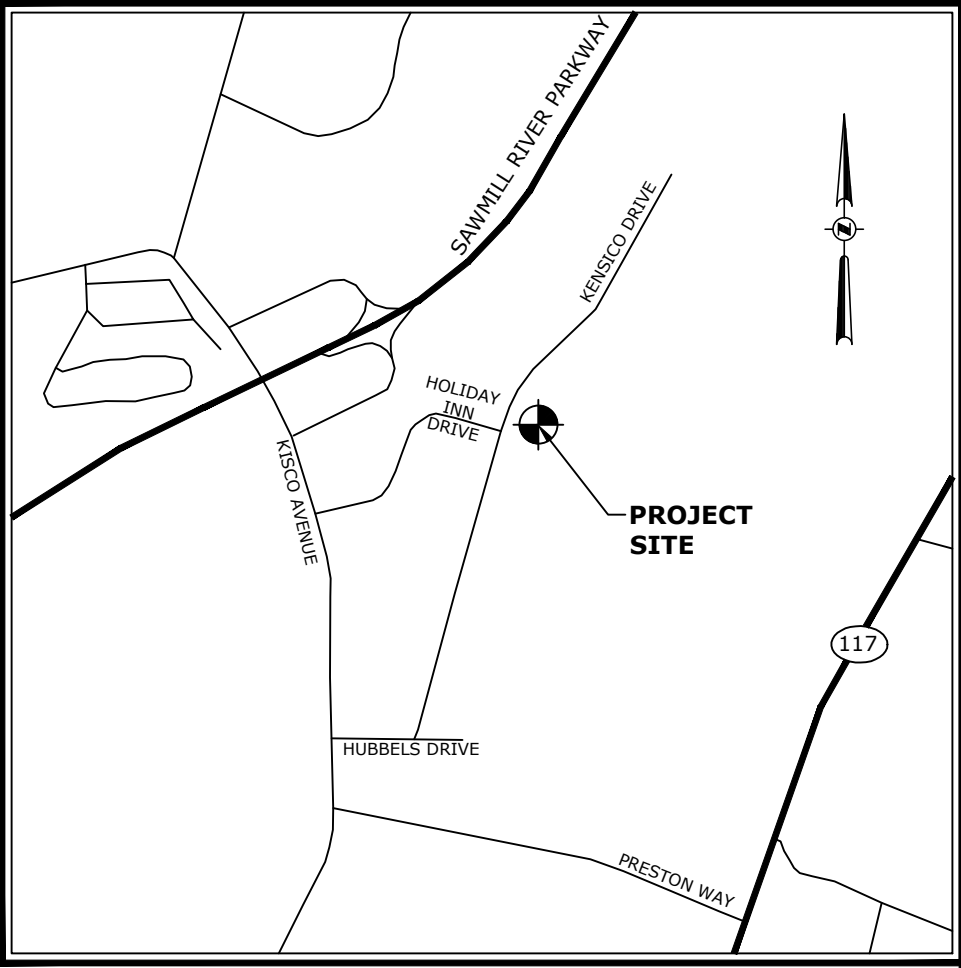
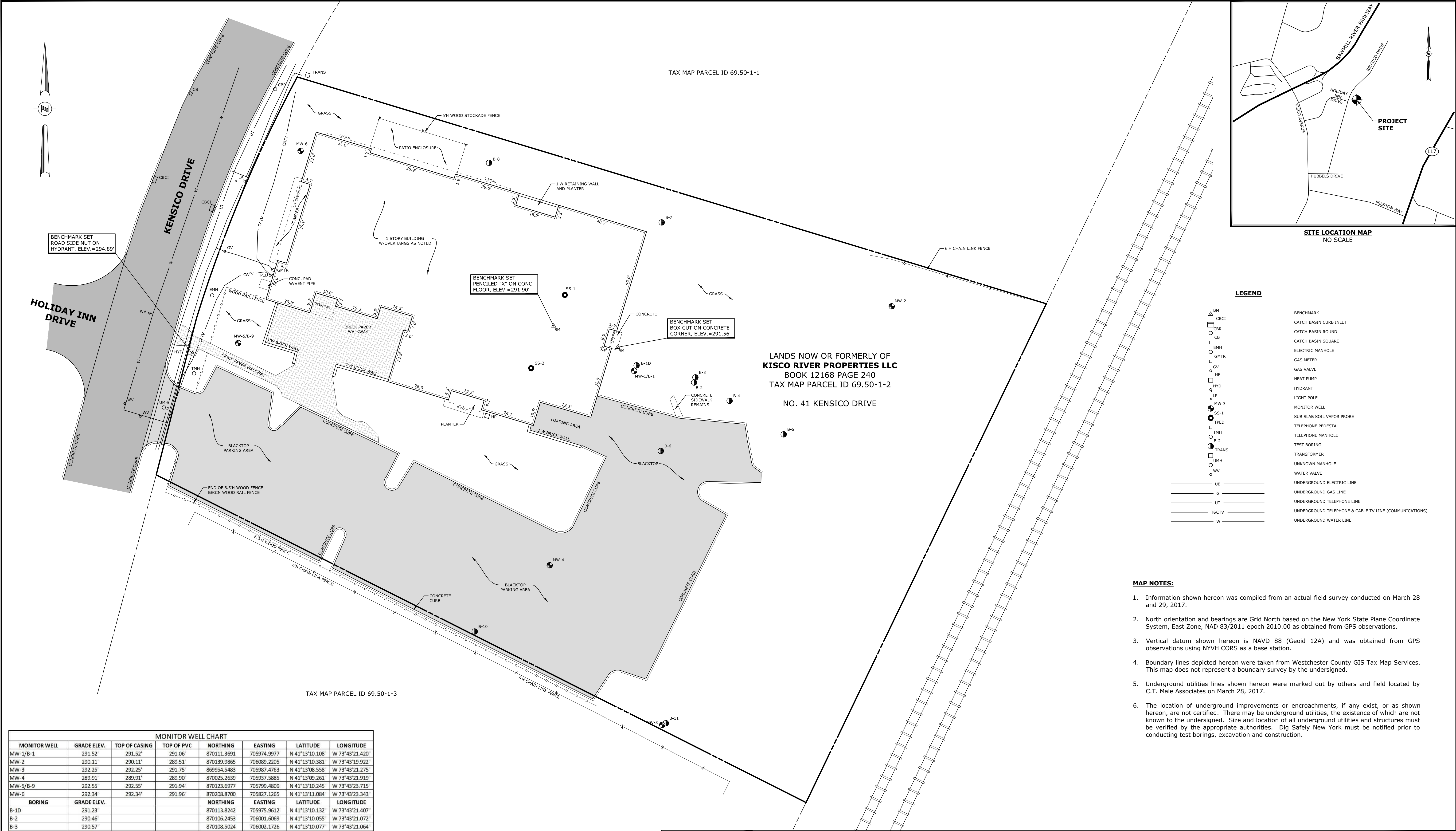
Signature

CF

Date

3-28-17

Appendix C



SITE LOCATION MAP
NO SCALE

LEGEND

- BM

CBCI

CBR

CB

EMH

GMR

GV

HP

HYD

LP

MW-3

SS-1

SS-1

TPED

TMH

B-2

TRANS

UMH

UNKNOWN MANHOLE

WV

UE

G

UT

TRCTV

W

BENCHMARK

CATCH BASIN CURB INLET

CATCH BASIN ROUND

CATCH BASIN SQUARE

ELECTRIC MANHOLE

GAS METER

GAS VALVE

HEAT PUMP

HYDRANT

LIGHT POLE

MONITOR WELL

SUB SLAB SOIL VAPOR PROBE

TELEPHONE PEDESTAL

TELEPHONE MANHOLE

TEST BORING

TRANSFORMER

UNKNOWN MANHOLE

WATER VALVE

UNDERGROUND ELECTRIC LINE

UNDERGROUND GAS LINE

UNDERGROUND TELEPHONE LINE

UNDERGROUND TELEPHONE & CABLE TV LINE (COMMUNICATIONS)

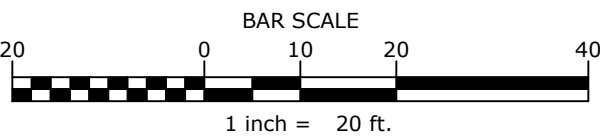
UNDERGROUND WATER LINE

MAP NOTES:

- Information shown hereon was compiled from an actual field survey conducted on March 28 and 29, 2017.
- North orientation and bearings are Grid North based on the New York State Plane Coordinate System, East Zone, NAD 83/2011 epoch 2010.00 as obtained from GPS observations.
- Vertical datum shown hereon is NAVD 88 (Geoid 12A) and was obtained from GPS observations using NYVH CORS as a base station.
- Boundary lines depicted hereon were taken from Westchester County GIS Tax Map Services. This map does not represent a boundary survey by the undersigned.
- Underground utilities lines shown hereon were marked out by others and field located by C.T. Male Associates on March 28, 2017.
- The location of underground improvements or encroachments, if any exist, or as shown hereon, are not certified. There may be underground utilities, the existence of which are not known to the undersigned. Size and location of all underground utilities and structures must be verified by the appropriate authorities. Dig Safely New York must be notified prior to conducting test borings, excavation and construction.

MONITOR WELL CHART						
MONITOR WELL	GRADE ELEV.	TOP OF CASING	TOP OF PVC	NORTHING	EASTING	LATITUDE LONGITUDE
MW-1/B-1	291.52'	291.52'	291.06'	870111.3691	705974.9977	N 41°13'10.108" W 73°43'21.420"
MW-2	290.11'	290.11'	289.51'	870139.9865	706089.2205	N 41°13'10.381" W 73°43'19.922"
MW-3	292.25'	292.25'	291.75'	869954.5483	705987.4763	N 41°13'08.558" W 73°43'21.275"
MW-4	289.91'	289.91'	289.90'	870025.2639	705937.5885	N 41°13'09.261" W 73°43'21.919"
MW-5/B-9	292.55'	292.55'	291.94'	870123.6977	705799.4809	N 41°13'10.245" W 73°43'23.715"
MW-6	292.34'	292.34'	291.96'	870208.8700	705827.1265	N 41°13'11.084" W 73°43'23.343"
BORING	GRADE ELEV.			NORTHING	EASTING	LATITUDE LONGITUDE
B-1D	291.23'			870113.8242	705975.9612	N 41°13'10.132" W 73°43'21.407"
B-2	290.46'			870106.2453	706001.6069	N 41°13'10.055" W 73°43'21.072"
B-3	290.57'			870108.5024	706002.1726	N 41°13'10.077" W 73°43'21.064"
B-4	290.34'			870098.1454	706017.3469	N 41°13'09.974" W 73°43'20.867"
B-5	289.41'			870083.2826	706041.3230	N 41°13'09.825" W 73°43'20.555"
B-6	289.62'			870075.9108	705986.8438	N 41°13'09.757" W 73°43'21.269"
B-7	291.34'			870177.1563	705987.2500	N 41°13'10.757" W 73°43'21.252"
B-8	291.35'			870203.5506	705910.6738	N 41°13'11.025" W 73°43'22.251"
B-10	291.04'			869995.9289	705904.3443	N 41°13'08.974" W 73°43'22.358"
B-11	292.21'			869955.2921	705989.0806	N 41°13'08.565" W 73°43'21.254"
SUB SLAB SOIL VAPOR	GRADE ELEV.			NORTHING	EASTING	LATITUDE LONGITUDE
SS-1	291.89'			870145.0288	705944.3340	N 41°13'10.443" W 73°43'21.817"
SS-2	291.83'			870112.6227	705929.3763	N 41°13'10.124" W 73°43'22.017"

ONLY COPIES OF THIS MAP SIGNED IN RED INK AND EMBOSSED WITH THE SEAL OF AN OFFICER OF C.T. MALE ASSOCIATES OR A DESIGNATED REPRESENTATIVE SHALL BE CONSIDERED TO BE A VALID TRUE COPY.



CARL M. RIGDON
P.L.S. NO. 50711

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.

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C.T. MALE ASSOCIATES

APPROVED: WJN

DRAFTED : MDD

CHECKED : DGD

PROJ. NO : 17.7144

SCALE : 1"=20'

DATE : MAR. 29, 2017

MONITOR WELL SURVEY
LANDS NOW OR FORMERLY OF
KISCO RIVER PROPERTIES LLC
PREPARED FOR
AECOM
41 KENSICO DRIVE

TOWN OF MOUNT KISCO
WESTCHESTER COUNTY, NEW YORK

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 1 OF 1
DWG. NO: 17-229

Appendix D

AECOM - Jacksonville 1088308

Sample Delivery Group: L895512
Samples Received: 03/11/2017
Project Number:
Description: Kensico Drive, Mt Kisco, NY
Site: MT KISCO, NY
Report To: Mr. Michael Emilio
4168 Southpoint Parkway, Suite 205
Jacksonville, FL 32216

Entire Report Reviewed By:



John Hawkins

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹ Cp: Cover Page	1	¹ Cp
² Tc: Table of Contents	2	
³ Ss: Sample Summary	3	² Tc
⁴ Cn: Case Narrative	4	
⁵ Sr: Sample Results	5	³ Ss
B-1D (30) L895512-01	5	
B-1D (50) L895512-02	6	⁴ Cn
⁶ Qc: Quality Control Summary	7	⁵ Sr
Volatile Organic Compounds (GC/MS) by Method 8260C	7	
⁷ Gl: Glossary of Terms	10	⁶ Qc
⁸ Al: Accreditations & Locations	11	⁷ Gl
⁹ Sc: Chain of Custody	12	⁸ Al
		⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



B-1D (30) L895512-01 GW

Collected by
Steve WrightCollected date/time
03/09/17 10:30Received date/time
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG961283	1	03/17/17 01:37	03/17/17 01:37	DWR

¹Cp²Tc³Ss

B-1D (50) L895512-02 GW

Collected by
Steve WrightCollected date/time
03/09/17 10:00Received date/time
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG961283	1	03/17/17 02:00	03/17/17 02:00	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG961283	50	03/17/17 22:08	03/17/17 22:08	LRL

⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Technical Service Representative

Sample Handling and Receiving

VOC pH outside of method requirement.

ESC Sample ID	Project Sample ID	Method
L895512-01	B-1D (30)	8260C
L895512-02	B-1D (50)	8260C

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromobenzene	U		0.352	1.00	1	03/17/2017 01:37	WG961283
Bromodichloromethane	U		0.380	1.00	1	03/17/2017 01:37	WG961283
Bromoform	U		0.469	1.00	1	03/17/2017 01:37	WG961283
Bromomethane	U		0.866	5.00	1	03/17/2017 01:37	WG961283
Carbon tetrachloride	U		0.379	1.00	1	03/17/2017 01:37	WG961283
Chlorobenzene	U		0.348	1.00	1	03/17/2017 01:37	WG961283
Chlorodibromomethane	U		0.327	1.00	1	03/17/2017 01:37	WG961283
Chloroethane	U		0.453	5.00	1	03/17/2017 01:37	WG961283
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/17/2017 01:37	WG961283
Chloroform	U		0.324	5.00	1	03/17/2017 01:37	WG961283
Chloromethane	U		0.276	2.50	1	03/17/2017 01:37	WG961283
2-Chlorotoluene	U		0.375	1.00	1	03/17/2017 01:37	WG961283
4-Chlorotoluene	U		0.351	1.00	1	03/17/2017 01:37	WG961283
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/17/2017 01:37	WG961283
1,2-Dibromoethane	U		0.381	1.00	1	03/17/2017 01:37	WG961283
Dibromomethane	U		0.346	1.00	1	03/17/2017 01:37	WG961283
1,2-Dichlorobenzene	U		0.349	1.00	1	03/17/2017 01:37	WG961283
1,3-Dichlorobenzene	U		0.220	1.00	1	03/17/2017 01:37	WG961283
1,4-Dichlorobenzene	U		0.274	1.00	1	03/17/2017 01:37	WG961283
Dichlorodifluoromethane	U		0.551	5.00	1	03/17/2017 01:37	WG961283
1,1-Dichloroethane	0.665	J	0.259	1.00	1	03/17/2017 01:37	WG961283
1,2-Dichloroethane	U		0.361	1.00	1	03/17/2017 01:37	WG961283
1,1-Dichloroethene	0.428	J	0.398	1.00	1	03/17/2017 01:37	WG961283
cis-1,2-Dichloroethene	2.25		0.260	1.00	1	03/17/2017 01:37	WG961283
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/17/2017 01:37	WG961283
1,2-Dichloropropane	U		0.306	1.00	1	03/17/2017 01:37	WG961283
1,1-Dichloropropene	U		0.352	1.00	1	03/17/2017 01:37	WG961283
1,3-Dichloropropane	U		0.366	1.00	1	03/17/2017 01:37	WG961283
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/17/2017 01:37	WG961283
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/17/2017 01:37	WG961283
2,2-Dichloropropane	U		0.321	1.00	1	03/17/2017 01:37	WG961283
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/17/2017 01:37	WG961283
Methylene Chloride	U		1.00	5.00	1	03/17/2017 01:37	WG961283
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/17/2017 01:37	WG961283
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/17/2017 01:37	WG961283
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/17/2017 01:37	WG961283
Tetrachloroethene	U		0.372	1.00	1	03/17/2017 01:37	WG961283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/17/2017 01:37	WG961283
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/17/2017 01:37	WG961283
1,1,1-Trichloroethane	U		0.319	1.00	1	03/17/2017 01:37	WG961283
1,1,2-Trichloroethane	U		0.383	1.00	1	03/17/2017 01:37	WG961283
Trichloroethene	104		0.398	1.00	1	03/17/2017 01:37	WG961283
Trichlorofluoromethane	U		1.20	5.00	1	03/17/2017 01:37	WG961283
1,2,3-Trichloropropane	U		0.807	2.50	1	03/17/2017 01:37	WG961283
Vinyl chloride	U		0.259	1.00	1	03/17/2017 01:37	WG961283
(S) Toluene-d8	96.9			80.0-120		03/17/2017 01:37	WG961283
(S) Dibromofluoromethane	67.0	J2		76.0-123		03/17/2017 01:37	WG961283
(S) 4-Bromofluorobenzene	88.1			80.0-120		03/17/2017 01:37	WG961283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

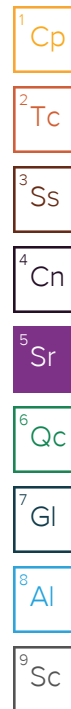


Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromobenzene	U		0.352	1.00	1	03/17/2017 02:00	WG961283
Bromodichloromethane	U		0.380	1.00	1	03/17/2017 02:00	WG961283
Bromoform	U		0.469	1.00	1	03/17/2017 02:00	WG961283
Bromomethane	U		0.866	5.00	1	03/17/2017 02:00	WG961283
Carbon tetrachloride	U		0.379	1.00	1	03/17/2017 02:00	WG961283
Chlorobenzene	U		0.348	1.00	1	03/17/2017 02:00	WG961283
Chlorodibromomethane	U		0.327	1.00	1	03/17/2017 02:00	WG961283
Chloroethane	U		0.453	5.00	1	03/17/2017 02:00	WG961283
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/17/2017 02:00	WG961283
Chloroform	U		0.324	5.00	1	03/17/2017 02:00	WG961283
Chloromethane	U		0.276	2.50	1	03/17/2017 02:00	WG961283
2-Chlorotoluene	U		0.375	1.00	1	03/17/2017 02:00	WG961283
4-Chlorotoluene	U		0.351	1.00	1	03/17/2017 02:00	WG961283
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/17/2017 02:00	WG961283
1,2-Dibromoethane	U		0.381	1.00	1	03/17/2017 02:00	WG961283
Dibromomethane	U		0.346	1.00	1	03/17/2017 02:00	WG961283
1,2-Dichlorobenzene	U		0.349	1.00	1	03/17/2017 02:00	WG961283
1,3-Dichlorobenzene	U		0.220	1.00	1	03/17/2017 02:00	WG961283
1,4-Dichlorobenzene	U		0.274	1.00	1	03/17/2017 02:00	WG961283
Dichlorodifluoromethane	U		0.551	5.00	1	03/17/2017 02:00	WG961283
1,1-Dichloroethane	23.9		0.259	1.00	1	03/17/2017 02:00	WG961283
1,2-Dichloroethane	U		0.361	1.00	1	03/17/2017 02:00	WG961283
1,1-Dichloroethene	9.69		0.398	1.00	1	03/17/2017 02:00	WG961283
cis-1,2-Dichloroethene	164		13.0	50.0	50	03/17/2017 22:08	WG961283
trans-1,2-Dichloroethene	1.48		0.396	1.00	1	03/17/2017 02:00	WG961283
1,2-Dichloropropane	U		0.306	1.00	1	03/17/2017 02:00	WG961283
1,1-Dichloropropene	U		0.352	1.00	1	03/17/2017 02:00	WG961283
1,3-Dichloropropane	U		0.366	1.00	1	03/17/2017 02:00	WG961283
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/17/2017 02:00	WG961283
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/17/2017 02:00	WG961283
2,2-Dichloropropane	U		0.321	1.00	1	03/17/2017 02:00	WG961283
Di-isopropyl ether	U		0.320	1.00	1	03/17/2017 02:00	WG961283
Ethylbenzene	U		0.384	1.00	1	03/17/2017 02:00	WG961283
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/17/2017 02:00	WG961283
Methylene Chloride	U		1.00	5.00	1	03/17/2017 02:00	WG961283
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/17/2017 02:00	WG961283
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/17/2017 02:00	WG961283
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/17/2017 02:00	WG961283
Tetrachloroethene	9.20		0.372	1.00	1	03/17/2017 02:00	WG961283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/17/2017 02:00	WG961283
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/17/2017 02:00	WG961283
1,1,1-Trichloroethane	0.925	J	0.319	1.00	1	03/17/2017 02:00	WG961283
1,1,2-Trichloroethane	0.537	J	0.383	1.00	1	03/17/2017 02:00	WG961283
Trichloroethene	2940		19.9	50.0	50	03/17/2017 22:08	WG961283
Trichlorofluoromethane	U		1.20	5.00	1	03/17/2017 02:00	WG961283
1,2,3-Trichloropropane	U		0.807	2.50	1	03/17/2017 02:00	WG961283
Vinyl chloride	3.58		0.259	1.00	1	03/17/2017 02:00	WG961283
(S) Toluene-d8	102			80.0-120		03/17/2017 22:08	WG961283
(S) Toluene-d8	208	J1		80.0-120		03/17/2017 02:00	WG961283
(S) Dibromofluoromethane	90.4			76.0-123		03/17/2017 22:08	WG961283
(S) Dibromofluoromethane	106			76.0-123		03/17/2017 02:00	WG961283
(S) 4-Bromofluorobenzene	97.4			80.0-120		03/17/2017 22:08	WG961283
(S) 4-Bromofluorobenzene	105			80.0-120		03/17/2017 02:00	WG961283

Sample Narrative:

8260C L895512-02 WG961283: Surrogate failure due to matrix interference.



Method Blank (MB)

(MB) R3204035-1 03/16/17 20:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
2-Chloroethyl vinyl ether	U		3.01	50.0
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00
Methylene Chloride	U		1.00	5.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3204035-1 03/16/17 20:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
Vinyl chloride	U		0.259	1.00
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	103			76.0-123
(S) 4-Bromofluorobenzene	105			80.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3204035-2 03/16/17 22:55 • (LCSD) R3204035-3 03/16/17 23:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	27.1	27.0	108	108	79.0-120			0.300	20
Bromodichloromethane	25.0	26.5	26.5	106	106	76.0-120			0.100	20
Bromoform	25.0	26.3	26.3	105	105	67.0-132			0.0600	20
Bromomethane	25.0	36.2	30.4	145	122	18.0-160			17.3	20
Carbon tetrachloride	25.0	27.2	27.1	109	108	63.0-122			0.340	20
Chlorobenzene	25.0	28.4	27.8	114	111	79.0-121			2.00	20
Chlorodibromomethane	25.0	27.9	27.7	112	111	75.0-125			0.590	20
Chloroethane	25.0	27.6	26.9	110	108	47.0-152			2.43	20
2-Chloroethyl vinyl ether	125	116	117	92.7	93.3	10.0-160			0.630	22
Chloroform	25.0	26.6	27.1	106	108	72.0-121			1.94	20
Chloromethane	25.0	19.9	20.5	79.7	81.9	48.0-139			2.74	20
2-Chlorotoluene	25.0	27.8	27.6	111	111	74.0-122			0.610	20
4-Chlorotoluene	25.0	28.0	27.7	112	111	79.0-120			1.20	20
1,2-Dibromo-3-Chloropropane	25.0	23.6	24.4	94.5	97.7	64.0-127			3.29	20
1,2-Dibromoethane	25.0	27.3	27.2	109	109	77.0-123			0.460	20
Dibromomethane	25.0	25.9	25.7	104	103	78.0-120			0.800	20
1,2-Dichlorobenzene	25.0	27.4	28.1	110	112	80.0-120			2.59	20
1,3-Dichlorobenzene	25.0	27.8	27.6	111	110	72.0-123			0.920	20
1,4-Dichlorobenzene	25.0	26.8	27.2	107	109	77.0-120			1.58	20
Dichlorodifluoromethane	25.0	34.1	33.4	136	134	49.0-155			2.09	20
1,1-Dichloroethane	25.0	26.3	26.1	105	104	70.0-126			1.02	20
1,2-Dichloroethane	25.0	25.2	25.6	101	102	67.0-126			1.51	20
1,1-Dichloroethene	25.0	27.8	27.5	111	110	64.0-129			0.850	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3204035-2 03/16/17 22:55 • (LCSD) R3204035-3 03/16/17 23:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	25.0	26.5	26.8	106	107	73.0-120			1.08	20
trans-1,2-Dichloroethene	25.0	27.3	26.7	109	107	71.0-121			2.01	20
1,2-Dichloropropane	25.0	25.6	25.7	103	103	75.0-125			0.200	20
1,1-Dichloropropene	25.0	28.1	27.9	112	112	71.0-129			0.540	20
1,3-Dichloropropane	25.0	28.3	27.9	113	111	80.0-121			1.65	20
cis-1,3-Dichloropropene	25.0	26.9	27.4	108	110	79.0-123			1.76	20
trans-1,3-Dichloropropene	25.0	25.1	25.7	100	103	74.0-127			2.23	20
2,2-Dichloropropane	25.0	24.6	24.3	98.5	97.0	60.0-125			1.53	20
Di-isopropyl ether	25.0	22.8	23.4	91.2	93.4	59.0-133			2.44	20
Ethylbenzene	25.0	27.9	27.0	111	108	77.0-120			3.12	20
Hexachloro-1,3-butadiene	25.0	24.9	25.7	99.5	103	64.0-131			3.10	20
Methylene Chloride	25.0	24.8	24.7	99.3	98.9	66.0-121			0.400	20
1,1,1,2-Tetrachloroethane	25.0	27.9	27.2	112	109	75.0-122			2.49	20
1,1,2,2-Tetrachloroethane	25.0	26.3	26.0	105	104	71.0-122			1.20	20
Tetrachloroethene	25.0	27.9	28.2	112	113	70.0-127			1.03	20
1,1,2-Trichlorotrifluoroethane	25.0	31.6	30.6	126	122	61.0-136			3.28	20
1,2,3-Trichlorobenzene	25.0	26.5	27.2	106	109	61.0-133			2.53	20
1,2,4-Trichlorobenzene	25.0	27.0	27.4	108	110	69.0-129			1.67	20
1,1,1-Trichloroethane	25.0	27.3	27.7	109	111	68.0-122			1.21	20
1,1,2-Trichloroethane	25.0	28.1	27.4	113	110	78.0-120			2.50	20
Trichloroethene	25.0	26.9	27.0	108	108	78.0-120			0.310	20
Trichlorofluoromethane	25.0	28.5	28.0	114	112	56.0-137			2.06	20
1,2,3-Trichloropropane	25.0	26.0	26.1	104	104	72.0-124			0.560	20
Vinyl chloride	25.0	28.0	27.9	112	111	64.0-133			0.510	20
(S) Toluene-d8				103	103	80.0-120				
(S) Dibromofluoromethane				107	107	76.0-123				
(S) 4-Bromofluorobenzene				104	103	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
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J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AECOM - Jacksonville 1088308

Sample Delivery Group: L898823
Samples Received: 03/29/2017
Project Number:
Description: Kensico Drive, Mt Kisco, NY
Site: MT KISCO, NY
Report To: Mr. Michael Emilio
4168 Southpoint Parkway, Suite 205
Jacksonville, FL 32216

Entire Report Reviewed By:



John Hawkins

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹ Cp: Cover Page	1	¹ Cp
² Tc: Table of Contents	2	
³ Ss: Sample Summary	3	² Tc
⁴ Cn: Case Narrative	4	
⁵ Sr: Sample Results	5	³ Ss
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MW-5 L898823-02	6	⁴ Cn
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⁷ Gl: Glossary of Terms	16	⁹ Sc
⁸ Al: Accreditations & Locations	17	
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MW-6 L898823-01 GW

			Collected by RP/LF	Collected date/time 03/28/17 10:52	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 02:18	03/31/17 02:18	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 14:50	03/31/17 14:50	JHH

¹ Cp² Tc³ Ss

MW-5 L898823-02 GW

			Collected by RP/LF	Collected date/time 03/28/17 11:08	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 02:34	03/31/17 02:34	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	25	03/31/17 15:10	03/31/17 15:10	JHH

⁴ Cn⁵ Sr⁶ Qc

MW-1 L898823-03 GW

			Collected by RP/LF	Collected date/time 03/28/17 12:15	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 03:12	03/31/17 03:12	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	100	03/31/17 15:31	03/31/17 15:31	JHH

⁷ Gl⁸ Al⁹ Sc

MW-2 L898823-04 GW

			Collected by RP/LF	Collected date/time 03/28/17 12:20	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 04:10	03/31/17 04:10	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	10	03/31/17 10:59	03/31/17 10:59	LRL

MW-4 L898823-05 GW

			Collected by RP/LF	Collected date/time 03/28/17 14:25	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 04:26	03/31/17 04:26	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 11:13	03/31/17 11:13	LRL

MW-3 L898823-06 GW

			Collected by RP/LF	Collected date/time 03/28/17 14:27	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 04:42	03/31/17 04:42	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 11:27	03/31/17 11:27	LRL

TRIP BLANK L898823-07 GW

			Collected by RP/LF	Collected date/time 12/09/16 00:00	Received date/time 03/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 01:46	03/31/17 01:46	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG965304	1	03/31/17 14:30	03/31/17 14:30	JHH



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Technical Service Representative

Sample Handling and Receiving

The analysis for 2-Chloroethyl Vinyl Ether was conducted from a chemically preserved container.

ESC Sample ID	Project Sample ID	Method
L898823-01	MW-6	8260C
L898823-02	MW-5	8260C
L898823-03	MW-1	8260C
L898823-04	MW-2	8260C
L898823-05	MW-4	8260C
L898823-06	MW-3	8260C
L898823-07	TRIP BLANK	8260C

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 02:18	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 02:18	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 02:18	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 02:18	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 02:18	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 02:18	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 02:18	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 02:18	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 02:18	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 02:18	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 02:18	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 02:18	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 02:18	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 02:18	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 02:18	WG965304
1,1-Dichloroethane	U		0.259	1.00	1	03/31/2017 02:18	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 02:18	WG965304
1,1-Dichloroethene	U		0.398	1.00	1	03/31/2017 02:18	WG965304
cis-1,2-Dichloroethene	2.81		0.260	1.00	1	03/31/2017 02:18	WG965304
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/31/2017 02:18	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 02:18	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 02:18	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 02:18	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 02:18	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 02:18	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 02:18	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 14:50	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 02:18	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 02:18	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 02:18	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 02:18	WG965304
Tetrachloroethene	U		0.372	1.00	1	03/31/2017 02:18	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 14:50	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 02:18	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 02:18	WG965304
1,1,2-Trichloroethane	U		0.383	1.00	1	03/31/2017 02:18	WG965304
Trichloroethene	3.72		0.398	1.00	1	03/31/2017 02:18	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 02:18	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 02:18	WG965304
Vinyl chloride	3.23		0.259	1.00	1	03/31/2017 02:18	WG965304
(S) Toluene-d8	100			80.0-120		03/31/2017 02:18	WG965304
(S) Toluene-d8	106			80.0-120		03/31/2017 14:50	WG965304
(S) Dibromofluoromethane	95.7			76.0-123		03/31/2017 02:18	WG965304
(S) Dibromofluoromethane	98.5			76.0-123		03/31/2017 14:50	WG965304
(S) 4-Bromofluorobenzene	102			80.0-120		03/31/2017 02:18	WG965304
(S) 4-Bromofluorobenzene	104			80.0-120		03/31/2017 14:50	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 02:34	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 02:34	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 02:34	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 02:34	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 02:34	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 02:34	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 02:34	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 02:34	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 02:34	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 02:34	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 02:34	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 02:34	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 02:34	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 02:34	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 02:34	WG965304
1,1-Dichloroethane	5.39		0.259	1.00	1	03/31/2017 02:34	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 02:34	WG965304
1,1-Dichloroethene	15.5		0.398	1.00	1	03/31/2017 02:34	WG965304
cis-1,2-Dichloroethene	720		6.50	25.0	25	03/31/2017 15:10	WG965304
trans-1,2-Dichloroethene	4.16		0.396	1.00	1	03/31/2017 02:34	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 02:34	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 02:34	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 02:34	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 02:34	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 02:34	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 02:34	WG965304
Hexachloro-1,3-butadiene	U		6.40	25.0	25	03/31/2017 15:10	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 02:34	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 02:34	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 02:34	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 02:34	WG965304
Tetrachloroethene	1.50		0.372	1.00	1	03/31/2017 02:34	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 02:34	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 02:34	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 02:34	WG965304
1,1,2-Trichloroethane	0.887	J	0.383	1.00	1	03/31/2017 02:34	WG965304
Trichloroethene	847		9.95	25.0	25	03/31/2017 15:10	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 02:34	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 02:34	WG965304
Vinyl chloride	119		0.259	1.00	1	03/31/2017 02:34	WG965304
(S) Toluene-d8	85.2			80.0-120		03/31/2017 02:34	WG965304
(S) Toluene-d8	105			80.0-120		03/31/2017 15:10	WG965304
(S) Dibromofluoromethane	95.4			76.0-123		03/31/2017 02:34	WG965304
(S) Dibromofluoromethane	99.0			76.0-123		03/31/2017 15:10	WG965304
(S) 4-Bromofluorobenzene	101			80.0-120		03/31/2017 15:10	WG965304
(S) 4-Bromofluorobenzene	103			80.0-120		03/31/2017 02:34	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

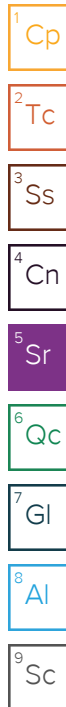


Collected date/time: 03/28/17 12:15

L898823

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 03:12	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 03:12	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 03:12	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 03:12	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 03:12	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 03:12	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 03:12	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 03:12	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 03:12	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 03:12	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 03:12	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 03:12	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 03:12	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 03:12	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 03:12	WG965304
1,1-Dichloroethane	3.25		0.259	1.00	1	03/31/2017 03:12	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 03:12	WG965304
1,1-Dichloroethene	4.48		0.398	1.00	1	03/31/2017 03:12	WG965304
cis-1,2-Dichloroethene	145		0.260	1.00	1	03/31/2017 03:12	WG965304
trans-1,2-Dichloroethene	1.13		0.396	1.00	1	03/31/2017 03:12	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 03:12	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 03:12	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 03:12	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 03:12	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 03:12	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 03:12	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 03:12	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 03:12	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 03:12	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 03:12	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 03:12	WG965304
Tetrachloroethene	1.39		0.372	1.00	1	03/31/2017 03:12	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 03:12	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 03:12	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 03:12	WG965304
1,1,2-Trichloroethane	0.460	J	0.383	1.00	1	03/31/2017 03:12	WG965304
Trichloroethene	2370		39.8	100	100	03/31/2017 15:31	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 03:12	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 03:12	WG965304
Vinyl chloride	U		0.259	1.00	1	03/31/2017 03:12	WG965304
(S) Toluene-d8	101			80.0-120		03/31/2017 03:12	WG965304
(S) Toluene-d8	107			80.0-120		03/31/2017 15:31	WG965304
(S) Dibromofluoromethane	97.8			76.0-123		03/31/2017 15:31	WG965304
(S) Dibromofluoromethane	103			76.0-123		03/31/2017 03:12	WG965304
(S) 4-Bromofluorobenzene	99.5			80.0-120		03/31/2017 15:31	WG965304
(S) 4-Bromofluorobenzene	105			80.0-120		03/31/2017 03:12	WG965304





Collected date/time: 03/28/17 12:20

L898823

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 04:10	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 04:10	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 04:10	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 04:10	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 04:10	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 04:10	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 04:10	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 04:10	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 04:10	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 04:10	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 04:10	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 04:10	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 04:10	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 04:10	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 04:10	WG965304
1,1-Dichloroethane	0.395	J	0.259	1.00	1	03/31/2017 04:10	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 04:10	WG965304
1,1-Dichloroethene	1.72		0.398	1.00	1	03/31/2017 04:10	WG965304
cis-1,2-Dichloroethene	283		2.60	10.0	10	03/31/2017 10:59	WG965304
trans-1,2-Dichloroethene	4.42		0.396	1.00	1	03/31/2017 04:10	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 04:10	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 04:10	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 04:10	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 04:10	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 04:10	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 04:10	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 04:10	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 04:10	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 04:10	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 04:10	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 04:10	WG965304
Tetrachloroethene	U		0.372	1.00	1	03/31/2017 04:10	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 04:10	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 04:10	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 04:10	WG965304
1,1,2-Trichloroethane	U		0.383	1.00	1	03/31/2017 04:10	WG965304
Trichloroethene	U		3.98	10.0	10	03/31/2017 10:59	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 04:10	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 04:10	WG965304
Vinyl chloride	17.4		0.259	1.00	1	03/31/2017 04:10	WG965304
(S) Toluene-d8	102			80.0-120		03/31/2017 04:10	WG965304
(S) Toluene-d8	103			80.0-120		03/31/2017 10:59	WG965304
(S) Dibromofluoromethane	86.0			76.0-123		03/31/2017 10:59	WG965304
(S) Dibromofluoromethane	97.0			76.0-123		03/31/2017 04:10	WG965304
(S) 4-Bromofluorobenzene	98.1			80.0-120		03/31/2017 04:10	WG965304
(S) 4-Bromofluorobenzene	108			80.0-120		03/31/2017 10:59	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/28/17 14:25

L898823

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 04:26	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 04:26	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 04:26	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 04:26	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 04:26	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 04:26	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 04:26	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 04:26	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 04:26	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 04:26	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 04:26	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 04:26	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 04:26	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 04:26	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 04:26	WG965304
1,1-Dichloroethane	U		0.259	1.00	1	03/31/2017 04:26	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 04:26	WG965304
1,1-Dichloroethene	U		0.398	1.00	1	03/31/2017 04:26	WG965304
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/31/2017 11:13	WG965304
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/31/2017 04:26	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 04:26	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 04:26	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 04:26	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 04:26	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 04:26	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 04:26	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 04:26	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 04:26	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 04:26	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 04:26	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 04:26	WG965304
Tetrachloroethene	U		0.372	1.00	1	03/31/2017 04:26	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 04:26	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 04:26	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 04:26	WG965304
1,1,2-Trichloroethane	U		0.383	1.00	1	03/31/2017 04:26	WG965304
Trichloroethene	0.537	J	0.398	1.00	1	03/31/2017 11:13	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 04:26	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 04:26	WG965304
Vinyl chloride	U		0.259	1.00	1	03/31/2017 04:26	WG965304
(S) Toluene-d8	101			80.0-120		03/31/2017 04:26	WG965304
(S) Toluene-d8	104			80.0-120		03/31/2017 11:13	WG965304
(S) Dibromofluoromethane	86.5			76.0-123		03/31/2017 11:13	WG965304
(S) Dibromofluoromethane	98.7			76.0-123		03/31/2017 04:26	WG965304
(S) 4-Bromofluorobenzene	102			80.0-120		03/31/2017 04:26	WG965304
(S) 4-Bromofluorobenzene	106			80.0-120		03/31/2017 11:13	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/28/17 14:27

L898823

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 04:42	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 04:42	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 04:42	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 04:42	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 04:42	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 04:42	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 04:42	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 04:42	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 04:42	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 04:42	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 04:42	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 04:42	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 04:42	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 04:42	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 04:42	WG965304
1,1-Dichloroethane	U		0.259	1.00	1	03/31/2017 04:42	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 04:42	WG965304
1,1-Dichloroethene	U		0.398	1.00	1	03/31/2017 04:42	WG965304
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/31/2017 11:27	WG965304
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/31/2017 04:42	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 04:42	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 04:42	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 04:42	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 04:42	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 04:42	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 04:42	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 04:42	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 04:42	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 04:42	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 04:42	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 04:42	WG965304
Tetrachloroethene	U		0.372	1.00	1	03/31/2017 04:42	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 04:42	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 04:42	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 04:42	WG965304
1,1,2-Trichloroethane	U		0.383	1.00	1	03/31/2017 04:42	WG965304
Trichloroethene	U		0.398	1.00	1	03/31/2017 11:27	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 04:42	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 04:42	WG965304
Vinyl chloride	U		0.259	1.00	1	03/31/2017 04:42	WG965304
(S) Toluene-d8	101			80.0-120		03/31/2017 04:42	WG965304
(S) Toluene-d8	103			80.0-120		03/31/2017 11:27	WG965304
(S) Dibromofluoromethane	85.7			76.0-123		03/31/2017 11:27	WG965304
(S) Dibromofluoromethane	97.9			76.0-123		03/31/2017 04:42	WG965304
(S) 4-Bromofluorobenzene	102			80.0-120		03/31/2017 04:42	WG965304
(S) 4-Bromofluorobenzene	107			80.0-120		03/31/2017 11:27	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Bromodichloromethane	U		0.380	1.00	1	03/31/2017 01:46	WG965304
Carbon tetrachloride	U		0.379	1.00	1	03/31/2017 01:46	WG965304
Chlorobenzene	U		0.348	1.00	1	03/31/2017 01:46	WG965304
Chlorodibromomethane	U		0.327	1.00	1	03/31/2017 01:46	WG965304
Chloroethane	U		0.453	5.00	1	03/31/2017 01:46	WG965304
2-Chloroethyl vinyl ether	U		3.01	50.0	1	03/31/2017 01:46	WG965304
Chloroform	U		0.324	5.00	1	03/31/2017 01:46	WG965304
Chloromethane	U		0.276	2.50	1	03/31/2017 01:46	WG965304
2-Chlorotoluene	U		0.375	1.00	1	03/31/2017 01:46	WG965304
4-Chlorotoluene	U		0.351	1.00	1	03/31/2017 01:46	WG965304
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/31/2017 01:46	WG965304
1,2-Dichlorobenzene	U		0.349	1.00	1	03/31/2017 01:46	WG965304
1,3-Dichlorobenzene	U		0.220	1.00	1	03/31/2017 01:46	WG965304
1,4-Dichlorobenzene	U		0.274	1.00	1	03/31/2017 01:46	WG965304
Dichlorodifluoromethane	U		0.551	5.00	1	03/31/2017 01:46	WG965304
1,1-Dichloroethane	U		0.259	1.00	1	03/31/2017 01:46	WG965304
1,2-Dichloroethane	U		0.361	1.00	1	03/31/2017 01:46	WG965304
1,1-Dichloroethene	U		0.398	1.00	1	03/31/2017 01:46	WG965304
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/31/2017 01:46	WG965304
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/31/2017 01:46	WG965304
1,2-Dichloropropane	U		0.306	1.00	1	03/31/2017 01:46	WG965304
1,1-Dichloropropene	U		0.352	1.00	1	03/31/2017 01:46	WG965304
1,3-Dichloropropane	U		0.366	1.00	1	03/31/2017 01:46	WG965304
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/31/2017 01:46	WG965304
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/31/2017 01:46	WG965304
2,2-Dichloropropane	U		0.321	1.00	1	03/31/2017 01:46	WG965304
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/31/2017 14:30	WG965304
Methylene Chloride	U		1.00	5.00	1	03/31/2017 01:46	WG965304
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/31/2017 01:46	WG965304
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/31/2017 01:46	WG965304
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/31/2017 01:46	WG965304
Tetrachloroethene	U		0.372	1.00	1	03/31/2017 01:46	WG965304
1,2,3-Trichlorobenzene	U	J3	0.230	1.00	1	03/31/2017 14:30	WG965304
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/31/2017 14:30	WG965304
1,1,1-Trichloroethane	U		0.319	1.00	1	03/31/2017 01:46	WG965304
1,1,2-Trichloroethane	U		0.383	1.00	1	03/31/2017 01:46	WG965304
Trichloroethene	U		0.398	1.00	1	03/31/2017 01:46	WG965304
Trichlorofluoromethane	U		1.20	5.00	1	03/31/2017 01:46	WG965304
1,2,3-Trichloropropane	U		0.807	2.50	1	03/31/2017 01:46	WG965304
Vinyl chloride	U		0.259	1.00	1	03/31/2017 01:46	WG965304
(S) Toluene-d8	101			80.0-120		03/31/2017 01:46	WG965304
(S) Toluene-d8	106			80.0-120		03/31/2017 14:30	WG965304
(S) Dibromofluoromethane	96.2			76.0-123		03/31/2017 01:46	WG965304
(S) Dibromofluoromethane	96.6			76.0-123		03/31/2017 14:30	WG965304
(S) 4-Bromofluorobenzene	102			80.0-120		03/31/2017 01:46	WG965304
(S) 4-Bromofluorobenzene	102			80.0-120		03/31/2017 14:30	WG965304

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3207257-3 03/31/17 00:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Bromodichloromethane	U		0.380	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
2-Chloroethyl vinyl ether	U		3.01	50.0
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Hexachloro-1,3-butadiene	0.361	U	0.256	1.00
Methylene Chloride	U		1.00	5.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
Vinyl chloride	U		0.259	1.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3207257-3 03/31/17 00:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	96.3			76.0-123
(S) 4-Bromofluorobenzene	100			80.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207257-1 03/30/17 23:08 • (LCSD) R3207257-2 03/30/17 23:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	25.0	23.6	23.5	94.4	93.8	76.0-120			0.600	20
Carbon tetrachloride	25.0	23.1	22.1	92.3	88.6	63.0-122			4.05	20
Chlorobenzene	25.0	26.6	25.9	106	104	79.0-121			2.52	20
Chlorodibromomethane	25.0	26.2	26.1	105	104	75.0-125			0.330	20
2-Chloroethyl vinyl ether	125	117	120	93.8	95.7	10.0-160			2.04	22
Chloroethane	25.0	24.3	24.9	97.1	99.6	47.0-152			2.60	20
Chloroform	25.0	24.1	23.4	96.2	93.6	72.0-121			2.79	20
Chloromethane	25.0	23.8	22.7	95.3	90.9	48.0-139			4.71	20
2-Chlorotoluene	25.0	26.5	25.8	106	103	74.0-122			2.67	20
4-Chlorotoluene	25.0	26.5	25.8	106	103	79.0-120			2.87	20
1,2-Dibromo-3-Chloropropane	25.0	22.6	23.2	90.5	92.7	64.0-127			2.36	20
1,2-Dichlorobenzene	25.0	26.3	26.4	105	106	80.0-120			0.250	20
1,3-Dichlorobenzene	25.0	26.7	26.1	107	105	72.0-123			2.05	20
1,4-Dichlorobenzene	25.0	26.3	26.2	105	105	77.0-120			0.540	20
Dichlorodifluoromethane	25.0	23.9	22.4	95.8	89.4	49.0-155			6.87	20
1,1-Dichloroethane	25.0	23.8	22.9	95.2	91.4	70.0-126			4.04	20
1,2-Dichloroethane	25.0	22.6	22.3	90.5	89.0	67.0-126			1.57	20
1,1-Dichloroethene	25.0	24.0	23.2	96.0	92.8	64.0-129			3.43	20
cis-1,2-Dichloroethene	25.0	23.8	23.2	95.1	92.9	73.0-120			2.31	20
trans-1,2-Dichloroethene	25.0	24.1	23.3	96.3	93.3	71.0-121			3.23	20
1,2-Dichloropropane	25.0	24.3	24.1	97.1	96.6	75.0-125			0.530	20
1,1-Dichloropropene	25.0	23.3	22.5	93.3	90.1	71.0-129			3.49	20
1,3-Dichloropropane	25.0	24.7	24.4	98.9	97.8	80.0-121			1.21	20
cis-1,3-Dichloropropene	25.0	23.3	23.1	93.1	92.4	79.0-123			0.720	20
trans-1,3-Dichloropropene	25.0	24.1	24.1	96.5	96.3	74.0-127			0.290	20
2,2-Dichloropropane	25.0	24.2	24.1	96.8	96.5	60.0-125			0.360	20
Hexachloro-1,3-butadiene	25.0	26.9	29.4	107	118	64.0-131			9.20	20
Methylene Chloride	25.0	23.3	23.0	93.1	91.8	66.0-121			1.33	20
1,1,1,2-Tetrachloroethane	25.0	26.6	25.8	107	103	75.0-122			3.28	20
1,1,2,2-Tetrachloroethane	25.0	24.2	24.4	96.9	97.7	71.0-122			0.830	20

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207257-1 03/30/17 23:08 • (LCSD) R3207257-2 03/30/17 23:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	25.0	26.1	24.6	104	98.4	70.0-127			5.88	20
1,1,2-Trichlorotrifluoroethane	25.0	26.4	25.0	106	100	61.0-136			5.57	20
1,2,3-Trichlorobenzene	25.0	22.9	28.9	91.7	116	61.0-133		J3	23.0	20
1,2,4-Trichlorobenzene	25.0	24.1	26.8	96.5	107	69.0-129			10.5	20
1,1,1-Trichloroethane	25.0	23.9	22.7	95.5	90.7	68.0-122			5.20	20
1,1,2-Trichloroethane	25.0	25.1	25.2	101	101	78.0-120			0.180	20
Trichloroethene	25.0	23.8	23.1	95.1	92.6	78.0-120			2.65	20
Trichlorofluoromethane	25.0	26.2	22.9	105	91.6	56.0-137			13.4	20
1,2,3-Trichloropropane	25.0	23.8	24.1	95.1	96.6	72.0-124			1.50	20
Vinyl chloride	25.0	22.1	21.4	88.3	85.6	64.0-133			3.12	20
(S) Toluene-d8				101	102	80.0-120				
(S) Dibromofluoromethane				96.0	96.6	76.0-123				
(S) 4-Bromofluorobenzene				100	102	80.0-120				

L898347-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898347-01 03/31/17 05:13 • (MS) R3207257-4 03/31/17 00:59 • (MSD) R3207257-5 03/31/17 01:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	25.0	U	6630	6770	106	108	250	52.0-135			2.06	20
Carbon tetrachloride	25.0	U	5880	5780	94.1	92.5	250	41.0-138			1.74	20
Chlorobenzene	25.0	U	7440	7540	119	121	250	52.0-141			1.35	20
Chlorodibromomethane	25.0	U	7540	7790	121	125	250	54.0-142			3.27	20
2-Chloroethyl vinyl ether	125	U	34100	37200	109	119	250	10.0-160			8.90	40
Chloroethane	25.0	U	7270	6100	116	97.6	250	23.0-160			17.5	20
Chloroform	25.0	U	6650	6810	106	109	250	50.0-139			2.33	20
Chloromethane	25.0	U	5460	5410	87.4	86.5	250	14.0-151			1.08	20
2-Chlorotoluene	25.0	213	7610	7840	118	122	250	48.0-142			2.98	20
4-Chlorotoluene	25.0	U	7480	7630	120	122	250	52.0-139			1.96	20
1,2-Dibromo-3-Chloropropane	25.0	U	5390	6630	86.2	106	250	49.0-144			20.7	24
1,2-Dichlorobenzene	25.0	U	7220	7600	116	122	250	56.0-139			5.17	20
1,3-Dichlorobenzene	25.0	U	7220	7560	115	121	250	50.0-141			4.64	20
1,4-Dichlorobenzene	25.0	U	7310	7420	117	119	250	53.0-136			1.57	20
Dichlorodifluoromethane	25.0	U	5450	5310	87.2	85.0	250	20.0-160			2.59	21
1,1-Dichloroethane	25.0	U	6640	6660	106	106	250	47.0-143			0.230	20
1,2-Dichloroethane	25.0	U	6130	6340	98.1	101	250	47.0-141			3.38	20
1,1-Dichloroethene	25.0	U	6750	6740	108	108	250	31.0-148			0.290	20
cis-1,2-Dichloroethene	25.0	818	7500	7580	107	108	250	43.0-142			1.08	20
trans-1,2-Dichloroethene	25.0	U	6590	6600	105	106	250	36.0-141			0.260	20

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L898347-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898347-01 03/31/17 05:13 • (MS) R3207257-4 03/31/17 00:59 • (MSD) R3207257-5 03/31/17 01:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloropropane	25.0	U	6750	6790	108	109	250	51.0-141			0.610	20
1,1-Dichloropropene	25.0	U	6720	6690	108	107	250	42.0-146			0.460	20
1,3-Dichloropropane	25.0	U	6850	7050	110	113	250	58.0-139			2.88	20
cis-1,3-Dichloropropene	25.0	U	7070	7240	113	116	250	53.0-139			2.34	20
trans-1,3-Dichloropropene	25.0	U	6900	7110	110	114	250	51.0-143			3.06	20
2,2-Dichloropropane	25.0	U	7420	7500	119	120	250	43.0-139			0.990	20
Hexachloro-1,3-butadiene	25.0	U	7020	8670	112	139	250	44.0-146		J3	21.1	21
Methylene Chloride	25.0	U	6250	6400	100	102	250	42.0-135			2.43	20
1,1,1,2-Tetrachloroethane	25.0	U	7530	7650	121	122	250	52.0-140			1.54	20
1,1,2,2-Tetrachloroethane	25.0	U	6650	7070	106	113	250	46.0-149			6.16	20
Tetrachloroethene	25.0	U	7160	7170	115	115	250	38.0-147			0.110	20
1,1,2-Trichlorotrifluoroethane	25.0	U	6970	6980	111	112	250	40.0-151			0.140	21
1,2,3-Trichlorobenzene	25.0	U	3800	7430	60.8	119	250	45.0-145		J3	64.6	22
1,2,4-Trichlorobenzene	25.0	U	5530	7560	88.4	121	250	49.0-147		J3	31.1	21
1,1,1-Trichloroethane	25.0	U	6780	6770	109	108	250	46.0-140			0.160	20
1,1,2-Trichloroethane	25.0	U	6940	7130	111	114	250	54.0-139			2.76	20
Trichloroethene	25.0	116	6530	6620	103	104	250	32.0-156			1.51	20
Trichlorofluoromethane	25.0	U	6580	6500	105	104	250	32.0-152			1.17	20
1,2,3-Trichloropropane	25.0	U	6560	6960	105	111	250	54.0-143			5.88	21
Vinyl chloride	25.0	122	6150	6160	96.5	96.6	250	24.0-153			0.0500	20
(S) Toluene-d8					101	101		80.0-120				
(S) Dibromofluoromethane					95.9	97.2		76.0-123				
(S) 4-Bromofluorobenzene					102	102		80.0-120				

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Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable


Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AECOM - Jacksonville 1088308 4168 Southpoint Parkway, Suite 205 Jacksonville, FL 32216				Billing Information: Michael Emilio - ID 1334927 4168 Southpoint Pkwy S, Suite 205 Jacksonville, FL 32216				Pres Chk	
				Report to: Mr. Michael Emilio				Email To: michael_emilio@urscorp.com	
Project Description: Kensico Drive, Mt Kisco, NY				City/State Collected:					
Phone: 904-281-9251		Client Project #		Lab Project # URSJFL-KENSICO DRIVE					
Fax: 904-281-9892									
Collected by (print): R.P. / L.F.		Site/Facility ID # MT KISCO, NY		P.O. #					
Collected by (signature): <i>[Signature]</i>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input checked="" type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input checked="" type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #					
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>				Date Results Needed		No. of Cntrs			
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time				
MW-6	Grab	GW		3-28-17	10:52	2	X		
MW-5	Grab	GW		3-28-17	11:08	2	X		
MW-1	Grab	GW		3-28-17	12:15	2	X		
MW-2	Grab	GW		3-28-17	12:20	2	X		
MW-4	Grab	GW		3-28-17	14:25	2	X		
MW-3	Grab	GW		3-28-17	14:27	2	X		
Trip Blank				12-9-16		1	X		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____ Remarks: VOHs only (Chlorinated)									
Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier				Tracking # 7383 832V 234V					
Relinquished by: (Signature) <i>[Signature]</i>		Date: 3/21/17		Time: 5pm		Received by: (Signature) <i>[Signature]</i>		Trip Blank Received: Yes / No HCL / MeOH TBR	
Relinquished by: (Signature) <i>[Signature]</i>		Date: 3-28-17		Time:		Received by: (Signature)		Temp: 17 °C Bottles Received: 12/HG	
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) <i>[Signature]</i>		Date: 3/27/17 Time: 0845	

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# **C898873**
L111

Acctnum: URSJFL
Template: T121805
Prelogin: P593820
TSR: 341 - John Hawkins
PB: **NB 3/21/17**

Shipped Via: **FedEx Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07