EMERSUB 16 LLC

2018 OFFSITE GROUNDWATER MONITORING REPORT

FORMER KOP-FLEX FACILITY SITE, HANOVER, MARYLAND

MARCH 27, 2019

wsp

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EMERSUB 16 LLC

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1 INTRODUCTION

On behalf of EMERSUB 16 LLC, WSP USA Inc. (WSP) has prepared this Annual Offsite Groundwater Monitoring Report for activities performed in 2018 with respect to the groundwater plume emanating from the Former Kop-Flex Facility Site (Site) located at 7555 Harmans Road in Hanover, Maryland (Figure 1). The former Kop-Flex facility is identified as Site MD0286 under the Brownfield Master Inventory system used by the Maryland Department of the Environment (MDE) Land Restoration Program. This report pertains to the response action activities that were conducted to address the groundwater impacts in the offsite areas of the Site. Per the request of Richelle Hanson of MDE, this report will also include sampling undertaken at non-residential facilities bordering the former Kop-Flex facility to the north (Verizon Communications), and south and east (Williams Scotsman, Inc.) along with residential communities to the south of Maryland Route 100.

Previous environmental investigations initiated in 1996 identified soil and groundwater impacts associated with historical releases of chlorinated solvents at the former Kop-Flex facility property. In addition, the results of investigations conducted in offsite areas beginning in 2012 also showed that site-related VOCs had migrated in the deep groundwater aquifer to the south and southeast of the former facility. Since that time, an offsite groundwater monitoring plan was developed in conjunction with the onsite response actions. The objectives of the ongoing monitoring program are to evaluate the trends in concentrations of site-related VOCs in the aquifer system downgradient of the former Kop-Flex facility and whether additional actions are warranted to protect the drinking water source in the area.

This 2018 Offsite Groundwater Monitoring Report consists of the following sections:

- Section 2 – Site Background
- Section 3 – Site Conceptual Model and Hydrogeology
- Section 4 – Monitoring Well Installation Activities
- Section 5 – Sampling Procedures
- Section 6 – 2018 Quarterly Sampling Results
- Section 7 – Summary and Conclusions, including 2019 monitoring activities

2 SITE BACKGROUND

2.1 SITE DESCRIPTION

The former Kop-Flex facility is located at 7555 Harmans Road in Hanover, Anne Arundel County, Maryland. The site occupies a total area of approximately 25 acres and contains three buildings - two manufacturing/office buildings and a small groundwater treatment facility in the west-central portion of the property - which were constructed during re-development in 2016 (Figure 1). The property is bordered to the north by the Verizon maintenance facility; to the east and south by the Williams Scotsman facility, and to the west by undeveloped land along Stony Run, a tributary of the Patapsco River, new townhome development, and Harmans Road.

The former facility was constructed on previously undeveloped land in 1969 by Koppers Company, Inc., a predecessor in real estate interest of Kop-Flex, Inc. Emerson acquired Kop-Flex in 1996. Kop-Flex manufactured flexible couplings for the mechanical power transmission industry at the site. Manufacturing operations at the facility ceased in late 2012, and all equipment and machining lines have been decommissioned and removed from the Site. In December 2014, Emerson transferred the property to EMERSUB 16 LLC in preparation of selling the property to a third party, Harmans Road Associates, LLC, a corporate entity established by Trammell Crow, for future redevelopment.

Land use in nearby areas of the site is primarily characterized by residential developments (single-family homes and townhouses) and undeveloped land. A small number of areas, primarily to the north and east, have been designated for commercial and light industrial/industrial park use. A table summarizing the nearby properties is provided below.

Direction	Operator Name	Address	Property Use
North	Verizon	7545 Harmans Road	Maintenance Facility
South	William Scotsman, beyond which is Maryland State Route 100	7539 Harmans Road	Mobile Trailer Distributor – Office Area and Trailer Storage
East	William Scotsman, beyond which are railroad tracks	7539 Harmans Road	Mobile Trailer Distributor – Trailer Storage
West	Stony Run and surrounding undeveloped land and Residential Neighborhood	-----	Single family homes and town homes

3 SITE GEOLOGY AND HYDROGEOLOGY

3.1 ENVIRONMENTAL SETTING

Anne Arundel County is located within the Atlantic Coastal Plain Physiographic Province. The Hanover area is situated approximately five miles from the Fall Line, which marks the boundary at the ground surface between the unconsolidated deposits of the Coastal Plain and the igneous and metamorphic crystalline rocks of the Piedmont Physiographic Province. Based on the United States Geological Survey (USGS) topographic 7.5-minute series quadrangle map for Relay, Maryland (revised 1974), the site lies within an area of rolling to hilly terrain dissected by numerous perennial to intermittent streams. Overall, the highest elevations (greater than 200 feet above mean sea level [MSL]) occur in the Severn area south and west of the former Kop-Flex facility with the lowest area (approximately 90 feet above MSL) present to the north along Stony Run.

According to the USGS topographic map, the closest stream is Stony Run, which flows across the northwestern portion of the property. Streamflow associated with the Stony Run drainage system progresses northward and eventually discharges into the Patapsco River. Additionally, numerous small, predominately man-made pond areas have been identified and mapped in the vicinity of Stony Run and its tributaries in the Hanover-Severn area. The largest of these is a hydrologically isolated pond located approximately 0.3 mile south of the site in the Harmans Woods community.

3.2 LOCAL GEOLOGY

Evaluation of the borehole lithologic data, considering the regional stratigraphic framework, indicates the predominant unconsolidated deposits in the Hanover-Severn area include units of the Lower Cretaceous Potomac Group. The most detailed lithologic information is provided by the logging of cores obtained from boreholes drilled for the offsite monitoring wells installed in 2014 and 2018 (Figure 2). Based on this data, the following discussion provides an overview of the geologic conditions in the onsite and offsite areas.

The upper-most inter-bedded sand and clay sediment at the former facility property and adjacent parcels are a combination of Quaternary alluvial sediments associated with the depositional processes along the Stony Run drainage system and fill materials associated with historical site activities. The Quaternary alluvium consists of a complexly inter-bedded and inter-fingered sequence of coarse-grained (sands with gravel) and fine-grained (silt and clay) deposits. Occasional sand zones may exist as either isolated bodies within the finer grained sediments, or inter-fingered to interbedded layers that reflect the gradational transition between the overlying and underlying sediments. Based on the boring logs, the maximum thickness of these surficial deposits is less than 20 feet (Figure 2).

Lower Cretaceous litho-stratigraphic units underlie the surficial deposits down to an elevation of greater than -200 feet mean sea level (MSL). The primary Cretaceous-age units of interest beneath the former Kop-Flex facility and offsite area to the south include the following:

- Patapsco Formation (Upper and Lower Patapsco Aquifers)
- Arundel Clay
- Patuxent Formation (Patuxent Aquifer)

Specific information on these aquifers, shown in Figure 2, and the Arundel Clay is provided below.

3.3 LOCAL HYDROGEOLOGY

3.3.1 UPPER PATAPSCO AQUIFER

The Upper Patapsco aquifer is the shallowest hydrogeologic unit in the area of interest. Based on the hydrogeologic cross-section, the outcrop area for this aquifer extends from the vicinity of Reece Road and Old Camp Meade Road south and east beyond Telegraph Road (Maryland Route 170). The aquifer is comprised of mostly fine-medium sands, which are interbedded with clay deposits and is underlain by clayey deposits that serve as the confining unit for the Lower Patapsco aquifer.

Given the shallow nature of this aquifer, groundwater is presumed to occur under an unconfined condition within the Severn area. However, the aquifer thickness is uncertain due to the absence of shallow monitoring wells in the residential areas south of Reece Road. Based on water level data from observation wells located a short distance along strike to the northeast, the thickness of the unconfined Upper Patapsco aquifer in the Andorick Acres neighborhood would be on the order of approximately 50 feet.

3.3.2 LOWER PATAPSCO AQUIFER

The Lower Patapsco aquifer extends over the entire area of interest and ranges in thickness from approximately 150 feet at the southern boundary of the Kop-Flex property to approximately 300 feet in the Andorick Acres development south of Reece Road. Based on the borehole lithologic data, an extensive clayey layer separates the lower sand-rich zone from the overlying sand and inter-layered sand and clay deposits south of Maryland Route 100. The fine-grained low permeability sediments of the Patapsco formation serve as the confining unit much of this aquifer in the offsite area.

As part of the quarterly sampling program for the offsite monitoring wells, water level measurements are obtained during each groundwater monitoring event. Evaluation of the water level data from offsite wells MW-25 and MW-28 indicates an unconfined groundwater condition in the upper-most sand zone and semi-confined conditions within the deeper sandy deposits. The thickness of this deep sand zone varies from approximately 90 feet at the Kop-Flex property to 130 feet further downgradient in the Andorick Acres neighborhood. Evaluation of the hydraulic head data indicates a generally south-southeast flow path for groundwater in the confined portion of this aquifer.

3.3.3 ARUNDEL CLAY

The Arundel clay underlies the Lower Patapsco aquifer. This unit consists predominately of clay that ranges in color from gray to dark gray and red to very dark brown, with rare beds of well-graded sand. Organic (plant) matter is present throughout much of the clayey deposits comprising this litho-stratigraphic unit in the offsite area. Based on the lithologic logs for offsite wells that were advanced through the Arundel Clay and into the underlying Patuxent Aquifer (MW-30D-413, and MW-36D), the approximate thickness for this unit ranges from 90 feet to 125 feet over the Hanover-Severn area.

3.3.4 PATUXENT AQUIFER

The Patuxent aquifer is the deepest aquifer encountered in the Severn area, and comprises the porous sand deposits of the Patuxent Formation underlying the Arundel Clay. Detailed information on the texture and thickness of this hydrogeologic unit is minimal in the area of interest due to the limited advancement of well boreholes into this aquifer. Based on regional studies, the Patuxent aquifer is believed to approach a thickness of approximately 250 feet in western Anne Arundel County.

Prior to the 2018 well installation activities, no monitoring wells had been completed in the Patuxent aquifer as part of the offsite groundwater investigation activities. The deeper well at the MW-30D location, as well as MW-36D, were installed beneath the Arundel Clay to provide more hydrogeologic and geochemical information from this aquifer.

4 2018 MONITORING WELL INSTALLATION ACTIVITIES

4.1 DRILLING AND WELL INSTALLATION

Six offsite monitoring wells - MW-29D, MW-30D well pair, MW-32D, MW-34D, and MW-36D - were installed in March and April 2018 within Public right of ways (ROW's) using the roto-sonic drilling method. The wells were completed in the Lower Patapsco aquifer at five different locations to further monitor VOC concentrations in groundwater hydraulically downgradient of the Kop-Flex property. At the MW-30 location, a second well screened in the deeper Patuxent aquifer was paired with the Lower Patapsco aquifer well. MW-46D was installed on the adjacent Verizon property after the monitoring wells in the public ROW's were completed. The purpose of this monitoring well is to evaluate site-related VOCs in the northeast portion of the VOC plume. These new monitoring well locations are shown on Figure 3.

During borehole advancement, continuous, 10-20-foot-long cores of the unconsolidated aquifer materials were obtained using a 4-inch-diameter core barrel. The recovered material from each core run was logged using the Unified Soil Classification System by a WSP Geologist, and the descriptive information recorded in a bound field notebook. Lithologic descriptions of the aquifer material contained in the core samples and discrete interval groundwater sampling results were used to determine the actual borehole termination depth. The depth for each well borehole is provided in Table 1.

For wells completed in the upper portion of the Patuxent aquifer, advancement of the boring was halted upon identification of the dark-colored, carbonaceous clayey sediments indicative of the Arundel Clay confining unit. The borehole was then over-drilled to an approximate depth of 2 feet below the top of the confining clay unit, and a 7-inch diameter temporary steel casing seated into the clayey unit to seal off the overlying Lower Patapsco sand deposits. Drilling continued through the temporary casing to the termination depth.

Following the drilling and groundwater depth-discrete profiling activities (described in Section 4.2), each borehole was completed as a single groundwater monitoring well. The well depth and screen interval were determined in the field based on the depth-discrete groundwater profiling (both field screening and laboratory results) and available hydrogeologic data for the aquifer. Since all well borings (except MW-30D-273) were terminated at a greater depth than the actual well completion depth, the borehole was backfilled with bentonite chips to allow for construction of the well at the desired depth. Construction information for all offsite monitoring wells is provided in Table 1.

4.2 GROUNDWATER PROFILING

Depth-discrete groundwater sampling, or groundwater profiling, was performed during installation of the deepest well borehole at each of the new monitoring well locations. The following discussion provides a summary of the profiling activities and analytical data for the samples collected during borehole advancement. Additional information regarding the groundwater profiling procedures and results, including laboratory analytical reports for the samples, can be found in Quarterly Status Reports No. 6[1] and 7[2] for the offsite area.

[1] WSP USA (2018) Quarterly Status Report No. 6 – Offsite Area. Former Kop-Flex Facility, Hanover, Maryland
[2] WSP USA (2018) Quarterly Status Report No. 7 – Offsite Area. Former Kop-Flex Facility, Hanover, Maryland

During borehole advancement, depth-discrete groundwater samples were collected at approximately 10-foot intervals in the following hydro-stratigraphic units:

- Lower portion of the Lower Patapsco aquifer;
- Sand layer in the upper portion of the Arundel Clay;
- Upper portion of the Patuxent aquifer

At each sample interval, a 5-foot long screen point and K-packer assembly were placed down the temporary 6-inch casing and then exposed to the aquifer materials by retracting the temporary casing. Water was then continuously purged from the sampler using a Grundfos Redi-Flo 2 sampling pump to ensure that representative groundwater, which had not been affected by the drilling activities, was moving into the screen point at the selected depth interval. During purging, field hydrogeochemical parameters, including temperature, pH, specific conductance, and turbidity, were monitored with a Horiba U-52 multiparameter water quality meter at regular (5-10 minute) intervals, and the measurements recorded in the field notebook. Once the field parameters stabilized and pH dropped to a level more indicative of natural groundwater conditions, groundwater samples were collected for field screening and laboratory analysis.

The groundwater samples were field screened for 1,1-dichloroethene (DCE) using compound-specific colorimetric tubes and submitted to a certified laboratory for VOC analysis using USEPA Test Method 8260B. An expedited (less than 24-hour) turn-around time was requested for the samples to allow for real-time evaluation of this and other site-related VOC concentrations within the water-bearing zones in the aquifer system. As mentioned above, the laboratory analytical results were reviewed to assess the vertical distribution of site-related VOCs and guide the construction of the monitoring well(s) at each location.

The highest site-related VOC concentrations were detected in the 71 to 76-foot (159.3µg/l) and 81 to 86-foot (239.5µg/l) samples from the MW-46D well borehole; as well as the 201 to 206-foot sample (119 µg/l) and the 211 to 216-foot sample (140.4 µg/l) from the MW-36D borehole. For these samples, 1,1-DCE was the only site-related VOC that exceeded the Maryland Groundwater Quality Standards. The samples from the MW-46D location were collected from the upper 15-20 feet of the confined portion of the Lower Patapsco Aquifer. The deeper samples from MW-46D well borehole - 101 to 106 feet and 111 to 116 feet - contained much lower concentrations of site related VOCs (6.1 µg/l and 4.1 µg/l respectively). For the MW-36D location, the samples with the slightly elevated VOC detections were from the sand deposits comprising the lower-most portion of the Lower Patapsco aquifer. The sample from 231 to 236 feet contained site-related VOCs of just 7 µg/l. The groundwater samples collected from the deeper Patuxent aquifer at the MW-36D location did not have laboratory detections of site-related VOCs.

The monitoring wells within the MW-30 pair also had very low detections of site-related VOCs, ranging from 1.1 to 6.3 µg/l, in the samples from the lower portion of the Lower Patapsco Aquifer and the Arundel Clay sand layer. No VOCs were present in these samples at concentrations above the Maryland Groundwater Quality Standards. In addition, there were no detections in the groundwater samples from the Patuxent Aquifer.

5 SAMPLING PLAN AND FIELD PROCEDURES

5.1 SAMPLING PLAN

In the first quarter of 2018, the groundwater monitoring event involved the sampling of the nine offsite monitoring wells installed in 2014, as this round of samples was collected prior to the 2018 well installation activities. Sampling protocols outlined in the September 2015 Offsite Groundwater Monitoring Plan (Monitoring Plan) were followed for this event. The remaining 2018 sampling events in the offsite area south of Maryland Route 100 were conducted in accordance with the 2015 Monitoring Plan following installation of the additional monitoring wells. This plan constituted the baseline sampling of the new wells comprising the offsite monitoring well network together with the continued, but less frequent, monitoring of the previously installed (2014) wells. The following is a description of the sampling plan for these offsite wells.

For new monitoring wells MW-29D, MW-30D pair, MW-32D, MW-34D, and MW-36D, groundwater samples were collected on a quarterly basis to characterize the hydrogeochemical conditions at these locations in either the Lower Patapsco and Patuxent aquifers, and evaluate the presence of seasonal fluctuations in VOC concentrations. The first baseline sampling event took place in the second quarter of calendar year 2018; therefore, the last quarter of baseline sampling will take place in the first quarter of 2019. The remaining offsite monitoring wells - MW-25D pair, MW-28D, MW-31D, MW-33D pair, and MW-35 - transitioned to being sampled on a semi-annual basis for the baseline (2018) year. Based on an agreement with MDE, the shallow wells in the unconfined portion of the Lower Patapsco aquifer, MW-25 and MW-28 were removed from the sampling program following the second quarter of 2018.

The sampling of existing wells MW-24D and MW-45 on the Williams-Scotsman property, along with new well MW-46D on the Verizon property, was consistent with the monitoring plan for the onsite wells. Based on this monitoring program, groundwater samples were collected semi-annually from these wells.

5.2 WATER LEVEL MEASUREMENTS

Field measurements of the depth to standing water in offsite monitoring wells were obtained during each sampling event using an electronic water level indicator. Static water level and total well depth measurements were taken at each monitoring well to determine fluctuations in the hydraulic head within the portion of the aquifer system screened by the well and identify potential siltation problems inside the well casing. All field measurements were recorded in a bound field notebook. Historic and 2018 water level measurements for the offsite monitoring wells are included in Table 2.

5.3 HYDRASLEEVE SAMPLING

The HydraSleeve™ sampling method was used to collect groundwater samples from the offsite monitoring wells in 2018. The HydraSleeve™ is a passive sampling technology capable of collecting representative groundwater samples for analysis of chlorinated VOCs and 1,4-dioxane. The depth intervals for deployment of the HydraSleeve™ samplers in the offsite wells are provided in Table 3.

The 2.5-foot long HydraSleeve™ sampler was attached to a weighted, nylon suspension tether and set at the pre-determined depth within the screened interval. The suspension line was then secured at the well head to ensure the sampler remains at

the designated depth during the stabilization period. Following a minimum 2-week equilibration period, the groundwater sample was collected by continuously pulling upward on the HydraSleeve™ until full. The HydraSleeve™ was removed from the well, and the sample immediately collected in the appropriate containers to minimize the diffusive loss of VOCs through the polyethylene wall of the sampler. After obtaining the requisite sample volume for chemical analysis, a representative aliquot of the remaining water is placed into the sample cup of a multi-parameter field meter for measurement of the following hydrogeochemical parameters:

- Temperature
- pH
- Specific conductivity
- Turbidity

The field parameter measurements for each sample are then documented in a field notebook. Table 4 summarizes the field parameter measurements for the offsite monitoring wells during the 2018 sampling events. The specific conductivity and turbidity could not be accurately measured during the February event due to malfunctioning of the field meter.

Following sample collection, a new HydraSleeve™ sampler was deployed in each well for the next sampling event.

5.4 ANALYTICAL METHODS

All groundwater samples were analyzed by a certified laboratory for VOCs using U.S. EPA SW-846 Test Method 8260B. In addition, the samples were analyzed for 1,4-dioxane using modified U.S. EPA Method 8260B with selective ion monitoring (SIM). These test methods were also used for field quality control (QC) samples – i.e., trip blanks, duplicate samples etc.

6 2018 GROUNDWATER MONITORING RESULTS

6.1 GROUNDWATER QUALITY STANDARDS FOR SITE-RELATED VOCS

The analytical results for all offsite monitoring wells are summarized in Table 5, and the 2018 analytical results are shown on Figure 4. Certified laboratory reports for each sampling event are included in Appendix A.

The cleanup criteria for all site-related constituents of concern (COCs), excluding 1,4-dioxane, detected in the offsite area are equivalent to the promulgated MDE groundwater quality standards listed below.

- 1,1,1-Trichloroethane (TCA) – 200 micrograms per liter (µg/l)
- 1,1-DCE – 7 µg/l
- 1,2-Dichloroethane (DCA) – 5 µg/l
- 1,1-DCA – 90 µg/l
- cis-1,2-DCE – 70 µg/l
- Trichloroethene (TCE) – 5 µg/l

These values correspond to the standards for Type I and II aquifers, and maximum contaminant levels (MCLs) and secondary MCLs developed by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act. Based on the site hydrogeologic and hydrogeochemical data, the Lower Patapsco aquifer and Patuxent aquifer meet the definition of a Type I aquifer provided in the MDE document *Cleanup Standards for Soil and Groundwater, Interim Final Guidance* (Update No. 2.1).

At present, no groundwater quality standard has been promulgated by MDE or U.S. EPA for 1,4-dioxane. Using the current default exposure factors developed by U.S. EPA and a target cancer risk of 1E-5, MDE has used a calculated risk-based groundwater criterion for 1,4-dioxane of 4.6 µg/l with respect to the plume emanating from the former Kop-Flex facility property. Based on the known use of private wells as a potable water source in the residential areas containing the monitoring well network, this risk-based level has been adopted to evaluate the extent of impacted groundwater for the offsite area.

The following section discuss the analytical results for each quarterly sampling event, with the primary focus on the site-related COCs listed above.

6.2 RESULTS OF QUARTERLY SAMPLING EVENTS

6.2.1 1ST QUARTER 2018

First quarter groundwater samples were collected from the nine offsite monitoring wells (MW-25, MW-25D-130, MW-25D-192, MW-28, MW-28D, MW-31D, MW-33D-235, MW-33D-295, MW-35D) installed in 2014, on February 13-14, 2018. Laboratory analytical data packages are included as Appendix A, and the sample results are summarized in Table 5.

No site-related COCs were detected in the groundwater samples collected from shallow wells MW-25 and MW-28 screened in the unconfined portion of the Lower Patapsco aquifer. Concentrations of the primary site-related VOCs in the confined Lower Patapsco aquifer south of Maryland Route 100 are provided in Figure 4. Overall, the concentrations of the site-related VOCs and 1,4-dioxane in the February 2018 groundwater samples from wells screened in the confined portion of the Lower Patapsco aquifer were similar to the levels detected in the samples collected during previous sampling events in 2017. For the two deep wells at the MW-25/MW-25D location, the total concentration of site-related VOCs and 1,4-dioxane in the MW-25D-130 sample (234.8 µg/l), is higher than the total concentration detected in the deeper well at this location (MW-25D-192; 136.6 µg/l). The concentrations of 1,1-DCE and 1,4-dioxane in the samples from both wells exceeded their respective Groundwater Quality Standard and risk-based comparative criterion, respectively. The lower VOC concentrations in the sample from MW-25D-192 are consistent with the vertical distribution of constituents in onsite and offsite areas north of Maryland Route 100. The presence of slightly elevated VOC levels in the MW-25D-192 sample indicate downward transport and/or dispersion of site-related constituents within the thick sandy deposits in this portion of the aquifer immediately south of the site. The sampling data for the deep monitoring wells located further downgradient (MW-28D, MW-31D, MW-35D, and the paired MW-33D wells) indicate non-detect to very low concentrations of site-related VOCs and 1,4-dioxane. The only site-related constituent exceeding the Groundwater Quality Standards was 1,4-dioxane in the MW-33D-295 sample (6.9 µg/L).

6.2.2 2ND QUARTER 2018

Groundwater samples were collected from all offsite monitoring wells during the second quarter of 2018 on May 30–31st. This sampling event represents the first round of baseline monitoring for the newly installed monitoring wells. Laboratory analytical data packages are included as Appendix A, and the sample results are summarized in Table 5.

No site-related COCs were detected in the samples from the shallow (unconfined) Lower Patapsco aquifer wells in the residential areas (MW-25 and MW-28), and on the Williams-Scotsman facility to the east of the former Kop-Flex property (MW-45).

Based on evaluation of the water level data (Table 2 and Figure 5), new confined zone well MW-46D on the neighboring Verizon maintenance facility is situated hydraulically upgradient of the former Kop-Flex facility. Even with this location with respect to the inferred flow paths in the Lower Patapsco aquifer, the initial groundwater sample from this well contained concentrations of 1,1-DCE (29.4 µg/l) and 1,4-dioxane (73.5 µg/l) above their respective standards.

Concentrations of the site-related VOCs and 1,4-dioxane in the groundwater samples from the deeper, confined wells located downgradient of the former Kop-Flex facility are similar to the levels detected in samples collected during previous monitoring events and the corresponding distribution of the contaminant plume. The sample from well MW-24D, on the neighboring William-Scotsman property to the south, contained the highest concentrations of both 1,1-DCE (529 µg/l) and 1,4-dioxane (187 µg/l) (Figure 4). The concentrations in the confined portion of the Lower Patapsco aquifer decrease as groundwater flows to the south of Route 100. At the MW-25/25D location, the total concentrations of site-related VOCs and 1,4-dioxane ranged from 208.2 µg/l in the MW-25D-130 sample to 127.1 µg/l in the sample from the deeper well at the same location (MW-25D-192). As mentioned above, the lower VOC concentrations in the sample from MW-25D-192 are consistent with the vertical distribution of contaminants in deep wells on and a short distance downgradient of the former Kop-Flex facility, with 1,1-DCE and 1,4-dioxane concentrations exceeding their respective Groundwater Quality Standard and risk-based comparative criterion, respectively in both samples (Figure 4). In addition, the sampling data for the confined Lower Patapsco monitoring wells located further downgradient indicate non-detect to low concentrations of site-related VOCs and 1,4-dioxane. Samples collected from two of the seven wells contained concentrations of 1,1-DCE and/or 1,4-dioxane exceeding the applicable criteria. Specifically, these included the sample from well MW-30D-273, which contained 27.4 µg/l of 1,1-DCE and 16.4 µg/l of 1,4-dioxane, and well MW-33D-295 with 6.9 µg/l of 1,4-dioxane (Figure 4).

Groundwater samples collected from the new wells screened in the deeper Patuxent aquifer (MW-30D-413 and MW-36D) had no detections of site-related VOCs. Tetrachloroethene (PCE) was detected at a concentration of 2.3 µg/l in the sample from well MW-36D, which is below the Groundwater Quality Standard of 5 µg/l. Based on the historical offsite monitoring data, the presence of this chlorinated compound is associated with some unknown source and is unrelated to the Former Kop-Flex Facility Site.

6.2.3 3RD QUARTER 2018

Third quarter groundwater samples were collected from monitoring wells MW-29D, MW-30D-273, MW-30D-413, MW-32D, MW-34D, and MW-36D on August 23, 2018; representing the second event as part of the baseline monitoring for the new wells installed in the offsite residential areas. Laboratory analytical data packages are included in Appendix A, and the sample data are presented in Table 5.

The analytical results for the August 2018 samples are generally similar to the data from the previous (May 2018) monitoring event. For the wells screened in the confined Lower Patapsco aquifer, site-related COCs were only detected in the groundwater sample collected from MW-30D-273 (Figure 4). The total COC concentration in this sample (67.9 µg/l) was slightly higher than the level from the May 2018 sampling event (43.8 µg/l), with concentrations of 1,1-DCE (27.4 µg/l) and 1,4-dioxane (16.4 µg/l) above the applicable criteria.

Groundwater samples collected from the new Patuxent aquifer wells – MW-30D-413 and MW-36D – had no detections of COCs associated with the Former Kop-Flex Site. PCE, which was detected in the May 2018 sample from well MW-36D, was not present above the reporting limit in the sample collected during this event.

6.2.4 4TH QUARTER 2018

Fourth quarter groundwater samples were collected from all offsite monitoring wells screened in the confined Lower Patapsco aquifer and Patuxent aquifer on November 8, 2018. Laboratory analytical data packages are included in Appendix A, and the data are summarized in Table 5. Figure 4 includes results for the site-related compounds.

As with the May 2018 sample, well MW-46D on the adjacent Verizon property contained low to very low levels of several site-related VOCs and 1,4-dioxane. Both 1,1-DCE (99.6 µg/l) and 1,4-dioxane (96.7 µg/l) were detected at slightly higher concentrations than the May 2018 sample, with both levels above their respective numerical comparative criteria.

Well MW-24D on the neighboring William-Scotsman property to the south contained 560 µg/l of 1,1-DCE. However, contrary to previous sampling events, no 1,4-dioxane was detected above the reporting limit in this sample. This result is not consistent with the historical sampling data for this well, where 1,4-dioxane has typically been present with detected concentrations greater than 150 µg/l. WSP will continue to monitor the VOC concentrations detected in this well during the 2019 sampling events.

For the deep wells at the MW-25/MW-25D location, the total concentration of site-related VOCs and 1,4-dioxane in the MW-25D-130 sample (154.7 µg/l) continues to be higher than the concentrations in the deeper well at this location (MW-25D-192; 133.8 µg/l). However, the total VOC concentration in the MW-25D-130 sample (114.5 µg/l) were lower than previous events because of a reduction in the 1,1-DCE concentration (Figure 4). The sampling data for the confined Lower Patapsco aquifer monitoring wells located further downgradient typically contained non-detect to very low concentrations of site-related VOCs and 1,4-dioxane (Figure 4). The exception was the sample from well MW-30-273, which contained 44.0 µg/l of 1,1-DCE and 22.2 µg/l of 1,4-dioxane. These concentrations were similar to the levels detected in the August 2018 sample from this well. Additionally, the sample from MW-33D-295 contained a concentration of 1,4-dioxane (6.1 µg/l)

above the applicable risk-based criterion. It should also be noted the sample from MW-28D contained a concentration of 6.9 µg/l of 1,1-DCE, which is just below the applicable Groundwater Quality Standard of 7 µg/l.

No VOCs were detected in the samples from the deeper wells screened in the Patuxent Aquifer at the MW-30 location (MW-30-413) and MW-36D (Figure 4). These results are consistent with the previous (August 2018) sampling event.

7 SUMMARY AND CONCLUSIONS

7.1 COC DISTRIBUTION

The overall direction of groundwater flow, and associated migration of dissolved VOCs, in the confined Lower Patapsco aquifer is to the south/southeast from the site. A potentiometric surface contour map showing the direction of groundwater flow within this hydrostratigraphic unit based on water level data from the November 2018 sampling event can be found in Figure 5. The potentiometric surface elevations on the figure are labeled in feet above mean sea level (MSL).

The two, primary site-related COCs in the offsite groundwater are 1,1 DCE and 1,4-dioxane. Based on historical analytical data, the presence of 1,1-DCE and 1,4-dioxane (and other site-related constituents) is limited to the deeper (confined) Lower Patapsco aquifer. The concentrations of the site-related VOCs and 1,4-dioxane were generally consistent across the different rounds of sampling performed to 2018 from wells screened in this portion of the aquifer system. The only exception being the non-detection of 1,4-dioxane in the November 2018 sample from MW-24D. Iso-concentration maps shown in Figures 6 and 7 depict the inferred horizontal extent of the 1,1 DCE and 1,4-dioxane plumes within the confined portion of the Lower Patapsco aquifer. These iso-concentration maps were created using data from the May 2018 site-wide sampling event, and include data for the onsite monitoring wells to get a better sense of the VOC distribution within the aquifer. The offsite wells containing the highest site-related VOC concentrations - MW-24D on the William Scotsman property and MW-25D-130 in the Harmans Woods residential community - are located less than ¼ mile south (hydraulically downgradient) of the former Kop-Flex facility. Other offsite monitoring wells south of Maryland Route 100 that have repeatedly contained 1,1 DCE and 1,4-dioxane above the applicable comparative criteria in recent (2018) samples are MW-30D-273 and MW-33D-295. The sample results for new wells MW-29D, MW-32D and MW-34D, together with data from the previously installed wells, delineate the width and downgradient extent of the plume in the confined Lower Patapsco aquifer.

In general, the vertical distribution of site-related chemicals in the Lower Patapsco aquifer is represented by the concentrations of 1,1-DCE (Figure 8) and 1,4-dioxane (Figure 9) in cross sectional view over the area of interest. The iso-concentration contours depicting the contaminant plumes incorporates groundwater quality data from the sampling of residential wells to help assess the COC distribution within the aquifer system. Based on evaluation of the sampling data, the deep semi-confined sand zone in the Lower Patapsco Aquifer represents the primary hydrostratigraphic interval for the migration of the COCs in the aquifer system. The regional southeast dip of the lithological units comprising the hydrogeologic framework results in a corresponding decrease in the depth of the plumes in the downgradient direction from the former Kop-Flex facility. The detection of very low COC concentrations in depth-discrete samples from the MW-30D and MW-36D boreholes and deep (300 to 350-foot) residential wells in the Twin Oaks Road and Andorick Acres areas indicates limited downward migration of constituents into the sand layer occurring in the upper portion of the Arundel Clay hydrogeologic unit. However, as indicated by the non-detect levels in samples from the Patuxent aquifer, site-related constituents have not seeped through the thick clayey deposits that comprise the confining aquitard within the hydrostratigraphic sequence. Additionally, the potential migration of COCs to the indoor air via soil vapor intrusion is believed to be non-existent for any of the properties within the offsite plume area due to the following site characteristics:

- significant (>100-foot) depth of the COC contamination in groundwater;
- presence of low permeability (clayey) deposits in the shallow subsurface over areas where the depth to the deep groundwater plume is lowest; and
- generally consistent non-detect COC levels in groundwater samples from shallow wells MW-25 and MW-28

Data from monitoring wells screened below the Arundel Clay in the Patuxent aquifer, MW-30D-413 and MW-36D, show no site-related VOCs. These sampling results suggest dissolved VOCs comprising the plume in the Lower Patapsco aquifer

have not migrated through the Arundel Clay to the underlying Patuxent aquifer. As discussed in Section 6.2.2, PCE was detected in the initial sample from well MW-36D at 2.3 µg/l. Historically, PCE has only been detected at a concentration of 1.1 µg/l in a 2014 sample from well MW-25D-130 in the Harmans Wood community to the north of MW-36D. The consistent lack of detectable PCE in the offsite monitoring data suggests the isolated detection of this compound is unrelated to the groundwater plume in the confined Lower Patapsco aquifer that extends into the residential areas south of Route 100.

7.2 COC CONCENTRATION TRENDS

Figures 10 through 14 include graphs that show concentrations of 1,1-DCE and 1,4-dioxane with respect to time for wells MW-24D, MW-25D-130, MW-25D-192, MW-28D, and MW-33D-295. Additional sampling data is needed from wells MW-30D-273 and MW-46D to examine the VOC concentrations over time at these offsite monitoring locations.

The data presented in the concentration vs. time plots are for groundwater samples collected using different field methods. The low-flow sampling procedure was utilized to collect monitoring well samples through the 3rd quarter of 2016. Given the applicability of the HydraSleeve™ sampler determined from the spring/summer 2016 field demonstration study, the use of this passive sampling device was adopted in place of the low-flow method. The conversion from the low-flow to passive (HydraSleeve™) method was implemented during the 4th quarter 2016 monitoring event. Since constancy in sampling-related variables is important when evaluating temporal changes in COC concentrations, the qualitative assessment of trends in 1,1-DCE and 1,4-dioxane levels in wells samples only considers data for samples obtained using the HydraSleeve™ sampler.

As shown in the data plots, COC concentrations have exhibited stable trends in some wells (e.g., MW-25D-192 [Figure 12] and MW-33D-295 [Figure 14]), while other wells, such as MW-24D (Figure 10) and MW-25D-130 (Figure 11) show a decrease in concentrations of 1,1 DCE and 1,4-dioxane since startup of the onsite groundwater remediation system through 2017 and 2018. Wells MW-24D and MW-25D-130 are the closest downgradient monitoring points to the deep groundwater recovery wells and are screened in the same portion of the aquifer system as the pumping wells. Thus, the apparent concentration trends indicated by samples from these monitoring wells are believed to be related to the extraction of COC-containing groundwater by the onsite hydraulic containment system. The temporal change in COC levels suggests the hydraulic containment system is successfully removing site-related dissolved VOCs from the confined portion of the Lower Patapsco aquifer and limiting further offsite migration.

The stability of COC concentrations in the samples from wells MW-28D (Figure 13) and MW-33D-295 (Figure 14), which are both situated near the limits of the affected groundwater area, indicates the plume has likely reached a stable, or steady-state, condition. The temporal change in 1,1-DCE levels suggests the hydraulic containment system is successfully treating site-related dissolved VOCs and limiting further offsite migration.

7.3 PLANNED 2019 OFFSITE GROUNDWATER MONITORING ACTIVITIES

During 2019, WSP will continue to collect water level data and groundwater samples using the passive, HydraSleeve™ sampling device from the 16 off-property monitoring wells completed in the confined Lower Patapsco and Patuxent aquifers. The process of collecting water level readings and groundwater quality samples will be consistent with the procedures described in Sections 5.2 and 5.3 of this report. The management of IDM will follow the procedures described in Section 5.4.

The offsite groundwater sampling activities will be conducted during the 1st, 2nd, and 4th quarters of 2019. During the 1st quarter, water level measurements will be collected from each offsite monitoring well and groundwater samples will be collected from 6 offsite wells installed in 2018 (MW-29D, MW-30D-273, MW-30D-413, MW-32D, MW-34D, and MW-36D). This sampling event will comprise the final quarterly, baseline monitoring round required for the wells installed in 2018. Upon completion of this event, these wells will move to a semi-annual sampling schedule to coincide with the other offsite monitoring wells. The second and fourth quarter sampling will constitute the semi-annual groundwater monitoring events of 2019. For these sampling events, water levels will be measured at all offsite monitoring wells, including the shallow wells in the unconfined portion of the Lower Patapsco aquifer and groundwater samples will be collected from all deep (confined) offsite wells. No groundwater samples will be collected during the 3rd quarter of 2019. However, WSP will collect water level measurements from all offsite monitoring wells to gather additional data on the hydraulic heads within the Lower Patapsco and Patuxent Aquifers.

The existing well network is sufficient to monitor the distribution of site-related COCs in the Lower Patapsco aquifer and potential migration of constituents downward to the underlying Patuxent aquifer. Historical analytical results from the shallow offsite wells (MW-25 and MW-28) indicate site-related COCs are not present in the unconfined portion of the Lower Patapsco aquifer south of Maryland Route 100. As these wells are no longer part of the offsite monitoring program, WSP recommends they be abandoned by a Maryland licensed driller under WSP's supervision.

FIGURES

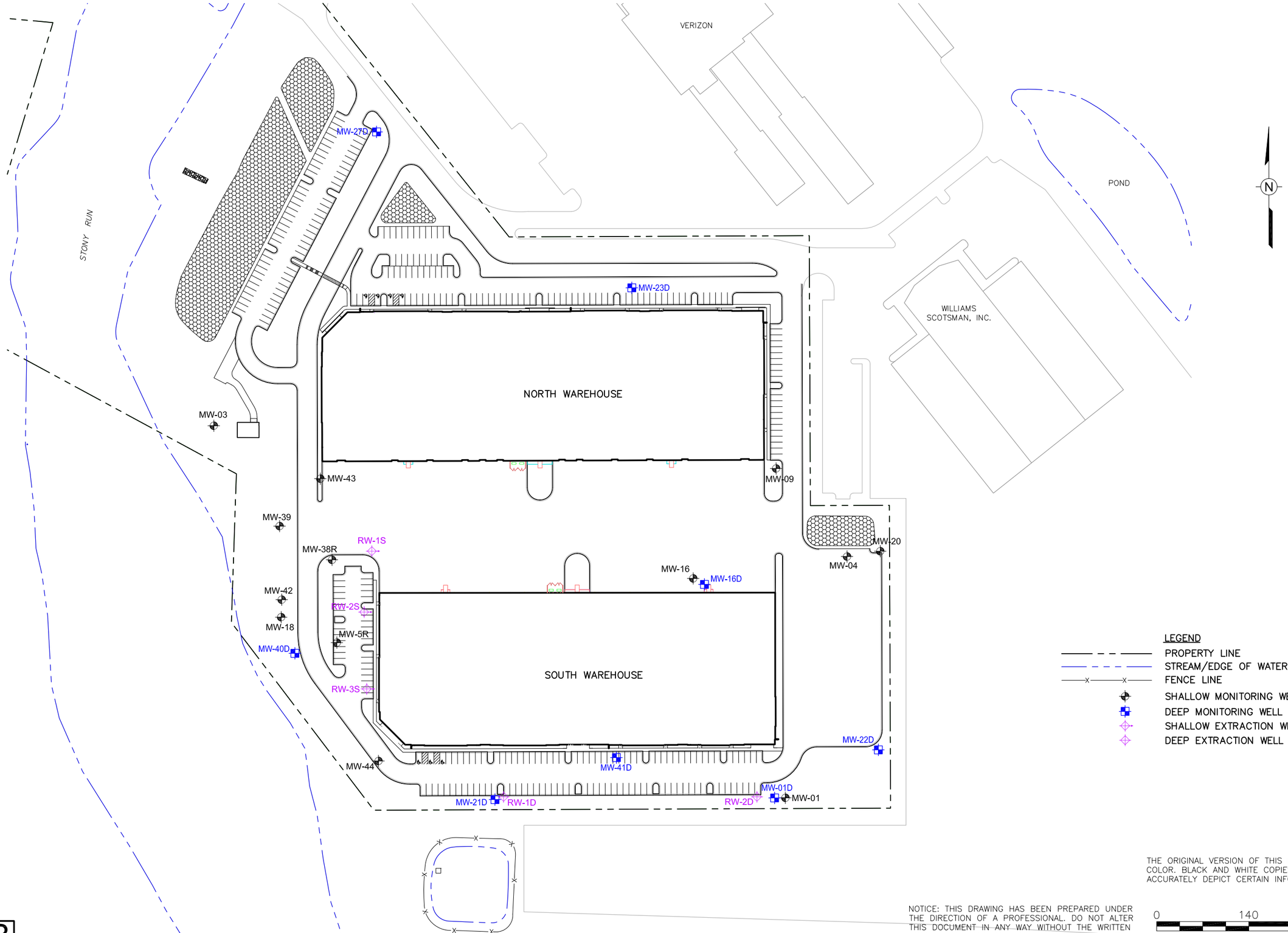

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FIGURE 1
KOP-FLEX SITE LAYOUT

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B

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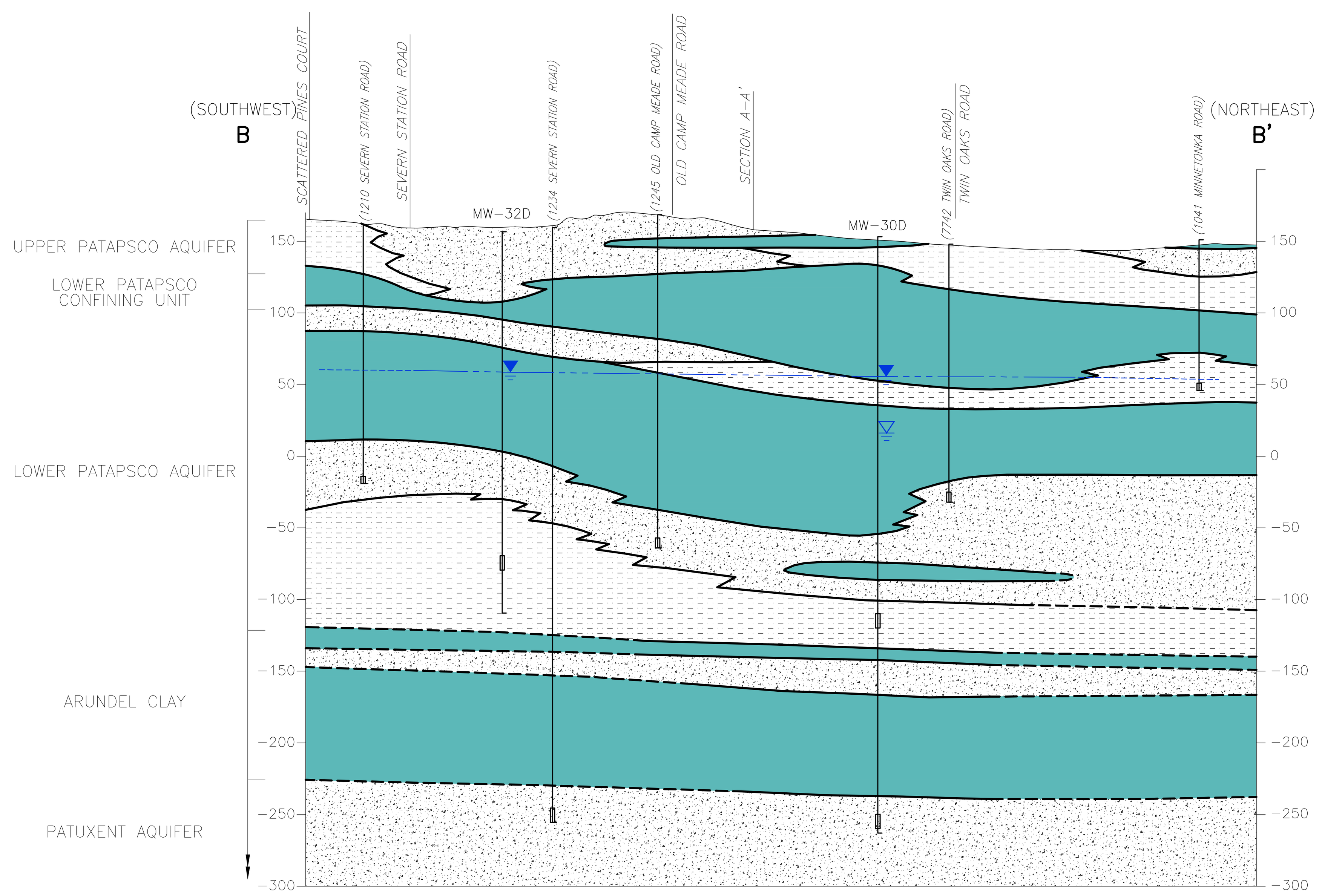
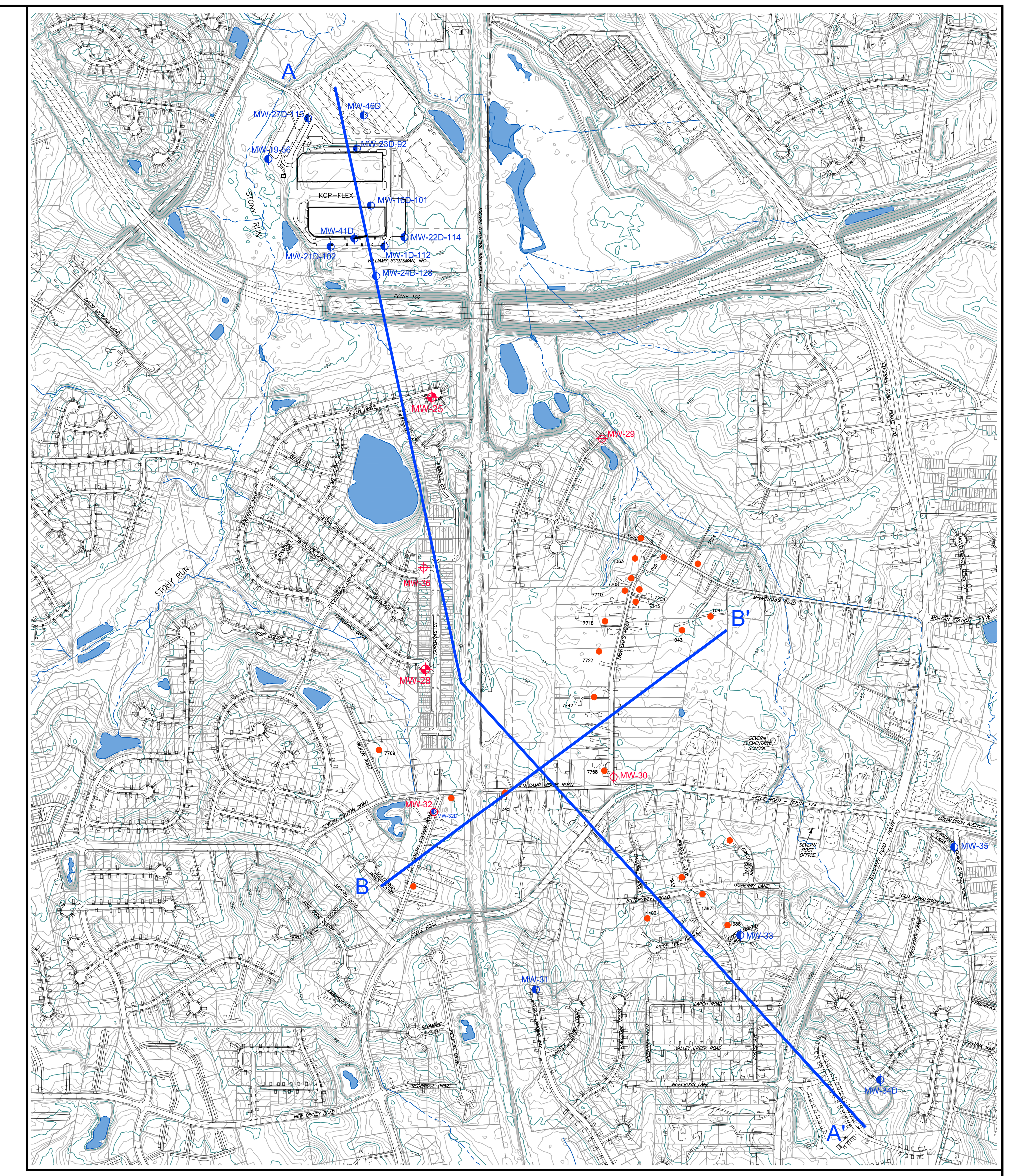


LEGEND

- SAND
- INTERLAYERED SAND AND CLAY
- CLAY
- FILL MATERIAL
- BOREHOLE
- POTENTIOMETRIC HEAD IN LOWER PATAPSCO AQUIFER
- POTENTIOMETRIC HEAD IN PATUXENT AQUIFER
- SCREEN
- END OF BOREHOLE
- POTENTIOMETRIC SURFACE, CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- GROUNDWATER FLOW PATH IN CONFINED PORTION OF LOWER PATAPSCO AQUIFER

NOTE:
EXISTING GRADE IS BASED ON SURFACE ELEVATION AT THE SECTION LINE NOT THE ELEVATION OF THE TOP OF THE MONITORING WELL OR BOREHOLE.



CROSS SECTION LOCATION MAP
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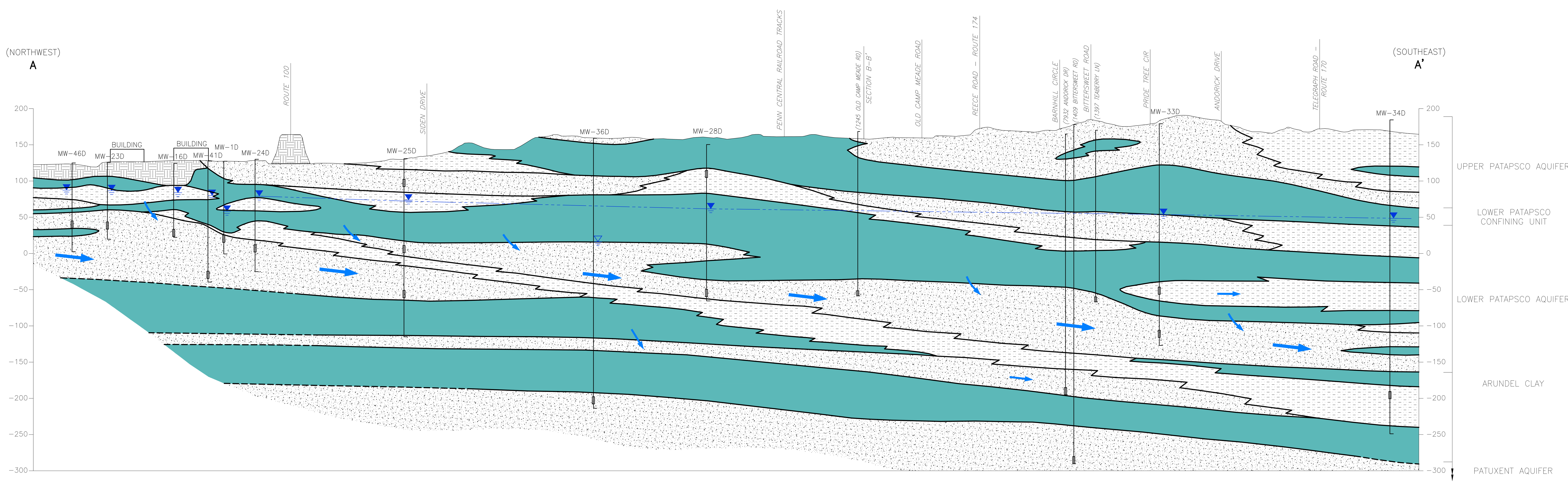

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VERTICAL SCALE IN FEET

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HORIZONTAL SCALE IN FEET

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	Revised: Chkd: Appr:
	Revised: Chkd: Appr:

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CHECKED
APPROVED 2/15/2019

HYDROGEOLOGIC CROSS-SECTIONS AND CONCEPTUAL MODEL OF GROUNDWATER FLOW SYSTEM

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FIGURE 2

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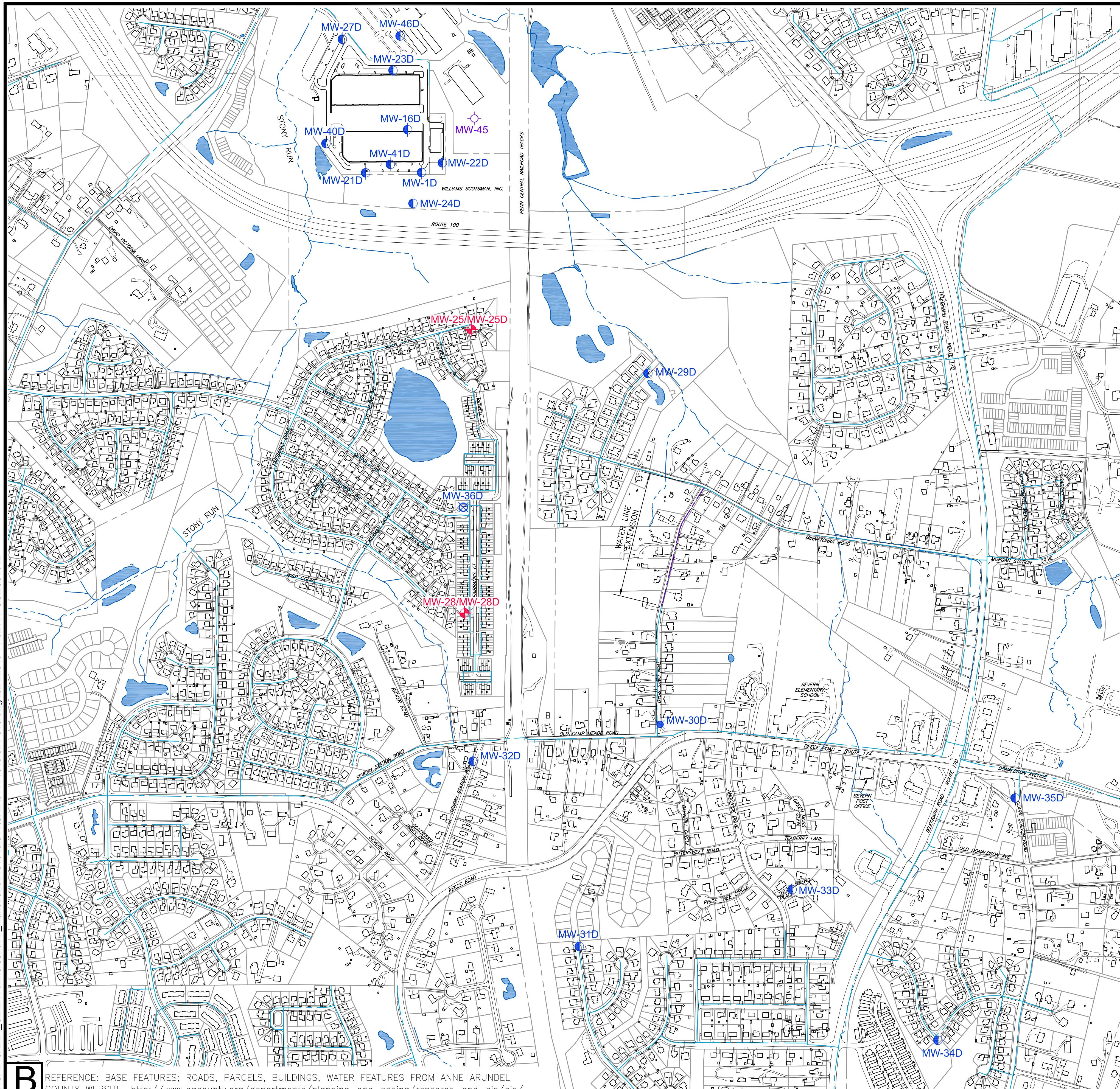

LEGEND

- PROPERTY LINE
- WATER MAIN
- WATER MAIN EXTENSION
- STREAM
- WATER BODY
- SHALLOW MONITORING WELL
- UNCONFINED AND CONFINED LOWER PATAPSCO AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- PATUXENT AQUIFER MONITORING WELLS

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REFERENCE: BASE FEATURES; ROADS, PARCELS, BUILDINGS, WATER FEATURES FROM ANNE ARUNDEL COUNTY WEBSITE. http://www.aacounty.org/departments/planning-and-zoning/research-and-gis/gis/

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Approved: 5/9/2018

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Figure 3

OFFSITE MONITORING WELL LOCATIONS IN LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER

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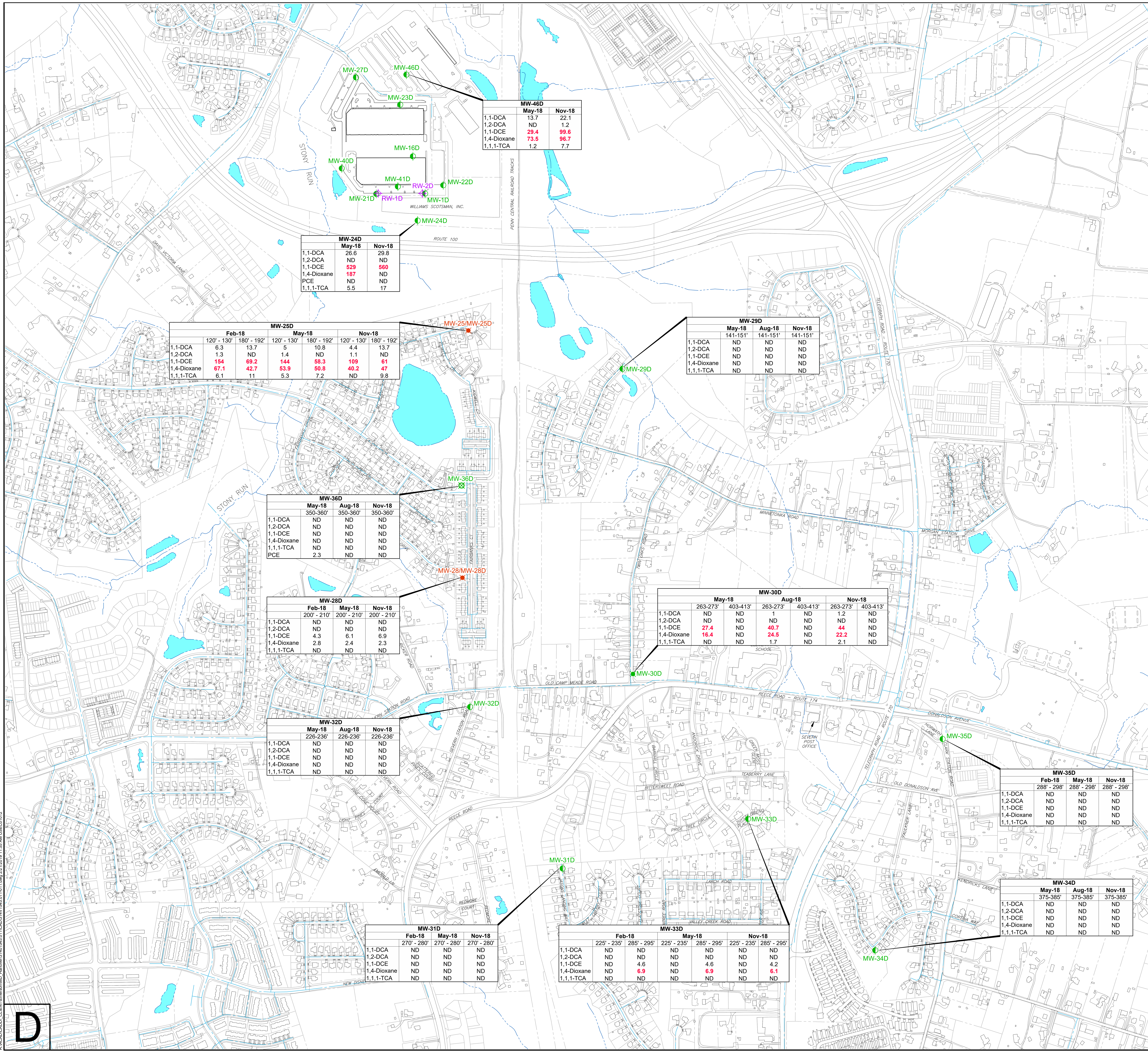

LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- UNCONFINED AND CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- PATUXENT AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- RECOVERY WELL

MW-28D			
	Feb-18	May-18	Nov-18
	200' - 210'	200' - 210'	200' - 210'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	4.3	6.1	6.9
1,4-Dioxane	2.8	2.4	2.3
1,1,1-TCA	ND	ND	ND

WELL IDENTIFICATION
DATE
SCREENED INTERVAL (FT-BGS)
SAMPLE RESULTS IN ppb (RED INDICATE RESULTS ABOVE MDE CLEANUP STANDARDS)
CONSTITUENTS

MW-46D		
	May-18	Nov-18
1,1-DCA	13.7	22.1
1,2-DCA	ND	1.2
1,1-DCE	**29.4**	**99.6**
1,4-Dioxane	**73.5**	**96.7**
1,1,1-TCA	1.2	7.7

MW-24D		
	May-18	Nov-18
1,1-DCA	26.6	29.8
1,2-DCA	ND	ND
1,1-DCE	**529**	**560**
1,4-Dioxane	**187**	ND
PCE	ND	ND
1,1,1-TCA	5.5	17

MW-25D						
	Feb-18		May-18		Nov-18	
	120' - 130'	180' - 192'	120' - 130'	180' - 192'	120' - 130'	180' - 192'
1,1-DCA	6.3	13.7	5	10.8	4.4	13.7
1,2-DCA	1.3	ND	1.4	ND	1.1	ND
1,1-DCE	**154**	**69.2**	**144**	**58.3**	**109**	**61**
1,4-Dioxane	**67.1**	**42.7**	**53.9**	**50.8**	**40.2**	**47**
1,1,1-TCA	6.1	11	5.3	7.2	ND	9.8

MW-29D			
	May-18	Aug-18	Nov-18
	141-151'	141-151'	141-151'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND

MW-36D			
	May-18	Aug-18	Nov-18
	350-360'	350-360'	350-360'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND
PCE	2.3	ND	ND

MW-28D			
	Feb-18	May-18	Nov-18
	200' - 210'	200' - 210'	200' - 210'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	4.3	6.1	6.9
1,4-Dioxane	2.8	2.4	2.3
1,1,1-TCA	ND	ND	ND

MW-30D						
	May-18		Aug-18		Nov-18	
	263-273'	403-413'	263-273'	403-413'	263-273'	403-413'
1,1-DCA	ND	ND	1	ND	1.2	ND
1,2-DCA	ND	ND	ND	ND	ND	ND
1,1-DCE	**27.4**	ND	**40.7**	ND	**44**	ND
1,4-Dioxane	**16.4**	ND	**24.5**	ND	**22.2**	ND
1,1,1-TCA	ND	ND	1.7	ND	2.1	ND

MW-32D			
	May-18	Aug-18	Nov-18
	226-236'	226-236'	226-236'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND

MW-35D			
	Feb-18	May-18	Nov-18
	288' - 298'	288' - 298'	288' - 298'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND

MW-34D			
	May-18	Aug-18	Nov-18
	375-385'	375-385'	375-385'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND

MW-31D			
	Feb-18	May-18	Nov-18
	270' - 280'	270' - 280'	270' - 280'
1,1-DCA	ND	ND	ND
1,2-DCA	ND	ND	ND
1,1-DCE	ND	ND	ND
1,4-Dioxane	ND	ND	ND
1,1,1-TCA	ND	ND	ND

MW-33D						
	Feb-18		May-18		Nov-18	
	225' - 235'	285' - 295'	225' - 235'	285' - 295'	225' - 235'	285' - 295'
1,1-DCA	ND	ND	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	ND
1,1-DCE	ND	4.6	ND	4.6	ND	4.2
1,4-Dioxane	ND	**6.9**	ND	**6.9**	ND	**6.1**
1,1,1-TCA	ND	ND	ND	ND	ND	ND

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REFERENCE:
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OFFSITE DEEP MONITORING WELL ANALYTICAL DATA – 2018

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FIGURE 4

Drawing Number
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POTENTIOMETRIC SURFACE CONTOUR MAP
LOWER PATAPSCO AQUIFER
NOVEMBER 2018

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FIGURE 5

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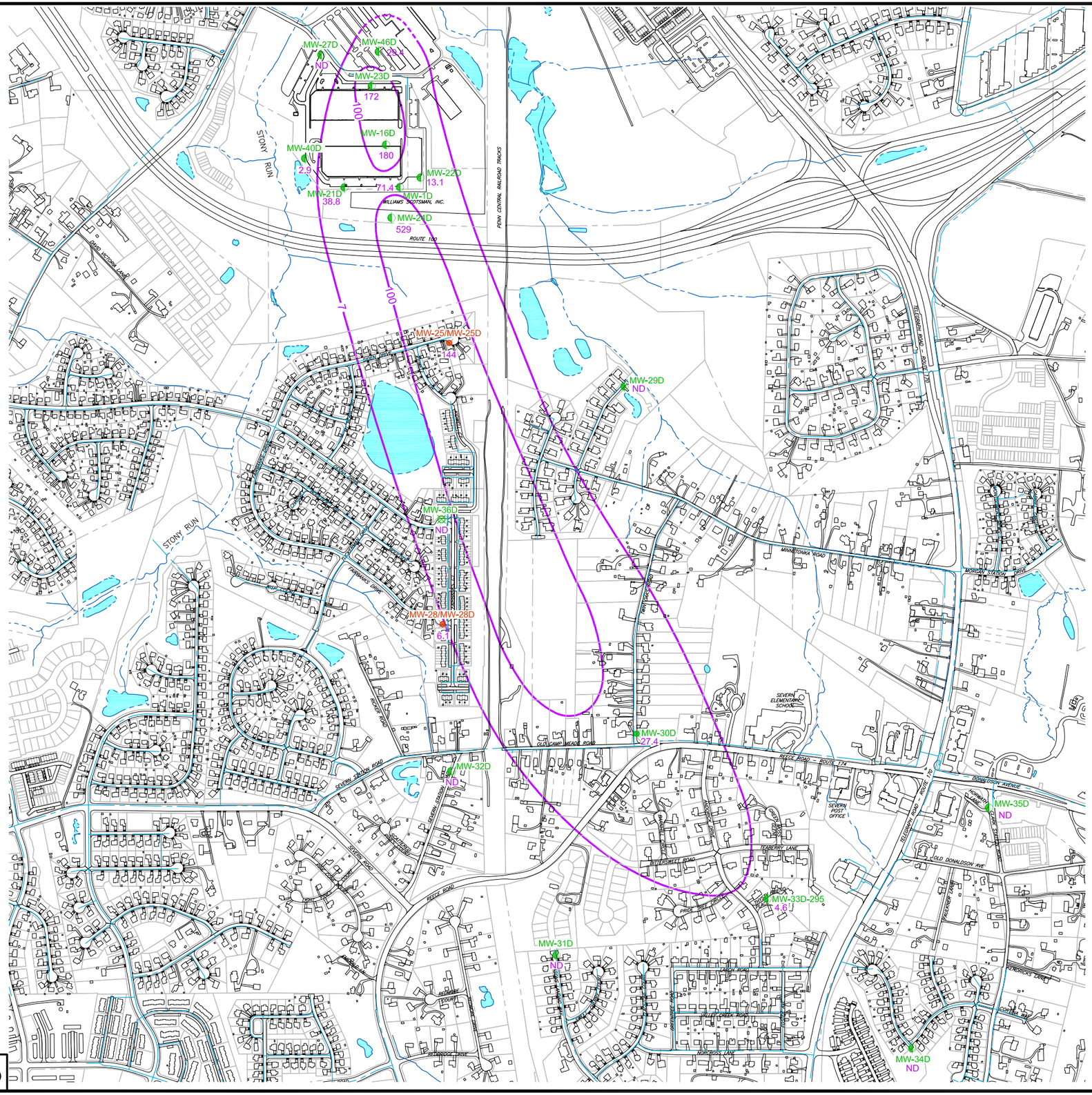

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LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- UNCONFINED AND CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- PATUXENT AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- ND NOT DETECTED
- 29.4 1,1-DCE CONCENTRATION (ppb)
- 1,1-DCE ISO-CONCENTRATION CONTOUR (ppb)

REFERENCE:
PARCEL INFORMATION OBTAINED FROM ANNE ARUNDEL COUNTY, DEPARTMENT OF PUBLIC WORKS http://gis-world2.aacounty.org/DPWcounter/countermap.html

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Approved: RG
DWG Name: 314V1545.011-013

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND
PREPARED FOR
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ST. LOUIS, MISSOURI

Figure 6

2018 KOP-FLEX INFERRED 1,1-DCE
DISTRIBUTION IN CONFINED ZONE OF
LOWER PATAPSCO AQUIFER

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SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

B

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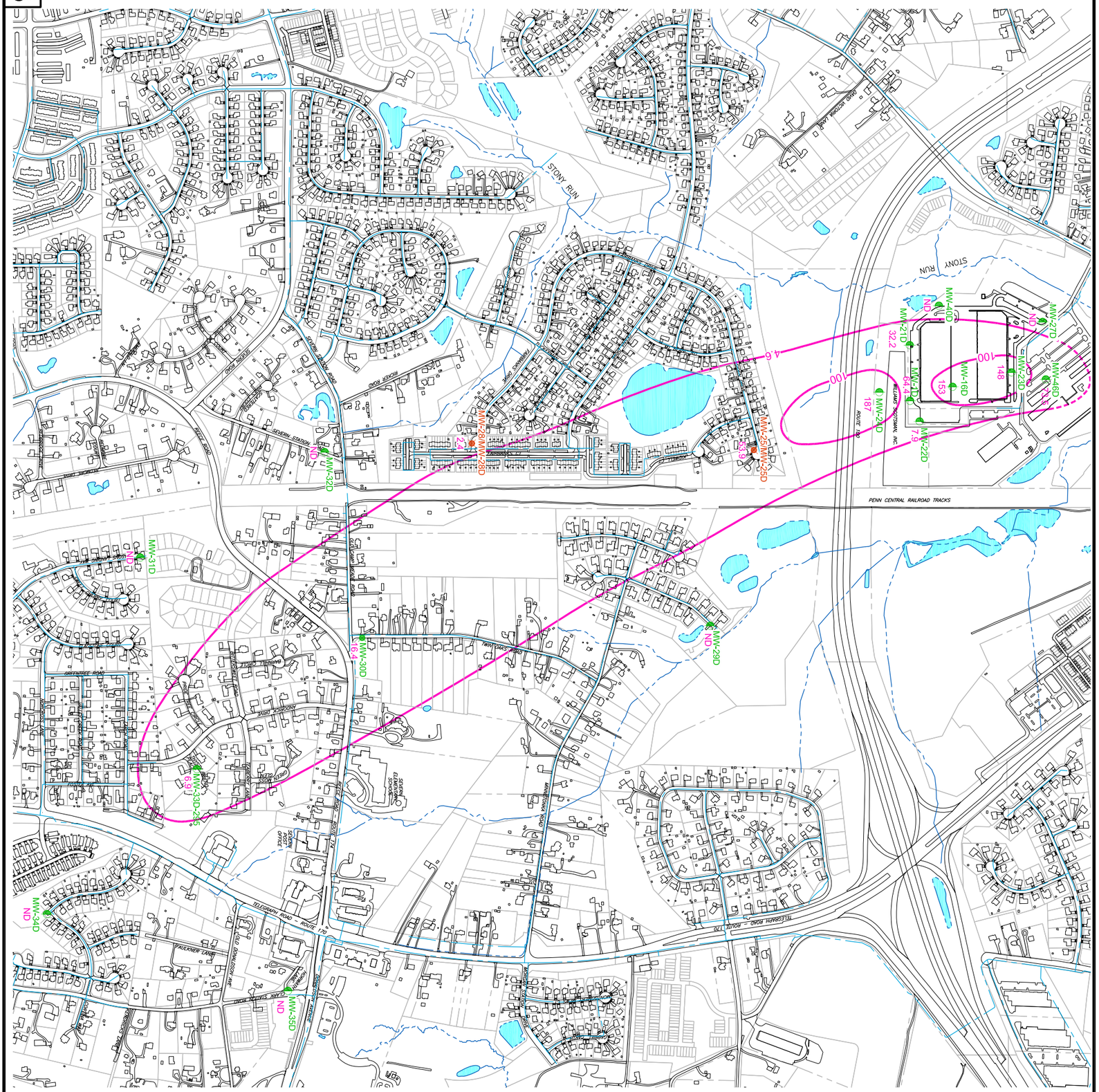

LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- UNCONFINED AND CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- ND NOT DETECTED
- 187 1,4-DIOXANE CONCENTRATION (ppb)
- 1,4-DIOXANE ISO-CONCENTRATION CONTOUR (ppb)

REFERENCE:
PARCEL INFORMATION OBTAINED FROM ANNE ARUNDEL COUNTY, DEPARTMENT OF PUBLIC WORKS http://gis-world2.aacounty.org/DPWcounter/countermap.html

SCALE IN FEET
0
800
1600
N

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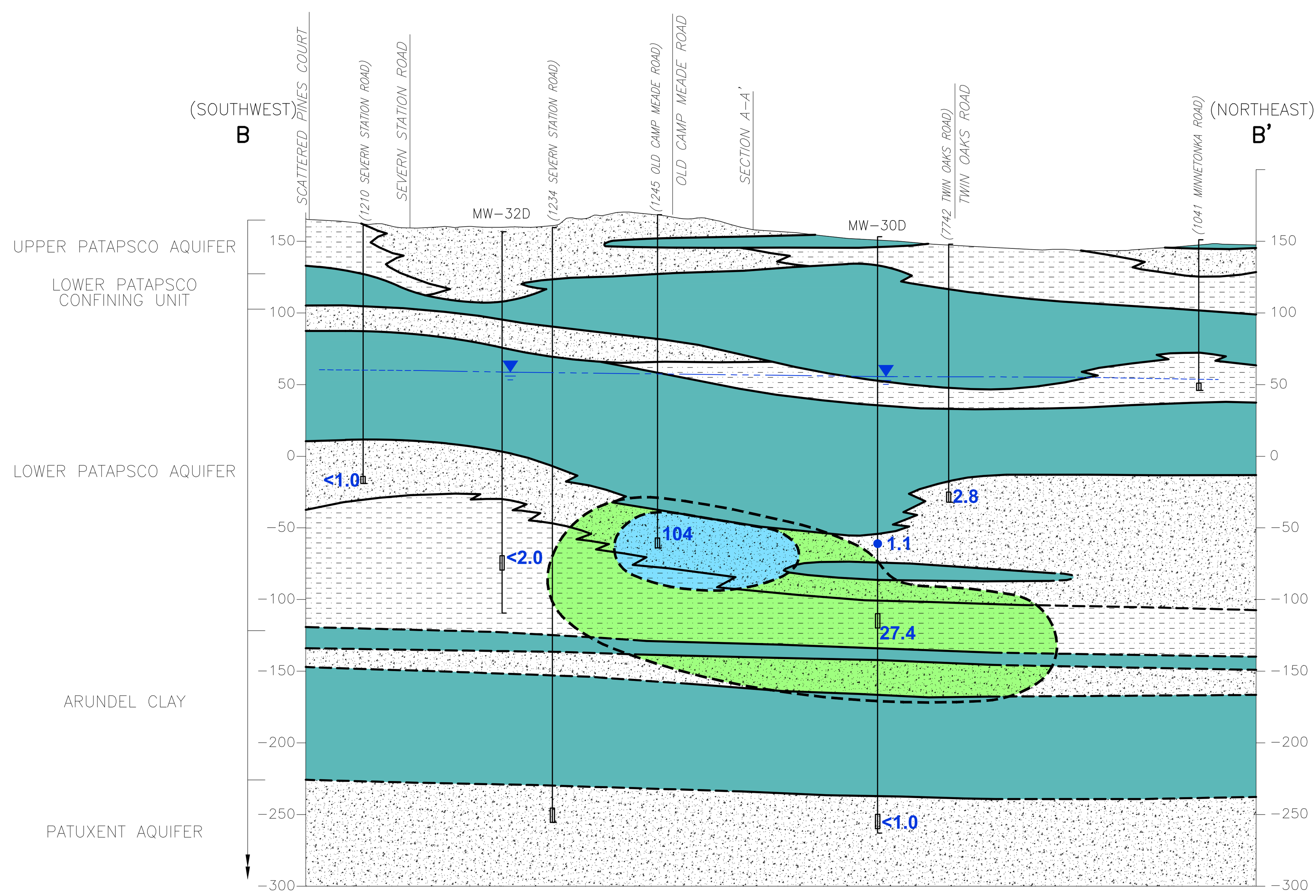
Figure 7

2018 KOP-FLEX INFERRED 1,4-DIOXANE DISTRIBUTION IN CONFINED ZONE OF LOWER PATAPSCO AQUIFER

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

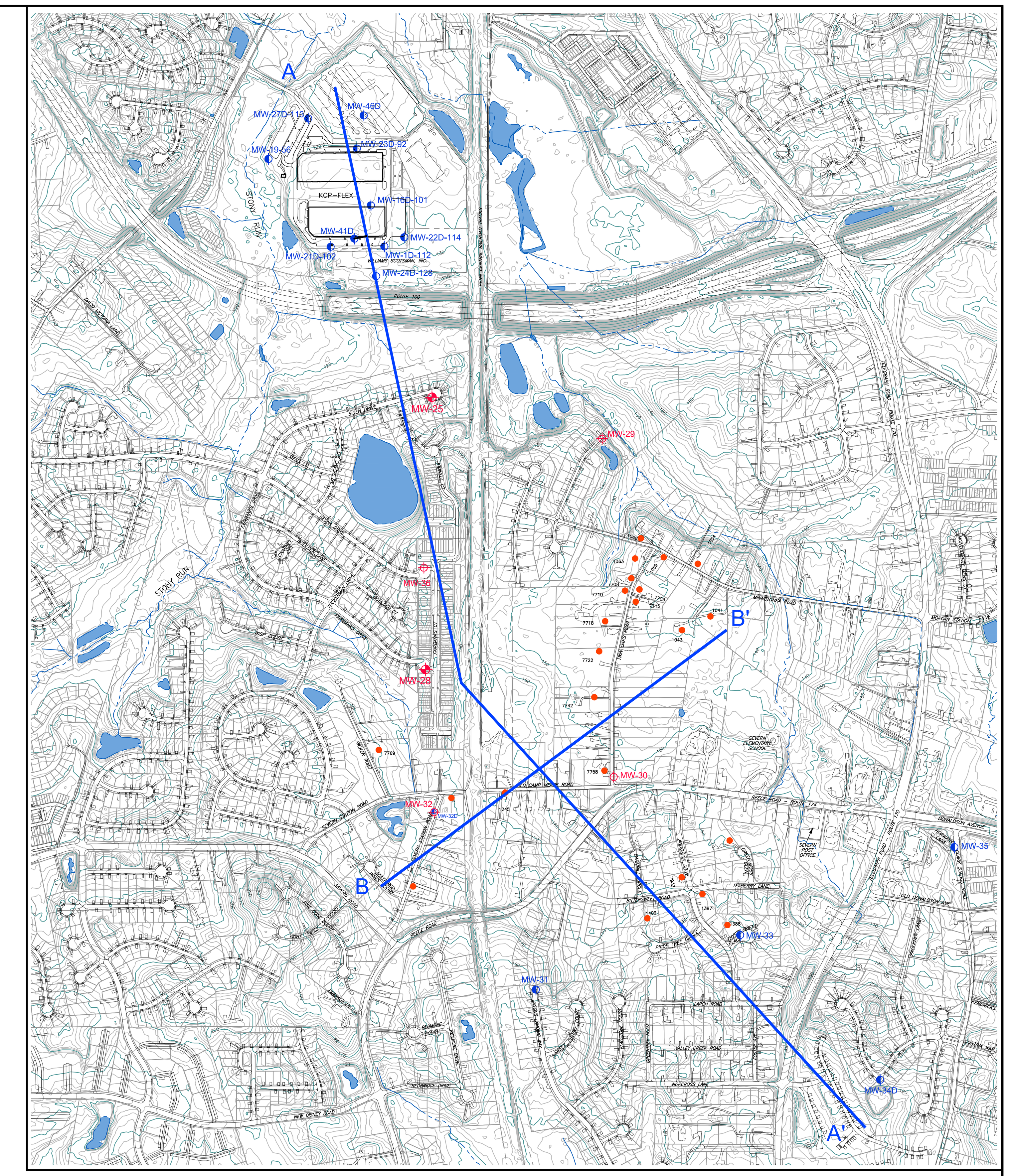
Drawn By: EGC 8/8/2018
Checked: MML
Approved: RKJ
DWG Name: 314V1545.011-010



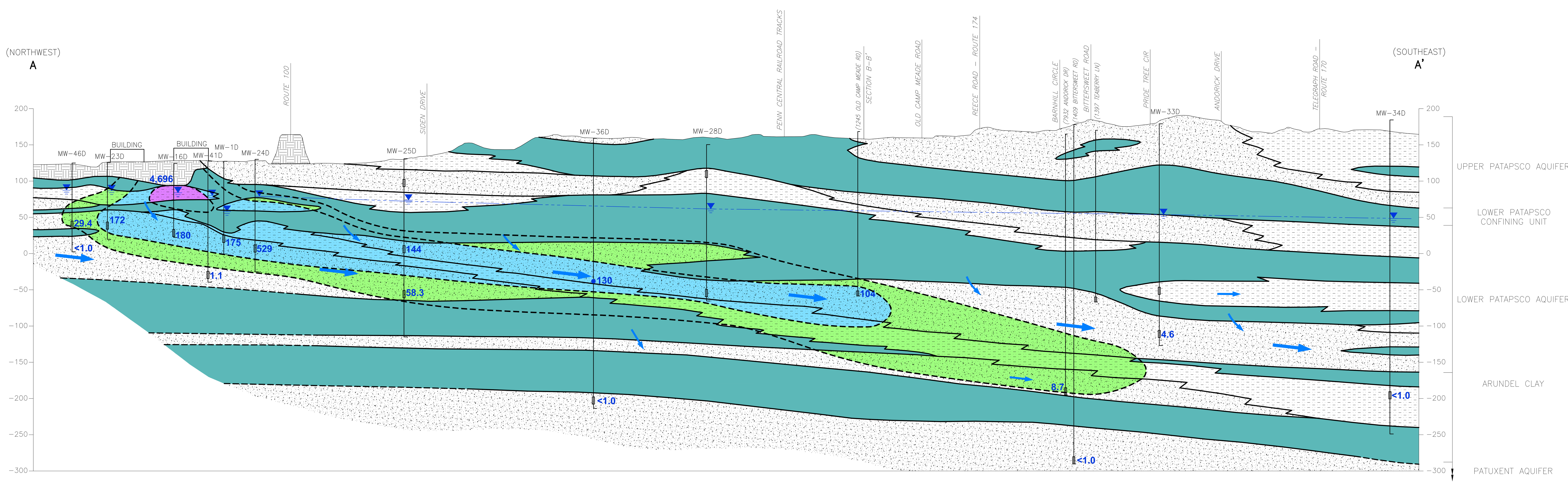
LEGEND

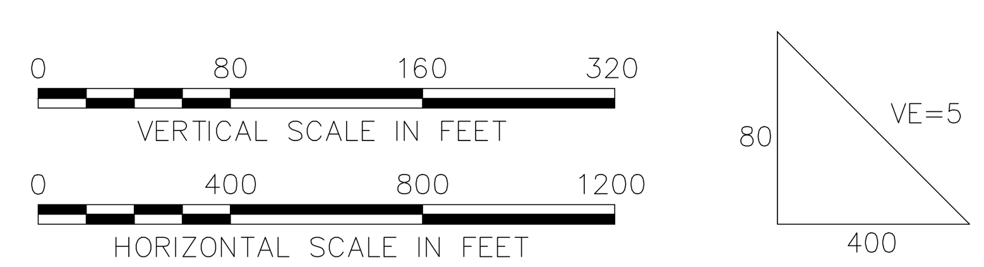
- SAND
- INTERLAYERED SAND AND CLAY
- CLAY
- FILL MATERIAL
- BOREHOLE
- POTENTIOMETRIC HEAD IN LOWER PATAPSCO AQUIFER
- 120 — 1,1-DICHLOROETHENE CONCENTRATION (ug/l)
- SCREEN
- END OF BOREHOLE
- POTENTIOMETRIC SURFACE, CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- GROUNDWATER FLOW PATH IN CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- 1,1-DCE CONCENTRATION CONTOUR
- >7 ug/l
- >100 ug/l
- >1000 ug/l

NOTE:
EXISTING GRADE IS BASED ON SURFACE ELEVATION AT THE SECTION LINE NOT THE ELEVATION OF THE TOP OF THE MONITORING WELL OR BOREHOLE.



CROSS SECTION LOCATION MAP
SCALE: 1"=800'





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REVISIONS

REV	DESCRIPTION

DRAWN BY EGC
CHECKED
APPROVED
2/15/2019

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HYDROGEOLOGIC SECTIONS WITH 1,1-DICHLOROETHENE CONCENTRATIONS IN THE LOWER PATAPSCO AQUIFER

KOP-FLEX VCP SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

WSP USA Inc.
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HERNDON, VA 20171
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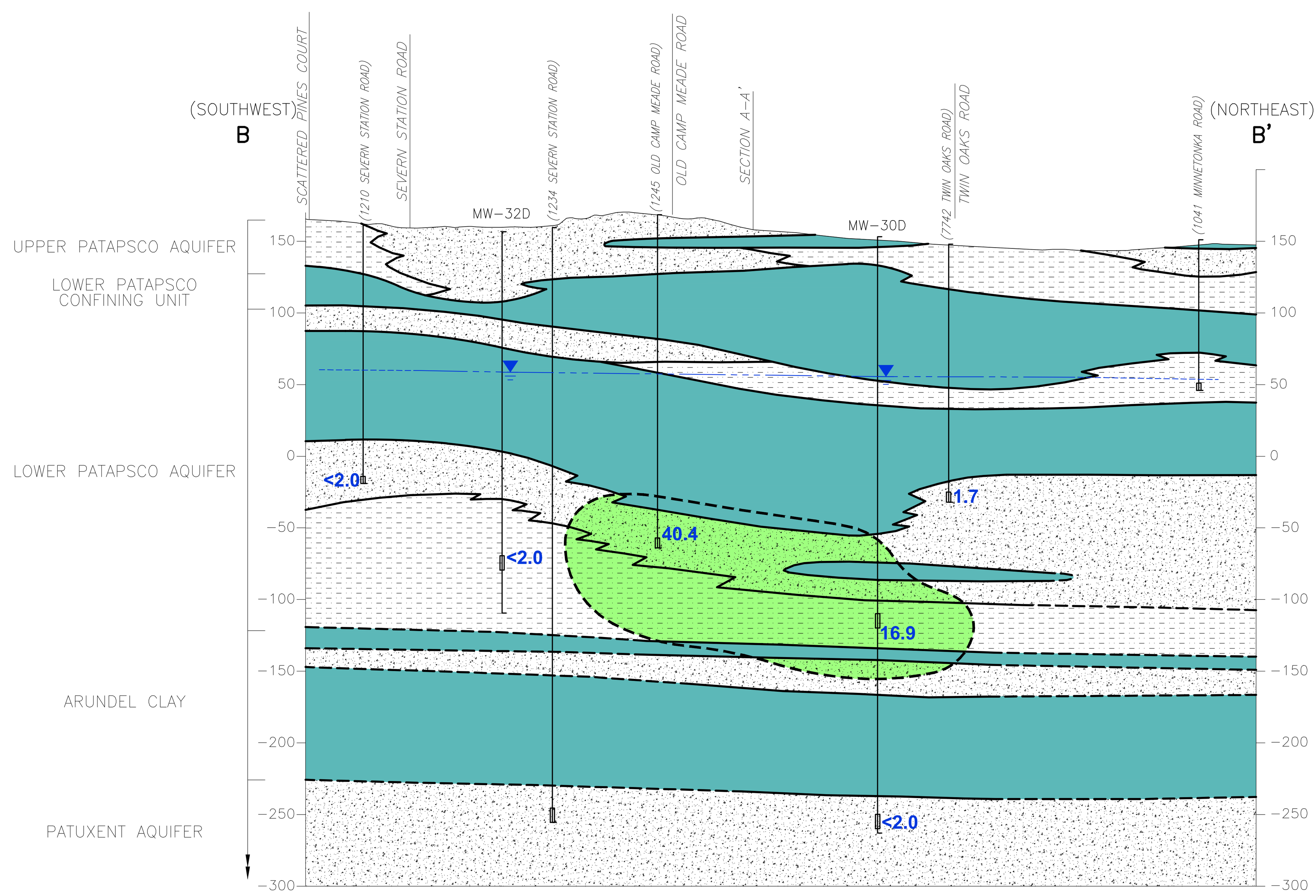
FIGURE 8

Drawing Number
314V1545.011-019

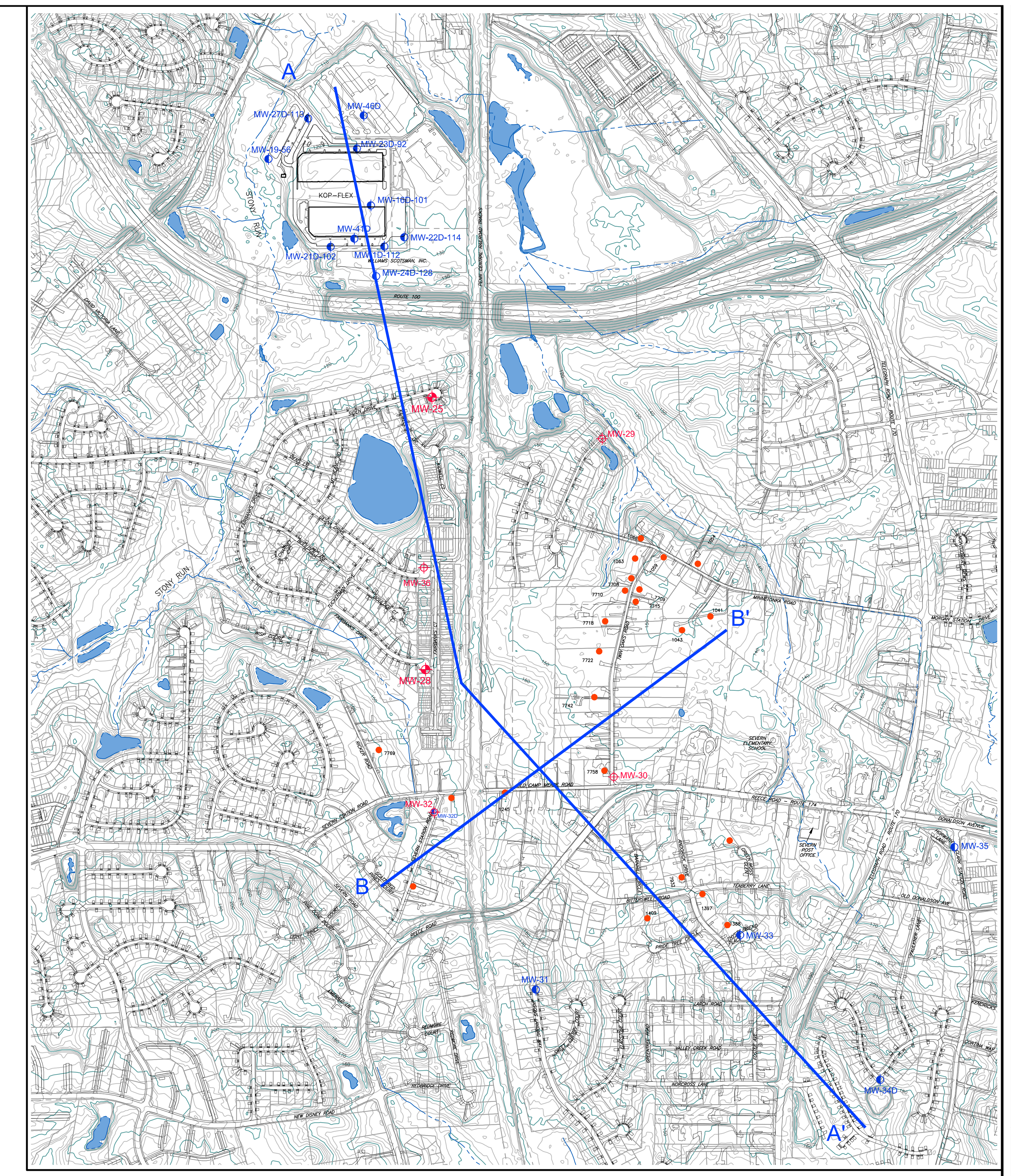
D



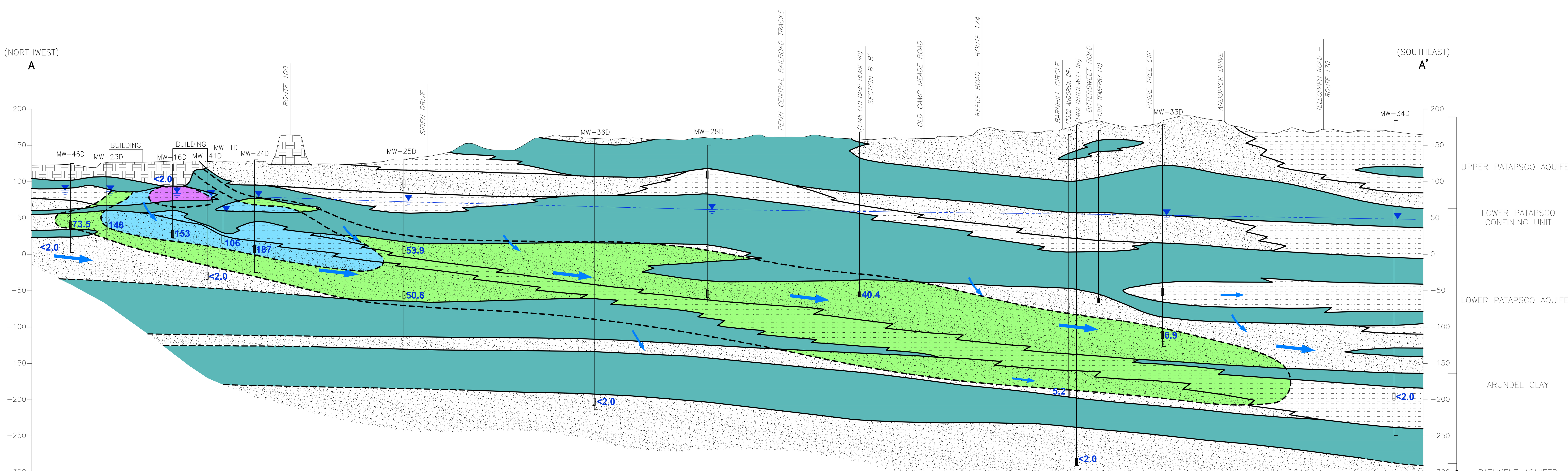
LEGEND

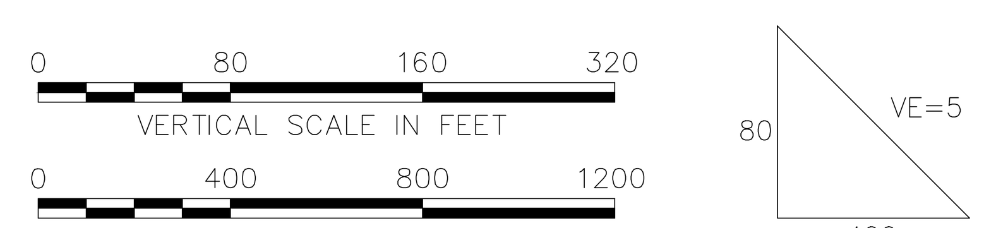
- SAND
- INTERLAYERED SAND AND CLAY
- CLAY
- FILL MATERIAL
- BOREHOLE
- POTENTIOMETRIC HEAD IN LOWER PATAPSCO AQUIFER
- 1,1-DICHLOROETHENE CONCENTRATION (ug/l)
- 120 SCREEN
- END OF BOREHOLE
- POTENTIOMETRIC SURFACE, CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- 1,4-DIOXANE CONCENTRATION CONTOUR
- >4.6 ug/l
- >100 ug/l
- >500 ug/l

NOTE:
EXISTING GRADE IS BASED ON SURFACE ELEVATION AT THE SECTION LINE NOT THE ELEVATION OF THE TOP OF THE MONITORING WELL OR BOREHOLE.



CROSS SECTION LOCATION MAP
SCALE: 1"=800'





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CHECKED
APPROVED

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HYDROGEOLOGIC SECTIONS WITH 1,4-DIOXANE CONCENTRATIONS IN THE LOWER PATAPSCO AQUIFER

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FIGURE 9

Drawing Number
314V1545.011-021

D

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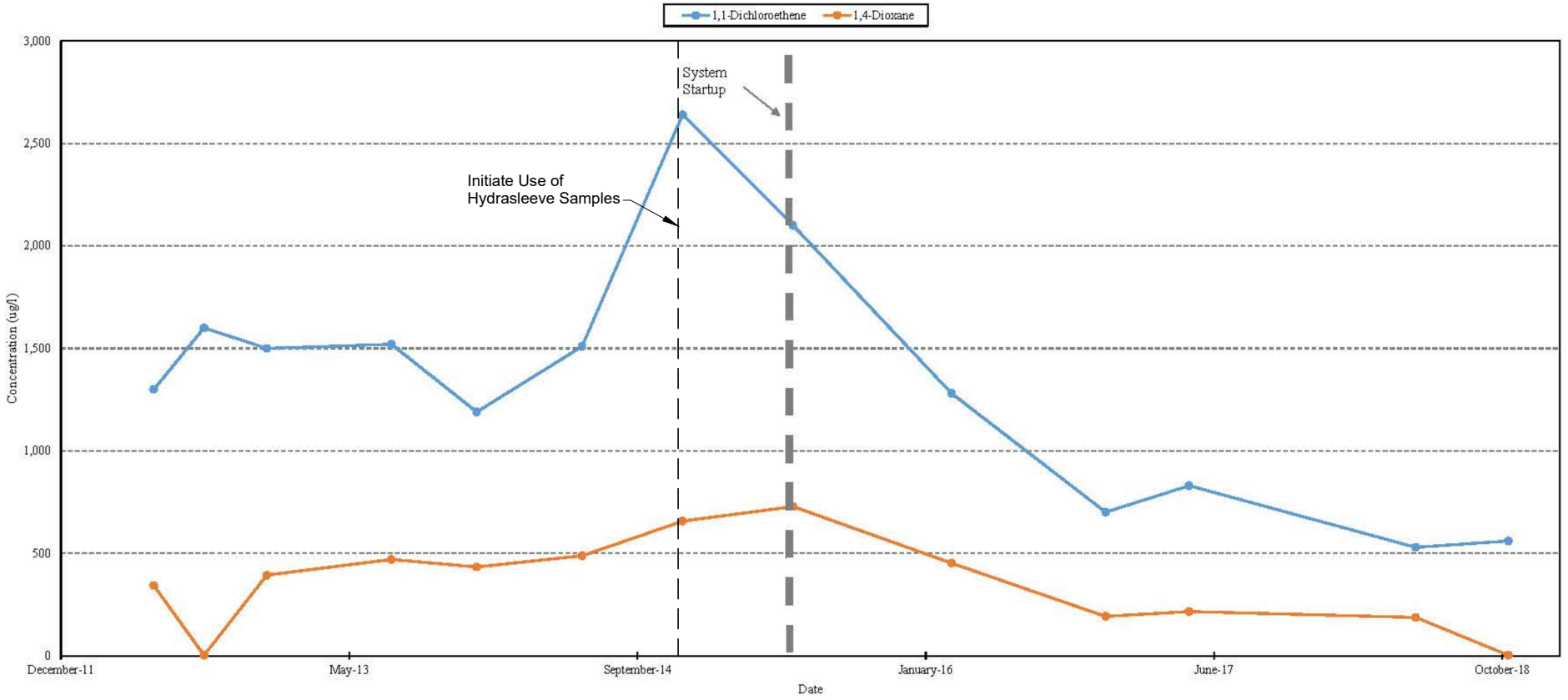

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Figure 10

CONCENTRATION vs. TIME PLOT
MW-24D

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

PREPARED FOR
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ST. LOUIS, MISSOURI

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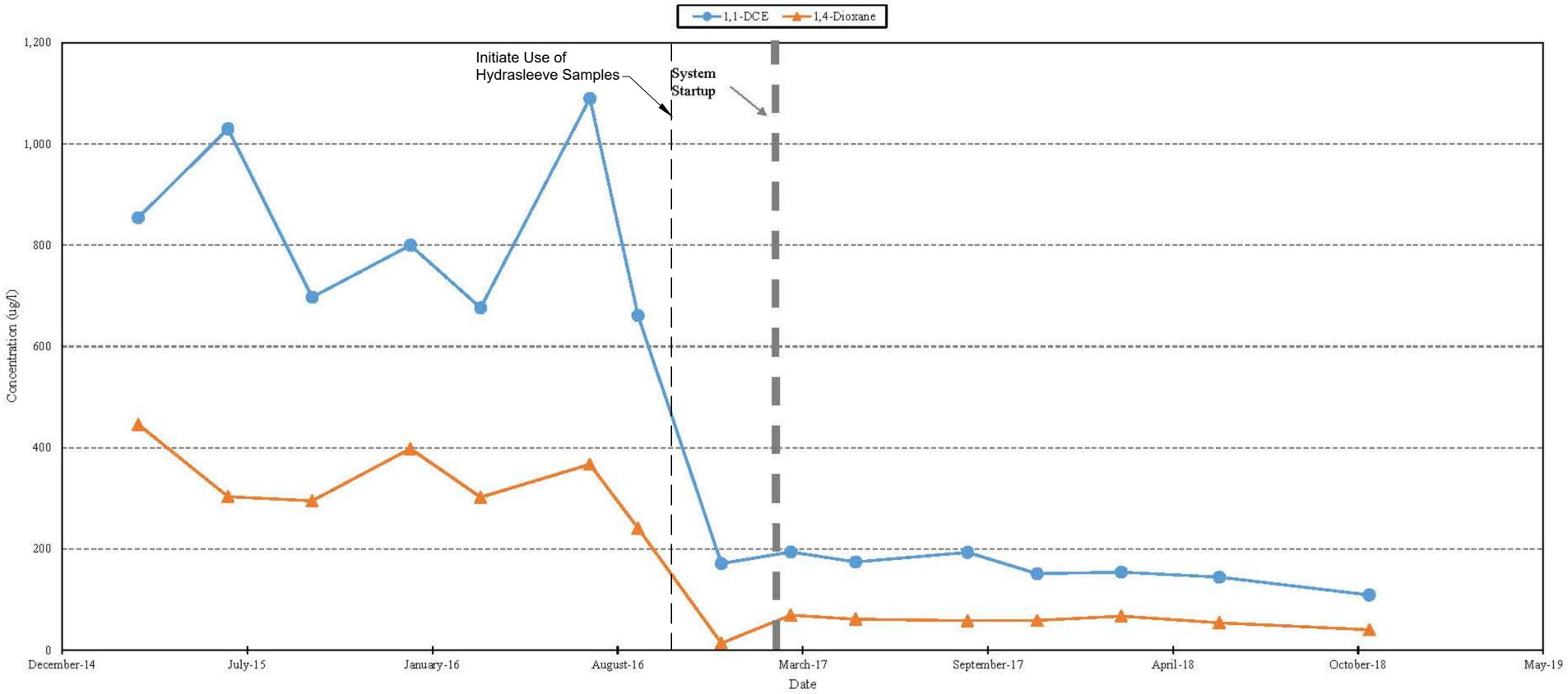

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Figure 11

CONCENTRATION vs. TIME PLOT
MW-25D-130

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

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Approved: RM
DWG Name: 314V1545.011-012

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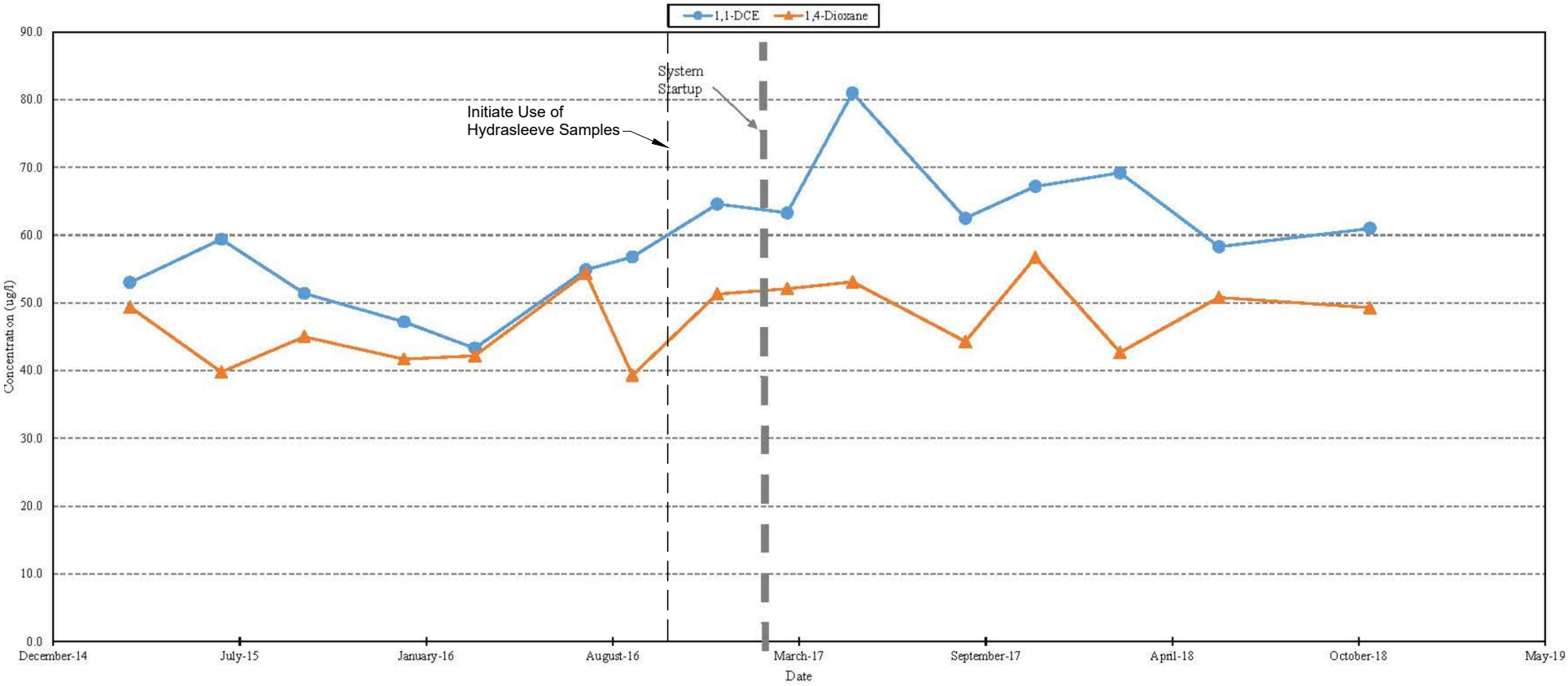

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Figure 12

CONCENTRATION vs. TIME PLOT
MW-25D-192

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

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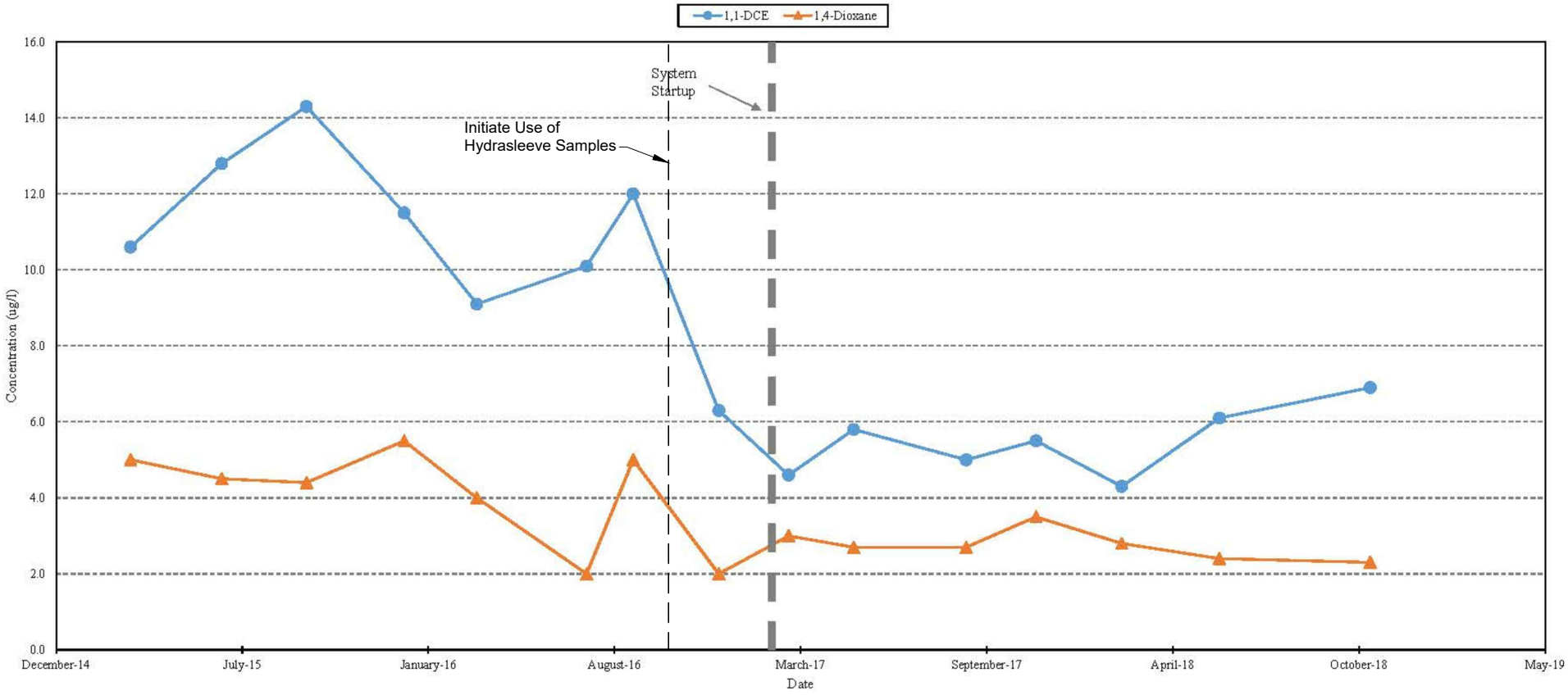

A

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SUITE 300
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Figure 13

CONCENTRATION vs. TIME PLOT
MW-28D

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

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Approved: RM
DWG Name: 314V1545.011-012

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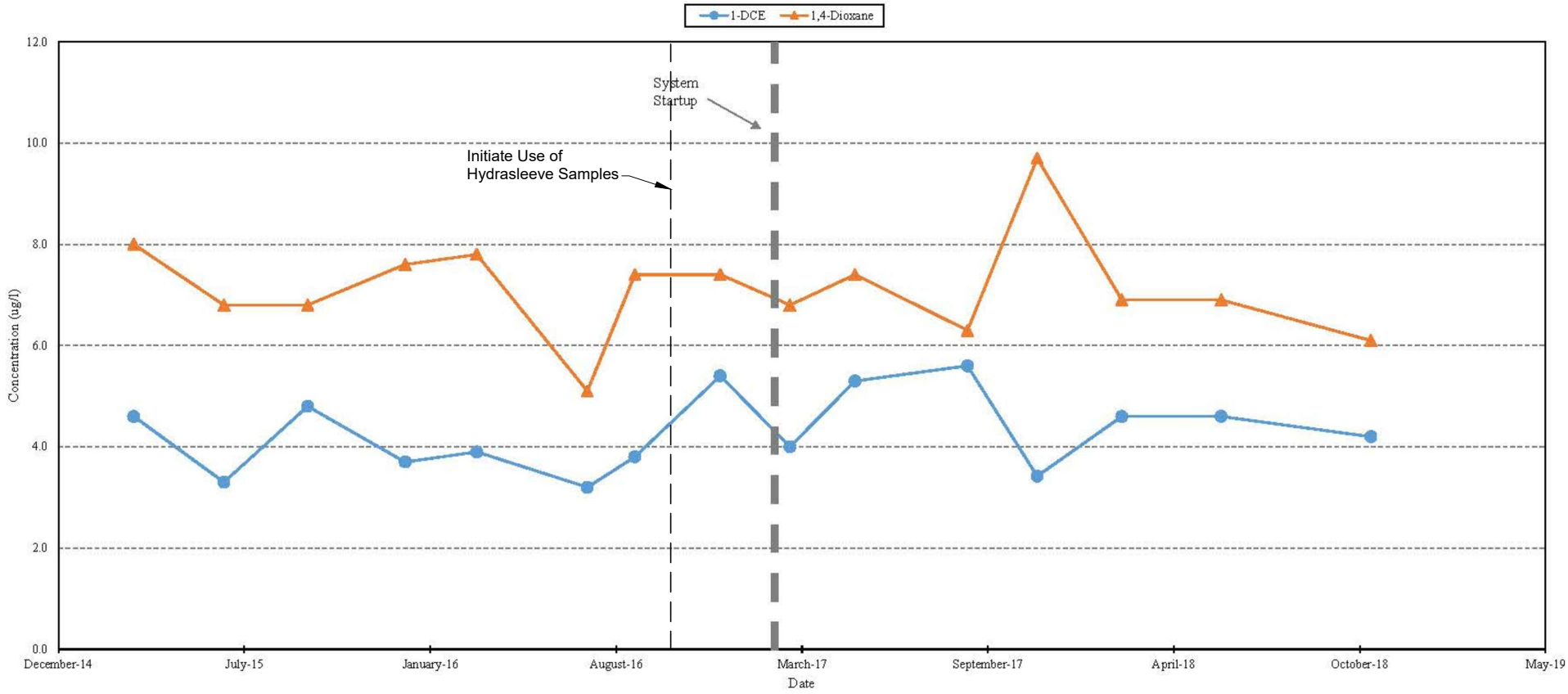

A

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Figure 14

CONCENTRATION vs. TIME PLOT
MW-33D-295

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

PREPARED FOR
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ST. LOUIS, MISSOURI

Drawn By: EGC
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Approved: RM
DWG Name: 314V1545.011-012

TABLES

Table 1

Construction Details for Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Installation Date	Casing Type	Screen Type	TOC Elevation (feet AMSL)	Total Depth (feet BTOC)	Screen Length (feet)	Screen Interval Depth (ft-bgs)	Screen Interval Elevation (feet AMSL)
Shallow (Unconfined) Lower Patapsco Aquifer								
MW-25	07/30/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.6	40	10.0	30.0 - 40.0	100.60 - 90.60
MW-28	07/09/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	150.5	45	10.0	35.0 - 45.0	115.50 - 105.50
MW-45	03/12/17	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	126.7	38	10.0	28.0 - 38.0	98.72 - 88.72
Deep (Confined) Lower Patapsco Aquifer								
MW-24D	06/14/12	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	129.1	155	10.0	145.0 - 155.0	-15.90 - -25.90
MW-25D-130	06/27/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.5	130	10.0	120.0 - 130.0	10.50 - 0.50
MW-25D-192	06/25/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.5	192	10.0	182.0 - 192.0	-51.50 - -61.50
MW-28D	07/09/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	150.5	210	10.0	200.0 - 210.0	-49.50 - -59.50
MW-29D	03/09/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	131.9	151	10.0	141.0 - 151.0	-9.08 - -19.08
MW-30D-273	04/11/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	153.5	273	10.0	263.0 - 273.0	-109.46 - -119.46
MW-31D	08/04/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	162.5	280	10.0	270.0 - 280.0	-107.50 - -117.50
MW-32D	03/15/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	156.1	266	10.0	256.0 - 266.0	-99.86 - -109.86
MW-33D-236	07/21/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	178.6	236	10.0	226.0 - 236.0	-47.40 - -57.40
MW-33D-295	07/21/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	178.3	295	10.0	285.0 - 295.0	-106.70 - -116.70
MW-34D	04/19/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	183.9	425	10.0	415.0 - 425.0	-231.09 - -241.09
MW-35D	08/16/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	177.8	298	10.0	288.0 - 298.0	-110.20 - -120.20
MW-46D	04/26/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	124.77	116	10.0	106.0 - 116.0	18.77 - 8.77
Patuxent Aquifer								
MW-30D-413	04/09/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	153.1	413.00	10.0	403.0 - 413.0	-249.87 - -259.87
MW-36D	03/28/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	158.7	360.00	10.0	350.0 - 360.0	-191.29 - -201.29

Notes:
a/ AMSL = above mean sea level; BTOC = below top of casing; ft-bgs = feet below ground surface.
PVC = polyvinyl chloride; Sch. = schedule

Table 2

Historical Groundwater Elevation Data
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Aquifer/Water-bearing Zone	TOC elevation	3/17/2015		6/15/2015		9/21/2015		1/4/2016		3/21/2016		12/7/2016		5/1/2017	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-25	Unconfined LPA	130.6	12.84	117.76	12.46	118.14	14.33	116.27	13.48	117.12	12.75	117.85	14.61	115.99	14.02	116.58
MW-28	Unconfined LPA	150.5	25.56	124.94	25.24	125.26	25.88	124.62	25.35	125.15	25.34	125.16	26.8	123.70	27.4	123.10
MW-45	Unconfined LPA/ Disturbed Material	126.7	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-24D	Confined LPA	129.1	50.9	78.20	49.29	79.81	NM	-	NM	-	44.38	84.72	46.3	82.80	48.35	80.75
MW-25D-130	Confined LPA	130.5	58.7	71.80	57.59	72.91	58.26	72.24	53.95	76.55	51.01	79.49	50.27	80.23	53.80	76.70
MW-25D-192	Confined LPA	130.5	59.99	70.51	56.4	74.10	57.23	73.27	53.05	77.45	50.27	80.23	52.4	78.10	53.11	77.39
MW-28D	Confined LPA	150.5	93.06	57.44	89.36	61.14	90.34	60.16	84.62	65.88	80.72	69.78	83.35	67.15	82.72	67.78
MW-29D	Confined LPA	131.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-30D-273	Confined LPA	153.5	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-30D-413	Patuxent	153.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-31D	Confined LPA	162.5	114.02	48.48	108.58	53.92	109.51	52.99	102.44	60.06	98.41	64.09	114.20	48.30	100.24	62.26
MW-32D	Confined LPA	156.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-33D-236	Confined LPA	178.6	131.83	46.77	125.66	52.94	127.11	51.49	119.14	59.46	115.25	63.35	114.2	64.40	117.26	61.34
MW-33D-295	Confined LPA	178.3	131.52	46.78	125.42	52.88	126.91	51.39	118.90	59.40	114.96	63.34	131.50	46.80	117.03	61.27
MW-34D	Confined LPA	183.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-35D	Confined LPA	177.8	132.01	45.79	126.28	51.52	127.89	49.91	118.96	58.84	114.34	63.46	131.91	45.89	117.28	60.52
MW-36D	Patuxent	158.7	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

a/ NM = not measured; TOC = top of casing.

Table 2

Historical Groundwater Elevation Data
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Aquifer/Water-bearing Zone	TOC elevation	8/31/2017		11/14/2017		2/13/2018		5/31/2018		8/23/2018		11/8/2018	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-25	Unconfined LPA	130.6	14.09	116.51	14.6	116.00	14.56	116.04	13.10	117.50	NM	NM	11.84	118.76
MW-28	Unconfined LPA	150.5	27.2	123.30	27.22	123.28	27.48	123.02	27.42	123.08	NM	NM	24.33	126.17
MW-45	Unconfined LPA/ Disturbed Material	126.7	NM	NM	NM	NM	NM	NM	12.98	113.74	NM	NM	NM	NM
MW-24D	Confined LPA	129.1	48.35	80.75	51.99	77.11	NM		50.94	78.16	NM		NA	
MW-25D-130	Confined LPA	130.5	61.38	69.12	58.46	72.04	58.31	72.19	58.23	72.27	59.53	70.97	58.75	71.75
MW-25D-192	Confined LPA	130.5	60.36	70.14	58.71	71.79	57.49	73.01	57.40	73.10	58.69	71.81	57.63	72.87
MW-28D	Confined LPA	150.5	94.55	55.95	89.03	61.47	67.37	83.13	88.75	61.75	90.98	59.52	88.30	62.20
MW-29D	Confined LPA	131.9	NM	NM	NM	NM	NM	NM	64.94	66.98	66.56	65.36	65.03	66.89
MW-30D-273	Confined LPA	153.5	NM	NM	NM	NM	NM	NM	98.66	54.88	100.70	52.84	98.14	55.40
MW-30D-413	Patuxent	153.1	NM	NM	NM	NM	NM	NM	138.10	15.03	143.75	9.38	140.62	12.51
MW-31D	Confined LPA	162.5	115.67	46.83	107.21	55.29	106.29	56.21	106.80	55.70	109.95	52.55	106.27	56.23
MW-32D	Confined LPA	156.1	NM	NM	NM	NM	NM	NM	97.90	58.24	100.65	55.49	98.97	57.17
MW-33D-236	Confined LPA	178.6	133.39	45.21	124.55	54.05	123.79	54.81	124.00	54.60	127.52	51.08	125.14	53.46
MW-33D-295	Confined LPA	178.3	133.14	45.16	124.36	53.94	123.60	54.70	123.83	54.47	127.34	50.96	125.69	52.61
MW-34D	Confined LPA	183.9	NM	NM	NM	NM	NM	NM	132.70	51.21	136.42	47.49	131.76	52.15
MW-35D	Confined LPA	177.8	133.55	44.25	125.59	52.21	124.02	53.78	124.27	53.53	128.19	49.61	123.64	54.16
MW-36D	Patuxent	158.7	NM	NM	NM	NM	NM	NM	141.75	16.96	146.32	12.39	143.85	14.86

a/ NM = not measured; TOC = top of casing.

Table 3

Hydrasleeve Depth Intervals
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

	Monitoring Well		Hydrasleeve Placement	
Well ID	**Well Diameter**	**Screened Interval (ft-bgs)**	**HS Size**	**HS Interval Placement (ft-bgs)**
Shallow (Unconfined) Lower Patapsco Aquifer				
MW-25	2	30 - 40	600 mL	34 - 36.5
MW-28	2	35 - 45	600 mL	39 - 41.5
MW-45	2	28 - 38	600 mL	32 - 34.5
Deep (Confined) Lower Patapsco Aquifer				
MW-24D	2	118 - 128	600 mL	122 - 124.5
MW-25D-130	2	120 - 130	600 mL	125 - 127.5
MW-25D-192	2	182 - 192	600 mL	185 - 187.5
MW-28D	2	200 - 210	600 mL	205 - 207.5
MW-29D	2	141 - 151	600 mL	146 - 148.5
MW-30D-273	2	263 - 273	600 mL	267 - 269.5
MW-31D	2	270 - 280	600 mL	275 - 277.5
MW-32D	2	226 - 236	600 mL	233 - 235.5
MW-33D-236	2	226 - 236	600 mL	230 - 232.5
MW-33D-295	2	285 - 295	600 mL	290 - 292.5
MW-34D	2	375 - 385	600 mL	379 - 381.5
MW-35D	2	288 - 298	600 mL	293 - 295.5
MW-46D	2	80 - 90	600 mL	84 - 86.5
Patuxent Aquifer				
MW-30D-413	2	403 - 413	600 mL	407 - 409.5
MW-36D	2	350 - 360	600 mL	357 - 359.5

ft-bgs = feet below ground surface.
HS = hydrasleeve
mL = milliliters.

Table 4

2018 Field Parameter Measurements
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Sample Date	Temperature (ºC)	pH (SU)	Specific Conductivity (mS/cm)	Turbidity (NTU)
Unconfined Lower Patapsco Aquifer Wells					
MW-25	2/13/2018	13.90	6.15	NR	NR
	5/30/2018	28.31	7.69	0.315	>1,000
MW-28	2/14/2018	13.00	5.01	NR	NR
	5/30/2018	24.65	7.71	0.070	46
MW-45	6/28/2018	23.50	5.69	0.760	NM
Confined Lower Patapsco Aquifer Wells					
MW-24D	5/30/2018	29.35	4.85	0.044	37.5
	11/7/2018	14.76	5.68	0.064	23
MW-25D-130	2/13/2018	12.50	6.51	NR	NR
	5/30/2018	27.96	7.40	0.040	191
	11/8/2018	13.02	5.06	0.026	197
MW-25D-192	2/13/2018	12.40	5.27	NR	NR
	5/30/2018	21.76	7.75	0.039	49.5
	11/8/2018	12.67	5.18	0.041	8.1
MW-28D	2/14/2018	13.00	5.82	NR	NR
	5/30/2018	24.65	7.51	0.025	120
	11/8/2018	13.67	6.08	0.022	333
MW-29D	5/21/2018	19.63	7.53	0.125	>1,000
	8/23/2018	19.02	6.60	0.175	>1,000
	11/8/2018	16.03	6.22	0.142	592
MW-30D-273	5/31/2018	20.54	8.11	0.046	>1,000
	8/23/2018	19.44	5.40	0.064	>1,000
	11/8/2018	16.69	5.50	0.028	>1,000
MW-31D	2/14/2018	11.70	6.21	NR	NR
	5/31/2018	20.07	7.35	0.024	>1,000
	11/8/2018	16.18	4.28	0.014	294
MW-32D	5/31/2018	20.84	6.76	0.213	548
	8/23/2018	NM	NM	NM	NM
	11/8/2018	14.07	5.10	0.183	123
MW-33D-235	2/13/2018	9.40	6.42	NR	NR
	5/31/2018	21.53	7.81	0.018	736
	11/8/2018	17.66	5.21	0.025	0

Table 4

2018 Field Parameter Measurements
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Sample Date	Temperature (ºC)	pH (SU)	Specific Conductivity (mS/cm)	Turbidity (NTU)
Confined Lower Patapsco Aquifer Wells					
MW-33D-295	2/13/2018	12.20	5.92	NR	NR
	5/31/2018	21.20	7.76	0.016	180
	11/8/2018	17.61	3.61	0.012	8.7
MW-34D	5/31/2018	19.89	6.68	0.209	>1,000
	8/23/2018	20.39	4.56	0.180	>1,000
	11/8/2018	15.41	4.14	0.113	0
MW-35D	2/14/2018	12.20	4.71	NR	NR
	5/31/2018	19.37	6.19	0.031	65.6
	11/8/2018	16.17	4.08	0.039	54.4
MW-46D	5/30/2018	24.79	6.28	0.181	>1,000
	11/7/2018	14.66	8.27	0.151	311
Patuxent Aquifer Wells					
MW-36D	5/30/2018	25.36	7.74	0.067	>1,000
	8/23/2018	21.29	6.56	0.039	724
	11/8/2018	13.41	6.30	0.022	333
MW-30D-413	5/31/2018	20.26	7.63	0.067	>1,000
	8/23/2018	19.64	4.52	0.061	>1,000
	11/8/2018	16.95	4.10	0.021	>1,000

a/ ºC = degrees Celsius; SU = standard units; mS/cm = milli siemens per centimeter;
NTU = Nephelometric Turbidity Unit; NR = not recorded;
NM = Not measured due to insufficient water in HydraSleeve to collect readings.

Table 5

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Sample Date	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	1,4-Dioxane	Methylene Chloride	1,1,1-TCA	1,1,2-TCA	TCE
Groundwater Quality Standard (µg/L)		90	5	7	70	4.6	5	200	5	5
Unconfined Lower Patapsco Aquifer Wells										
MW-25	3/19/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	1.5	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/20/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	**11.7**	1.0 U	1.0 U	1.0 U
	2/13/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-28	3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/22/2016	1.0 U	1.0 U	6.2	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-45	3/24/2017	1.0 U	1.0 U	1.9	1.0 U	2.3	2.0 U	1.0 U	1.0 U	1.0 U
	6/28/2018	1.0 U	1.0 U	1.9	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Confined Lower Patapsco Aquifer Wells										
MW-24D	6/1/2012	ND	ND	**1,300**	5.0 U	**342**	10.0 U	53	5.0 U	5.0 U
	8/27/2012	72	**13**	**1,600**	6	2.0 U	10.0 U	60	1.5	**13**
	12/14/2012	61	**12**	**1,500**	6.7	**393**	10.0 U	62	1.5	**16**
	7/18/2013	57.7	**10.8**	**1,520**	6.2	**470**	10.0 U	48.7	1.3	**12.4**
	12/13/2013	47.4	ND	**1,190**	5.0 U	**433**	10.0 U	34.1	5.0 U	**10.1**
	6/14/2014	57.3	**11.3**	**1,510**	5.0 U	**488**	10.0 U	43.4	5.0 U	**14.2**
	12/5/2014	**106**	ND	**2,640**	5.0 U	**657**	10.0 U	60.9	5.0 U	5.0 U
	6/15/2015	**92.5**	ND	**2,100**	5.0 U	**728**	10.0 U	53.3	5.0 U	5.0 U
	3/16/2016	68.2	ND	**1,280**	5.0 U	**452**	10.0 U	54.3	5.0 U	5.0 U
	12/8/2016	36.1	**5.2**	**701**	5.0 U	**192**	10.0 U	9.0	5.0 U	5.0 U
	5/2/2017	40.4	**5.6**	**830**	5.0 U	**216**	10.0 U	10.2	5.0 U	5.0 U
	5/30/2018	26.6	4.0 U	**529**	4.0 U	**187**	8.0 U	5.5	4.0 U	4.0 U
	11/7/2018	29.8	5.0 U	**560**	5.0 U	2.0 U	10.0 U	5.0 U	5.0 U	5.0 U
MW-25D-130	3/19/2015	38.6	**10.8**	**854**	10.0 U	**446**	200 U	**8,930**	100 U	100 U
	6/24/2015	37.1	**8.9**	**1,030**	4.6	**303**	2.0 U	46.3	1.2	**6.8**
	9/23/2015	29.7	10.0 U	**697**	10.0 U	**295**	20.0 U	32.3	10.0 U	**14.2**
	1/7/2016	33.4	**9.7**	**800**	5.0 U	**398**	10.0 U	5.0 U	5.0 U	**6.1**
	3/23/2016	24.5	**8.0**	**676**	5.0 U	**302**	10.0 U	26.2	5.0 U	**5.0**
	7/19/2016	39.3	**10.2**	**1,090**	4.9 J	**367**	14.3 J	37.0	10.0 U	**6.5** J
	9/9/2016	27.9	**6.4**	**661**	5.0 U	**241**	**12.0**	25.0	5.0 U	5.0 U
	12/8/2016	6.7	1.5	**171**	1.0 U	**13.6**	2.0 U	6.9	1.0 U	1.0 U
	2/21/2017	7.2	1.7	**194**	1.0 U	**69.1**	2.0 U	7.0	1.0 U	1.2
	5/2/2017	6.5	2.0 U	**174**	2.0 U	**61.0**	4.0 U	5.0	2.0 U	2.0 U
	8/31/2017	7.4	1.7	**193**	2.0 U	**57.9**	4.0 U	6.9	2.0 U	2.0 U
	11/14/2017	5.1	1.3	**151**	0.57 J	**58.5**	5.0 U	6.4	1.0 U	1.1
	2/13/2018	6.3	2.0 U	**154**	2.0 U	**67.1**	5.0 U	6.4	1.0 U	1.0 U
	5/30/2018	5.0	1.4	**144**	2.0 U	**53.9**	5.0 U	5.3	1.0 U	1.0 U
	11/8/2018	4.4	1.1	**109**	2.0 U	**40.2**	5.0 U	1.0 U	1.0 U	1.0 U
MW-25D-192	3/19/2015	11.7	1.0 U	**53.0**	1.0 U	**49.4**	2.0 U	13.7	1.0 U	1.0 U
	6/25/2015	11.9	1.0 U	**59.4**	1.0 U	**39.8**	2.0 U	14.2	1.0 U	1.0 U
	9/22/2015	13.9	1.0 U	**51.4**	1.0 U	**45.0**	2.0 U	12.9	1.0 U	1.3
	1/7/2016	11.7	1.0 U	**47.2**	1.0 U	**41.7**	2.0 U	12.5	1.0 U	1.0 U
	3/23/2016	10.3	1.0 U	**43.3**	1.0 U	**42.2**	2.0 U	11.3	1.0 U	1.0 U
	7/20/2016	11.7	0.73 J	**54.9**	1.0 U	**54.4**	2.0 U	11.1	1.0 U	1.0 U
	9/8/2016	12.9	1.0 U	**56.8**	1.0 U	**39.3**	2.0 U	12.6	1.0 U	1.0 U
	12/8/2016	16.1	1.0 U	**64.6**	1.0 U	**51.3**	2.0 U	13.3	1.0 U	1.0 U
	2/21/2017	14.0	1.0 U	**63.3**	1.0 U	**52.1**	2.0 U	11.6	1.0 U	1.0 U
	5/2/2017	16.9	1.0 U	**81.0**	1.0 U	**53.1**	2.0 U	13.5	1.0 U	1.0 U
	8/31/2017	15.7	1.0 U	**62.5**	1.0 U	**44.3**	2.0 U	13.1	1.0 U	1.0 U
	11/14/2017	13.6	0.67 J	**67.2**	1.0 U	**56.7**	5.0 U	13.6	1.0 U	1.0 U
	2/13/2018	13.7	1.0 U	**69.2**	1.0 U	**42.7**	5.0 U	11.0	1.0 U	1.0 U
	5/30/2018	10.8	1.0 U	**58.3**	1.0 U	**50.8**	5.0 U	7.2	1.0 U	1.0 U
	11/8/2018	13.7	1.0 U	**61.0**	1.0 U	**49.3**	5.0 U	9.8	1.0 U	1.0 U

Table 5

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Sample Date	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	1,4-Dioxane	Methylene Chloride	1,1,1-TCA	1,1,2-TCA	TCE
Groundwater Quality Standard (µg/L)		90	5	7	70	4.6	5	200	5	5
Confined Lower Patapsco Aquifer Wells										
MW-28D	3/17/2015	1.0 U	1.0 U	**10.6**	1.0 U	**5.0**	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	**12.8**	1.0 U	4.5	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	**14.3**	1.0 U	4.4	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	**11.5**	1.0 U	**5.5**	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	**9.1**	1.0 U	4.0	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	0.25 J	**10.1**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	**12.0**	1.0 U	**5.0**	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	6.3	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	4.6	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	5.8	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	5.0	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	5.5	1.0 U	3.5	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	1.0 U	1.0 U	4.3	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	6.1	1.0 U	2.4	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	6.9	1.0 U	2.3	5.0 U	1.0 U	1.0 U	1.0 U
MW-29D	5/21/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-30D-273	5/31/2018	1.0 U	1.0 U	**27.4**	1.0 U	**16.4**	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0	1.0 U	**40.7**	1.0 U	**24.5**	5.0 U	1.7	1.0 U	1.0 U
	11/8/2018	1.2	1.0 U	**44.0**	1.0 U	**22.2**	5.0 U	2.1	1.0 U	1.0 U
MW-31D	3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-32D	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-33D-235	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/4/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	1.0 U	1.0 U	4.3	**12.0**	1.0 U	1.0 U	1.0 U
	2/13/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-33D-295	3/18/2015	1.0 U	1.0 U	4.6	1.0 U	**8.0**	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	3.3	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	4.8	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	1/4/2016	1.0 U	1.0 U	3.7	1.0 U	**7.6**	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	3.9	1.0 U	**7.8**	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	0.36 J	3.2	1.0 U	**5.1**	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	3.8	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	5.4	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	4.0	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	5.3	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	5.6	1.0 U	**6.3**	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	3.4	1.0 U	**9.7**	**11.5**	0.49 J	1.0 U	1.0 U
	2/13/2018	1.0 U	1.0 U	4.6	1.0 U	**6.9**	2.0 U	0.49 J	1.0 U	1.0 U
	5/31/2018	1.0 U	1.0 U	4.6	1.0 U	**6.9**	2.0 U	0.49 J	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	4.2	1.0 U	**6.1**	2.0 U	1.0 U	1.0 U	1.0 U
MW-34D	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Sample Date	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	1,4-Dioxane	Methylene Chloride	1,1,1-TCA	1,1,2-TCA	TCE
Groundwater Quality Standard (µg/L)		90	5	7	70	4.6	5	200	5	5
Confined Lower Patapsco Aquifer Wells										
MW-35D	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	4/15/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-46D	5/30/2018	13.7	1.0 U	**29.4**	1.0 U	**73.5**	2.0 U	1.2	1.0 U	1.0 U
	11/7/2018	22.1	1.2	**99.6**	1.0 U	**96.7**	2.0 U	7.7	1.0 U	1.0 U
Patuxent Aquifer Wells										
MW-36D	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-30D-413	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U

a/ All sample concentrations are in micrograms per liter (µg/l).
DCA = dichloroethane; DCE = dichloroethene; TCA = trichloroethane; TCE = trichlorothene
U = not detected above the method detection limit; J = estimated concentration between the reporting limit and method detection limit.
Bolded values indicate an exceedence of the Groundwater Quality Standards

APPENDIX

A 2018 LABORATORY ANALYTICAL REPORTS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 21, 2018

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Dear Eric Johnson:
Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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SAMPLE SUMMARY

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92373521001	**MW-33D-235**	Water	02/13/18 10:30	02/15/18 10:15
92373521002	**MW-33D-295**	Water	02/13/18 10:45	02/15/18 10:15
92373521003	**MW-25**	Water	02/13/18 12:55	02/15/18 10:15
92373521004	**MW-25D-130**	Water	02/13/18 13:10	02/15/18 10:15
92373521005	**MW-25D-190**	Water	02/13/18 13:25	02/15/18 10:15
92373521006	**MW-2500**	Water	02/13/18 09:00	02/15/18 10:15
92373521007	**MW-28**	Water	02/14/18 09:20	02/15/18 10:15
92373521008	**MW-28D**	Water	02/14/18 09:30	02/15/18 10:15
92373521009	**MW-31D**	Water	02/14/18 10:55	02/15/18 10:15
92373521010	**MW-35D**	Water	02/14/18 10:20	02/15/18 10:15
92373521011	**Trip Blank**	Water	02/13/18 00:00	02/15/18 10:15

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92373521001	**MW-33D-235**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521002	**MW-33D-295**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521003	**MW-25**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521004	**MW-25D-130**	EPA 8260	SWB	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521005	**MW-25D-190**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521006	**MW-2500**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521007	**MW-28**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521008	**MW-28D**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521009	**MW-31D**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521010	**MW-35D**	EPA 8260	SWB	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92373521011	**Trip Blank**	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-33D-235 **Lab ID: 92373521001** Collected: 02/13/18 10:30 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 15:43	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 15:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 15:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 15:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 15:43	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 15:43	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 15:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 15:43	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 15:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 15:43	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 15:43	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 15:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 15:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 15:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 15:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 15:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 15:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 15:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 15:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 15:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 15:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/16/18 15:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 15:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 15:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 15:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 15:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 15:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 15:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 15:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 15:43	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 15:43	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 15:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 15:43	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 15:43	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 15:43	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 15:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 15:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 15:43	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 15:43	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 15:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 15:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 15:43	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 15:43	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-33D-235 **Lab ID: 92373521001** Collected: 02/13/18 10:30 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 15:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 15:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 15:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 15:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 15:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 15:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 15:43	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 15:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 15:43	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 15:43	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 15:43	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 15:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		02/16/18 15:43	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		02/16/18 15:43	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		02/16/18 15:43	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 19:33	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	50-150	1		02/16/18 19:33	17060-07-0	
Toluene-d8 (S)	102	%	50-150	1		02/16/18 19:33	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-33D-295 **Lab ID: 92373521002** Collected: 02/13/18 10:45 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 16:16	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 16:16	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 16:16	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 16:16	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 16:16	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 16:16	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 16:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 16:16	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 16:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 16:16	75-00-3	M1
Chloroform	ND	ug/L	1.0	1		02/16/18 16:16	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 16:16	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 16:16	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 16:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 16:16	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 16:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 16:16	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 16:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 16:16	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 16:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 16:16	107-06-2	
1,1-Dichloroethene	**4.6**	ug/L	1.0	1		02/16/18 16:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 16:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 16:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:16	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:16	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:16	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:16	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 16:16	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 16:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 16:16	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 16:16	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 16:16	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 16:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 16:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 16:16	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 16:16	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 16:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 16:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 16:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 16:16	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-33D-295 **Lab ID: 92373521002** Collected: 02/13/18 10:45 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 16:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 16:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 16:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 16:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 16:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 16:16	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 16:16	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 16:16	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 16:16	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 16:16	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 16:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		02/16/18 16:16	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		02/16/18 16:16	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		02/16/18 16:16	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**6.9**	ug/L	2.0	1		02/16/18 20:32	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	50-150	1		02/16/18 20:32	17060-07-0	
Toluene-d8 (S)	100	%	50-150	1		02/16/18 20:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25 **Lab ID: 92373521003** Collected: 02/13/18 12:55 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 16:33	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 16:33	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 16:33	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 16:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 16:33	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 16:33	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 16:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 16:33	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 16:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 16:33	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 16:33	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 16:33	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 16:33	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 16:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 16:33	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 16:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 16:33	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 16:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 16:33	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 16:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 16:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/16/18 16:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 16:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 16:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:33	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:33	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 16:33	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 16:33	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 16:33	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 16:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 16:33	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 16:33	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 16:33	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 16:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 16:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 16:33	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 16:33	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 16:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 16:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 16:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 16:33	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25 **Lab ID: 92373521003** Collected: 02/13/18 12:55 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 16:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 16:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 16:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 16:33	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 16:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 16:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 16:33	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 16:33	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 16:33	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 16:33	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 16:33	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 16:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		02/16/18 16:33	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		02/16/18 16:33	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		02/16/18 16:33	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 20:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	50-150	1		02/16/18 20:51	17060-07-0	
Toluene-d8 (S)	97	%	50-150	1		02/16/18 20:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25D-130 **Lab ID: 92373521004** Collected: 02/13/18 13:10 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	50.0	2		02/19/18 21:40	67-64-1	
Benzene	ND	ug/L	2.0	2		02/19/18 21:40	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		02/19/18 21:40	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		02/19/18 21:40	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		02/19/18 21:40	75-27-4	
Bromoform	ND	ug/L	2.0	2		02/19/18 21:40	75-25-2	
Bromomethane	ND	ug/L	4.0	2		02/19/18 21:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	2		02/19/18 21:40	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		02/19/18 21:40	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	108-90-7	
Chloroethane	ND	ug/L	2.0	2		02/19/18 21:40	75-00-3	
Chloroform	ND	ug/L	2.0	2		02/19/18 21:40	67-66-3	
Chloromethane	ND	ug/L	2.0	2		02/19/18 21:40	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		02/19/18 21:40	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		02/19/18 21:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	2		02/19/18 21:40	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		02/19/18 21:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		02/19/18 21:40	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		02/19/18 21:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		02/19/18 21:40	75-71-8	
1,1-Dichloroethane	**6.3**	ug/L	2.0	2		02/19/18 21:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		02/19/18 21:40	107-06-2	
1,1-Dichloroethene	**154**	ug/L	2.0	2		02/19/18 21:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		02/19/18 21:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		02/19/18 21:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		02/19/18 21:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		02/19/18 21:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		02/19/18 21:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		02/19/18 21:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		02/19/18 21:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		02/19/18 21:40	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		02/19/18 21:40	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		02/19/18 21:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	2		02/19/18 21:40	87-68-3	
2-Hexanone	ND	ug/L	10.0	2		02/19/18 21:40	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.0	2		02/19/18 21:40	99-87-6	
Methylene Chloride	ND	ug/L	4.0	2		02/19/18 21:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		02/19/18 21:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		02/19/18 21:40	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		02/19/18 21:40	91-20-3	
Styrene	ND	ug/L	2.0	2		02/19/18 21:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		02/19/18 21:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		02/19/18 21:40	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	2		02/19/18 21:40	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25D-130 **Lab ID: 92373521004** Collected: 02/13/18 13:10 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	2.0	2		02/19/18 21:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		02/19/18 21:40	120-82-1	
1,1,1-Trichloroethane	**6.1**	ug/L	2.0	2		02/19/18 21:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		02/19/18 21:40	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		02/19/18 21:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		02/19/18 21:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		02/19/18 21:40	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		02/19/18 21:40	108-05-4	
Vinyl chloride	ND	ug/L	2.0	2		02/19/18 21:40	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		02/19/18 21:40	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		02/19/18 21:40	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		02/19/18 21:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	2		02/19/18 21:40	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	2		02/19/18 21:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130	2		02/19/18 21:40	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**67.1**	ug/L	2.0	1		02/16/18 21:11	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		02/16/18 21:11	17060-07-0	
Toluene-d8 (S)	99	%	50-150	1		02/16/18 21:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25D-190 **Lab ID: 92373521005** Collected: 02/13/18 13:25 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 17:07	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 17:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 17:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 17:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 17:07	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 17:07	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 17:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 17:07	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 17:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 17:07	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 17:07	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 17:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 17:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 17:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 17:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 17:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 17:07	75-71-8	
1,1-Dichloroethane	**13.7**	ug/L	1.0	1		02/16/18 17:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:07	107-06-2	
1,1-Dichloroethene	**69.2**	ug/L	1.0	1		02/16/18 17:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:07	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:07	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 17:07	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 17:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 17:07	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 17:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 17:07	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 17:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 17:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 17:07	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 17:07	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 17:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 17:07	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-25D-190 **Lab ID: 92373521005** Collected: 02/13/18 13:25 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 17:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:07	120-82-1	
1,1,1-Trichloroethane	**11.0**	ug/L	1.0	1		02/16/18 17:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 17:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 17:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 17:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 17:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 17:07	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 17:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 17:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 17:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		02/16/18 17:07	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		02/16/18 17:07	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		02/16/18 17:07	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**42.7**	ug/L	2.0	1		02/16/18 21:30	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		02/16/18 21:30	17060-07-0	
Toluene-d8 (S)	101	%	50-150	1		02/16/18 21:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-2500 **Lab ID: 92373521006** Collected: 02/13/18 09:00 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 17:24	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 17:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 17:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 17:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 17:24	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 17:24	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 17:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 17:24	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 17:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 17:24	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 17:24	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 17:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 17:24	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 17:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 17:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 17:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 17:24	75-71-8	
1,1-Dichloroethane	**13.7**	ug/L	1.0	1		02/16/18 17:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:24	107-06-2	
1,1-Dichloroethene	**66.1**	ug/L	1.0	1		02/16/18 17:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:24	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:24	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 17:24	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 17:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 17:24	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 17:24	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 17:24	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 17:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 17:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 17:24	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 17:24	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 17:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 17:24	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-2500 **Lab ID: 92373521006** Collected: 02/13/18 09:00 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 17:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:24	120-82-1	
1,1,1-Trichloroethane	**11.0**	ug/L	1.0	1		02/16/18 17:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 17:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 17:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 17:24	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 17:24	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 17:24	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 17:24	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 17:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 17:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		02/16/18 17:24	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		02/16/18 17:24	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		02/16/18 17:24	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**41.0**	ug/L	2.0	1		02/16/18 21:50	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	50-150	1		02/16/18 21:50	17060-07-0	
Toluene-d8 (S)	103	%	50-150	1		02/16/18 21:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-28 **Lab ID: 92373521007** Collected: 02/14/18 09:20 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 17:41	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 17:41	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 17:41	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 17:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 17:41	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 17:41	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 17:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 17:41	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 17:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 17:41	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 17:41	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 17:41	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:41	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 17:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 17:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 17:41	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 17:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 17:41	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:41	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:41	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:41	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:41	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 17:41	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 17:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 17:41	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 17:41	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 17:41	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 17:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 17:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 17:41	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 17:41	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 17:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 17:41	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-28 **Lab ID: 92373521007** Collected: 02/14/18 09:20 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 17:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 17:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 17:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 17:41	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 17:41	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 17:41	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 17:41	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 17:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 17:41	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		02/16/18 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		02/16/18 17:41	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		02/16/18 17:41	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 22:10	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	50-150	1		02/16/18 22:10	17060-07-0	
Toluene-d8 (S)	96	%	50-150	1		02/16/18 22:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-28D **Lab ID: 92373521008** Collected: 02/14/18 09:30 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 17:58	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 17:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 17:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 17:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 17:58	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 17:58	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 17:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 17:58	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 17:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 17:58	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 17:58	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 17:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 17:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 17:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 17:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 17:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 17:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 17:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 17:58	107-06-2	
1,1-Dichloroethene	**4.3**	ug/L	1.0	1		02/16/18 17:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 17:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 17:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 17:58	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 17:58	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 17:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 17:58	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 17:58	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 17:58	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 17:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 17:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 17:58	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 17:58	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 17:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 17:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 17:58	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-28D **Lab ID: 92373521008** Collected: 02/14/18 09:30 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 17:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 17:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 17:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 17:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 17:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 17:58	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 17:58	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 17:58	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 17:58	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 17:58	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 17:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		02/16/18 17:58	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		02/16/18 17:58	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		02/16/18 17:58	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**2.8**	ug/L	2.0	1		02/16/18 22:29	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%	50-150	1		02/16/18 22:29	17060-07-0	
Toluene-d8 (S)	97	%	50-150	1		02/16/18 22:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-31D **Lab ID: 92373521009** Collected: 02/14/18 10:55 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/16/18 18:14	67-64-1	
Benzene	ND	ug/L	1.0	1		02/16/18 18:14	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/16/18 18:14	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/16/18 18:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/16/18 18:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/16/18 18:14	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/16/18 18:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/16/18 18:14	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/16/18 18:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/16/18 18:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/16/18 18:14	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/16/18 18:14	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 18:14	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/16/18 18:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/16/18 18:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/16/18 18:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/16/18 18:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/16/18 18:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/16/18 18:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/16/18 18:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/16/18 18:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/16/18 18:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 18:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/16/18 18:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 18:14	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/16/18 18:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/16/18 18:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/16/18 18:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 18:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/16/18 18:14	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/16/18 18:14	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/16/18 18:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/16/18 18:14	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/16/18 18:14	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/16/18 18:14	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/16/18 18:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/16/18 18:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/16/18 18:14	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/16/18 18:14	91-20-3	
Styrene	ND	ug/L	1.0	1		02/16/18 18:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 18:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/16/18 18:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/16/18 18:14	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-31D **Lab ID: 92373521009** Collected: 02/14/18 10:55 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/16/18 18:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/16/18 18:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/16/18 18:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/16/18 18:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/16/18 18:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/16/18 18:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/16/18 18:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/16/18 18:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/16/18 18:14	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/16/18 18:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/16/18 18:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/16/18 18:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		02/16/18 18:14	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		02/16/18 18:14	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		02/16/18 18:14	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 22:49	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	50-150	1		02/16/18 22:49	17060-07-0	
Toluene-d8 (S)	96	%	50-150	1		02/16/18 22:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-35D **Lab ID: 92373521010** Collected: 02/14/18 10:20 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/21/18 04:26	67-64-1	
Benzene	ND	ug/L	1.0	1		02/21/18 04:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/21/18 04:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/21/18 04:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/21/18 04:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/21/18 04:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/21/18 04:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/21/18 04:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/21/18 04:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/21/18 04:26	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/21/18 04:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/21/18 04:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/21/18 04:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/21/18 04:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/21/18 04:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/21/18 04:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/21/18 04:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/21/18 04:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/21/18 04:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/21/18 04:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/21/18 04:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/21/18 04:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/18 04:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/18 04:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/21/18 04:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/21/18 04:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/21/18 04:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/21/18 04:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/18 04:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/18 04:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/21/18 04:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/21/18 04:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/21/18 04:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/21/18 04:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/21/18 04:26	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/21/18 04:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/21/18 04:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/21/18 04:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/21/18 04:26	91-20-3	
Styrene	ND	ug/L	1.0	1		02/21/18 04:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/21/18 04:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/21/18 04:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/21/18 04:26	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: MW-35D **Lab ID: 92373521010** Collected: 02/14/18 10:20 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/21/18 04:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/21/18 04:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/21/18 04:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/21/18 04:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/21/18 04:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/21/18 04:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/21/18 04:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/21/18 04:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/21/18 04:26	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/21/18 04:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/21/18 04:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/21/18 04:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		02/21/18 04:26	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		02/21/18 04:26	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		02/21/18 04:26	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 23:08	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		02/16/18 23:08	17060-07-0	
Toluene-d8 (S)	97	%	50-150	1		02/16/18 23:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: Trip Blank **Lab ID: 92373521011** Collected: 02/13/18 00:00 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		02/15/18 23:25	67-64-1	
Benzene	ND	ug/L	1.0	1		02/15/18 23:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/15/18 23:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/15/18 23:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/15/18 23:25	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/15/18 23:25	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/15/18 23:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/15/18 23:25	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/15/18 23:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/15/18 23:25	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/15/18 23:25	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/15/18 23:25	74-87-3	L2
2-Chlorotoluene	ND	ug/L	1.0	1		02/15/18 23:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/15/18 23:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		02/15/18 23:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/15/18 23:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/15/18 23:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/15/18 23:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/15/18 23:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/15/18 23:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/15/18 23:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/15/18 23:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/15/18 23:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/15/18 23:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/15/18 23:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/15/18 23:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/15/18 23:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/15/18 23:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/15/18 23:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/15/18 23:25	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/15/18 23:25	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/15/18 23:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/15/18 23:25	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/15/18 23:25	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/15/18 23:25	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/15/18 23:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/15/18 23:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/15/18 23:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/15/18 23:25	91-20-3	
Styrene	ND	ug/L	1.0	1		02/15/18 23:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/15/18 23:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/15/18 23:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/15/18 23:25	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Sample: Trip Blank **Lab ID: 92373521011** Collected: 02/13/18 00:00 Received: 02/15/18 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		02/15/18 23:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/15/18 23:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/15/18 23:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/15/18 23:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/15/18 23:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/15/18 23:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/15/18 23:25	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/15/18 23:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/15/18 23:25	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		02/15/18 23:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/15/18 23:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/15/18 23:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		02/15/18 23:25	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		02/15/18 23:25	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		02/15/18 23:25	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		02/16/18 14:19	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		02/16/18 14:19	17060-07-0	
Toluene-d8 (S)	98	%	50-150	1		02/16/18 14:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

QC Batch: 398249
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92373521011

METHOD BLANK: 2209151
Matrix: Water
Associated Lab Samples: 92373521011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,1,1-Trichloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,1-Dichloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,1-Dichloroethene	ug/L	ND	1.0	02/15/18 22:52	
1,1-Dichloropropene	ug/L	ND	1.0	02/15/18 22:52	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/15/18 22:52	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	02/15/18 22:52	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/15/18 22:52	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
1,2-Dichloroethane	ug/L	ND	1.0	02/15/18 22:52	
1,2-Dichloropropane	ug/L	ND	1.0	02/15/18 22:52	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
1,3-Dichloropropane	ug/L	ND	1.0	02/15/18 22:52	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
2,2-Dichloropropane	ug/L	ND	1.0	02/15/18 22:52	
2-Butanone (MEK)	ug/L	ND	5.0	02/15/18 22:52	
2-Chlorotoluene	ug/L	ND	1.0	02/15/18 22:52	
2-Hexanone	ug/L	ND	5.0	02/15/18 22:52	
4-Chlorotoluene	ug/L	ND	1.0	02/15/18 22:52	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	02/15/18 22:52	
Acetone	ug/L	ND	25.0	02/15/18 22:52	
Benzene	ug/L	ND	1.0	02/15/18 22:52	
Bromobenzene	ug/L	ND	1.0	02/15/18 22:52	
Bromochloromethane	ug/L	ND	1.0	02/15/18 22:52	
Bromodichloromethane	ug/L	ND	1.0	02/15/18 22:52	
Bromoform	ug/L	ND	1.0	02/15/18 22:52	
Bromomethane	ug/L	ND	2.0	02/15/18 22:52	
Carbon tetrachloride	ug/L	ND	1.0	02/15/18 22:52	
Chlorobenzene	ug/L	ND	1.0	02/15/18 22:52	
Chloroethane	ug/L	ND	1.0	02/15/18 22:52	
Chloroform	ug/L	ND	1.0	02/15/18 22:52	
Chloromethane	ug/L	ND	1.0	02/15/18 22:52	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/15/18 22:52	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/15/18 22:52	
Dibromochloromethane	ug/L	ND	1.0	02/15/18 22:52	
Dibromomethane	ug/L	ND	1.0	02/15/18 22:52	
Dichlorodifluoromethane	ug/L	ND	1.0	02/15/18 22:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

METHOD BLANK: 2209151 Matrix: Water
Associated Lab Samples: 92373521011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	02/15/18 22:52	
Ethylbenzene	ug/L	ND	1.0	02/15/18 22:52	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	02/15/18 22:52	
m&p-Xylene	ug/L	ND	2.0	02/15/18 22:52	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/15/18 22:52	
Methylene Chloride	ug/L	2.2	2.0	02/15/18 22:52	C9
Naphthalene	ug/L	ND	1.0	02/15/18 22:52	
o-Xylene	ug/L	ND	1.0	02/15/18 22:52	
p-Isopropyltoluene	ug/L	ND	1.0	02/15/18 22:52	
Styrene	ug/L	ND	1.0	02/15/18 22:52	
Tetrachloroethene	ug/L	ND	1.0	02/15/18 22:52	
Toluene	ug/L	ND	1.0	02/15/18 22:52	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/15/18 22:52	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/15/18 22:52	
Trichloroethene	ug/L	ND	1.0	02/15/18 22:52	
Trichlorofluoromethane	ug/L	ND	1.0	02/15/18 22:52	
Vinyl acetate	ug/L	ND	2.0	02/15/18 22:52	
Vinyl chloride	ug/L	ND	1.0	02/15/18 22:52	
Xylene (Total)	ug/L	ND	1.0	02/15/18 22:52	
1,2-Dichloroethane-d4 (S)	%	99	70-130	02/15/18 22:52	
4-Bromofluorobenzene (S)	%	95	70-130	02/15/18 22:52	
Toluene-d8 (S)	%	105	70-130	02/15/18 22:52	

LABORATORY CONTROL SAMPLE: 2209152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	56.0	112	80-125	
1,1,1-Trichloroethane	ug/L	50	46.9	94	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	54.0	108	79-124	
1,1,2-Trichloroethane	ug/L	50	53.0	106	85-125	
1,1-Dichloroethane	ug/L	50	42.7	85	73-126	
1,1-Dichloroethene	ug/L	50	45.4	91	66-135	
1,1-Dichloropropene	ug/L	50	49.0	98	74-135	
1,2,3-Trichlorobenzene	ug/L	50	50.1	100	73-135	
1,2,3-Trichloropropane	ug/L	50	54.0	108	75-130	
1,2,4-Trichlorobenzene	ug/L	50	51.5	103	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	53.5	107	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	56.0	112	83-124	
1,2-Dichlorobenzene	ug/L	50	51.9	104	80-133	
1,2-Dichloroethane	ug/L	50	44.4	89	67-128	
1,2-Dichloropropane	ug/L	50	51.0	102	75-132	
1,3-Dichlorobenzene	ug/L	50	52.4	105	77-130	
1,3-Dichloropropane	ug/L	50	56.6	113	76-131	
1,4-Dichlorobenzene	ug/L	50	51.2	102	78-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

LABORATORY CONTROL SAMPLE: 2209152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	45.2	90	40-160	
2-Butanone (MEK)	ug/L	100	102	102	61-144	
2-Chlorotoluene	ug/L	50	53.8	108	74-132	
2-Hexanone	ug/L	100	123	123	68-143	
4-Chlorotoluene	ug/L	50	53.6	107	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	112	112	72-135	
Acetone	ug/L	100	110	110	48-146	
Benzene	ug/L	50	51.4	103	80-125	
Bromobenzene	ug/L	50	54.6	109	75-125	
Bromochloromethane	ug/L	50	45.6	91	71-125	
Bromodichloromethane	ug/L	50	50.5	101	78-124	
Bromoform	ug/L	50	48.2	96	71-128	
Bromomethane	ug/L	50	34.8	70	40-160	
Carbon tetrachloride	ug/L	50	47.7	95	69-131	
Chlorobenzene	ug/L	50	51.0	102	81-122	
Chloroethane	ug/L	50	51.5	103	39-148	
Chloroform	ug/L	50	50.3	101	73-127	
Chloromethane	ug/L	50	28.5	57	44-146	L2
cis-1,2-Dichloroethene	ug/L	50	46.2	92	74-124	
cis-1,3-Dichloropropene	ug/L	50	53.9	108	72-132	
Dibromochloromethane	ug/L	50	56.1	112	78-125	
Dibromomethane	ug/L	50	47.2	94	82-120	
Dichlorodifluoromethane	ug/L	50	37.0	74	34-157	
Diisopropyl ether	ug/L	50	53.5	107	69-135	
Ethylbenzene	ug/L	50	50.7	101	79-121	
Hexachloro-1,3-butadiene	ug/L	50	45.6	91	72-131	
m&p-Xylene	ug/L	100	103	103	81-124	
Methyl-tert-butyl ether	ug/L	50	51.1	102	74-131	
Methylene Chloride	ug/L	50	52.2	104	64-133	
Naphthalene	ug/L	50	55.8	112	73-133	
o-Xylene	ug/L	50	52.9	106	79-131	
p-Isopropyltoluene	ug/L	50	53.3	107	80-131	
Styrene	ug/L	50	50.4	101	84-126	
Tetrachloroethene	ug/L	50	48.9	98	78-122	
Toluene	ug/L	50	48.1	96	80-121	
trans-1,2-Dichloroethene	ug/L	50	46.5	93	71-127	
trans-1,3-Dichloropropene	ug/L	50	47.9	96	69-141	
Trichloroethene	ug/L	50	50.3	101	78-122	
Trichlorofluoromethane	ug/L	50	39.3	79	53-137	
Vinyl acetate	ug/L	100	98.6	99	40-160	
Vinyl chloride	ug/L	50	45.2	90	50-150	
Xylene (Total)	ug/L	150	156	104	81-126	
1,2-Dichloroethane-d4 (S)	%			91	70-130	
4-Bromofluorobenzene (S)	%			95	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2209153 2209154

Parameter	Units	92373141009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	2000	2000	2170	2160	109	108	70-130	0	30	
1,1,1-Trichloroethane	ug/L	ND	2000	2000	1990	2180	100	109	70-130	9	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	2000	2000	2210	2120	111	106	70-130	4	30	
1,1,2-Trichloroethane	ug/L	ND	2000	2000	2240	2220	112	111	70-130	1	30	
1,1-Dichloroethane	ug/L	ND	2000	2000	1950	2000	98	100	70-130	3	30	
1,1-Dichloroethene	ug/L	ND	2000	2000	2200	2210	110	110	70-166	0	30	
1,1-Dichloropropene	ug/L	ND	2000	2000	2260	2250	113	112	70-130	1	30	
1,2,3-Trichlorobenzene	ug/L	ND	2000	2000	1990	2070	100	104	70-130	4	30	
1,2,3-Trichloropropane	ug/L	ND	2000	2000	2220	2090	111	105	70-130	6	30	
1,2,4-Trichlorobenzene	ug/L	ND	2000	2000	2090	2010	105	100	70-130	4	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2000	2000	2040	1960	102	98	70-130	4	30	
1,2-Dibromoethane (EDB)	ug/L	ND	2000	2000	2190	2190	109	109	70-130	0	30	
1,2-Dichlorobenzene	ug/L	ND	2000	2000	2160	2130	108	106	70-130	2	30	
1,2-Dichloroethane	ug/L	ND	2000	2000	1960	2010	98	100	70-130	2	30	
1,2-Dichloropropane	ug/L	ND	2000	2000	2220	2260	111	113	70-130	2	30	
1,3-Dichlorobenzene	ug/L	ND	2000	2000	2160	2190	108	109	70-130	1	30	
1,3-Dichloropropane	ug/L	ND	2000	2000	2330	2280	117	114	70-130	2	30	
1,4-Dichlorobenzene	ug/L	ND	2000	2000	2140	2080	107	104	70-130	3	30	
2,2-Dichloropropane	ug/L	ND	2000	2000	1470	1710	73	85	70-130	15	30	
2-Butanone (MEK)	ug/L	ND	4000	4000	3930	3910	98	98	70-130	1	30	
2-Chlorotoluene	ug/L	ND	2000	2000	2260	2240	113	112	70-130	1	30	
2-Hexanone	ug/L	ND	4000	4000	4570	4340	114	109	70-130	5	30	
4-Chlorotoluene	ug/L	ND	2000	2000	2210	2210	111	110	70-130	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4000	4000	4330	4150	108	104	70-130	4	30	
Acetone	ug/L	ND	4000	4000	4080	4190	102	105	70-130	3	30	
Benzene	ug/L	ND	2000	2000	2250	2240	113	112	70-148	1	30	
Bromobenzene	ug/L	ND	2000	2000	2250	2260	112	113	70-130	1	30	
Bromochloromethane	ug/L	ND	2000	2000	2050	2180	103	109	70-130	6	30	
Bromodichloromethane	ug/L	ND	2000	2000	2190	2190	110	110	70-130	0	30	
Bromoform	ug/L	ND	2000	2000	2050	2010	102	101	70-130	2	30	
Bromomethane	ug/L	ND	2000	2000	1760	1860	88	93	70-130	5	30	
Carbon tetrachloride	ug/L	ND	2000	2000	2160	2250	108	112	70-130	4	30	
Chlorobenzene	ug/L	ND	2000	2000	2280	2210	114	111	70-146	3	30	
Chloroethane	ug/L	ND	2000	2000	2420	2570	121	129	70-130	6	30	
Chloroform	ug/L	ND	2000	2000	2190	2280	109	114	70-130	4	30	
Chloromethane	ug/L	ND	2000	2000	1680	1790	84	90	70-130	7	30	
cis-1,2-Dichloroethene	ug/L	ND	2000	2000	2050	2100	102	105	70-130	2	30	
cis-1,3-Dichloropropene	ug/L	ND	2000	2000	2110	2140	106	107	70-130	1	30	
Dibromochloromethane	ug/L	ND	2000	2000	2220	2200	111	110	70-130	1	30	
Dibromomethane	ug/L	ND	2000	2000	2100	2060	105	103	70-130	2	30	
Dichlorodifluoromethane	ug/L	ND	2000	2000	2040	2040	102	102	70-130	0	30	
Diisopropyl ether	ug/L	ND	2000	2000	2150	2270	107	113	70-130	6	30	
Ethylbenzene	ug/L	ND	2000	2000	2300	2260	113	111	70-130	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	2000	2000	1880	1960	94	98	70-130	4	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2209153 2209154

Parameter	Units	92373141009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	21100	4000	4000	25800	24600	117	85	70-130	5	30	
Methyl-tert-butyl ether	ug/L	ND	2000	2000	2040	2070	102	103	70-130	1	30	
Methylene Chloride	ug/L	ND	2000	2000	2430	2570	114	121	70-130	6	30	
Naphthalene	ug/L	ND	2000	2000	2110	2110	106	105	70-130	0	30	
o-Xylene	ug/L	ND	2000	2000	2300	2290	115	114	70-130	1	30	
p-Isopropyltoluene	ug/L	ND	2000	2000	2230	2200	111	110	70-130	1	30	
Styrene	ug/L	ND	2000	2000	2190	2160	110	108	70-130	1	30	
Tetrachloroethene	ug/L	ND	2000	2000	2090	2150	104	108	70-130	3	30	
Toluene	ug/L	ND	2000	2000	2160	2160	108	108	70-155	0	30	
trans-1,2-Dichloroethene	ug/L	ND	2000	2000	2150	2200	108	110	70-130	2	30	
trans-1,3-Dichloropropene	ug/L	ND	2000	2000	1910	1940	96	97	70-130	1	30	
Trichloroethene	ug/L	ND	2000	2000	2250	2270	112	114	69-151	1	30	
Trichlorofluoromethane	ug/L	ND	2000	2000	2060	2080	103	104	70-130	1	30	
Vinyl acetate	ug/L	ND	4000	4000	4030	4020	101	101	70-130	0	30	
Vinyl chloride	ug/L	ND	2000	2000	2280	2330	114	117	70-130	2	30	
Xylene (Total)	ug/L	21100	6000	6000	28100	26800	116	95	70-130	5	30	
1,2-Dichloroethane-d4 (S)	%						93	94	70-130			
4-Bromofluorobenzene (S)	%						98	97	70-130			
Toluene-d8 (S)	%						99	98	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

QC Batch: 398387 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92373521001, 92373521002, 92373521003, 92373521005, 92373521006, 92373521007, 92373521008, 92373521009

METHOD BLANK: 2209652 Matrix: Water
Associated Lab Samples: 92373521001, 92373521002, 92373521003, 92373521005, 92373521006, 92373521007, 92373521008, 92373521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,1,1-Trichloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,1-Dichloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,1-Dichloroethene	ug/L	ND	1.0	02/16/18 11:31	
1,1-Dichloropropene	ug/L	ND	1.0	02/16/18 11:31	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/16/18 11:31	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	02/16/18 11:31	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/16/18 11:31	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
1,2-Dichloroethane	ug/L	ND	1.0	02/16/18 11:31	
1,2-Dichloropropane	ug/L	ND	1.0	02/16/18 11:31	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
1,3-Dichloropropane	ug/L	ND	1.0	02/16/18 11:31	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
2,2-Dichloropropane	ug/L	ND	1.0	02/16/18 11:31	
2-Butanone (MEK)	ug/L	ND	5.0	02/16/18 11:31	
2-Chlorotoluene	ug/L	ND	1.0	02/16/18 11:31	
2-Hexanone	ug/L	ND	5.0	02/16/18 11:31	
4-Chlorotoluene	ug/L	ND	1.0	02/16/18 11:31	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	02/16/18 11:31	
Acetone	ug/L	ND	25.0	02/16/18 11:31	
Benzene	ug/L	ND	1.0	02/16/18 11:31	
Bromobenzene	ug/L	ND	1.0	02/16/18 11:31	
Bromochloromethane	ug/L	ND	1.0	02/16/18 11:31	
Bromodichloromethane	ug/L	ND	1.0	02/16/18 11:31	
Bromoform	ug/L	ND	1.0	02/16/18 11:31	
Bromomethane	ug/L	ND	2.0	02/16/18 11:31	
Carbon tetrachloride	ug/L	ND	1.0	02/16/18 11:31	
Chlorobenzene	ug/L	ND	1.0	02/16/18 11:31	
Chloroethane	ug/L	ND	1.0	02/16/18 11:31	
Chloroform	ug/L	ND	1.0	02/16/18 11:31	
Chloromethane	ug/L	ND	1.0	02/16/18 11:31	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/16/18 11:31	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/16/18 11:31	
Dibromochloromethane	ug/L	ND	1.0	02/16/18 11:31	
Dibromomethane	ug/L	ND	1.0	02/16/18 11:31	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

METHOD BLANK: 2209652 Matrix: Water

Associated Lab Samples: 92373521001, 92373521002, 92373521003, 92373521005, 92373521006, 92373521007, 92373521008, 92373521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	02/16/18 11:31	
Diisopropyl ether	ug/L	ND	1.0	02/16/18 11:31	
Ethylbenzene	ug/L	ND	1.0	02/16/18 11:31	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	02/16/18 11:31	
m&p-Xylene	ug/L	ND	2.0	02/16/18 11:31	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/16/18 11:31	
Methylene Chloride	ug/L	ND	2.0	02/16/18 11:31	
Naphthalene	ug/L	ND	1.0	02/16/18 11:31	
o-Xylene	ug/L	ND	1.0	02/16/18 11:31	
p-Isopropyltoluene	ug/L	ND	1.0	02/16/18 11:31	
Styrene	ug/L	ND	1.0	02/16/18 11:31	
Tetrachloroethene	ug/L	ND	1.0	02/16/18 11:31	
Toluene	ug/L	ND	1.0	02/16/18 11:31	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/16/18 11:31	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/16/18 11:31	
Trichloroethene	ug/L	ND	1.0	02/16/18 11:31	
Trichlorofluoromethane	ug/L	ND	1.0	02/16/18 11:31	
Vinyl acetate	ug/L	ND	2.0	02/16/18 11:31	
Vinyl chloride	ug/L	ND	1.0	02/16/18 11:31	
Xylene (Total)	ug/L	ND	1.0	02/16/18 11:31	
1,2-Dichloroethane-d4 (S)	%	98	70-130	02/16/18 11:31	
4-Bromofluorobenzene (S)	%	96	70-130	02/16/18 11:31	
Toluene-d8 (S)	%	105	70-130	02/16/18 11:31	

LABORATORY CONTROL SAMPLE: 2209677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.8	112	80-125	
1,1,1-Trichloroethane	ug/L	50	50.4	101	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	54.8	110	79-124	
1,1,2-Trichloroethane	ug/L	50	55.8	112	85-125	
1,1-Dichloroethane	ug/L	50	46.9	94	73-126	
1,1-Dichloroethene	ug/L	50	48.4	97	66-135	
1,1-Dichloropropene	ug/L	50	51.0	102	74-135	
1,2,3-Trichlorobenzene	ug/L	50	51.6	103	73-135	
1,2,3-Trichloropropane	ug/L	50	54.6	109	75-130	
1,2,4-Trichlorobenzene	ug/L	50	53.7	107	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	54.5	109	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	55.2	110	83-124	
1,2-Dichlorobenzene	ug/L	50	52.4	105	80-133	
1,2-Dichloroethane	ug/L	50	46.3	93	67-128	
1,2-Dichloropropane	ug/L	50	53.8	108	75-132	
1,3-Dichlorobenzene	ug/L	50	53.6	107	77-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

LABORATORY CONTROL SAMPLE: 2209677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	57.2	114	76-131	
1,4-Dichlorobenzene	ug/L	50	51.7	103	78-130	
2,2-Dichloropropane	ug/L	50	51.1	102	40-160	
2-Butanone (MEK)	ug/L	100	104	104	61-144	
2-Chlorotoluene	ug/L	50	54.0	108	74-132	
2-Hexanone	ug/L	100	122	122	68-143	
4-Chlorotoluene	ug/L	50	54.4	109	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	114	114	72-135	
Acetone	ug/L	100	109	109	48-146	
Benzene	ug/L	50	53.6	107	80-125	
Bromobenzene	ug/L	50	55.1	110	75-125	
Bromochloromethane	ug/L	50	47.6	95	71-125	
Bromodichloromethane	ug/L	50	51.5	103	78-124	
Bromoform	ug/L	50	49.1	98	71-128	
Bromomethane	ug/L	50	44.8	90	40-160	
Carbon tetrachloride	ug/L	50	51.2	102	69-131	
Chlorobenzene	ug/L	50	52.0	104	81-122	
Chloroethane	ug/L	50	55.5	111	39-148	
Chloroform	ug/L	50	51.2	102	73-127	
Chloromethane	ug/L	50	39.6	79	44-146	
cis-1,2-Dichloroethene	ug/L	50	48.9	98	74-124	
cis-1,3-Dichloropropene	ug/L	50	57.0	114	72-132	
Dibromochloromethane	ug/L	50	56.5	113	78-125	
Dibromomethane	ug/L	50	49.3	99	82-120	
Dichlorodifluoromethane	ug/L	50	42.7	85	34-157	
Diisopropyl ether	ug/L	50	55.1	110	69-135	
Ethylbenzene	ug/L	50	51.4	103	79-121	
Hexachloro-1,3-butadiene	ug/L	50	50.0	100	72-131	
m&p-Xylene	ug/L	100	104	104	81-124	
Methyl-tert-butyl ether	ug/L	50	52.3	105	74-131	
Methylene Chloride	ug/L	50	52.9	106	64-133	
Naphthalene	ug/L	50	55.8	112	73-133	
o-Xylene	ug/L	50	52.5	105	79-131	
p-Isopropyltoluene	ug/L	50	55.0	110	80-131	
Styrene	ug/L	50	51.3	103	84-126	
Tetrachloroethene	ug/L	50	48.7	97	78-122	
Toluene	ug/L	50	50.4	101	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	71-127	
trans-1,3-Dichloropropene	ug/L	50	50.8	102	69-141	
Trichloroethene	ug/L	50	51.7	103	78-122	
Trichlorofluoromethane	ug/L	50	40.6	81	53-137	
Vinyl acetate	ug/L	100	104	104	40-160	
Vinyl chloride	ug/L	50	50.9	102	50-150	
Xylene (Total)	ug/L	150	156	104	81-126	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE SAMPLE: 2209679

Parameter	Units	92373521002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	22.3	112	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.3	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.7	108	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.3	111	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.5	108	70-130	
1,1-Dichloroethene	ug/L	4.6	20	28.1	118	70-166	
1,1-Dichloropropene	ug/L	ND	20	23.7	118	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.5	103	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.6	108	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.4	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.4	112	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.2	106	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.8	114	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.4	107	70-130	
1,3-Dichloropropane	ug/L	ND	20	23.9	119	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	20.9	105	70-130	
2,2-Dichloropropane	ug/L	ND	20	20.3	102	70-130	
2-Butanone (MEK)	ug/L	ND	40	41.6	104	70-130	
2-Chlorotoluene	ug/L	ND	20	22.3	111	70-130	
2-Hexanone	ug/L	ND	40	48.2	121	70-130	
4-Chlorotoluene	ug/L	ND	20	21.9	109	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	43.0	107	70-130	
Acetone	ug/L	ND	40	45.4	113	70-130	
Benzene	ug/L	ND	20	22.8	114	70-148	
Bromobenzene	ug/L	ND	20	22.5	112	70-130	
Bromochloromethane	ug/L	ND	20	21.4	107	70-130	
Bromodichloromethane	ug/L	ND	20	21.8	109	70-130	
Bromoform	ug/L	ND	20	19.7	99	70-130	
Bromomethane	ug/L	ND	20	23.2	116	70-130	
Carbon tetrachloride	ug/L	ND	20	22.5	113	70-130	
Chlorobenzene	ug/L	ND	20	22.2	111	70-146	
Chloroethane	ug/L	ND	20	26.2	131	70-130	M1
Chloroform	ug/L	ND	20	22.2	111	70-130	
Chloromethane	ug/L	ND	20	21.5	107	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	22.1	111	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	22.1	110	70-130	
Dibromochloromethane	ug/L	ND	20	22.4	112	70-130	
Dibromomethane	ug/L	ND	20	20.6	103	70-130	
Dichlorodifluoromethane	ug/L	ND	20	20.0	100	70-130	
Diisopropyl ether	ug/L	ND	20	21.5	108	70-130	
Ethylbenzene	ug/L	ND	20	22.9	115	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	21.1	105	70-130	
m&p-Xylene	ug/L	ND	40	46.3	116	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	21.2	106	70-130	
Methylene Chloride	ug/L	ND	20	23.0	115	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE SAMPLE: 2209679

Parameter	Units	92373521002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	21.6	108	70-130	
o-Xylene	ug/L	ND	20	23.3	117	70-130	
p-Isopropyltoluene	ug/L	ND	20	23.0	115	70-130	
Styrene	ug/L	ND	20	21.9	109	70-130	
Tetrachloroethene	ug/L	ND	20	21.6	108	70-130	
Toluene	ug/L	ND	20	21.8	109	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.3	116	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	19.9	99	70-130	
Trichloroethene	ug/L	ND	20	22.8	114	69-151	
Trichlorofluoromethane	ug/L	ND	20	20.5	103	70-130	
Vinyl acetate	ug/L	ND	40	35.3	88	70-130	
Vinyl chloride	ug/L	ND	20	24.9	125	70-130	
Xylene (Total)	ug/L	ND	60	69.6	116	70-130	
1,2-Dichloroethane-d4 (S)	%				93	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 2209678

Parameter	Units	92373521001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

SAMPLE DUPLICATE: 2209678

Parameter	Units	92373521001 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	97	99	3		
4-Bromofluorobenzene (S)	%	95	96	0		
Toluene-d8 (S)	%	107	105	2		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

QC Batch: 398725
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92373521004

METHOD BLANK: 2211646
Matrix: Water
Associated Lab Samples: 92373521004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,1,1-Trichloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,1-Dichloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,1-Dichloroethene	ug/L	ND	1.0	02/19/18 17:33	
1,1-Dichloropropene	ug/L	ND	1.0	02/19/18 17:33	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/19/18 17:33	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	02/19/18 17:33	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/19/18 17:33	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
1,2-Dichloroethane	ug/L	ND	1.0	02/19/18 17:33	
1,2-Dichloropropane	ug/L	ND	1.0	02/19/18 17:33	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
1,3-Dichloropropane	ug/L	ND	1.0	02/19/18 17:33	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
2,2-Dichloropropane	ug/L	ND	1.0	02/19/18 17:33	
2-Butanone (MEK)	ug/L	ND	5.0	02/19/18 17:33	
2-Chlorotoluene	ug/L	ND	1.0	02/19/18 17:33	
2-Hexanone	ug/L	ND	5.0	02/19/18 17:33	
4-Chlorotoluene	ug/L	ND	1.0	02/19/18 17:33	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	02/19/18 17:33	
Acetone	ug/L	ND	25.0	02/19/18 17:33	
Benzene	ug/L	ND	1.0	02/19/18 17:33	
Bromobenzene	ug/L	ND	1.0	02/19/18 17:33	
Bromochloromethane	ug/L	ND	1.0	02/19/18 17:33	
Bromodichloromethane	ug/L	ND	1.0	02/19/18 17:33	
Bromoform	ug/L	ND	1.0	02/19/18 17:33	
Bromomethane	ug/L	ND	2.0	02/19/18 17:33	
Carbon tetrachloride	ug/L	ND	1.0	02/19/18 17:33	
Chlorobenzene	ug/L	ND	1.0	02/19/18 17:33	
Chloroethane	ug/L	ND	1.0	02/19/18 17:33	
Chloroform	ug/L	ND	1.0	02/19/18 17:33	
Chloromethane	ug/L	ND	1.0	02/19/18 17:33	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/19/18 17:33	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/19/18 17:33	
Dibromochloromethane	ug/L	ND	1.0	02/19/18 17:33	
Dibromomethane	ug/L	ND	1.0	02/19/18 17:33	
Dichlorodifluoromethane	ug/L	ND	1.0	02/19/18 17:33	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

METHOD BLANK: 2211646 Matrix: Water
Associated Lab Samples: 92373521004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	02/19/18 17:33	
Ethylbenzene	ug/L	ND	1.0	02/19/18 17:33	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	02/19/18 17:33	
m&p-Xylene	ug/L	ND	2.0	02/19/18 17:33	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/19/18 17:33	
Methylene Chloride	ug/L	ND	2.0	02/19/18 17:33	
Naphthalene	ug/L	ND	1.0	02/19/18 17:33	
o-Xylene	ug/L	ND	1.0	02/19/18 17:33	
p-Isopropyltoluene	ug/L	ND	1.0	02/19/18 17:33	
Styrene	ug/L	ND	1.0	02/19/18 17:33	
Tetrachloroethene	ug/L	ND	1.0	02/19/18 17:33	
Toluene	ug/L	ND	1.0	02/19/18 17:33	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/19/18 17:33	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/19/18 17:33	
Trichloroethene	ug/L	ND	1.0	02/19/18 17:33	
Trichlorofluoromethane	ug/L	ND	1.0	02/19/18 17:33	
Vinyl acetate	ug/L	ND	2.0	02/19/18 17:33	
Vinyl chloride	ug/L	ND	1.0	02/19/18 17:33	
Xylene (Total)	ug/L	ND	1.0	02/19/18 17:33	
1,2-Dichloroethane-d4 (S)	%	91	70-130	02/19/18 17:33	
4-Bromofluorobenzene (S)	%	99	70-130	02/19/18 17:33	
Toluene-d8 (S)	%	100	70-130	02/19/18 17:33	

LABORATORY CONTROL SAMPLE: 2211647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	43.3	87	80-125	
1,1,1-Trichloroethane	ug/L	50	47.0	94	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	48.0	96	79-124	
1,1,2-Trichloroethane	ug/L	50	49.7	99	85-125	
1,1-Dichloroethane	ug/L	50	43.7	87	73-126	
1,1-Dichloroethene	ug/L	50	45.8	92	66-135	
1,1-Dichloropropene	ug/L	50	49.5	99	74-135	
1,2,3-Trichlorobenzene	ug/L	50	49.2	98	73-135	
1,2,3-Trichloropropane	ug/L	50	47.4	95	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	48.3	97	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	47.5	95	83-124	
1,2-Dichlorobenzene	ug/L	50	48.8	98	80-133	
1,2-Dichloroethane	ug/L	50	42.5	85	67-128	
1,2-Dichloropropane	ug/L	50	44.8	90	75-132	
1,3-Dichlorobenzene	ug/L	50	47.3	95	77-130	
1,3-Dichloropropane	ug/L	50	49.3	99	76-131	
1,4-Dichlorobenzene	ug/L	50	46.7	93	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

LABORATORY CONTROL SAMPLE: 2211647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	45.8	92	40-160	
2-Butanone (MEK)	ug/L	100	89.0	89	61-144	
2-Chlorotoluene	ug/L	50	49.4	99	74-132	
2-Hexanone	ug/L	100	88.6	89	68-143	
4-Chlorotoluene	ug/L	50	49.4	99	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	83.8	84	72-135	
Acetone	ug/L	100	95.5	96	48-146	
Benzene	ug/L	50	48.4	97	80-125	
Bromobenzene	ug/L	50	49.4	99	75-125	
Bromochloromethane	ug/L	50	51.3	103	71-125	
Bromodichloromethane	ug/L	50	45.3	91	78-124	
Bromoform	ug/L	50	41.2	82	71-128	
Bromomethane	ug/L	50	50.9	102	40-160	
Carbon tetrachloride	ug/L	50	44.6	89	69-131	
Chlorobenzene	ug/L	50	46.2	92	81-122	
Chloroethane	ug/L	50	45.9	92	39-148	
Chloroform	ug/L	50	46.6	93	73-127	
Chloromethane	ug/L	50	38.7	77	44-146	
cis-1,2-Dichloroethene	ug/L	50	45.7	91	74-124	
cis-1,3-Dichloropropene	ug/L	50	47.2	94	72-132	
Dibromochloromethane	ug/L	50	45.1	90	78-125	
Dibromomethane	ug/L	50	43.4	87	82-120	
Dichlorodifluoromethane	ug/L	50	48.0	96	34-157	
Diisopropyl ether	ug/L	50	43.9	88	69-135	
Ethylbenzene	ug/L	50	46.6	93	79-121	
Hexachloro-1,3-butadiene	ug/L	50	46.8	94	72-131	
m&p-Xylene	ug/L	100	94.8	95	81-124	
Methyl-tert-butyl ether	ug/L	50	48.7	97	74-131	
Methylene Chloride	ug/L	50	42.2	84	64-133	
Naphthalene	ug/L	50	54.7	109	73-133	
o-Xylene	ug/L	50	48.1	96	79-131	
p-Isopropyltoluene	ug/L	50	50.4	101	80-131	
Styrene	ug/L	50	46.1	92	84-126	
Tetrachloroethene	ug/L	50	40.9	82	78-122	
Toluene	ug/L	50	46.4	93	80-121	
trans-1,2-Dichloroethene	ug/L	50	46.2	92	71-127	
trans-1,3-Dichloropropene	ug/L	50	46.0	92	69-141	
Trichloroethene	ug/L	50	43.6	87	78-122	
Trichlorofluoromethane	ug/L	50	45.9	92	53-137	
Vinyl acetate	ug/L	100	89.3	89	40-160	
Vinyl chloride	ug/L	50	49.1	98	50-150	
Xylene (Total)	ug/L	150	143	95	81-126	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2211648 2211649

Parameter	Units	92373773010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	144	149	72	75	70-130	3	30	
1,1,1-Trichloroethane	ug/L	ND	200	200	161	169	80	84	70-130	5	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	153	169	77	85	70-130	10	30	
1,1,2-Trichloroethane	ug/L	ND	200	200	162	181	81	91	70-130	12	30	
1,1-Dichloroethane	ug/L	ND	200	200	148	164	74	82	70-130	10	30	
1,1-Dichloroethene	ug/L	ND	200	200	159	172	79	86	70-166	8	30	
1,1-Dichloropropene	ug/L	ND	200	200	172	175	86	88	70-130	2	30	
1,2,3-Trichlorobenzene	ug/L	ND	200	200	154	161	77	80	70-130	4	30	
1,2,3-Trichloropropane	ug/L	ND	200	200	168	180	84	90	70-130	7	30	
1,2,4-Trichlorobenzene	ug/L	ND	200	200	156	159	78	79	70-130	2	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	146	164	73	82	70-130	12	30	
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	155	167	78	84	70-130	7	30	
1,2-Dichlorobenzene	ug/L	ND	200	200	163	169	79	82	70-130	4	30	
1,2-Dichloroethane	ug/L	ND	200	200	141	154	71	77	70-130	9	30	
1,2-Dichloropropane	ug/L	ND	200	200	150	169	75	84	70-130	12	30	
1,3-Dichlorobenzene	ug/L	ND	200	200	166	167	79	80	70-130	0	30	
1,3-Dichloropropane	ug/L	ND	200	200	163	177	82	89	70-130	8	30	
1,4-Dichlorobenzene	ug/L	14.3	200	200	170	173	78	79	70-130	2	30	
2,2-Dichloropropane	ug/L	ND	200	200	142	154	71	77	70-130	8	30	
2-Butanone (MEK)	ug/L	ND	400	400	276	310	69	77	70-130	12	30	M1
2-Chlorotoluene	ug/L	ND	200	200	168	167	84	84	70-130	1	30	
2-Hexanone	ug/L	ND	400	400	268	301	67	75	70-130	11	30	M1
4-Chlorotoluene	ug/L	ND	200	200	164	164	82	82	70-130	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	400	400	264	298	66	74	70-130	12	30	M1
Acetone	ug/L	ND	400	400	289	318	72	80	70-130	10	30	
Benzene	ug/L	ND	200	200	175	188	84	90	70-148	7	30	
Bromobenzene	ug/L	ND	200	200	165	174	83	87	70-130	5	30	
Bromochloromethane	ug/L	ND	200	200	165	185	83	93	70-130	11	30	
Bromodichloromethane	ug/L	ND	200	200	149	169	75	84	70-130	12	30	
Bromoform	ug/L	ND	200	200	129	145	64	72	70-130	12	30	M1
Bromomethane	ug/L	ND	200	200	144	158	72	79	70-130	9	30	
Carbon tetrachloride	ug/L	ND	200	200	163	161	82	81	70-130	1	30	
Chlorobenzene	ug/L	1350	200	200	1500	1380	77	19	70-146	8	30	M1
Chloroethane	ug/L	ND	200	200	172	194	86	97	70-130	12	30	
Chloroform	ug/L	ND	200	200	154	174	75	86	70-130	12	30	
Chloromethane	ug/L	ND	200	200	130	142	65	71	70-130	9	30	M1
cis-1,2-Dichloroethene	ug/L	ND	200	200	152	170	75	85	70-130	12	30	
cis-1,3-Dichloropropene	ug/L	ND	200	200	156	168	78	84	70-130	7	30	
Dibromochloromethane	ug/L	ND	200	200	145	162	72	81	70-130	11	30	
Dibromomethane	ug/L	ND	200	200	145	166	73	83	70-130	13	30	
Dichlorodifluoromethane	ug/L	ND	200	200	170	170	85	85	70-130	0	30	
Diisopropyl ether	ug/L	ND	200	200	139	158	69	79	70-130	13	30	M1
Ethylbenzene	ug/L	ND	200	200	160	158	80	79	70-130	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	200	200	156	150	78	75	70-130	4	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2211648 2211649

Parameter	Units	92373773010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	400	400	328	322	82	80	70-130	2	30	
Methyl-tert-butyl ether	ug/L	ND	200	200	156	186	78	93	70-130	18	30	
Methylene Chloride	ug/L	ND	200	200	149	165	75	82	70-130	10	30	
Naphthalene	ug/L	ND	200	200	169	183	84	92	70-130	8	30	
o-Xylene	ug/L	ND	200	200	163	165	81	83	70-130	2	30	
p-Isopropyltoluene	ug/L	ND	200	200	176	166	88	83	70-130	6	30	
Styrene	ug/L	ND	200	200	155	156	77	78	70-130	1	30	
Tetrachloroethene	ug/L	ND	200	200	145	140	71	69	70-130	3	30	M1
Toluene	ug/L	ND	200	200	163	172	80	84	70-155	5	30	
trans-1,2-Dichloroethene	ug/L	ND	200	200	158	174	79	87	70-130	9	30	
trans-1,3-Dichloropropene	ug/L	ND	200	200	150	165	75	83	70-130	10	30	
Trichloroethene	ug/L	ND	200	200	158	168	79	84	69-151	6	30	
Trichlorofluoromethane	ug/L	ND	200	200	162	170	81	85	70-130	5	30	
Vinyl acetate	ug/L	ND	400	400	280	316	70	79	70-130	12	30	
Vinyl chloride	ug/L	ND	200	200	171	184	86	92	70-130	7	30	
Xylene (Total)	ug/L	ND	600	600	491	487	82	81	70-130	1	30	
1,2-Dichloroethane-d4 (S)	%						88	91	70-130			
4-Bromofluorobenzene (S)	%						101	99	70-130			
Toluene-d8 (S)	%						99	101	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

QC Batch: 398917
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92373521010

METHOD BLANK: 2212736
Matrix: Water
Associated Lab Samples: 92373521010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,1-Dichloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,1-Dichloroethene	ug/L	ND	1.0	02/21/18 00:06	
1,1-Dichloropropene	ug/L	ND	1.0	02/21/18 00:06	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/21/18 00:06	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	02/21/18 00:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/21/18 00:06	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
1,2-Dichloroethane	ug/L	ND	1.0	02/21/18 00:06	
1,2-Dichloropropane	ug/L	ND	1.0	02/21/18 00:06	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
1,3-Dichloropropane	ug/L	ND	1.0	02/21/18 00:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
2,2-Dichloropropane	ug/L	ND	1.0	02/21/18 00:06	
2-Butanone (MEK)	ug/L	ND	5.0	02/21/18 00:06	
2-Chlorotoluene	ug/L	ND	1.0	02/21/18 00:06	
2-Hexanone	ug/L	ND	5.0	02/21/18 00:06	
4-Chlorotoluene	ug/L	ND	1.0	02/21/18 00:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	02/21/18 00:06	
Acetone	ug/L	ND	25.0	02/21/18 00:06	
Benzene	ug/L	ND	1.0	02/21/18 00:06	
Bromobenzene	ug/L	ND	1.0	02/21/18 00:06	
Bromochloromethane	ug/L	ND	1.0	02/21/18 00:06	
Bromodichloromethane	ug/L	ND	1.0	02/21/18 00:06	
Bromoform	ug/L	ND	1.0	02/21/18 00:06	
Bromomethane	ug/L	ND	2.0	02/21/18 00:06	
Carbon tetrachloride	ug/L	ND	1.0	02/21/18 00:06	
Chlorobenzene	ug/L	ND	1.0	02/21/18 00:06	
Chloroethane	ug/L	ND	1.0	02/21/18 00:06	
Chloroform	ug/L	ND	1.0	02/21/18 00:06	
Chloromethane	ug/L	ND	1.0	02/21/18 00:06	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/21/18 00:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/21/18 00:06	
Dibromochloromethane	ug/L	ND	1.0	02/21/18 00:06	
Dibromomethane	ug/L	ND	1.0	02/21/18 00:06	
Dichlorodifluoromethane	ug/L	ND	1.0	02/21/18 00:06	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

METHOD BLANK: 2212736 Matrix: Water
Associated Lab Samples: 92373521010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	02/21/18 00:06	
Ethylbenzene	ug/L	ND	1.0	02/21/18 00:06	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	02/21/18 00:06	
m&p-Xylene	ug/L	ND	2.0	02/21/18 00:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/21/18 00:06	
Methylene Chloride	ug/L	ND	2.0	02/21/18 00:06	
Naphthalene	ug/L	ND	1.0	02/21/18 00:06	
o-Xylene	ug/L	ND	1.0	02/21/18 00:06	
p-Isopropyltoluene	ug/L	ND	1.0	02/21/18 00:06	
Styrene	ug/L	ND	1.0	02/21/18 00:06	
Tetrachloroethene	ug/L	ND	1.0	02/21/18 00:06	
Toluene	ug/L	ND	1.0	02/21/18 00:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/21/18 00:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/21/18 00:06	
Trichloroethene	ug/L	ND	1.0	02/21/18 00:06	
Trichlorofluoromethane	ug/L	ND	1.0	02/21/18 00:06	
Vinyl acetate	ug/L	ND	2.0	02/21/18 00:06	
Vinyl chloride	ug/L	ND	1.0	02/21/18 00:06	
Xylene (Total)	ug/L	ND	1.0	02/21/18 00:06	
1,2-Dichloroethane-d4 (S)	%	89	70-130	02/21/18 00:06	
4-Bromofluorobenzene (S)	%	97	70-130	02/21/18 00:06	
Toluene-d8 (S)	%	98	70-130	02/21/18 00:06	

LABORATORY CONTROL SAMPLE: 2212737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.6	91	80-125	
1,1,1-Trichloroethane	ug/L	50	49.9	100	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	79-124	
1,1,2-Trichloroethane	ug/L	50	50.8	102	85-125	
1,1-Dichloroethane	ug/L	50	44.6	89	73-126	
1,1-Dichloroethene	ug/L	50	47.5	95	66-135	
1,1-Dichloropropene	ug/L	50	46.0	92	74-135	
1,2,3-Trichlorobenzene	ug/L	50	50.2	100	73-135	
1,2,3-Trichloropropane	ug/L	50	48.9	98	75-130	
1,2,4-Trichlorobenzene	ug/L	50	50.0	100	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	44.1	88	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	59.2	118	83-124	
1,2-Dichlorobenzene	ug/L	50	47.8	96	80-133	
1,2-Dichloroethane	ug/L	50	45.9	92	67-128	
1,2-Dichloropropane	ug/L	50	50.2	100	75-132	
1,3-Dichlorobenzene	ug/L	50	49.1	98	77-130	
1,3-Dichloropropane	ug/L	50	54.5	109	76-131	
1,4-Dichlorobenzene	ug/L	50	49.3	99	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

LABORATORY CONTROL SAMPLE: 2212737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.2	106	40-160	
2-Butanone (MEK)	ug/L	100	89.1	89	61-144	
2-Chlorotoluene	ug/L	50	47.0	94	74-132	
2-Hexanone	ug/L	100	92.1	92	68-143	
4-Chlorotoluene	ug/L	50	48.4	97	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.9	99	72-135	
Acetone	ug/L	100	94.8	95	48-146	
Benzene	ug/L	50	50.3	101	80-125	
Bromobenzene	ug/L	50	47.2	94	75-125	
Bromochloromethane	ug/L	50	48.1	96	71-125	
Bromodichloromethane	ug/L	50	51.9	104	78-124	
Bromoform	ug/L	50	40.8	82	71-128	
Bromomethane	ug/L	50	40.0	80	40-160	
Carbon tetrachloride	ug/L	50	46.6	93	69-131	
Chlorobenzene	ug/L	50	50.1	100	81-122	
Chloroethane	ug/L	50	56.7	113	39-148	
Chloroform	ug/L	50	47.2	94	73-127	
Chloromethane	ug/L	50	41.6	83	44-146	
cis-1,2-Dichloroethene	ug/L	50	45.6	91	74-124	
cis-1,3-Dichloropropene	ug/L	50	52.2	104	72-132	
Dibromochloromethane	ug/L	50	46.8	94	78-125	
Dibromomethane	ug/L	50	51.8	104	82-120	
Dichlorodifluoromethane	ug/L	50	56.5	113	34-157	
Diisopropyl ether	ug/L	50	46.7	93	69-135	
Ethylbenzene	ug/L	50	50.5	101	79-121	
Hexachloro-1,3-butadiene	ug/L	50	48.8	98	72-131	
m&p-Xylene	ug/L	100	102	102	81-124	
Methyl-tert-butyl ether	ug/L	50	52.8	106	74-131	
Methylene Chloride	ug/L	50	52.4	105	64-133	
Naphthalene	ug/L	50	52.7	105	73-133	
o-Xylene	ug/L	50	51.9	104	79-131	
p-Isopropyltoluene	ug/L	50	50.5	101	80-131	
Styrene	ug/L	50	50.0	100	84-126	
Tetrachloroethene	ug/L	50	46.2	92	78-122	
Toluene	ug/L	50	49.2	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	46.9	94	71-127	
trans-1,3-Dichloropropene	ug/L	50	49.2	98	69-141	
Trichloroethene	ug/L	50	47.5	95	78-122	
Trichlorofluoromethane	ug/L	50	46.7	93	53-137	
Vinyl acetate	ug/L	100	89.0	89	40-160	
Vinyl chloride	ug/L	50	55.2	110	50-150	
Xylene (Total)	ug/L	150	154	103	81-126	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE SAMPLE: 2212738

Parameter	Units	92373622001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	400	271	68	70-130	M1
1,1,1-Trichloroethane	ug/L	2130	400	2240	27	70-130	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	400	290	73	70-130	
1,1,2-Trichloroethane	ug/L	ND	400	295	74	70-130	
1,1-Dichloroethane	ug/L	ND	400	272	68	70-130	M1
1,1-Dichloroethene	ug/L	533	400	765	58	70-166	M1
1,1-Dichloropropene	ug/L	ND	400	295	74	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	400	286	71	70-130	
1,2,3-Trichloropropane	ug/L	ND	400	284	71	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	400	293	73	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	400	258	65	70-130	M1
1,2-Dibromoethane (EDB)	ug/L	ND	400	339	85	70-130	
1,2-Dichlorobenzene	ug/L	ND	400	306	77	70-130	
1,2-Dichloroethane	ug/L	ND	400	271	68	70-130	M1
1,2-Dichloropropane	ug/L	ND	400	300	75	70-130	
1,3-Dichlorobenzene	ug/L	ND	400	312	78	70-130	
1,3-Dichloropropane	ug/L	ND	400	321	80	70-130	
1,4-Dichlorobenzene	ug/L	ND	400	302	76	70-130	
2,2-Dichloropropane	ug/L	ND	400	278	69	70-130	M1
2-Butanone (MEK)	ug/L	ND	800	475	59	70-130	M1
2-Chlorotoluene	ug/L	ND	400	320	80	70-130	
2-Hexanone	ug/L	ND	800	575	72	70-130	
4-Chlorotoluene	ug/L	ND	400	317	79	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	800	537	67	70-130	M1
Acetone	ug/L	ND	800	481J	60	70-130	M1
Benzene	ug/L	ND	400	314	78	70-148	
Bromobenzene	ug/L	ND	400	309	77	70-130	
Bromochloromethane	ug/L	ND	400	277	69	70-130	M1
Bromodichloromethane	ug/L	ND	400	287	72	70-130	
Bromoform	ug/L	ND	400	247	62	70-130	M1
Bromomethane	ug/L	5.9J	400	222	54	70-130	M1
Carbon tetrachloride	ug/L	ND	400	272	68	70-130	M1
Chlorobenzene	ug/L	ND	400	321	80	70-146	
Chloroethane	ug/L	ND	400	346	87	70-130	
Chloroform	ug/L	ND	400	280	70	70-130	
Chloromethane	ug/L	ND	400	305	76	70-130	
cis-1,2-Dichloroethene	ug/L	4.6J	400	280	69	70-130	M1
cis-1,3-Dichloropropene	ug/L	ND	400	317	79	70-130	
Dibromochloromethane	ug/L	ND	400	259	65	70-130	M1
Dibromomethane	ug/L	ND	400	303	76	70-130	
Dichlorodifluoromethane	ug/L	ND	400	351	88	70-130	
Diisopropyl ether	ug/L	ND	400	263	66	70-130	M1
Ethylbenzene	ug/L	ND	400	328	82	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	400	331	83	70-130	
m&p-Xylene	ug/L	ND	800	642	80	70-130	
Methyl-tert-butyl ether	ug/L	ND	400	286	72	70-130	
Methylene Chloride	ug/L	33.0J	400	307	68	70-130	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

MATRIX SPIKE SAMPLE: 2212738

Parameter	Units	92373622001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	400	287	72	70-130	
o-Xylene	ug/L	ND	400	326	81	70-130	
p-Isopropyltoluene	ug/L	ND	400	331	83	70-130	
Styrene	ug/L	ND	400	303	76	70-130	
Tetrachloroethene	ug/L	ND	400	299	75	70-130	
Toluene	ug/L	ND	400	323	81	70-155	
trans-1,2-Dichloroethene	ug/L	ND	400	275	69	70-130	M1
trans-1,3-Dichloropropene	ug/L	ND	400	321	80	70-130	
Trichloroethene	ug/L	53.8	400	370	79	69-151	
Trichlorofluoromethane	ug/L	126	400	401	69	70-130	M1
Vinyl acetate	ug/L	ND	800	541	68	70-130	M1
Vinyl chloride	ug/L	ND	400	322	80	70-130	
Xylene (Total)	ug/L	ND	1200	968	81	70-130	
1,2-Dichloroethane-d4 (S)	%				90	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 2213246

Parameter	Units	92373545002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

SAMPLE DUPLICATE: 2213246

Parameter	Units	92373545002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	95	90	5		
4-Bromofluorobenzene (S)	%	98	97	2		
Toluene-d8 (S)	%	103	102	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

QC Batch: 398409 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92373521001, 92373521002, 92373521003, 92373521004, 92373521005, 92373521006, 92373521007, 92373521008, 92373521009, 92373521010, 92373521011

METHOD BLANK: 2209860 Matrix: Water
Associated Lab Samples: 92373521001, 92373521002, 92373521003, 92373521004, 92373521005, 92373521006, 92373521007, 92373521008, 92373521009, 92373521010, 92373521011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	02/16/18 12:45	
1,2-Dichloroethane-d4 (S)	%	109	50-150	02/16/18 12:45	
Toluene-d8 (S)	%	104	50-150	02/16/18 12:45	

LABORATORY CONTROL SAMPLE: 2209861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.5	93	71-125	
1,2-Dichloroethane-d4 (S)	%			111	50-150	
Toluene-d8 (S)	%			105	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2209862 2209863

Parameter	Units	92373521001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	19.5	20.1	97	101	50-150	3	30	
1,2-Dichloroethane-d4 (S)	%						98	96	50-150		150	
Toluene-d8 (S)	%						101	98	50-150		150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KOPFLEX 3140038912
Pace Project No.: 92373521

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92373521001	**MW-33D-235**	EPA 8260	398387		
92373521002	**MW-33D-295**	EPA 8260	398387		
92373521003	**MW-25**	EPA 8260	398387		
92373521004	**MW-25D-130**	EPA 8260	398725		
92373521005	**MW-25D-190**	EPA 8260	398387		
92373521006	**MW-2500**	EPA 8260	398387		
92373521007	**MW-28**	EPA 8260	398387		
92373521008	**MW-28D**	EPA 8260	398387		
92373521009	**MW-31D**	EPA 8260	398387		
92373521010	**MW-35D**	EPA 8260	398917		
92373521011	**Trip Blank**	EPA 8260	398249		
92373521001	**MW-33D-235**	EPA 8260B Mod.	398409		
92373521002	**MW-33D-295**	EPA 8260B Mod.	398409		
92373521003	**MW-25**	EPA 8260B Mod.	398409		
92373521004	**MW-25D-130**	EPA 8260B Mod.	398409		
92373521005	**MW-25D-190**	EPA 8260B Mod.	398409		
92373521006	**MW-2500**	EPA 8260B Mod.	398409		
92373521007	**MW-28**	EPA 8260B Mod.	398409		
92373521008	**MW-28D**	EPA 8260B Mod.	398409		
92373521009	**MW-31D**	EPA 8260B Mod.	398409		
92373521010	**MW-35D**	EPA 8260B Mod.	398409		
92373521011	**Trip Blank**	EPA 8260B Mod.	398409		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP

Project #

WO# : 92373521

92373521

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☐ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: AP 2/15/19

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☐ IR Gun ID: 92T036 **Type of Ice:** ☐ Wet ☐ Blue ☐ None

Cooler Temp (°C): 4.6 **Correction Factor:** Add/Subtract (°C) +0.1

Cooler Temp Corrected (°C): 4.7

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☐ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☐ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☐ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☐ N/A	4.
Sufficient Volume?	☐ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☐ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☐ Yes	☐ No	☐ N/A	
Containers Intact?	☐ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☐ N/A	8.
Sample Labels Match COC?	☐ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☐ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** 2/19

Project Manager SRF Review: _____ **Date:** 2/19

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # **WO#: 92373521**

PM: PTE Due Date: 02/22/18

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	\				\	\	\	\			\		\	\	\	2									\	\			
2	\				\	\	\	\			\		\	\	\	4									\	\			
3	\				\	\	\	\			\		\	\	\	4									\	\			
4	\				\	\	\	\			\		\	\	\	6									\	\			
5	\				\	\	\	\			\		\	\	\	6									\	\			
6	\				\	\	\	\			\		\	\	\	6									\	\			
7	\				\	\	\	\			\		\	\	\	6									\	\			
8	\				\	\	\	\			\		\	\	\	6									\	\			
9	\				\	\	\	\			\		\	\	\	6									\	\			
10	\				\	\	\	\			\		\	\	\	6									\	\			
11	\				\	\	\	\			\		\	\	\	4									\	\			
12	\				\	\	\	\			\		\	\	\										\	\			

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY RECORD

No. 008242 — wsp

WSP USA Office Address: 13530 Dulles Technology Dr. St. 300 Herndon, VA 20171

Project Name: Kopflex

WSP USA Contact Name: Eric Johnson

Project Location: Hanover MD

WSP USA Contact E-mail: eric.johnson @wsp.com

Project Number & Task: 31400389/2

WSP USA Contact Phone: ~~759~~ 703 709 6500

Sampler(s) Name(s): Molly Long, Chris Cresci

Sampler(s) Signature(s): [signatures]

Laboratory Name & Location: Pace, NC

Laboratory Project Manager: Taylor Ezell

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

92373521

Requested Analyses & Preservatives: VOC; 1,4-dioxane

Sample Identification	Matrix	Collection Start* Date	Collection Start* ~~Time~~	Collection Stop* ~~Date~~	Collection Stop* Time	Number of Containers	VOC	1,4-dioxane								Sample Comments
MW-33D-235	AQ	2/13/18	10		30	6	X	X								001
MW-33D-295	AQ	2/13/18	10		45	6	X	X								002
MW-25	AQ	2/13/18	12		55	6	X	X								003
MW-25D-130	AQ	2/13/18	13		10	6	X	X								004
MW-25D-190	AQ	2/13/18	13		25	6	X	X								005
MW-2500	AQ	2/13/18	09		00	6	X	X								006
MW-28	AQ	2/14/18	09		20	6	X	X								007
MW-28D	AQ	2/14/18	09		30	6	X	X								008
MW-31D	AQ	2/14/18	10		55	6	X	X								009
MW-35D	AQ	2/14/18	10		20	6	X	X								010
Trip Blank						4	X	X								lab provided

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Molly Long [signature]	2/14/18	1100	Pace [signature]	2/15/18	1015	FedEx	8117 5794 4696

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
						1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

June 08, 2018

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: Kop FLex
Pace Project No.: 92386848

Dear Eric Johnson:
Enclosed are the analytical results for sample(s) received by the laboratory on June 01, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Kop FLex
Pace Project No.: 92386848

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Kop FLex
Pace Project No.: 92386848

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92386848001	**TRIP BLANK**	Water	06/01/18 00:00	06/01/18 11:07
92386848002	**MW-33D-295**	Water	05/31/18 11:25	06/01/18 11:07
92386848003	**MW-33D-235**	Water	05/31/18 11:15	06/01/18 11:07
92386848004	**MW-31D**	Water	05/31/18 10:50	06/01/18 11:07
92386848005	**MW-34D**	Water	05/31/18 10:35	06/01/18 11:07
92386848006	**MW-35D**	Water	05/31/18 10:20	06/01/18 11:07
92386848007	**MW-29D**	Water	05/31/18 09:20	06/01/18 11:07
92386848008	**MW-30D-413**	Water	05/31/18 09:05	06/01/18 11:07
92386848009	**MW-30D-273**	Water	05/31/18 08:55	06/01/18 11:07
92386848010	**MW-32D**	Water	05/31/18 08:40	06/01/18 11:07
92386848011	**MW-28D**	Water	05/30/18 16:30	06/01/18 11:07
92386848012	**MW-28**	Water	05/30/18 16:20	06/01/18 11:07
92386848013	**MW-36D**	Water	05/30/18 16:10	06/01/18 11:07
92386848014	**DUP 053018B**	Water	05/30/18 10:00	06/01/18 11:07
92386848015	**MW-25D-190**	Water	05/30/18 15:40	06/01/18 11:07
92386848016	**MW-25D-130**	Water	05/30/18 15:25	06/01/18 11:07
92386848017	**MW-25**	Water	05/30/18 15:15	06/01/18 11:07

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Kop FLex
Pace Project No.: 92386848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92386848001	TRIP BLANK	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848002	MW-33D-295	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848003	MW-33D-235	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848004	MW-31D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848005	MW-34D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848006	MW-35D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848007	MW-29D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848008	MW-30D-413	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848009	MW-30D-273	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848010	MW-32D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848011	MW-28D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848012	MW-28	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848013	MW-36D	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848014	DUP 053018B	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848015	MW-25D-190	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848016	MW-25D-130	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92386848017	MW-25	EPA 8260	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: TRIP BLANK **Lab ID: 92386848001** Collected: 06/01/18 00:00 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/06/18 03:57	67-64-1	
Benzene	ND	ug/L	1.0	1		06/06/18 03:57	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/06/18 03:57	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/06/18 03:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/06/18 03:57	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/06/18 03:57	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/06/18 03:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/06/18 03:57	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/06/18 03:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/06/18 03:57	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/06/18 03:57	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/06/18 03:57	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 03:57	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 03:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/06/18 03:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/06/18 03:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/06/18 03:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/06/18 03:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/06/18 03:57	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/06/18 03:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/06/18 03:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/06/18 03:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 03:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 03:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 03:57	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/06/18 03:57	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 03:57	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/06/18 03:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 03:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 03:57	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/06/18 03:57	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/06/18 03:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/06/18 03:57	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/06/18 03:57	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/06/18 03:57	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/06/18 03:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/06/18 03:57	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/06/18 03:57	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/06/18 03:57	91-20-3	
Styrene	ND	ug/L	1.0	1		06/06/18 03:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 03:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 03:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/06/18 03:57	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: TRIP BLANK **Lab ID: 92386848001** Collected: 06/01/18 00:00 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/06/18 03:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 03:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/06/18 03:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/06/18 03:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/06/18 03:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/06/18 03:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/06/18 03:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/06/18 03:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/06/18 03:57	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/06/18 03:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/06/18 03:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/06/18 03:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		06/06/18 03:57	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-130	1		06/06/18 03:57	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		06/06/18 03:57	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 17:06	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%	50-150	1		06/04/18 17:06	17060-07-0	
Toluene-d8 (S)	110	%	50-150	1		06/04/18 17:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-33D-295 **Lab ID: 92386848002** Collected: 05/31/18 11:25 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/02/18 23:40	67-64-1	
Benzene	ND	ug/L	1.0	1		06/02/18 23:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/02/18 23:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/02/18 23:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/02/18 23:40	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/02/18 23:40	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/02/18 23:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/02/18 23:40	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/02/18 23:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/02/18 23:40	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/02/18 23:40	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/02/18 23:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/02/18 23:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/02/18 23:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/02/18 23:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/02/18 23:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/02/18 23:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/02/18 23:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/02/18 23:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/02/18 23:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/02/18 23:40	107-06-2	
1,1-Dichloroethene	**4.6**	ug/L	1.0	1		06/02/18 23:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/02/18 23:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/02/18 23:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:40	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/02/18 23:40	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/02/18 23:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/02/18 23:40	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/02/18 23:40	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/02/18 23:40	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/02/18 23:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/02/18 23:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/02/18 23:40	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/02/18 23:40	91-20-3	
Styrene	ND	ug/L	1.0	1		06/02/18 23:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/02/18 23:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/02/18 23:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/02/18 23:40	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-33D-295 **Lab ID: 92386848002** Collected: 05/31/18 11:25 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/02/18 23:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/02/18 23:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/02/18 23:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/02/18 23:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/02/18 23:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/02/18 23:40	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/02/18 23:40	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/02/18 23:40	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/02/18 23:40	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/02/18 23:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/02/18 23:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		06/02/18 23:40	460-00-4	
1,2-Dichloroethane-d4 (S)	80	%	70-130	1		06/02/18 23:40	17060-07-0	
Toluene-d8 (S)	118	%	70-130	1		06/02/18 23:40	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**6.9**	ug/L	2.0	1		06/04/18 18:24	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 18:24	17060-07-0	
Toluene-d8 (S)	116	%	50-150	1		06/04/18 18:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-33D-235 **Lab ID: 92386848003** Collected: 05/31/18 11:15 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/02/18 23:57	67-64-1	
Benzene	ND	ug/L	1.0	1		06/02/18 23:57	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/02/18 23:57	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/02/18 23:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/02/18 23:57	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/02/18 23:57	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/02/18 23:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/02/18 23:57	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/02/18 23:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/02/18 23:57	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/02/18 23:57	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/02/18 23:57	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/02/18 23:57	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/02/18 23:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/02/18 23:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/02/18 23:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/02/18 23:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/02/18 23:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/02/18 23:57	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/02/18 23:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/02/18 23:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/02/18 23:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/02/18 23:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/02/18 23:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:57	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:57	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/02/18 23:57	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/02/18 23:57	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/02/18 23:57	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/02/18 23:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/02/18 23:57	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/02/18 23:57	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/02/18 23:57	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/02/18 23:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/02/18 23:57	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/02/18 23:57	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/02/18 23:57	91-20-3	
Styrene	ND	ug/L	1.0	1		06/02/18 23:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/02/18 23:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/02/18 23:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/02/18 23:57	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-33D-235 **Lab ID: 92386848003** Collected: 05/31/18 11:15 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/02/18 23:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/02/18 23:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/02/18 23:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/02/18 23:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/02/18 23:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/02/18 23:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/02/18 23:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/02/18 23:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/02/18 23:57	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/02/18 23:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/02/18 23:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/02/18 23:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108	%	70-130	1		06/02/18 23:57	460-00-4	
1,2-Dichloroethane-d4 (S)	82	%	70-130	1		06/02/18 23:57	17060-07-0	
Toluene-d8 (S)	118	%	70-130	1		06/02/18 23:57	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 19:23	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	118	%	50-150	1		06/04/18 19:23	17060-07-0	
Toluene-d8 (S)	115	%	50-150	1		06/04/18 19:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-31D **Lab ID: 92386848004** Collected: 05/31/18 10:50 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 00:13	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 00:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 00:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 00:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 00:13	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 00:13	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 00:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 00:13	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 00:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 00:13	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 00:13	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 00:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 00:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 00:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 00:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 00:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 00:13	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 00:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 00:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:13	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 00:13	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 00:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 00:13	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 00:13	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 00:13	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 00:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 00:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 00:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 00:13	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 00:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 00:13	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-31D **Lab ID: 92386848004** Collected: 05/31/18 10:50 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 00:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 00:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 00:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 00:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 00:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 00:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 00:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 00:13	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 00:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 00:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 00:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		06/03/18 00:13	460-00-4	
1,2-Dichloroethane-d4 (S)	74	%	70-130	1		06/03/18 00:13	17060-07-0	
Toluene-d8 (S)	118	%	70-130	1		06/03/18 00:13	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 19:42	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 19:42	17060-07-0	
Toluene-d8 (S)	117	%	50-150	1		06/04/18 19:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-34D **Lab ID: 92386848005** Collected: 05/31/18 10:35 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/06/18 04:14	67-64-1	
Benzene	ND	ug/L	1.0	1		06/06/18 04:14	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/06/18 04:14	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/06/18 04:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/06/18 04:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/06/18 04:14	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/06/18 04:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/06/18 04:14	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/06/18 04:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/06/18 04:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/06/18 04:14	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/06/18 04:14	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 04:14	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 04:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/06/18 04:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/06/18 04:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/06/18 04:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/06/18 04:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/06/18 04:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/06/18 04:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/06/18 04:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:14	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:14	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/06/18 04:14	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/06/18 04:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/06/18 04:14	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/06/18 04:14	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/06/18 04:14	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/06/18 04:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/06/18 04:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/06/18 04:14	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/06/18 04:14	91-20-3	
Styrene	ND	ug/L	1.0	1		06/06/18 04:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 04:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 04:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/06/18 04:14	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-34D **Lab ID: 92386848005** Collected: 05/31/18 10:35 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/06/18 04:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/06/18 04:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/06/18 04:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/06/18 04:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/06/18 04:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/06/18 04:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/06/18 04:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/06/18 04:14	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/06/18 04:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/06/18 04:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/06/18 04:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		06/06/18 04:14	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		06/06/18 04:14	17060-07-0	
Toluene-d8 (S)	113	%	70-130	1		06/06/18 04:14	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 20:02	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	120	%	50-150	1		06/04/18 20:02	17060-07-0	
Toluene-d8 (S)	116	%	50-150	1		06/04/18 20:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-35D **Lab ID: 92386848006** Collected: 05/31/18 10:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 00:47	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 00:47	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 00:47	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 00:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 00:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 00:47	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 00:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 00:47	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 00:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 00:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 00:47	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 00:47	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:47	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 00:47	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 00:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 00:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 00:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 00:47	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 00:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 00:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:47	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:47	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:47	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:47	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 00:47	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 00:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 00:47	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 00:47	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 00:47	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 00:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 00:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 00:47	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 00:47	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 00:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 00:47	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-35D **Lab ID: 92386848006** Collected: 05/31/18 10:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 00:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 00:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 00:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 00:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 00:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 00:47	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 00:47	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 00:47	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 00:47	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 00:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 00:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	70-130	1		06/03/18 00:47	460-00-4	
1,2-Dichloroethane-d4 (S)	75	%	70-130	1		06/03/18 00:47	17060-07-0	
Toluene-d8 (S)	122	%	70-130	1		06/03/18 00:47	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 20:21	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	120	%	50-150	1		06/04/18 20:21	17060-07-0	
Toluene-d8 (S)	115	%	50-150	1		06/04/18 20:21	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-29D **Lab ID: 92386848007** Collected: 05/31/18 09:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/07/18 14:50	67-64-1	
Benzene	ND	ug/L	1.0	1		06/07/18 14:50	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/07/18 14:50	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/07/18 14:50	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/07/18 14:50	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/07/18 14:50	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/07/18 14:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/07/18 14:50	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/07/18 14:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/07/18 14:50	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/07/18 14:50	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/07/18 14:50	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/07/18 14:50	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/07/18 14:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/07/18 14:50	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/07/18 14:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/07/18 14:50	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/07/18 14:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/07/18 14:50	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/07/18 14:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/07/18 14:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/07/18 14:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/07/18 14:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/07/18 14:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/07/18 14:50	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/07/18 14:50	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/07/18 14:50	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/07/18 14:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/07/18 14:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/07/18 14:50	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/07/18 14:50	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/07/18 14:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/07/18 14:50	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		06/07/18 14:50	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/07/18 14:50	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/07/18 14:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/07/18 14:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/07/18 14:50	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/07/18 14:50	91-20-3	
Styrene	ND	ug/L	1.0	1		06/07/18 14:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/07/18 14:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/07/18 14:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/07/18 14:50	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-29D **Lab ID: 92386848007** Collected: 05/31/18 09:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/07/18 14:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/07/18 14:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/07/18 14:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/07/18 14:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/07/18 14:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/07/18 14:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/07/18 14:50	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/07/18 14:50	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/07/18 14:50	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/07/18 14:50	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/07/18 14:50	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/07/18 14:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		06/07/18 14:50	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		06/07/18 14:50	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		06/07/18 14:50	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 20:41	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	123	%	50-150	1		06/04/18 20:41	17060-07-0	
Toluene-d8 (S)	116	%	50-150	1		06/04/18 20:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-30D-413 **Lab ID: 92386848008** Collected: 05/31/18 09:05 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/06/18 04:31	67-64-1	
Benzene	ND	ug/L	1.0	1		06/06/18 04:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/06/18 04:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/06/18 04:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/06/18 04:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/06/18 04:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/06/18 04:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/06/18 04:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/06/18 04:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/06/18 04:31	75-00-3	
Chloroform	**1.6**	ug/L	1.0	1		06/06/18 04:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/06/18 04:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 04:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/06/18 04:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/06/18 04:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/06/18 04:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/06/18 04:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/06/18 04:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/06/18 04:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/06/18 04:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/06/18 04:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/06/18 04:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/06/18 04:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/06/18 04:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/06/18 04:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/06/18 04:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/06/18 04:31	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/06/18 04:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/06/18 04:31	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/06/18 04:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/06/18 04:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/06/18 04:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/06/18 04:31	91-20-3	
Styrene	ND	ug/L	1.0	1		06/06/18 04:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 04:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/06/18 04:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/06/18 04:31	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-30D-413 **Lab ID: 92386848008** Collected: 05/31/18 09:05 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/06/18 04:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/06/18 04:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/06/18 04:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/06/18 04:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/06/18 04:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/06/18 04:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/06/18 04:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/06/18 04:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/06/18 04:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/06/18 04:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/06/18 04:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/06/18 04:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		06/06/18 04:31	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130	1		06/06/18 04:31	17060-07-0	
Toluene-d8 (S)	114	%	70-130	1		06/06/18 04:31	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 21:00	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	116	%	50-150	1		06/04/18 21:00	17060-07-0	
Toluene-d8 (S)	114	%	50-150	1		06/04/18 21:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-30D-273 **Lab ID: 92386848009** Collected: 05/31/18 08:55 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 01:04	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 01:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 01:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 01:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 01:04	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 01:04	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 01:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 01:04	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 01:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 01:04	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 01:04	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 01:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 01:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 01:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 01:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 01:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 01:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:04	107-06-2	
1,1-Dichloroethene	**27.4**	ug/L	1.0	1		06/03/18 01:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:04	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 01:04	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 01:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 01:04	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 01:04	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 01:04	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 01:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 01:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 01:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 01:04	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 01:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 01:04	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-30D-273 **Lab ID: 92386848009** Collected: 05/31/18 08:55 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 01:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 01:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 01:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 01:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 01:04	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 01:04	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 01:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 01:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 01:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		06/03/18 01:04	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-130	1		06/03/18 01:04	17060-07-0	
Toluene-d8 (S)	120	%	70-130	1		06/03/18 01:04	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**16.4**	ug/L	2.0	1		06/04/18 21:19	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	121	%	50-150	1		06/04/18 21:19	17060-07-0	
Toluene-d8 (S)	117	%	50-150	1		06/04/18 21:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-32D **Lab ID: 92386848010** Collected: 05/31/18 08:40 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 01:21	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 01:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 01:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 01:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 01:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 01:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 01:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 01:21	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 01:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 01:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 01:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 01:21	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:21	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 01:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 01:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 01:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 01:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 01:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:21	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 01:21	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 01:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 01:21	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 01:21	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 01:21	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 01:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 01:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 01:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 01:21	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 01:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 01:21	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-32D **Lab ID: 92386848010** Collected: 05/31/18 08:40 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 01:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 01:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 01:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 01:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 01:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 01:21	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 01:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 01:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 01:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		06/03/18 01:21	460-00-4	
1,2-Dichloroethane-d4 (S)	74	%	70-130	1		06/03/18 01:21	17060-07-0	
Toluene-d8 (S)	124	%	70-130	1		06/03/18 01:21	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 21:39	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 21:39	17060-07-0	
Toluene-d8 (S)	115	%	50-150	1		06/04/18 21:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-28D **Lab ID: 92386848011** Collected: 05/30/18 16:30 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 03:20	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 03:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 03:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 03:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 03:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 03:20	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 03:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 03:20	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 03:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 03:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 03:20	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 03:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 03:20	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 03:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 03:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 03:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 03:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 03:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 03:20	107-06-2	
1,1-Dichloroethene	**6.1**	ug/L	1.0	1		06/03/18 03:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:20	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 03:20	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 03:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 03:20	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 03:20	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 03:20	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 03:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 03:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 03:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 03:20	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 03:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 03:20	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-28D **Lab ID: 92386848011** Collected: 05/30/18 16:30 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 03:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 03:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 03:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 03:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 03:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 03:20	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 03:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 03:20	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 03:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 03:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 03:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		06/03/18 03:20	460-00-4	
1,2-Dichloroethane-d4 (S)	76	%	70-130	1		06/03/18 03:20	17060-07-0	
Toluene-d8 (S)	119	%	70-130	1		06/03/18 03:20	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**2.4**	ug/L	2.0	1		06/04/18 21:58	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 21:58	17060-07-0	
Toluene-d8 (S)	117	%	50-150	1		06/04/18 21:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-28 **Lab ID: 92386848012** Collected: 05/30/18 16:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 03:03	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 03:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 03:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 03:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 03:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 03:03	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 03:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 03:03	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 03:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 03:03	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 03:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 03:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 03:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 03:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 03:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 03:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 03:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 03:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 03:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:03	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 03:03	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 03:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 03:03	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 03:03	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 03:03	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 03:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 03:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 03:03	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 03:03	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 03:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 03:03	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-28 **Lab ID: 92386848012** Collected: 05/30/18 16:20 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 03:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 03:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 03:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 03:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 03:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 03:03	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 03:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 03:03	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 03:03	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 03:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 03:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		06/03/18 03:03	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	70-130	1		06/03/18 03:03	17060-07-0	
Toluene-d8 (S)	119	%	70-130	1		06/03/18 03:03	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 22:18	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	121	%	50-150	1		06/04/18 22:18	17060-07-0	
Toluene-d8 (S)	116	%	50-150	1		06/04/18 22:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-36D **Lab ID: 92386848013** Collected: 05/30/18 16:10 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 01:55	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 01:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 01:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 01:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 01:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 01:55	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 01:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 01:55	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 01:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 01:55	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 01:55	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 01:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 01:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 01:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 01:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 01:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 01:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 01:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 01:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 01:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 01:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 01:55	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 01:55	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 01:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 01:55	87-68-3	L2,M0
2-Hexanone	ND	ug/L	5.0	1		06/03/18 01:55	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 01:55	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 01:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 01:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 01:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 01:55	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 01:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 01:55	79-34-5	
Tetrachloroethene	**2.3**	ug/L	1.0	1		06/03/18 01:55	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-36D **Lab ID: 92386848013** Collected: 05/30/18 16:10 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 01:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 01:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 01:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 01:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 01:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 01:55	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 01:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 01:55	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 01:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 01:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 01:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	70-130	1		06/03/18 01:55	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	70-130	1		06/03/18 01:55	17060-07-0	
Toluene-d8 (S)	121	%	70-130	1		06/03/18 01:55	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 22:37	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	116	%	50-150	1		06/04/18 22:37	17060-07-0	
Toluene-d8 (S)	113	%	50-150	1		06/04/18 22:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: DUP 053018B **Lab ID: 92386848014** Collected: 05/30/18 10:00 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 03:37	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 03:37	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 03:37	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 03:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 03:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 03:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 03:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 03:37	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 03:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 03:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 03:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 03:37	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:37	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 03:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 03:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 03:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 03:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 03:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 03:37	75-71-8	
1,1-Dichloroethane	**11.5**	ug/L	1.0	1		06/03/18 03:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 03:37	107-06-2	
1,1-Dichloroethene	**54.6**	ug/L	1.0	1		06/03/18 03:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 03:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 03:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 03:37	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 03:37	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 03:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 03:37	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 03:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 03:37	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 03:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 03:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 03:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 03:37	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 03:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 03:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 03:37	127-18-4	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: DUP 053018B **Lab ID: 92386848014** Collected: 05/30/18 10:00 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 03:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 03:37	120-82-1	
1,1,1-Trichloroethane	**6.6**	ug/L	1.0	1		06/03/18 03:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 03:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 03:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 03:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 03:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 03:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 03:37	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 03:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 03:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 03:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		06/03/18 03:37	460-00-4	
1,2-Dichloroethane-d4 (S)	77	%	70-130	1		06/03/18 03:37	17060-07-0	
Toluene-d8 (S)	121	%	70-130	1		06/03/18 03:37	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**51.0**	ug/L	2.0	1		06/04/18 22:56	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 22:56	17060-07-0	
Toluene-d8 (S)	115	%	50-150	1		06/04/18 22:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25D-190 **Lab ID: 92386848015** Collected: 05/30/18 15:40 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 00:30	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 00:30	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 00:30	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 00:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 00:30	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 00:30	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 00:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 00:30	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 00:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 00:30	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 00:30	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 00:30	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:30	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 00:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 00:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 00:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 00:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 00:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 00:30	75-71-8	
1,1-Dichloroethane	**10.8**	ug/L	1.0	1		06/03/18 00:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 00:30	107-06-2	
1,1-Dichloroethene	**58.3**	ug/L	1.0	1		06/03/18 00:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 00:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 00:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 00:30	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 00:30	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 00:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 00:30	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 00:30	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 00:30	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 00:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 00:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 00:30	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 00:30	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 00:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 00:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 00:30	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25D-190 **Lab ID: 92386848015** Collected: 05/30/18 15:40 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 00:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 00:30	120-82-1	
1,1,1-Trichloroethane	**7.2**	ug/L	1.0	1		06/03/18 00:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 00:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 00:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 00:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 00:30	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 00:30	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 00:30	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 00:30	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 00:30	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 00:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		06/03/18 00:30	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	70-130	1		06/03/18 00:30	17060-07-0	
Toluene-d8 (S)	116	%	70-130	1		06/03/18 00:30	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**50.8**	ug/L	2.0	1		06/04/18 23:16	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		06/04/18 23:16	17060-07-0	
Toluene-d8 (S)	113	%	50-150	1		06/04/18 23:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25D-130 **Lab ID: 92386848016** Collected: 05/30/18 15:25 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/07/18 15:06	67-64-1	
Benzene	ND	ug/L	1.0	1		06/07/18 15:06	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/07/18 15:06	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/07/18 15:06	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/07/18 15:06	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/07/18 15:06	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/07/18 15:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/07/18 15:06	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/07/18 15:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/07/18 15:06	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/07/18 15:06	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/07/18 15:06	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/07/18 15:06	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/07/18 15:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/07/18 15:06	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/07/18 15:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/07/18 15:06	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/07/18 15:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/07/18 15:06	75-71-8	
1,1-Dichloroethane	**5.0**	ug/L	1.0	1		06/07/18 15:06	75-34-3	
1,2-Dichloroethane	**1.4**	ug/L	1.0	1		06/07/18 15:06	107-06-2	
1,1-Dichloroethene	**144**	ug/L	1.0	1		06/07/18 15:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/07/18 15:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/07/18 15:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/07/18 15:06	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/07/18 15:06	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/07/18 15:06	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/07/18 15:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/07/18 15:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/07/18 15:06	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/07/18 15:06	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/07/18 15:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/07/18 15:06	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		06/07/18 15:06	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/07/18 15:06	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/07/18 15:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/07/18 15:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/07/18 15:06	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/07/18 15:06	91-20-3	
Styrene	ND	ug/L	1.0	1		06/07/18 15:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/07/18 15:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/07/18 15:06	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/07/18 15:06	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25D-130 **Lab ID: 92386848016** Collected: 05/30/18 15:25 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/07/18 15:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/07/18 15:06	120-82-1	
1,1,1-Trichloroethane	**5.3**	ug/L	1.0	1		06/07/18 15:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/07/18 15:06	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/07/18 15:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/07/18 15:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/07/18 15:06	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/07/18 15:06	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/07/18 15:06	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/07/18 15:06	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/07/18 15:06	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/07/18 15:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		06/07/18 15:06	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		06/07/18 15:06	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		06/07/18 15:06	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**53.9**	ug/L	2.0	1		06/04/18 23:35	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	118	%	50-150	1		06/04/18 23:35	17060-07-0	
Toluene-d8 (S)	113	%	50-150	1		06/04/18 23:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25 **Lab ID: 92386848017** Collected: 05/30/18 15:15 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		06/03/18 02:29	67-64-1	
Benzene	ND	ug/L	1.0	1		06/03/18 02:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/03/18 02:29	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/03/18 02:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/03/18 02:29	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/03/18 02:29	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/03/18 02:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/03/18 02:29	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/03/18 02:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/03/18 02:29	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/03/18 02:29	67-66-3	
Chloromethane	ND	ug/L	1.0	1		06/03/18 02:29	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 02:29	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/03/18 02:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/03/18 02:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/03/18 02:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/03/18 02:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		06/03/18 02:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/03/18 02:29	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/03/18 02:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/03/18 02:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/03/18 02:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 02:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/03/18 02:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 02:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/03/18 02:29	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/03/18 02:29	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/03/18 02:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 02:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/03/18 02:29	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/03/18 02:29	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/03/18 02:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/03/18 02:29	87-68-3	L2
2-Hexanone	ND	ug/L	5.0	1		06/03/18 02:29	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/03/18 02:29	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/03/18 02:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/03/18 02:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/03/18 02:29	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/03/18 02:29	91-20-3	
Styrene	ND	ug/L	1.0	1		06/03/18 02:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 02:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/03/18 02:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/03/18 02:29	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop FLex
Pace Project No.: 92386848

Sample: MW-25 **Lab ID: 92386848017** Collected: 05/30/18 15:15 Received: 06/01/18 11:07 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Toluene	ND	ug/L	1.0	1		06/03/18 02:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/03/18 02:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/03/18 02:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/03/18 02:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		06/03/18 02:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/03/18 02:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/03/18 02:29	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/03/18 02:29	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/03/18 02:29	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/03/18 02:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/03/18 02:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/03/18 02:29	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	1		06/03/18 02:29	460-00-4	
1,2-Dichloroethane-d4 (S)	82	%	70-130	1		06/03/18 02:29	17060-07-0	
Toluene-d8 (S)	117	%	70-130	1		06/03/18 02:29	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		06/04/18 23:55	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%	50-150	1		06/04/18 23:55	17060-07-0	
Toluene-d8 (S)	111	%	50-150	1		06/04/18 23:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

QC Batch: 413518 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92386848002, 92386848003, 92386848004, 92386848006, 92386848009, 92386848010, 92386848011, 92386848012, 92386848013, 92386848014, 92386848015, 92386848017

METHOD BLANK: 2293248 Matrix: Water
Associated Lab Samples: 92386848002, 92386848003, 92386848004, 92386848006, 92386848009, 92386848010, 92386848011, 92386848012, 92386848013, 92386848014, 92386848015, 92386848017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,1-Dichloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,1-Dichloroethene	ug/L	ND	1.0	06/02/18 23:06	
1,1-Dichloropropene	ug/L	ND	1.0	06/02/18 23:06	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/02/18 23:06	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/02/18 23:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/02/18 23:06	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
1,2-Dichloroethane	ug/L	ND	1.0	06/02/18 23:06	
1,2-Dichloropropane	ug/L	ND	1.0	06/02/18 23:06	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
1,3-Dichloropropane	ug/L	ND	1.0	06/02/18 23:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
2,2-Dichloropropane	ug/L	ND	1.0	06/02/18 23:06	
2-Butanone (MEK)	ug/L	ND	5.0	06/02/18 23:06	
2-Chlorotoluene	ug/L	ND	1.0	06/02/18 23:06	
2-Hexanone	ug/L	ND	5.0	06/02/18 23:06	
4-Chlorotoluene	ug/L	ND	1.0	06/02/18 23:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/02/18 23:06	
Acetone	ug/L	ND	25.0	06/02/18 23:06	
Benzene	ug/L	ND	1.0	06/02/18 23:06	
Bromobenzene	ug/L	ND	1.0	06/02/18 23:06	
Bromochloromethane	ug/L	ND	1.0	06/02/18 23:06	
Bromodichloromethane	ug/L	ND	1.0	06/02/18 23:06	
Bromoform	ug/L	ND	1.0	06/02/18 23:06	
Bromomethane	ug/L	ND	2.0	06/02/18 23:06	
Carbon tetrachloride	ug/L	ND	1.0	06/02/18 23:06	
Chlorobenzene	ug/L	ND	1.0	06/02/18 23:06	
Chloroethane	ug/L	ND	1.0	06/02/18 23:06	
Chloroform	ug/L	ND	1.0	06/02/18 23:06	
Chloromethane	ug/L	ND	1.0	06/02/18 23:06	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/02/18 23:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/02/18 23:06	
Dibromochloromethane	ug/L	ND	1.0	06/02/18 23:06	
Dibromomethane	ug/L	ND	1.0	06/02/18 23:06	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

METHOD BLANK: 2293248 Matrix: Water

Associated Lab Samples: 92386848002, 92386848003, 92386848004, 92386848006, 92386848009, 92386848010, 92386848011, 92386848012, 92386848013, 92386848014, 92386848015, 92386848017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	06/02/18 23:06	
Diisopropyl ether	ug/L	ND	1.0	06/02/18 23:06	
Ethylbenzene	ug/L	ND	1.0	06/02/18 23:06	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/02/18 23:06	
m&p-Xylene	ug/L	ND	2.0	06/02/18 23:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/02/18 23:06	
Methylene Chloride	ug/L	ND	2.0	06/02/18 23:06	
Naphthalene	ug/L	ND	1.0	06/02/18 23:06	
o-Xylene	ug/L	ND	1.0	06/02/18 23:06	
p-Isopropyltoluene	ug/L	ND	1.0	06/02/18 23:06	
Styrene	ug/L	ND	1.0	06/02/18 23:06	
Tetrachloroethene	ug/L	ND	1.0	06/02/18 23:06	
Toluene	ug/L	ND	1.0	06/02/18 23:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/02/18 23:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/02/18 23:06	
Trichloroethene	ug/L	ND	1.0	06/02/18 23:06	
Trichlorofluoromethane	ug/L	ND	1.0	06/02/18 23:06	
Vinyl acetate	ug/L	ND	2.0	06/02/18 23:06	
Vinyl chloride	ug/L	ND	1.0	06/02/18 23:06	
Xylene (Total)	ug/L	ND	1.0	06/02/18 23:06	
1,2-Dichloroethane-d4 (S)	%	80	70-130	06/02/18 23:06	
4-Bromofluorobenzene (S)	%	100	70-130	06/02/18 23:06	
Toluene-d8 (S)	%	117	70-130	06/02/18 23:06	

LABORATORY CONTROL SAMPLE: 2293249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.1	92	80-125	
1,1,1-Trichloroethane	ug/L	50	53.9	108	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	42.6	85	79-124	
1,1,2-Trichloroethane	ug/L	50	48.3	97	85-125	
1,1-Dichloroethane	ug/L	50	44.9	90	73-126	
1,1-Dichloroethene	ug/L	50	51.6	103	66-135	
1,1-Dichloropropene	ug/L	50	48.1	96	74-135	
1,2,3-Trichlorobenzene	ug/L	50	43.1	86	73-135	
1,2,3-Trichloropropane	ug/L	50	43.9	88	75-130	
1,2,4-Trichlorobenzene	ug/L	50	42.6	85	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	43.3	87	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	48.3	97	83-124	
1,2-Dichlorobenzene	ug/L	50	46.6	93	80-133	
1,2-Dichloroethane	ug/L	50	51.4	103	67-128	
1,2-Dichloropropane	ug/L	50	51.3	103	75-132	
1,3-Dichlorobenzene	ug/L	50	45.6	91	77-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

LABORATORY CONTROL SAMPLE: 2293249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	48.5	97	76-131	
1,4-Dichlorobenzene	ug/L	50	45.0	90	78-130	
2,2-Dichloropropane	ug/L	50	46.4	93	40-160	
2-Butanone (MEK)	ug/L	100	76.4	76	61-144	
2-Chlorotoluene	ug/L	50	45.1	90	74-132	
2-Hexanone	ug/L	100	75.5	75	68-143	
4-Chlorotoluene	ug/L	50	45.0	90	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	83.8	84	72-135	
Acetone	ug/L	100	92.9	93	48-146	
Benzene	ug/L	50	50.0	100	80-125	
Bromobenzene	ug/L	50	46.0	92	75-125	
Bromochloromethane	ug/L	50	52.7	105	71-125	
Bromodichloromethane	ug/L	50	48.5	97	78-124	
Bromoform	ug/L	50	40.9	82	71-128	
Bromomethane	ug/L	50	35.3	71	40-160	
Carbon tetrachloride	ug/L	50	50.0	100	69-131	
Chlorobenzene	ug/L	50	45.5	91	81-122	
Chloroethane	ug/L	50	40.6	81	39-148	
Chloroform	ug/L	50	48.8	98	73-127	
Chloromethane	ug/L	50	42.0	84	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.2	94	74-124	
cis-1,3-Dichloropropene	ug/L	50	49.6	99	72-132	
Dibromochloromethane	ug/L	50	45.4	91	78-125	
Dibromomethane	ug/L	50	49.0	98	82-120	
Dichlorodifluoromethane	ug/L	50	51.5	103	34-157	
Diisopropyl ether	ug/L	50	42.9	86	69-135	
Ethylbenzene	ug/L	50	45.2	90	79-121	
Hexachloro-1,3-butadiene	ug/L	50	35.6	71	72-131	L2
m&p-Xylene	ug/L	100	91.6	92	81-124	
Methyl-tert-butyl ether	ug/L	50	43.3	87	74-131	
Methylene Chloride	ug/L	50	50.4	101	64-133	
Naphthalene	ug/L	50	45.2	90	73-133	
o-Xylene	ug/L	50	46.3	93	79-131	
p-Isopropyltoluene	ug/L	50	43.2	86	80-131	
Styrene	ug/L	50	46.1	92	84-126	
Tetrachloroethene	ug/L	50	43.4	87	78-122	
Toluene	ug/L	50	49.5	99	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	48.1	96	69-141	
Trichloroethene	ug/L	50	49.3	99	78-122	
Trichlorofluoromethane	ug/L	50	49.2	98	53-137	
Vinyl acetate	ug/L	100	91.7	92	40-160	
Vinyl chloride	ug/L	50	47.7	95	50-150	
Xylene (Total)	ug/L	150	138	92	81-126	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			101	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2293251

Parameter	Units	92386848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	17.8	89	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	21.4	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.2	91	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	18.6	93	70-130	
1,1-Dichloroethane	ug/L	ND	20	19.5	98	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.1	121	70-166	
1,1-Dichloropropene	ug/L	ND	20	19.9	100	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.0	85	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	18.5	92	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	17.3	87	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.3	91	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	18.2	91	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	19.4	97	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.8	99	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	19.4	97	70-130	
1,3-Dichloropropane	ug/L	ND	20	18.1	90	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.2	96	70-130	
2,2-Dichloropropane	ug/L	ND	20	21.1	106	70-130	
2-Butanone (MEK)	ug/L	ND	40	33.9	85	70-130	
2-Chlorotoluene	ug/L	ND	20	19.6	98	70-130	
2-Hexanone	ug/L	ND	40	35.2	88	70-130	
4-Chlorotoluene	ug/L	ND	20	19.2	96	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	37.6	94	70-130	
Acetone	ug/L	ND	40	43.4	109	70-130	
Benzene	ug/L	ND	20	20.9	104	70-148	
Bromobenzene	ug/L	ND	20	19.8	99	70-130	
Bromochloromethane	ug/L	ND	20	21.2	106	70-130	
Bromodichloromethane	ug/L	ND	20	20.5	102	70-130	
Bromoform	ug/L	ND	20	16.1	81	70-130	
Bromomethane	ug/L	ND	20	16.2	81	70-130	
Carbon tetrachloride	ug/L	ND	20	21.1	105	70-130	
Chlorobenzene	ug/L	ND	20	20.2	101	70-146	
Chloroethane	ug/L	ND	20	20.2	101	70-130	
Chloroform	ug/L	ND	20	21.3	102	70-130	
Chloromethane	ug/L	ND	20	18.4	92	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	20.7	103	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	19.6	98	70-130	
Dibromochloromethane	ug/L	ND	20	17.5	88	70-130	
Dibromomethane	ug/L	ND	20	20.1	101	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.5	117	70-130	
Diisopropyl ether	ug/L	ND	20	16.8	84	70-130	
Ethylbenzene	ug/L	ND	20	20.7	104	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	13.8	69	70-130	M0
m&p-Xylene	ug/L	ND	40	42.2	105	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	16.8	84	70-130	
Methylene Chloride	ug/L	ND	20	19.2	96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2293251

Parameter	Units	92386848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	18.1	91	70-130	
o-Xylene	ug/L	ND	20	20.4	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	17.6	88	70-130	
Styrene	ug/L	ND	20	20.4	102	70-130	
Tetrachloroethene	ug/L	2.3	20	21.4	96	70-130	
Toluene	ug/L	ND	20	22.4	112	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	20.0	100	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	18.1	90	70-130	
Trichloroethene	ug/L	ND	20	20.5	103	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.8	119	70-130	
Vinyl acetate	ug/L	ND	40	36.1	90	70-130	
Vinyl chloride	ug/L	ND	20	22.2	111	70-130	
Xylene (Total)	ug/L	ND	60	62.5	104	70-130	
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				104	70-130	

SAMPLE DUPLICATE: 2293250

Parameter	Units	92386883003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	11.5	10.4	10	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	.34J		30	
1,1-Dichloroethane	ug/L	27.1	24.6	10	30	
1,1-Dichloroethene	ug/L	188	157	18	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	1.8	1.7	3	30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

SAMPLE DUPLICATE: 2293250

Parameter	Units	92386883003 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	.25J		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	3.4	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	.6J		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	88	84	5		
4-Bromofluorobenzene (S)	%	102	102	0		
Toluene-d8 (S)	%	122	114	7		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

QC Batch: 413923 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92386848001, 92386848005, 92386848008

METHOD BLANK: 2295305 Matrix: Water
Associated Lab Samples: 92386848001, 92386848005, 92386848008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,1-Dichloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,1-Dichloroethene	ug/L	ND	1.0	06/06/18 03:40	
1,1-Dichloropropene	ug/L	ND	1.0	06/06/18 03:40	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/06/18 03:40	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/06/18 03:40	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/06/18 03:40	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
1,2-Dichloroethane	ug/L	ND	1.0	06/06/18 03:40	
1,2-Dichloropropane	ug/L	ND	1.0	06/06/18 03:40	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
1,3-Dichloropropane	ug/L	ND	1.0	06/06/18 03:40	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
2,2-Dichloropropane	ug/L	ND	1.0	06/06/18 03:40	
2-Butanone (MEK)	ug/L	ND	5.0	06/06/18 03:40	
2-Chlorotoluene	ug/L	ND	1.0	06/06/18 03:40	
2-Hexanone	ug/L	ND	5.0	06/06/18 03:40	
4-Chlorotoluene	ug/L	ND	1.0	06/06/18 03:40	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/06/18 03:40	
Acetone	ug/L	ND	25.0	06/06/18 03:40	
Benzene	ug/L	ND	1.0	06/06/18 03:40	
Bromobenzene	ug/L	ND	1.0	06/06/18 03:40	
Bromochloromethane	ug/L	ND	1.0	06/06/18 03:40	
Bromodichloromethane	ug/L	ND	1.0	06/06/18 03:40	
Bromoform	ug/L	ND	1.0	06/06/18 03:40	
Bromomethane	ug/L	ND	2.0	06/06/18 03:40	
Carbon tetrachloride	ug/L	ND	1.0	06/06/18 03:40	
Chlorobenzene	ug/L	ND	1.0	06/06/18 03:40	
Chloroethane	ug/L	ND	1.0	06/06/18 03:40	
Chloroform	ug/L	ND	1.0	06/06/18 03:40	
Chloromethane	ug/L	ND	1.0	06/06/18 03:40	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/06/18 03:40	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/06/18 03:40	
Dibromochloromethane	ug/L	ND	1.0	06/06/18 03:40	
Dibromomethane	ug/L	ND	1.0	06/06/18 03:40	
Dichlorodifluoromethane	ug/L	ND	1.0	06/06/18 03:40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

METHOD BLANK: 2295305 Matrix: Water
Associated Lab Samples: 92386848001, 92386848005, 92386848008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	06/06/18 03:40	
Ethylbenzene	ug/L	ND	1.0	06/06/18 03:40	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/06/18 03:40	
m&p-Xylene	ug/L	ND	2.0	06/06/18 03:40	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/06/18 03:40	
Methylene Chloride	ug/L	ND	2.0	06/06/18 03:40	
Naphthalene	ug/L	ND	1.0	06/06/18 03:40	
o-Xylene	ug/L	ND	1.0	06/06/18 03:40	
p-Isopropyltoluene	ug/L	ND	1.0	06/06/18 03:40	
Styrene	ug/L	ND	1.0	06/06/18 03:40	
Tetrachloroethene	ug/L	ND	1.0	06/06/18 03:40	
Toluene	ug/L	ND	1.0	06/06/18 03:40	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/06/18 03:40	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/06/18 03:40	
Trichloroethene	ug/L	ND	1.0	06/06/18 03:40	
Trichlorofluoromethane	ug/L	ND	1.0	06/06/18 03:40	
Vinyl acetate	ug/L	ND	2.0	06/06/18 03:40	
Vinyl chloride	ug/L	ND	1.0	06/06/18 03:40	
Xylene (Total)	ug/L	ND	1.0	06/06/18 03:40	
1,2-Dichloroethane-d4 (S)	%	90	70-130	06/06/18 03:40	
4-Bromofluorobenzene (S)	%	104	70-130	06/06/18 03:40	
Toluene-d8 (S)	%	114	70-130	06/06/18 03:40	

LABORATORY CONTROL SAMPLE: 2295306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.6	95	80-125	
1,1,1-Trichloroethane	ug/L	50	52.8	106	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	46.1	92	79-124	
1,1,2-Trichloroethane	ug/L	50	48.1	96	85-125	
1,1-Dichloroethane	ug/L	50	46.1	92	73-126	
1,1-Dichloroethene	ug/L	50	51.5	103	66-135	
1,1-Dichloropropene	ug/L	50	49.3	99	74-135	
1,2,3-Trichlorobenzene	ug/L	50	42.4	85	73-135	
1,2,3-Trichloropropane	ug/L	50	47.2	94	75-130	
1,2,4-Trichlorobenzene	ug/L	50	43.5	87	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.3	93	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	50.6	101	83-124	
1,2-Dichlorobenzene	ug/L	50	47.5	95	80-133	
1,2-Dichloroethane	ug/L	50	50.9	102	67-128	
1,2-Dichloropropane	ug/L	50	49.9	100	75-132	
1,3-Dichlorobenzene	ug/L	50	46.5	93	77-130	
1,3-Dichloropropane	ug/L	50	50.7	101	76-131	
1,4-Dichlorobenzene	ug/L	50	46.2	92	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

LABORATORY CONTROL SAMPLE: 2295306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	45.3	91	40-160	
2-Butanone (MEK)	ug/L	100	93.8	94	61-144	
2-Chlorotoluene	ug/L	50	45.8	92	74-132	
2-Hexanone	ug/L	100	89.8	90	68-143	
4-Chlorotoluene	ug/L	50	46.0	92	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.5	91	72-135	
Acetone	ug/L	100	111	111	48-146	
Benzene	ug/L	50	48.8	98	80-125	
Bromobenzene	ug/L	50	46.7	93	75-125	
Bromochloromethane	ug/L	50	50.7	101	71-125	
Bromodichloromethane	ug/L	50	47.2	94	78-124	
Bromoform	ug/L	50	41.1	82	71-128	
Bromomethane	ug/L	50	32.9	66	40-160	
Carbon tetrachloride	ug/L	50	48.2	96	69-131	
Chlorobenzene	ug/L	50	46.1	92	81-122	
Chloroethane	ug/L	50	37.9	76	39-148	
Chloroform	ug/L	50	53.4	107	73-127	
Chloromethane	ug/L	50	39.7	79	44-146	
cis-1,2-Dichloroethene	ug/L	50	48.0	96	74-124	
cis-1,3-Dichloropropene	ug/L	50	48.5	97	72-132	
Dibromochloromethane	ug/L	50	47.4	95	78-125	
Dibromomethane	ug/L	50	47.6	95	82-120	
Dichlorodifluoromethane	ug/L	50	47.8	96	34-157	
Diisopropyl ether	ug/L	50	44.8	90	69-135	
Ethylbenzene	ug/L	50	46.2	92	79-121	
Hexachloro-1,3-butadiene	ug/L	50	35.3	71	72-131	L2
m&p-Xylene	ug/L	100	93.2	93	81-124	
Methyl-tert-butyl ether	ug/L	50	45.0	90	74-131	
Methylene Chloride	ug/L	50	49.9	100	64-133	
Naphthalene	ug/L	50	47.5	95	73-133	
o-Xylene	ug/L	50	47.6	95	79-131	
p-Isopropyltoluene	ug/L	50	41.5	83	80-131	
Styrene	ug/L	50	45.5	91	84-126	
Tetrachloroethene	ug/L	50	44.7	89	78-122	
Toluene	ug/L	50	49.0	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	46.1	92	71-127	
trans-1,3-Dichloropropene	ug/L	50	48.0	96	69-141	
Trichloroethene	ug/L	50	49.2	98	78-122	
Trichlorofluoromethane	ug/L	50	45.2	90	53-137	
Vinyl acetate	ug/L	100	101	101	40-160	
Vinyl chloride	ug/L	50	45.9	92	50-150	
Xylene (Total)	ug/L	150	141	94	81-126	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2296625

Parameter	Units	92386883023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.3	97	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	22.2	111	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.5	97	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.5	103	70-130	
1,1-Dichloroethane	ug/L	4.3	20	23.9	98	70-130	
1,1-Dichloroethene	ug/L	ND	20	22.0	110	70-166	
1,1-Dichloropropene	ug/L	ND	20	19.7	99	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.8	89	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	20.4	102	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.1	90	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.8	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.2	101	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.7	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.4	107	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.8	104	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.9	99	70-130	
2,2-Dichloropropane	ug/L	ND	20	19.2	96	70-130	
2-Butanone (MEK)	ug/L	ND	40	40.2	101	70-130	
2-Chlorotoluene	ug/L	ND	20	21.4	107	70-130	
2-Hexanone	ug/L	ND	40	39.3	98	70-130	
4-Chlorotoluene	ug/L	ND	20	21.1	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	41.1	103	70-130	
Acetone	ug/L	ND	40	44.2	111	70-130	
Benzene	ug/L	ND	20	21.5	108	70-148	
Bromobenzene	ug/L	ND	20	21.1	106	70-130	
Bromochloromethane	ug/L	ND	20	22.8	114	70-130	
Bromodichloromethane	ug/L	ND	20	19.7	98	70-130	
Bromoform	ug/L	ND	20	15.8	79	70-130	
Bromomethane	ug/L	ND	20	9.4	47	70-130	M1
Carbon tetrachloride	ug/L	ND	20	20.2	101	70-130	
Chlorobenzene	ug/L	ND	20	20.6	103	70-146	
Chloroethane	ug/L	ND	20	16.3	81	70-130	
Chloroform	ug/L	ND	20	20.3	102	70-130	
Chloromethane	ug/L	ND	20	12.9	64	70-130	M1
cis-1,2-Dichloroethene	ug/L	ND	20	21.0	105	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.3	101	70-130	
Dibromochloromethane	ug/L	ND	20	17.5	88	70-130	
Dibromomethane	ug/L	ND	20	20.4	102	70-130	
Dichlorodifluoromethane	ug/L	ND	20	11.1	55	70-130	M1
Diisopropyl ether	ug/L	ND	20	19.7	98	70-130	
Ethylbenzene	ug/L	ND	20	20.6	103	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	15.0	75	70-130	
m&p-Xylene	ug/L	ND	40	42.1	105	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.9	90	70-130	
Methylene Chloride	ug/L	ND	20	19.2	96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2296625

Parameter	Units	92386883023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	20.0	100	70-130	
o-Xylene	ug/L	ND	20	21.4	107	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.3	97	70-130	
Styrene	ug/L	ND	20	20.0	100	70-130	
Tetrachloroethene	ug/L	ND	20	19.0	95	70-130	
Toluene	ug/L	ND	20	22.2	111	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	19.7	98	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	18.6	93	70-130	
Trichloroethene	ug/L	ND	20	20.2	101	69-151	
Trichlorofluoromethane	ug/L	ND	20	20.6	103	70-130	
Vinyl acetate	ug/L	ND	40	37.8	94	70-130	
Vinyl chloride	ug/L	ND	20	16.9	84	70-130	
Xylene (Total)	ug/L	ND	60	63.4	106	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2296624

Parameter	Units	92386883022 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	6.1	5.9	3	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	1.9	2.0	3	30	
1,1-Dichloroethene	ug/L	2.6	2.4	8	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

SAMPLE DUPLICATE: 2296624

Parameter	Units	92386883022 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	87	97	10		
4-Bromofluorobenzene (S)	%	100	103	3		
Toluene-d8 (S)	%	116	113	3		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

QC Batch: 414292 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92386848007, 92386848016

METHOD BLANK: 2297375 Matrix: Water
Associated Lab Samples: 92386848007, 92386848016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,1-Dichloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,1-Dichloroethene	ug/L	ND	1.0	06/07/18 13:42	
1,1-Dichloropropene	ug/L	ND	1.0	06/07/18 13:42	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/07/18 13:42	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/07/18 13:42	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/07/18 13:42	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
1,2-Dichloroethane	ug/L	ND	1.0	06/07/18 13:42	
1,2-Dichloropropane	ug/L	ND	1.0	06/07/18 13:42	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
1,3-Dichloropropane	ug/L	ND	1.0	06/07/18 13:42	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
2,2-Dichloropropane	ug/L	ND	1.0	06/07/18 13:42	
2-Butanone (MEK)	ug/L	ND	5.0	06/07/18 13:42	
2-Chlorotoluene	ug/L	ND	1.0	06/07/18 13:42	
2-Hexanone	ug/L	ND	5.0	06/07/18 13:42	
4-Chlorotoluene	ug/L	ND	1.0	06/07/18 13:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/07/18 13:42	
Acetone	ug/L	ND	25.0	06/07/18 13:42	
Benzene	ug/L	ND	1.0	06/07/18 13:42	
Bromobenzene	ug/L	ND	1.0	06/07/18 13:42	
Bromochloromethane	ug/L	ND	1.0	06/07/18 13:42	
Bromodichloromethane	ug/L	ND	1.0	06/07/18 13:42	
Bromoform	ug/L	ND	1.0	06/07/18 13:42	
Bromomethane	ug/L	ND	2.0	06/07/18 13:42	
Carbon tetrachloride	ug/L	ND	1.0	06/07/18 13:42	
Chlorobenzene	ug/L	ND	1.0	06/07/18 13:42	
Chloroethane	ug/L	ND	1.0	06/07/18 13:42	
Chloroform	ug/L	ND	1.0	06/07/18 13:42	
Chloromethane	ug/L	ND	1.0	06/07/18 13:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/07/18 13:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/07/18 13:42	
Dibromochloromethane	ug/L	ND	1.0	06/07/18 13:42	
Dibromomethane	ug/L	ND	1.0	06/07/18 13:42	
Dichlorodifluoromethane	ug/L	ND	1.0	06/07/18 13:42	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

METHOD BLANK: 2297375 Matrix: Water
Associated Lab Samples: 92386848007, 92386848016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	06/07/18 13:42	
Ethylbenzene	ug/L	ND	1.0	06/07/18 13:42	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/07/18 13:42	
m&p-Xylene	ug/L	ND	2.0	06/07/18 13:42	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/07/18 13:42	
Methylene Chloride	ug/L	ND	2.0	06/07/18 13:42	
Naphthalene	ug/L	ND	1.0	06/07/18 13:42	
o-Xylene	ug/L	ND	1.0	06/07/18 13:42	
p-Isopropyltoluene	ug/L	ND	1.0	06/07/18 13:42	
Styrene	ug/L	ND	1.0	06/07/18 13:42	
Tetrachloroethene	ug/L	ND	1.0	06/07/18 13:42	
Toluene	ug/L	ND	1.0	06/07/18 13:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/07/18 13:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/07/18 13:42	
Trichloroethene	ug/L	ND	1.0	06/07/18 13:42	
Trichlorofluoromethane	ug/L	ND	1.0	06/07/18 13:42	
Vinyl acetate	ug/L	ND	2.0	06/07/18 13:42	
Vinyl chloride	ug/L	ND	1.0	06/07/18 13:42	
Xylene (Total)	ug/L	ND	1.0	06/07/18 13:42	
1,2-Dichloroethane-d4 (S)	%	101	70-130	06/07/18 13:42	
4-Bromofluorobenzene (S)	%	103	70-130	06/07/18 13:42	
Toluene-d8 (S)	%	106	70-130	06/07/18 13:42	

LABORATORY CONTROL SAMPLE: 2297376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.4	99	80-125	
1,1,1-Trichloroethane	ug/L	50	52.4	105	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	48.6	97	79-124	
1,1,2-Trichloroethane	ug/L	50	50.7	101	85-125	
1,1-Dichloroethane	ug/L	50	45.6	91	73-126	
1,1-Dichloroethene	ug/L	50	53.7	107	66-135	
1,1-Dichloropropene	ug/L	50	54.1	108	74-135	
1,2,3-Trichlorobenzene	ug/L	50	49.9	100	73-135	
1,2,3-Trichloropropane	ug/L	50	49.4	99	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.7	97	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	50.5	101	83-124	
1,2-Dichlorobenzene	ug/L	50	50.9	102	80-133	
1,2-Dichloroethane	ug/L	50	48.4	97	67-128	
1,2-Dichloropropane	ug/L	50	50.6	101	75-132	
1,3-Dichlorobenzene	ug/L	50	49.7	99	77-130	
1,3-Dichloropropane	ug/L	50	50.9	102	76-131	
1,4-Dichlorobenzene	ug/L	50	49.8	100	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

LABORATORY CONTROL SAMPLE: 2297376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	47.2	94	40-160	
2-Butanone (MEK)	ug/L	100	102	102	61-144	
2-Chlorotoluene	ug/L	50	48.8	98	74-132	
2-Hexanone	ug/L	100	92.8	93	68-143	
4-Chlorotoluene	ug/L	50	48.7	97	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	95.4	95	72-135	
Acetone	ug/L	100	101	101	48-146	
Benzene	ug/L	50	50.3	101	80-125	
Bromobenzene	ug/L	50	50.8	102	75-125	
Bromochloromethane	ug/L	50	49.7	99	71-125	
Bromodichloromethane	ug/L	50	46.1	92	78-124	
Bromoform	ug/L	50	42.0	84	71-128	
Bromomethane	ug/L	50	39.0	78	40-160	
Carbon tetrachloride	ug/L	50	46.8	94	69-131	
Chlorobenzene	ug/L	50	49.5	99	81-122	
Chloroethane	ug/L	50	39.4	79	39-148	
Chloroform	ug/L	50	52.0	104	73-127	
Chloromethane	ug/L	50	42.4	85	44-146	
cis-1,2-Dichloroethene	ug/L	50	50.1	100	74-124	
cis-1,3-Dichloropropene	ug/L	50	48.7	97	72-132	
Dibromochloromethane	ug/L	50	47.1	94	78-125	
Dibromomethane	ug/L	50	49.1	98	82-120	
Dichlorodifluoromethane	ug/L	50	51.6	103	34-157	
Diisopropyl ether	ug/L	50	53.4	107	69-135	
Ethylbenzene	ug/L	50	49.1	98	79-121	
Hexachloro-1,3-butadiene	ug/L	50	48.1	96	72-131	
m&p-Xylene	ug/L	100	98.0	98	81-124	
Methyl-tert-butyl ether	ug/L	50	51.6	103	74-131	
Methylene Chloride	ug/L	50	47.2	94	64-133	
Naphthalene	ug/L	50	49.1	98	73-133	
o-Xylene	ug/L	50	49.8	100	79-131	
p-Isopropyltoluene	ug/L	50	49.4	99	80-131	
Styrene	ug/L	50	47.2	94	84-126	
Tetrachloroethene	ug/L	50	49.3	99	78-122	
Toluene	ug/L	50	48.9	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	50.6	101	71-127	
trans-1,3-Dichloropropene	ug/L	50	48.4	97	69-141	
Trichloroethene	ug/L	50	52.6	105	78-122	
Trichlorofluoromethane	ug/L	50	49.0	98	53-137	
Vinyl acetate	ug/L	100	113	113	40-160	
Vinyl chloride	ug/L	50	48.1	96	50-150	
Xylene (Total)	ug/L	150	148	99	81-126	
1,2-Dichloroethane-d4 (S)	%			87	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2297378

Parameter	Units	92387035007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	17.1	86	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	20.3	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.3	87	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	18.5	93	70-130	
1,1-Dichloroethane	ug/L	ND	20	19.0	95	70-130	
1,1-Dichloroethene	ug/L	ND	20	20.7	103	70-166	
1,1-Dichloropropene	ug/L	ND	20	21.2	106	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.3	91	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	18.0	90	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.2	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	14.9	74	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	17.7	88	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	18.7	94	70-130	
1,2-Dichloroethane	ug/L	ND	20	18.7	94	70-130	
1,2-Dichloropropane	ug/L	ND	20	19.6	98	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	19.0	95	70-130	
1,3-Dichloropropane	ug/L	ND	20	18.6	93	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	18.8	94	70-130	
2,2-Dichloropropane	ug/L	ND	20	19.8	99	70-130	
2-Butanone (MEK)	ug/L	11.5	40	45.1	84	70-130	
2-Chlorotoluene	ug/L	ND	20	19.4	97	70-130	
2-Hexanone	ug/L	ND	40	33.1	79	70-130	
4-Chlorotoluene	ug/L	ND	20	18.5	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	34.3	84	70-130	
Acetone	ug/L	ND	40	30.3	76	70-130	
Benzene	ug/L	4.2	20	23.4	96	70-148	
Bromobenzene	ug/L	ND	20	18.8	94	70-130	
Bromochloromethane	ug/L	ND	20	19.0	95	70-130	
Bromodichloromethane	ug/L	ND	20	16.8	84	70-130	
Bromoform	ug/L	ND	20	13.6	68	70-130	M1
Bromomethane	ug/L	ND	20	13.3	67	70-130	M1
Carbon tetrachloride	ug/L	ND	20	17.5	87	70-130	
Chlorobenzene	ug/L	ND	20	18.4	92	70-146	
Chloroethane	ug/L	ND	20	17.9	90	70-130	
Chloroform	ug/L	ND	20	19.8	99	70-130	
Chloromethane	ug/L	ND	20	14.3	71	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	19.0	95	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	17.4	87	70-130	
Dibromochloromethane	ug/L	ND	20	15.9	80	70-130	
Dibromomethane	ug/L	ND	20	18.1	91	70-130	
Dichlorodifluoromethane	ug/L	ND	20	17.5	87	70-130	
Diisopropyl ether	ug/L	ND	20	18.9	94	70-130	
Ethylbenzene	ug/L	1.4	20	19.8	92	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	18.5	92	70-130	
m&p-Xylene	ug/L	ND	40	38.3	94	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.8	94	70-130	
Methylene Chloride	ug/L	ND	20	12.3	62	70-130	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

MATRIX SPIKE SAMPLE: 2297378

Parameter	Units	92387035007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	1.2	20	19.0	89	70-130	
o-Xylene	ug/L	ND	20	19.3	95	70-130	
p-Isopropyltoluene	ug/L	1.7	20	21.5	99	70-130	
Styrene	ug/L	ND	20	17.7	89	70-130	
Tetrachloroethene	ug/L	ND	20	18.4	92	70-130	
Toluene	ug/L	ND	20	19.3	91	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	20.4	102	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	17.4	87	70-130	
Trichloroethene	ug/L	ND	20	19.9	100	69-151	
Trichlorofluoromethane	ug/L	ND	20	20.9	104	70-130	
Vinyl acetate	ug/L	ND	40	41.5	104	70-130	
Vinyl chloride	ug/L	ND	20	17.5	88	70-130	
Xylene (Total)	ug/L	ND	60	57.6	96	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 2297377

Parameter	Units	92387035006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	2.8J		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

SAMPLE DUPLICATE: 2297377

Parameter	Units	92387035006 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	5.7	5.6	2	30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	.85J		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	2.1	1.9J		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	1.7	1.5	10	30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	7.1	6.9	3	30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	3.8	1.5	87	30	
1,2-Dichloroethane-d4 (S)	%	104	107	3		
4-Bromofluorobenzene (S)	%	100	101	1		
Toluene-d8 (S)	%	99	100	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop FLex
Pace Project No.: 92386848

QC Batch: 413701 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92386848001, 92386848002, 92386848003, 92386848004, 92386848005, 92386848006, 92386848007, 92386848008, 92386848009, 92386848010, 92386848011, 92386848012, 92386848013, 92386848014, 92386848015, 92386848016, 92386848017

METHOD BLANK: 2294137 Matrix: Water
Associated Lab Samples: 92386848001, 92386848002, 92386848003, 92386848004, 92386848005, 92386848006, 92386848007, 92386848008, 92386848009, 92386848010, 92386848011, 92386848012, 92386848013, 92386848014, 92386848015, 92386848016, 92386848017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	06/04/18 16:46	
1,2-Dichloroethane-d4 (S)	%	114	50-150	06/04/18 16:46	
Toluene-d8 (S)	%	111	50-150	06/04/18 16:46	

LABORATORY CONTROL SAMPLE: 2294138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	21.3	107	71-125	
1,2-Dichloroethane-d4 (S)	%			115	50-150	
Toluene-d8 (S)	%			109	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2294139 2294140

Parameter	Units	92386848002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	6.9	20	20	20.8	21.6	70	74	50-150	4	30	
1,2-Dichloroethane-d4 (S)	%						118	119	50-150		150	
Toluene-d8 (S)	%						115	117	50-150		150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Kop FLex
Pace Project No.: 92386848

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kop FLex
Pace Project No.: 92386848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92386848001	**TRIP BLANK**	EPA 8260	413923		
92386848002	**MW-33D-295**	EPA 8260	413518		
92386848003	**MW-33D-235**	EPA 8260	413518		
92386848004	**MW-31D**	EPA 8260	413518		
92386848005	**MW-34D**	EPA 8260	413923		
92386848006	**MW-35D**	EPA 8260	413518		
92386848007	**MW-29D**	EPA 8260	414292		
92386848008	**MW-30D-413**	EPA 8260	413923		
92386848009	**MW-30D-273**	EPA 8260	413518		
92386848010	**MW-32D**	EPA 8260	413518		
92386848011	**MW-28D**	EPA 8260	413518		
92386848012	**MW-28**	EPA 8260	413518		
92386848013	**MW-36D**	EPA 8260	413518		
92386848014	**DUP 053018B**	EPA 8260	413518		
92386848015	**MW-25D-190**	EPA 8260	413518		
92386848016	**MW-25D-130**	EPA 8260	414292		
92386848017	**MW-25**	EPA 8260	413518		
92386848001	**TRIP BLANK**	EPA 8260B Mod.	413701		
92386848002	**MW-33D-295**	EPA 8260B Mod.	413701		
92386848003	**MW-33D-235**	EPA 8260B Mod.	413701		
92386848004	**MW-31D**	EPA 8260B Mod.	413701		
92386848005	**MW-34D**	EPA 8260B Mod.	413701		
92386848006	**MW-35D**	EPA 8260B Mod.	413701		
92386848007	**MW-29D**	EPA 8260B Mod.	413701		
92386848008	**MW-30D-413**	EPA 8260B Mod.	413701		
92386848009	**MW-30D-273**	EPA 8260B Mod.	413701		
92386848010	**MW-32D**	EPA 8260B Mod.	413701		
92386848011	**MW-28D**	EPA 8260B Mod.	413701		
92386848012	**MW-28**	EPA 8260B Mod.	413701		
92386848013	**MW-36D**	EPA 8260B Mod.	413701		
92386848014	**DUP 053018B**	EPA 8260B Mod.	413701		
92386848015	**MW-25D-190**	EPA 8260B Mod.	413701		
92386848016	**MW-25D-130**	EPA 8260B Mod.	413701		
92386848017	**MW-25**	EPA 8260B Mod.	413701		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP Environment & Energy **Project #:**

WO# : 92386848

92386848

Courier: ☐ Commercial ☑ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: VD 6-1-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T040

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 2.0 – 2.3 – 2.8 **Correction Factor:** Add/Subtract (°C) +0.4

Cooler Temp Corrected (°C): 2.4 – 2.7 – 3.2

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on Ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	9. COC has sample 32 D Received Sample 32 times match
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: TE **Date:** 6/1

Project Manager SRF Review: TE **Date:** 6/1

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # **WO# : 92386848**

(1)

PM: PTE Due Date: 06/08/18

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																4												
2																6												
3																6												
4																6												
5																6												
6																6												
7																6												
8																6												
9																6												
10																6												
11																6												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, Incorrect containers.

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO# : 92386848

PM: PTE Due Date: 06/08/18

CLIENT: 92-WSP

(2)

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6													
2																6													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, Incorrect preservative, out of temp, Incorrect containers.

Offsite

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: Herndon, VA

Project Name: Kop flex

Project Location: Hanover, MD

Project Number & Task: 31400389

Sampler(s) Name(s): Molly Long, Chris Cresci

WSP USA Contact Name: Eric Johnson

WSP USA Contact E-mail: Eric.Johnson@wsp.com

WSP USA Contact Phone: 703 709 6500

Sampler(s) Signature(s):

No. 008044

Laboratory Name & Location: Pace, NC

Laboratory Project Manager: Taylor Ezell

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

92386848

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs (8260D)	1,4-Dioxane (8260 SIMS)	Sample Comments
Trip Blank	lab provided						X	X	001
MW-33D-295	GW	5/31/18		11	25	6	X	X	002
MW-33D-235				11	15	6	X	X	003
MW-31D				10	50	6	X	X	004
MW-34D				10	35	6	X	X	005
MW-35D				10	20	6	X	X	006
MW-29D				09	20	6	X	X	007
MW-30D-413				09	05	6	X	X	008
MW-30D-273				08	55	6	X	X	009
MW-32D				08	40	6	X	X	bottle ID: MW-32. Please report as MW-32D 010
MW-28D		5/30/18		16	30	6	X	X	011
MW-28				16	20	6	X	X	012
MW-36D				16	10	6	X	X	013
DUP053018B				10	00	6	X	X	014
MW-25D-190				15	40	6	X	X	015

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	5/31/18	1630					
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			Jarad Pace	6-1-18	11:07	3 (2.4, 2.7, 3.2)	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

GW = ground water

CHAIN-OF-CUSTODY RECORD

Offsite

No. 008046 — wsp

WSP USA Office Address: Herndon, VA

Project Name: Kopflex

Project Location: Hanover MD

Project Number & Task:

Sampler(s) Name(s):

WSP USA Contact Name: Eric Johnson

WSP USA Contact E-mail: eric.johnson@wsp.com

WSP USA Contact Phone: 703 709 6500

Sampler(s) Signature(s):

Laboratory Name & Location: Pace, NC

Laboratory Project Manager: Taylor Ezell

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] __ HR

92386848

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start Date	Collection Start Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs (8260)	1,4-Dioxane (8260 SIMS)	Sample Comments
MW-25D-130	GW	5/30/18		15	25	6	X	X	016
MW-25				15	15	6	X	X	017

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	5/31/18	1650	FedEx				

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			[signature] Pace	6-1-18	11:07	2 (2.4, 2.7, 3.2)	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

August 30, 2018

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: Kopflex
Pace Project No.: 92397044

Dear Eric Johnson:
Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Kopflex
Pace Project No.: 92397044

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Kopflex
Pace Project No.: 92397044

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92397044001	**TRIP BLANK**	Water	08/23/18 00:00	08/24/18 09:30
92397044002	**MW-34D**	Water	08/23/18 08:55	08/24/18 09:30
92397044003	**MW-30D-273**	Water	08/23/18 09:55	08/24/18 09:30
92397044004	**MW-30D-413**	Water	08/23/18 09:40	08/24/18 09:30
92397044005	**MW-29D**	Water	08/23/18 10:05	08/24/18 09:30
92397044006	**MW-32D**	Water	08/23/18 10:25	08/24/18 09:30
92397044007	**MW-36D**	Water	08/23/18 10:45	08/24/18 09:30

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Kopflex
Pace Project No.: 92397044

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92397044001	**TRIP BLANK**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044002	**MW-34D**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044003	**MW-30D-273**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044004	**MW-30D-413**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044005	**MW-29D**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044006	**MW-32D**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92397044007	**MW-36D**	EPA 8260B	GAW	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: TRIP BLANK **Lab ID: 92397044001** Collected: 08/23/18 00:00 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/28/18 12:20	67-64-1	
Benzene	ND	ug/L	1.0	1		08/28/18 12:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/28/18 12:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/28/18 12:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/28/18 12:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/28/18 12:20	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/28/18 12:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/28/18 12:20	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/28/18 12:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/28/18 12:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/28/18 12:20	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/28/18 12:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/28/18 12:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/28/18 12:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/28/18 12:20	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/28/18 12:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/28/18 12:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/28/18 12:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/28/18 12:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/28/18 12:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/28/18 12:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/28/18 12:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/28/18 12:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/28/18 12:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/28/18 12:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/28/18 12:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/28/18 12:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/28/18 12:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/28/18 12:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/28/18 12:20	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/28/18 12:20	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/28/18 12:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/28/18 12:20	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/28/18 12:20	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/28/18 12:20	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/28/18 12:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/28/18 12:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/28/18 12:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/28/18 12:20	91-20-3	
Styrene	ND	ug/L	1.0	1		08/28/18 12:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/28/18 12:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/28/18 12:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/28/18 12:20	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: TRIP BLANK **Lab ID: 92397044001** Collected: 08/23/18 00:00 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/28/18 12:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/28/18 12:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/28/18 12:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/28/18 12:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/28/18 12:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/28/18 12:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/28/18 12:20	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/28/18 12:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/28/18 12:20	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/28/18 12:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/28/18 12:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/28/18 12:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		08/28/18 12:20	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		08/28/18 12:20	17060-07-0	
Toluene-d8 (S)	111	%	70-130	1		08/28/18 12:20	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 11:20	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%	50-150	1		08/28/18 11:20	17060-07-0	
Toluene-d8 (S)	87	%	50-150	1		08/28/18 11:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-34D **Lab ID: 92397044002** Collected: 08/23/18 08:55 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 18:03	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 18:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 18:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 18:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 18:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 18:03	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 18:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 18:03	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 18:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 18:03	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 18:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 18:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 18:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 18:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 18:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 18:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 18:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 18:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 18:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/29/18 18:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 18:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:03	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 18:03	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 18:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 18:03	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 18:03	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 18:03	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 18:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 18:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 18:03	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 18:03	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 18:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 18:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 18:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 18:03	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-34D **Lab ID: 92397044002** Collected: 08/23/18 08:55 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 18:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/29/18 18:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 18:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 18:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 18:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 18:03	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 18:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 18:03	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 18:03	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 18:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 18:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		08/29/18 18:03	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		08/29/18 18:03	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		08/29/18 18:03	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 14:56	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%	50-150	1		08/28/18 14:56	17060-07-0	
Toluene-d8 (S)	78	%	50-150	1		08/28/18 14:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-30D-273 **Lab ID: 92397044003** Collected: 08/23/18 09:55 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 04:38	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 04:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 04:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 04:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 04:38	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 04:38	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 04:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 04:38	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 04:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 04:38	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 04:38	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 04:38	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 04:38	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 04:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 04:38	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 04:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 04:38	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 04:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 04:38	75-71-8	
1,1-Dichloroethane	**1.0**	ug/L	1.0	1		08/29/18 04:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 04:38	107-06-2	
1,1-Dichloroethene	**40.7**	ug/L	1.0	1		08/29/18 04:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 04:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 04:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 04:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 04:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 04:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 04:38	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 04:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 04:38	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 04:38	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 04:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 04:38	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 04:38	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 04:38	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 04:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 04:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 04:38	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 04:38	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 04:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 04:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 04:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 04:38	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-30D-273 **Lab ID: 92397044003** Collected: 08/23/18 09:55 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 04:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 04:38	120-82-1	
1,1,1-Trichloroethane	**1.7**	ug/L	1.0	1		08/29/18 04:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 04:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 04:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 04:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 04:38	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 04:38	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 04:38	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 04:38	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 04:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 04:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		08/29/18 04:38	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		08/29/18 04:38	17060-07-0	
Toluene-d8 (S)	114	%	70-130	1		08/29/18 04:38	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**24.5**	ug/L	2.0	1		08/28/18 11:59	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%	50-150	1		08/28/18 11:59	17060-07-0	
Toluene-d8 (S)	84	%	50-150	1		08/28/18 11:59	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-30D-413 **Lab ID: 92397044004** Collected: 08/23/18 09:40 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 16:55	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 16:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 16:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 16:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 16:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 16:55	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 16:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 16:55	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 16:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 16:55	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 16:55	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 16:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 16:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 16:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 16:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 16:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 16:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 16:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 16:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/29/18 16:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 16:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/29/18 16:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 16:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 16:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 16:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 16:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 16:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 16:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 16:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 16:55	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 16:55	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 16:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 16:55	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 16:55	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 16:55	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 16:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 16:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 16:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 16:55	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 16:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 16:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 16:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 16:55	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-30D-413 **Lab ID: 92397044004** Collected: 08/23/18 09:40 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 16:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 16:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/29/18 16:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 16:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 16:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 16:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 16:55	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 16:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 16:55	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 16:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 16:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 16:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		08/29/18 16:55	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		08/29/18 16:55	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		08/29/18 16:55	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 16:21	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	87	%	50-150	1		08/28/18 16:21	17060-07-0	
Toluene-d8 (S)	77	%	50-150	1		08/28/18 16:21	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-29D **Lab ID: 92397044005** Collected: 08/23/18 10:05 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 18:20	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 18:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 18:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 18:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 18:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 18:20	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 18:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 18:20	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 18:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 18:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 18:20	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 18:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 18:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 18:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 18:20	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 18:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 18:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 18:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 18:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/29/18 18:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 18:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 18:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 18:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 18:20	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 18:20	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 18:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 18:20	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 18:20	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 18:20	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 18:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 18:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 18:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 18:20	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 18:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 18:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 18:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 18:20	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-29D **Lab ID: 92397044005** Collected: 08/23/18 10:05 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 18:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 18:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/29/18 18:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 18:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 18:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 18:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 18:20	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 18:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 18:20	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 18:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 18:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 18:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		08/29/18 18:20	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		08/29/18 18:20	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		08/29/18 18:20	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 16:41	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	87	%	50-150	1		08/28/18 16:41	17060-07-0	
Toluene-d8 (S)	77	%	50-150	1		08/28/18 16:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-32D **Lab ID: 92397044006** Collected: 08/23/18 10:25 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 17:12	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 17:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 17:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 17:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 17:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 17:12	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 17:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 17:12	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 17:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 17:12	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 17:12	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 17:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 17:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 17:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 17:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 17:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 17:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 17:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 17:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/29/18 17:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 17:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:12	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 17:12	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 17:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 17:12	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 17:12	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 17:12	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 17:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 17:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 17:12	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 17:12	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 17:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 17:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 17:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 17:12	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-32D **Lab ID: 92397044006** Collected: 08/23/18 10:25 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 17:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/29/18 17:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 17:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 17:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 17:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 17:12	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 17:12	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 17:12	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 17:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 17:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 17:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		08/29/18 17:12	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		08/29/18 17:12	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		08/29/18 17:12	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 13:57	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	88	%	50-150	1		08/28/18 13:57	17060-07-0	
Toluene-d8 (S)	79	%	50-150	1		08/28/18 13:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-36D **Lab ID: 92397044007** Collected: 08/23/18 10:45 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		08/29/18 17:46	67-64-1	
Benzene	ND	ug/L	1.0	1		08/29/18 17:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		08/29/18 17:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		08/29/18 17:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/29/18 17:46	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/29/18 17:46	75-25-2	
Bromomethane	ND	ug/L	2.0	1		08/29/18 17:46	74-83-9	M1
2-Butanone (MEK)	ND	ug/L	5.0	1		08/29/18 17:46	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		08/29/18 17:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/29/18 17:46	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/29/18 17:46	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/29/18 17:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 17:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		08/29/18 17:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		08/29/18 17:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/29/18 17:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/29/18 17:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/29/18 17:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		08/29/18 17:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/29/18 17:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/29/18 17:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/29/18 17:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		08/29/18 17:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/29/18 17:46	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		08/29/18 17:46	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		08/29/18 17:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		08/29/18 17:46	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		08/29/18 17:46	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		08/29/18 17:46	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		08/29/18 17:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/29/18 17:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/29/18 17:46	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		08/29/18 17:46	91-20-3	
Styrene	ND	ug/L	1.0	1		08/29/18 17:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 17:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/29/18 17:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/29/18 17:46	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kopflex
Pace Project No.: 92397044

Sample: MW-36D **Lab ID: 92397044007** Collected: 08/23/18 10:45 Received: 08/24/18 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		08/29/18 17:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		08/29/18 17:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/29/18 17:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/29/18 17:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/29/18 17:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/29/18 17:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/29/18 17:46	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/29/18 17:46	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/29/18 17:46	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		08/29/18 17:46	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/29/18 17:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		08/29/18 17:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		08/29/18 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		08/29/18 17:46	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		08/29/18 17:46	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		08/28/18 14:17	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	86	%	50-150	1		08/28/18 14:17	17060-07-0	
Toluene-d8 (S)	78	%	50-150	1		08/28/18 14:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

QC Batch: 427452 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92397044001

METHOD BLANK: 2361339 Matrix: Water
Associated Lab Samples: 92397044001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,1-Dichloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,1-Dichloroethene	ug/L	ND	1.0	08/28/18 11:29	
1,1-Dichloropropene	ug/L	ND	1.0	08/28/18 11:29	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/28/18 11:29	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	08/28/18 11:29	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/28/18 11:29	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
1,2-Dichloroethane	ug/L	ND	1.0	08/28/18 11:29	
1,2-Dichloropropane	ug/L	ND	1.0	08/28/18 11:29	
1,3-Dichlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
1,3-Dichloropropane	ug/L	ND	1.0	08/28/18 11:29	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
2,2-Dichloropropane	ug/L	ND	1.0	08/28/18 11:29	
2-Butanone (MEK)	ug/L	ND	5.0	08/28/18 11:29	
2-Chlorotoluene	ug/L	ND	1.0	08/28/18 11:29	
2-Hexanone	ug/L	ND	5.0	08/28/18 11:29	
4-Chlorotoluene	ug/L	ND	1.0	08/28/18 11:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	08/28/18 11:29	
Acetone	ug/L	ND	25.0	08/28/18 11:29	
Benzene	ug/L	ND	1.0	08/28/18 11:29	
Bromobenzene	ug/L	ND	1.0	08/28/18 11:29	
Bromochloromethane	ug/L	ND	1.0	08/28/18 11:29	
Bromodichloromethane	ug/L	ND	1.0	08/28/18 11:29	
Bromoform	ug/L	ND	1.0	08/28/18 11:29	
Bromomethane	ug/L	ND	2.0	08/28/18 11:29	
Carbon tetrachloride	ug/L	ND	1.0	08/28/18 11:29	
Chlorobenzene	ug/L	ND	1.0	08/28/18 11:29	
Chloroethane	ug/L	ND	1.0	08/28/18 11:29	
Chloroform	ug/L	ND	1.0	08/28/18 11:29	
Chloromethane	ug/L	ND	1.0	08/28/18 11:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/28/18 11:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/28/18 11:29	
Dibromochloromethane	ug/L	ND	1.0	08/28/18 11:29	
Dibromomethane	ug/L	ND	1.0	08/28/18 11:29	
Dichlorodifluoromethane	ug/L	ND	1.0	08/28/18 11:29	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

METHOD BLANK: 2361339 Matrix: Water
Associated Lab Samples: 92397044001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	08/28/18 11:29	
Ethylbenzene	ug/L	ND	1.0	08/28/18 11:29	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	08/28/18 11:29	
m&p-Xylene	ug/L	ND	2.0	08/28/18 11:29	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/28/18 11:29	
Methylene Chloride	ug/L	ND	2.0	08/28/18 11:29	
Naphthalene	ug/L	ND	1.0	08/28/18 11:29	
o-Xylene	ug/L	ND	1.0	08/28/18 11:29	
p-Isopropyltoluene	ug/L	ND	1.0	08/28/18 11:29	
Styrene	ug/L	ND	1.0	08/28/18 11:29	
Tetrachloroethene	ug/L	ND	1.0	08/28/18 11:29	
Toluene	ug/L	ND	1.0	08/28/18 11:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/28/18 11:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/28/18 11:29	
Trichloroethene	ug/L	ND	1.0	08/28/18 11:29	
Trichlorofluoromethane	ug/L	ND	1.0	08/28/18 11:29	
Vinyl acetate	ug/L	ND	2.0	08/28/18 11:29	
Vinyl chloride	ug/L	ND	1.0	08/28/18 11:29	
Xylene (Total)	ug/L	ND	1.0	08/28/18 11:29	
1,2-Dichloroethane-d4 (S)	%	92	70-130	08/28/18 11:29	
4-Bromofluorobenzene (S)	%	103	70-130	08/28/18 11:29	
Toluene-d8 (S)	%	113	70-130	08/28/18 11:29	

LABORATORY CONTROL SAMPLE: 2361340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.7	97	80-125	
1,1,1-Trichloroethane	ug/L	50	46.6	93	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	47.0	94	79-124	
1,1,2-Trichloroethane	ug/L	50	51.3	103	85-125	
1,1-Dichloroethane	ug/L	50	43.6	87	73-126	
1,1-Dichloroethene	ug/L	50	49.7	99	66-135	
1,1-Dichloropropene	ug/L	50	52.1	104	74-135	
1,2,3-Trichlorobenzene	ug/L	50	46.3	93	73-135	
1,2,3-Trichloropropane	ug/L	50	46.5	93	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.0	96	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.5	95	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	49.9	100	83-124	
1,2-Dichlorobenzene	ug/L	50	46.2	92	80-133	
1,2-Dichloroethane	ug/L	50	44.3	89	67-128	
1,2-Dichloropropane	ug/L	50	48.5	97	75-132	
1,3-Dichlorobenzene	ug/L	50	46.4	93	77-130	
1,3-Dichloropropane	ug/L	50	49.0	98	76-131	
1,4-Dichlorobenzene	ug/L	50	45.8	92	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

LABORATORY CONTROL SAMPLE: 2361340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	46.1	92	40-160	
2-Butanone (MEK)	ug/L	100	101	101	61-144	
2-Chlorotoluene	ug/L	50	45.0	90	74-132	
2-Hexanone	ug/L	100	91.0	91	68-143	
4-Chlorotoluene	ug/L	50	44.8	90	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	89.6	90	72-135	
Acetone	ug/L	100	90.9	91	48-146	
Benzene	ug/L	50	48.8	98	80-125	
Bromobenzene	ug/L	50	46.8	94	75-125	
Bromochloromethane	ug/L	50	58.8	118	71-125	
Bromodichloromethane	ug/L	50	46.5	93	78-124	
Bromoform	ug/L	50	46.4	93	71-128	
Bromomethane	ug/L	50	38.8	78	40-160	
Carbon tetrachloride	ug/L	50	46.2	92	69-131	
Chlorobenzene	ug/L	50	46.3	93	81-122	
Chloroethane	ug/L	50	43.4	87	39-148	
Chloroform	ug/L	50	46.7	93	73-127	
Chloromethane	ug/L	50	37.8	76	44-146	
cis-1,2-Dichloroethene	ug/L	50	44.7	89	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.1	100	72-132	
Dibromochloromethane	ug/L	50	45.4	91	78-125	
Dibromomethane	ug/L	50	47.4	95	82-120	
Dichlorodifluoromethane	ug/L	50	54.4	109	34-157	
Diisopropyl ether	ug/L	50	47.2	94	69-135	
Ethylbenzene	ug/L	50	45.6	91	79-121	
Hexachloro-1,3-butadiene	ug/L	50	46.7	93	72-131	
m&p-Xylene	ug/L	100	91.2	91	81-124	
Methyl-tert-butyl ether	ug/L	50	50.0	100	74-131	
Methylene Chloride	ug/L	50	49.3	99	64-133	
Naphthalene	ug/L	50	47.1	94	73-133	
o-Xylene	ug/L	50	47.3	95	79-131	
p-Isopropyltoluene	ug/L	50	46.8	94	80-131	
Styrene	ug/L	50	45.6	91	84-126	
Tetrachloroethene	ug/L	50	45.9	92	78-122	
Toluene	ug/L	50	44.3	89	80-121	
trans-1,2-Dichloroethene	ug/L	50	45.7	91	71-127	
trans-1,3-Dichloropropene	ug/L	50	50.6	101	69-141	
Trichloroethene	ug/L	50	50.9	102	78-122	
Trichlorofluoromethane	ug/L	50	46.1	92	53-137	
Vinyl acetate	ug/L	100	91.8	92	40-160	
Vinyl chloride	ug/L	50	53.1	106	58-137	
Xylene (Total)	ug/L	150	138	92	81-126	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			95	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE SAMPLE: 2362445

Parameter	Units	92396999004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.4	107	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	22.1	111	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.4	102	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.0	100	70-130	
1,1-Dichloroethane	ug/L	ND	20	20.2	101	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.6	123	70-166	
1,1-Dichloropropene	ug/L	ND	20	21.6	108	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	19.8	99	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.6	108	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.2	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.1	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.0	100	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.5	107	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.6	108	70-130	
1,2-Dichloropropane	ug/L	ND	20	23.6	118	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	22.0	110	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.9	109	70-130	
2,2-Dichloropropane	ug/L	ND	20	23.0	115	70-130	
2-Butanone (MEK)	ug/L	ND	40	36.5	91	70-130	
2-Chlorotoluene	ug/L	ND	20	22.3	111	70-130	
2-Hexanone	ug/L	ND	40	39.0	97	70-130	
4-Chlorotoluene	ug/L	ND	20	22.8	114	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	36.5	91	70-130	
Acetone	ug/L	ND	40	40.2	101	70-130	
Benzene	ug/L	ND	20	23.5	117	70-148	
Bromobenzene	ug/L	ND	20	22.7	114	70-130	
Bromochloromethane	ug/L	ND	20	22.4	112	70-130	
Bromodichloromethane	ug/L	ND	20	21.8	109	70-130	
Bromoform	ug/L	ND	20	17.4	87	70-130	
Bromomethane	ug/L	ND	20	22.5	113	70-130	
Carbon tetrachloride	ug/L	ND	20	23.5	117	70-130	
Chlorobenzene	ug/L	ND	20	22.6	113	70-146	
Chloroethane	ug/L	ND	20	23.5	118	70-130	
Chloroform	ug/L	ND	20	20.2	101	70-130	
Chloromethane	ug/L	ND	20	16.7	83	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.7	109	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	21.5	108	70-130	
Dibromochloromethane	ug/L	ND	20	18.9	94	70-130	
Dibromomethane	ug/L	ND	20	20.6	103	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.8	119	70-130	
Diisopropyl ether	ug/L	ND	20	18.3	91	70-130	
Ethylbenzene	ug/L	ND	20	22.8	114	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.5	103	70-130	
m&p-Xylene	ug/L	ND	40	46.0	115	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.6	93	70-130	
Methylene Chloride	ug/L	ND	20	18.7	94	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE SAMPLE: 2362445

Parameter	Units	92396999004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	19.7	98	70-130	
o-Xylene	ug/L	ND	20	23.0	115	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.7	109	70-130	
Styrene	ug/L	ND	20	21.9	110	70-130	
Tetrachloroethene	ug/L	ND	20	22.2	111	70-130	
Toluene	ug/L	ND	20	23.1	115	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.9	114	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.9	104	70-130	
Trichloroethene	ug/L	ND	20	22.4	112	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.9	119	70-130	
Vinyl acetate	ug/L	ND	40	34.2	85	70-130	
Vinyl chloride	ug/L	ND	20	24.4	122	70-130	
Xylene (Total)	ug/L	ND	60	69.0	115	70-130	
1,2-Dichloroethane-d4 (S)	%				100	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 2362444

Parameter	Units	92396999003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

SAMPLE DUPLICATE: 2362444

Parameter	Units	92396999003 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	92	96	4		
4-Bromofluorobenzene (S)	%	103	107	4		
Toluene-d8 (S)	%	111	106	5		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

QC Batch: 427538 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92397044003

METHOD BLANK: 2361819 Matrix: Water
Associated Lab Samples: 92397044003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,1-Dichloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,1-Dichloroethene	ug/L	ND	1.0	08/28/18 23:17	
1,1-Dichloropropene	ug/L	ND	1.0	08/28/18 23:17	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/28/18 23:17	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	08/28/18 23:17	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/28/18 23:17	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
1,2-Dichloroethane	ug/L	ND	1.0	08/28/18 23:17	
1,2-Dichloropropane	ug/L	ND	1.0	08/28/18 23:17	
1,3-Dichlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
1,3-Dichloropropane	ug/L	ND	1.0	08/28/18 23:17	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
2,2-Dichloropropane	ug/L	ND	1.0	08/28/18 23:17	
2-Butanone (MEK)	ug/L	ND	5.0	08/28/18 23:17	
2-Chlorotoluene	ug/L	ND	1.0	08/28/18 23:17	
2-Hexanone	ug/L	ND	5.0	08/28/18 23:17	
4-Chlorotoluene	ug/L	ND	1.0	08/28/18 23:17	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	08/28/18 23:17	
Acetone	ug/L	ND	25.0	08/28/18 23:17	
Benzene	ug/L	ND	1.0	08/28/18 23:17	
Bromobenzene	ug/L	ND	1.0	08/28/18 23:17	
Bromochloromethane	ug/L	ND	1.0	08/28/18 23:17	
Bromodichloromethane	ug/L	ND	1.0	08/28/18 23:17	
Bromoform	ug/L	ND	1.0	08/28/18 23:17	
Bromomethane	ug/L	ND	2.0	08/28/18 23:17	
Carbon tetrachloride	ug/L	ND	1.0	08/28/18 23:17	
Chlorobenzene	ug/L	ND	1.0	08/28/18 23:17	
Chloroethane	ug/L	ND	1.0	08/28/18 23:17	
Chloroform	ug/L	ND	1.0	08/28/18 23:17	
Chloromethane	ug/L	ND	1.0	08/28/18 23:17	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/28/18 23:17	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/28/18 23:17	
Dibromochloromethane	ug/L	ND	1.0	08/28/18 23:17	
Dibromomethane	ug/L	ND	1.0	08/28/18 23:17	
Dichlorodifluoromethane	ug/L	ND	1.0	08/28/18 23:17	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

METHOD BLANK: 2361819 Matrix: Water
Associated Lab Samples: 92397044003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	08/28/18 23:17	
Ethylbenzene	ug/L	ND	1.0	08/28/18 23:17	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	08/28/18 23:17	
m&p-Xylene	ug/L	ND	2.0	08/28/18 23:17	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/28/18 23:17	
Methylene Chloride	ug/L	ND	2.0	08/28/18 23:17	
Naphthalene	ug/L	ND	1.0	08/28/18 23:17	
o-Xylene	ug/L	ND	1.0	08/28/18 23:17	
p-Isopropyltoluene	ug/L	ND	1.0	08/28/18 23:17	
Styrene	ug/L	ND	1.0	08/28/18 23:17	
Tetrachloroethene	ug/L	ND	1.0	08/28/18 23:17	
Toluene	ug/L	ND	1.0	08/28/18 23:17	
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/28/18 23:17	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/28/18 23:17	
Trichloroethene	ug/L	ND	1.0	08/28/18 23:17	
Trichlorofluoromethane	ug/L	ND	1.0	08/28/18 23:17	
Vinyl acetate	ug/L	ND	2.0	08/28/18 23:17	
Vinyl chloride	ug/L	ND	1.0	08/28/18 23:17	
Xylene (Total)	ug/L	ND	1.0	08/28/18 23:17	
1,2-Dichloroethane-d4 (S)	%	94	70-130	08/28/18 23:17	
4-Bromofluorobenzene (S)	%	104	70-130	08/28/18 23:17	
Toluene-d8 (S)	%	114	70-130	08/28/18 23:17	

LABORATORY CONTROL SAMPLE: 2361820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.2	98	80-125	
1,1,1-Trichloroethane	ug/L	50	44.2	88	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	47.2	94	79-124	
1,1,2-Trichloroethane	ug/L	50	52.5	105	85-125	
1,1-Dichloroethane	ug/L	50	41.0	82	73-126	
1,1-Dichloroethene	ug/L	50	46.9	94	66-135	
1,1-Dichloropropene	ug/L	50	51.1	102	74-135	
1,2,3-Trichlorobenzene	ug/L	50	45.9	92	73-135	
1,2,3-Trichloropropane	ug/L	50	47.1	94	75-130	
1,2,4-Trichlorobenzene	ug/L	50	46.2	92	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.4	95	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	50.1	100	83-124	
1,2-Dichlorobenzene	ug/L	50	45.4	91	80-133	
1,2-Dichloroethane	ug/L	50	43.0	86	67-128	
1,2-Dichloropropane	ug/L	50	48.9	98	75-132	
1,3-Dichlorobenzene	ug/L	50	45.7	91	77-130	
1,3-Dichloropropane	ug/L	50	49.3	99	76-131	
1,4-Dichlorobenzene	ug/L	50	45.4	91	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

LABORATORY CONTROL SAMPLE: 2361820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	41.4	83	40-160	
2-Butanone (MEK)	ug/L	100	99.5	99	61-144	
2-Chlorotoluene	ug/L	50	43.9	88	74-132	
2-Hexanone	ug/L	100	90.6	91	68-143	
4-Chlorotoluene	ug/L	50	44.0	88	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.4	94	72-135	
Acetone	ug/L	100	89.7	90	48-146	
Benzene	ug/L	50	49.6	99	80-125	
Bromobenzene	ug/L	50	46.4	93	75-125	
Bromochloromethane	ug/L	50	55.8	112	71-125	
Bromodichloromethane	ug/L	50	46.8	94	78-124	
Bromoform	ug/L	50	45.7	91	71-128	
Bromomethane	ug/L	50	38.4	77	40-160	
Carbon tetrachloride	ug/L	50	44.8	90	69-131	
Chlorobenzene	ug/L	50	44.6	89	81-122	
Chloroethane	ug/L	50	41.6	83	39-148	
Chloroform	ug/L	50	46.3	93	73-127	
Chloromethane	ug/L	50	36.8	74	44-146	
cis-1,2-Dichloroethene	ug/L	50	43.1	86	74-124	
cis-1,3-Dichloropropene	ug/L	50	49.6	99	72-132	
Dibromochloromethane	ug/L	50	44.2	88	78-125	
Dibromomethane	ug/L	50	48.2	96	82-120	
Dichlorodifluoromethane	ug/L	50	47.0	94	34-157	
Diisopropyl ether	ug/L	50	46.3	93	69-135	
Ethylbenzene	ug/L	50	44.5	89	79-121	
Hexachloro-1,3-butadiene	ug/L	50	44.2	88	72-131	
m&p-Xylene	ug/L	100	88.5	89	81-124	
Methyl-tert-butyl ether	ug/L	50	48.7	97	74-131	
Methylene Chloride	ug/L	50	51.5	103	64-133	
Naphthalene	ug/L	50	47.0	94	73-133	
o-Xylene	ug/L	50	46.4	93	79-131	
p-Isopropyltoluene	ug/L	50	44.6	89	80-131	
Styrene	ug/L	50	44.8	90	84-126	
Tetrachloroethene	ug/L	50	44.7	89	78-122	
Toluene	ug/L	50	45.3	91	80-121	
trans-1,2-Dichloroethene	ug/L	50	43.2	86	71-127	
trans-1,3-Dichloropropene	ug/L	50	51.3	103	69-141	
Trichloroethene	ug/L	50	51.9	104	78-122	
Trichlorofluoromethane	ug/L	50	42.0	84	53-137	
Vinyl acetate	ug/L	100	89.4	89	40-160	
Vinyl chloride	ug/L	50	48.5	97	58-137	
Xylene (Total)	ug/L	150	135	90	81-126	
1,2-Dichloroethane-d4 (S)	%			90	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2361991 2361992

Parameter	Units	92397163001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	19.6	20.3	98	101	70-130	4	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	18.8	19.1	94	96	70-130	1	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.9	20.6	100	103	70-130	3	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.0	103	100	70-130	4	30	
1,1-Dichloroethane	ug/L	ND	20	20	18.2	18.9	91	95	70-130	4	30	
1,1-Dichloroethene	ug/L	ND	20	20	21.2	20.8	106	104	70-166	2	30	
1,1-Dichloropropene	ug/L	ND	20	20	19.3	21.0	96	105	70-130	9	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	19.6	19.4	98	97	70-130	1	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	19.5	20.3	97	101	70-130	4	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.9	19.2	100	96	70-130	4	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.1	18.9	95	95	70-130	1	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	19.3	20.1	97	100	70-130	4	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	21.4	20.9	107	105	70-130	2	30	
1,2-Dichloroethane	ug/L	ND	20	20	17.8	17.2	89	86	70-130	3	30	
1,2-Dichloropropane	ug/L	ND	20	20	21.4	20.3	107	102	70-130	5	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	21.8	21.5	109	107	70-130	2	30	
1,3-Dichloropropane	ug/L	ND	20	20	19.8	20.9	99	104	70-130	5	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	21.6	21.2	108	106	70-130	2	30	
2,2-Dichloropropane	ug/L	ND	20	20	18.1	18.1	91	91	70-130	0	30	
2-Butanone (MEK)	ug/L	ND	40	40	37.3	39.5	93	99	70-130	6	30	
2-Chlorotoluene	ug/L	ND	20	20	21.2	21.1	106	105	70-130	1	30	
2-Hexanone	ug/L	ND	40	40	37.5	39.9	94	100	70-130	6	30	
4-Chlorotoluene	ug/L	ND	20	20	21.0	20.6	105	103	70-130	2	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	37.2	37.3	93	93	70-130	0	30	
Acetone	ug/L	ND	40	40	34.8	35.6	87	89	70-130	2	30	
Benzene	ug/L	ND	20	20	21.3	20.2	106	101	70-148	5	30	
Bromobenzene	ug/L	ND	20	20	20.7	20.3	104	102	70-130	2	30	
Bromochloromethane	ug/L	ND	20	20	21.0	19.3	105	96	70-130	9	30	
Bromodichloromethane	ug/L	ND	20	20	20.5	19.0	103	95	70-130	8	30	
Bromoform	ug/L	ND	20	20	17.1	17.4	86	87	70-130	2	30	
Bromomethane	ug/L	ND	20	20	9.1	10.8	44	52	70-130	18	30	M1
Carbon tetrachloride	ug/L	ND	20	20	21.1	20.4	105	102	70-130	3	30	
Chlorobenzene	ug/L	ND	20	20	20.7	21.2	104	106	70-146	2	30	
Chloroethane	ug/L	ND	20	20	19.1	17.9	95	90	70-130	6	30	
Chloroform	ug/L	ND	20	20	18.4	18.2	92	91	70-130	1	30	
Chloromethane	ug/L	8.1	20	20	13.2	12.7	25	23	70-130	4	30	M1
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	18.2	92	91	70-130	1	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.1	19.2	95	96	70-130	1	30	
Dibromochloromethane	ug/L	ND	20	20	18.3	18.6	91	93	70-130	2	30	
Dibromomethane	ug/L	ND	20	20	20.3	20.0	102	100	70-130	1	30	
Dichlorodifluoromethane	ug/L	ND	20	20	17.0	17.1	85	85	70-130	1	30	
Diisopropyl ether	ug/L	ND	20	20	16.9	17.9	84	90	70-130	6	30	
Ethylbenzene	ug/L	ND	20	20	20.9	20.9	104	105	70-130	0	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	20.9	20.0	104	100	70-130	4	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2361991 2361992

Parameter	Units	92397163001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	40	40	42.1	42.1	105	105	70-130	0	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	17.6	17.8	88	89	70-130	1	30	
Methylene Chloride	ug/L	ND	20	20	19.2	17.9	96	90	70-130	7	30	
Naphthalene	ug/L	ND	20	20	19.5	19.2	98	96	70-130	2	30	
o-Xylene	ug/L	ND	20	20	21.1	21.7	105	108	70-130	3	30	
p-Isopropyltoluene	ug/L	ND	20	20	22.1	21.6	111	108	70-130	3	30	
Styrene	ug/L	ND	20	20	20.3	20.3	101	102	70-130	0	30	
Tetrachloroethene	ug/L	ND	20	20	20.5	21.3	103	106	70-130	4	30	
Toluene	ug/L	ND	20	20	20.7	19.8	104	99	70-155	5	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.5	19.3	97	97	70-130	1	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.0	18.9	95	95	70-130	1	30	
Trichloroethene	ug/L	ND	20	20	21.6	22.0	108	110	69-151	2	30	
Trichlorofluoromethane	ug/L	ND	20	20	20.0	19.3	100	96	70-130	4	30	
Vinyl acetate	ug/L	ND	40	40	28.1	29.6	70	74	70-130	5	30	
Vinyl chloride	ug/L	ND	20	20	20.8	19.9	104	100	70-130	4	30	
Xylene (Total)	ug/L	ND	60	60	63.2	63.8	105	106	70-130	1	30	
1,2-Dichloroethane-d4 (S)	%						87	84	70-130			
4-Bromofluorobenzene (S)	%						94	95	70-130			
Toluene-d8 (S)	%						98	95	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

QC Batch: 427799 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92397044002, 92397044004, 92397044005, 92397044006, 92397044007

METHOD BLANK: 2362919 Matrix: Water
Associated Lab Samples: 92397044002, 92397044004, 92397044005, 92397044006, 92397044007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,1-Dichloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,1-Dichloroethene	ug/L	ND	1.0	08/29/18 14:40	
1,1-Dichloropropene	ug/L	ND	1.0	08/29/18 14:40	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/29/18 14:40	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	08/29/18 14:40	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/29/18 14:40	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
1,2-Dichloroethane	ug/L	ND	1.0	08/29/18 14:40	
1,2-Dichloropropane	ug/L	ND	1.0	08/29/18 14:40	
1,3-Dichlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
1,3-Dichloropropane	ug/L	ND	1.0	08/29/18 14:40	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
2,2-Dichloropropane	ug/L	ND	1.0	08/29/18 14:40	
2-Butanone (MEK)	ug/L	ND	5.0	08/29/18 14:40	
2-Chlorotoluene	ug/L	ND	1.0	08/29/18 14:40	
2-Hexanone	ug/L	ND	5.0	08/29/18 14:40	
4-Chlorotoluene	ug/L	ND	1.0	08/29/18 14:40	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	08/29/18 14:40	
Acetone	ug/L	ND	25.0	08/29/18 14:40	
Benzene	ug/L	ND	1.0	08/29/18 14:40	
Bromobenzene	ug/L	ND	1.0	08/29/18 14:40	
Bromochloromethane	ug/L	ND	1.0	08/29/18 14:40	
Bromodichloromethane	ug/L	ND	1.0	08/29/18 14:40	
Bromoform	ug/L	ND	1.0	08/29/18 14:40	
Bromomethane	ug/L	ND	2.0	08/29/18 14:40	
Carbon tetrachloride	ug/L	ND	1.0	08/29/18 14:40	
Chlorobenzene	ug/L	ND	1.0	08/29/18 14:40	
Chloroethane	ug/L	ND	1.0	08/29/18 14:40	
Chloroform	ug/L	ND	1.0	08/29/18 14:40	
Chloromethane	ug/L	ND	1.0	08/29/18 14:40	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/29/18 14:40	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/29/18 14:40	
Dibromochloromethane	ug/L	ND	1.0	08/29/18 14:40	
Dibromomethane	ug/L	ND	1.0	08/29/18 14:40	
Dichlorodifluoromethane	ug/L	ND	1.0	08/29/18 14:40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

METHOD BLANK: 2362919 Matrix: Water
Associated Lab Samples: 92397044002, 92397044004, 92397044005, 92397044006, 92397044007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	08/29/18 14:40	
Ethylbenzene	ug/L	ND	1.0	08/29/18 14:40	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	08/29/18 14:40	
m&p-Xylene	ug/L	ND	2.0	08/29/18 14:40	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/29/18 14:40	
Methylene Chloride	ug/L	ND	2.0	08/29/18 14:40	
Naphthalene	ug/L	ND	1.0	08/29/18 14:40	
o-Xylene	ug/L	ND	1.0	08/29/18 14:40	
p-Isopropyltoluene	ug/L	ND	1.0	08/29/18 14:40	
Styrene	ug/L	ND	1.0	08/29/18 14:40	
Tetrachloroethene	ug/L	ND	1.0	08/29/18 14:40	
Toluene	ug/L	ND	1.0	08/29/18 14:40	
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/29/18 14:40	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/29/18 14:40	
Trichloroethene	ug/L	ND	1.0	08/29/18 14:40	
Trichlorofluoromethane	ug/L	ND	1.0	08/29/18 14:40	
Vinyl acetate	ug/L	ND	2.0	08/29/18 14:40	
Vinyl chloride	ug/L	ND	1.0	08/29/18 14:40	
Xylene (Total)	ug/L	ND	1.0	08/29/18 14:40	
1,2-Dichloroethane-d4 (S)	%	96	70-130	08/29/18 14:40	
4-Bromofluorobenzene (S)	%	104	70-130	08/29/18 14:40	
Toluene-d8 (S)	%	115	70-130	08/29/18 14:40	

LABORATORY CONTROL SAMPLE: 2362920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.4	103	80-125	
1,1,1-Trichloroethane	ug/L	50	50.1	100	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	49.2	98	79-124	
1,1,2-Trichloroethane	ug/L	50	55.1	110	85-125	
1,1-Dichloroethane	ug/L	50	47.2	94	73-126	
1,1-Dichloroethene	ug/L	50	52.2	104	66-135	
1,1-Dichloropropene	ug/L	50	55.7	111	74-135	
1,2,3-Trichlorobenzene	ug/L	50	43.7	87	73-135	
1,2,3-Trichloropropane	ug/L	50	48.5	97	75-130	
1,2,4-Trichlorobenzene	ug/L	50	45.5	91	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	44.8	90	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	51.7	103	83-124	
1,2-Dichlorobenzene	ug/L	50	47.2	94	80-133	
1,2-Dichloroethane	ug/L	50	47.1	94	67-128	
1,2-Dichloropropane	ug/L	50	54.1	108	75-132	
1,3-Dichlorobenzene	ug/L	50	48.9	98	77-130	
1,3-Dichloropropane	ug/L	50	51.8	104	76-131	
1,4-Dichlorobenzene	ug/L	50	48.1	96	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

LABORATORY CONTROL SAMPLE: 2362920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	49.9	100	40-160	
2-Butanone (MEK)	ug/L	100	110	110	61-144	
2-Chlorotoluene	ug/L	50	47.0	94	74-132	
2-Hexanone	ug/L	100	98.1	98	68-143	
4-Chlorotoluene	ug/L	50	46.7	93	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	99.0	99	72-135	
Acetone	ug/L	100	101	101	48-146	
Benzene	ug/L	50	52.3	105	80-125	
Bromobenzene	ug/L	50	46.5	93	75-125	
Bromochloromethane	ug/L	50	62.7	125	71-125	
Bromodichloromethane	ug/L	50	50.6	101	78-124	
Bromoform	ug/L	50	49.3	99	71-128	
Bromomethane	ug/L	50	40.4	81	40-160	
Carbon tetrachloride	ug/L	50	49.7	99	69-131	
Chlorobenzene	ug/L	50	49.1	98	81-122	
Chloroethane	ug/L	50	42.4	85	39-148	
Chloroform	ug/L	50	53.8	108	73-127	
Chloromethane	ug/L	50	38.4	77	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.7	95	74-124	
cis-1,3-Dichloropropene	ug/L	50	54.7	109	72-132	
Dibromochloromethane	ug/L	50	47.0	94	78-125	
Dibromomethane	ug/L	50	51.2	102	82-120	
Dichlorodifluoromethane	ug/L	50	50.3	101	34-157	
Diisopropyl ether	ug/L	50	51.0	102	69-135	
Ethylbenzene	ug/L	50	48.5	97	79-121	
Hexachloro-1,3-butadiene	ug/L	50	45.1	90	72-131	
m&p-Xylene	ug/L	100	96.8	97	81-124	
Methyl-tert-butyl ether	ug/L	50	52.2	104	74-131	
Methylene Chloride	ug/L	50	54.3	109	64-133	
Naphthalene	ug/L	50	46.5	93	73-133	
o-Xylene	ug/L	50	50.0	100	79-131	
p-Isopropyltoluene	ug/L	50	48.6	97	80-131	
Styrene	ug/L	50	48.1	96	84-126	
Tetrachloroethene	ug/L	50	49.1	98	78-122	
Toluene	ug/L	50	49.9	100	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	71-127	
trans-1,3-Dichloropropene	ug/L	50	54.9	110	69-141	
Trichloroethene	ug/L	50	57.0	114	78-122	
Trichlorofluoromethane	ug/L	50	47.8	96	53-137	
Vinyl acetate	ug/L	100	102	102	40-160	
Vinyl chloride	ug/L	50	54.9	110	58-137	
Xylene (Total)	ug/L	150	147	98	81-126	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			97	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE SAMPLE: 2362922

Parameter	Units	92397044007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.0	95	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	19.1	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.4	97	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.8	104	70-130	
1,1-Dichloroethane	ug/L	ND	20	19.9	100	70-130	
1,1-Dichloroethene	ug/L	ND	20	22.2	111	70-166	
1,1-Dichloropropene	ug/L	ND	20	20.4	102	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.9	90	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	19.6	98	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.0	90	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	17.2	86	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.2	96	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.9	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	18.1	91	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.9	104	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.2	106	70-130	
1,3-Dichloropropane	ug/L	ND	20	19.5	97	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	20.9	104	70-130	
2,2-Dichloropropane	ug/L	ND	20	17.0	85	70-130	
2-Butanone (MEK)	ug/L	ND	40	40.0	100	70-130	
2-Chlorotoluene	ug/L	ND	20	20.6	103	70-130	
2-Hexanone	ug/L	ND	40	37.4	93	70-130	
4-Chlorotoluene	ug/L	ND	20	21.0	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	37.0	93	70-130	
Acetone	ug/L	ND	40	41.5	104	70-130	
Benzene	ug/L	ND	20	21.8	109	70-148	
Bromobenzene	ug/L	ND	20	20.2	101	70-130	
Bromochloromethane	ug/L	ND	20	21.7	109	70-130	
Bromodichloromethane	ug/L	ND	20	19.9	99	70-130	
Bromoform	ug/L	ND	20	16.2	81	70-130	
Bromomethane	ug/L	ND	20	8.9	45	70-130	M1
Carbon tetrachloride	ug/L	ND	20	21.2	106	70-130	
Chlorobenzene	ug/L	ND	20	20.7	104	70-146	
Chloroethane	ug/L	ND	20	21.3	107	70-130	
Chloroform	ug/L	ND	20	19.8	99	70-130	
Chloromethane	ug/L	ND	20	17.3	86	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	19.0	95	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	19.0	95	70-130	
Dibromochloromethane	ug/L	ND	20	17.5	88	70-130	
Dibromomethane	ug/L	ND	20	20.6	103	70-130	
Dichlorodifluoromethane	ug/L	ND	20	22.9	115	70-130	
Diisopropyl ether	ug/L	ND	20	18.1	91	70-130	
Ethylbenzene	ug/L	ND	20	20.6	103	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	18.2	91	70-130	
m&p-Xylene	ug/L	ND	40	42.0	105	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.9	89	70-130	
Methylene Chloride	ug/L	ND	20	19.6	98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

MATRIX SPIKE SAMPLE: 2362922

Parameter	Units	92397044007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	18.0	90	70-130	
o-Xylene	ug/L	ND	20	21.0	105	70-130	
p-Isopropyltoluene	ug/L	ND	20	20.9	104	70-130	
Styrene	ug/L	ND	20	19.6	98	70-130	
Tetrachloroethene	ug/L	ND	20	20.6	101	70-130	
Toluene	ug/L	ND	20	20.7	104	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	20.1	100	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	18.8	94	70-130	
Trichloroethene	ug/L	ND	20	22.5	112	69-151	
Trichlorofluoromethane	ug/L	ND	20	21.1	105	70-130	
Vinyl acetate	ug/L	ND	40	28.1	70	70-130	
Vinyl chloride	ug/L	ND	20	22.7	114	70-130	
Xylene (Total)	ug/L	ND	60	63.0	105	70-130	
1,2-Dichloroethane-d4 (S)	%				88	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 2362921

Parameter	Units	92397044006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

SAMPLE DUPLICATE: 2362921

Parameter	Units	92397044006 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	.16J		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	98	94	4		
4-Bromofluorobenzene (S)	%	100	101	1		
Toluene-d8 (S)	%	107	109	3		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kopflex
Pace Project No.: 92397044

QC Batch: 427265 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92397044001, 92397044002, 92397044003, 92397044004, 92397044005, 92397044006, 92397044007

METHOD BLANK: 2360519 Matrix: Water
Associated Lab Samples: 92397044001, 92397044002, 92397044003, 92397044004, 92397044005, 92397044006, 92397044007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	08/28/18 11:00	
1,2-Dichloroethane-d4 (S)	%	90	50-150	08/28/18 11:00	
Toluene-d8 (S)	%	88	50-150	08/28/18 11:00	

LABORATORY CONTROL SAMPLE: 2360520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	21.4	107	71-125	
1,2-Dichloroethane-d4 (S)	%			96	50-150	
Toluene-d8 (S)	%			90	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2360521 2360522

Parameter	Units	92397044003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	24.5	40	40	71.1	71.0	117	116	50-150	0	30	
1,2-Dichloroethane-d4 (S)	%						93	94	50-150		30	
Toluene-d8 (S)	%						83	83	50-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Kopflex
Pace Project No.: 92397044

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kopflex
Pace Project No.: 92397044

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92397044001	**TRIP BLANK**	EPA 8260B	427452		
92397044002	**MW-34D**	EPA 8260B	427799		
92397044003	**MW-30D-273**	EPA 8260B	427538		
92397044004	**MW-30D-413**	EPA 8260B	427799		
92397044005	**MW-29D**	EPA 8260B	427799		
92397044006	**MW-32D**	EPA 8260B	427799		
92397044007	**MW-36D**	EPA 8260B	427799		
92397044001	**TRIP BLANK**	EPA 8260B Mod.	427265		
92397044002	**MW-34D**	EPA 8260B Mod.	427265		
92397044003	**MW-30D-273**	EPA 8260B Mod.	427265		
92397044004	**MW-30D-413**	EPA 8260B Mod.	427265		
92397044005	**MW-29D**	EPA 8260B Mod.	427265		
92397044006	**MW-32D**	EPA 8260B Mod.	427265		
92397044007	**MW-36D**	EPA 8260B Mod.	427265		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP Env.

Project #: WO# : 92397044

92397044

Courier: ☐ Commercial ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Date/Initials Person Examining Contents: CDM 8/24/18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☑ IR Gun ID: 92T044 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 3.8 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 3.7

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☑ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: [signature] **Date:** 8/24

Project Manager SRF Review: [signature] **Date:** 8/24

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # **WO# : 92397044**

PM: PTE Due Date: 08/31/18

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																4													
2																6													
3																6													
4																6													
5																6													
6																6													
7																6													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr. Ste 300 Herndon, VA 20171

Project Name: Kopflex	WSP USA Contact Name: Eric Johnson
Project Location: Hanover, Maryland	WSP USA Contact E-mail: Eric.Johnson@wsp.com
Project Number & Task: 31403891	WSP USA Contact Phone: 703 709 6500
Sampler(s) Name(s): Molly Long, Chris Cresci	Sampler(s) Signature(s):

No. 008263

Laboratory Name & Location: Pace Analytical

Laboratory Project Manager: Taylor Ezell

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR 92397044

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	1,4-dioxane (SIM)	VOCs (8260)	Sample Comments
Trip Blank	WT	lab provided				4	X	X	lab provided 001
MW-34D	WT	8/23/18		08	55	6	X	X	002
MW-30D-273	WT	8/23/18		09	55	6	X	X	003
MW-30D-413	WT	8/23/18		09	40	6	X	X	004
MW-29D	WT	8/23/18		10	05	6	X	X	005
MW-32D	WT	8/23/18		10	25	6	X	X	006
MW-36D	WT	8/23/18		10	45	6	X	X	007

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	8/23/18	1310	FedEx				813307470910
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
				8/24/18	930		14

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

WT = water

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 20, 2018

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Dear Eric Johnson:
Enclosed are the analytical results for sample(s) received by the laboratory on November 12, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92406866001	**MW-34D**	Water	11/08/18 10:45	11/12/18 09:37
92406866002	**MW-35D**	Water	11/08/18 11:05	11/12/18 09:37
92406866003	**MW-31D**	Water	11/08/18 11:35	11/12/18 09:37
92406866004	**MW-33D-235**	Water	11/08/18 13:15	11/12/18 09:37
92406866005	**MW-33D-295**	Water	11/08/18 13:25	11/12/18 09:37
92406866006	**MW-30D-413**	Water	11/08/18 13:35	11/12/18 09:37
92406866007	**MW-30D-273**	Water	11/08/18 13:50	11/12/18 09:37
92406866008	**MW-29D**	Water	11/08/18 14:00	11/12/18 09:37
92406866009	**MW-32D**	Water	11/08/18 14:15	11/12/18 09:37
92406866010	**MW-36D**	Water	11/08/18 14:30	11/12/18 09:37
92406866011	**MW-28D**	Water	11/08/18 14:50	11/12/18 09:37
92406866012	**MW-25D-130**	Water	11/08/18 13:40	11/12/18 09:37
92406866013	**MW-25D-190**	Water	11/08/18 13:55	11/12/18 09:37
92406866014	**DUP-110818**	Water	11/08/18 09:00	11/12/18 09:37
92406866015	**TRIP BLANK**	Water	11/08/18 00:00	11/12/18 09:37

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92406866001	**MW-34D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866002	**MW-35D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866003	**MW-31D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866004	**MW-33D-235**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866005	**MW-33D-295**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866006	**MW-30D-413**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866007	**MW-30D-273**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866008	**MW-29D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866009	**MW-32D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866010	**MW-36D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866011	**MW-28D**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866012	**MW-25D-130**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866013	**MW-25D-190**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866014	**DUP-110818**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92406866015	**TRIP BLANK**	EPA 8260B	SAS	63	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-34D **Lab ID: 92406866001** Collected: 11/08/18 10:45 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 19:48	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 19:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 19:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 19:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 19:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 19:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 19:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 19:48	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 19:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 19:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 19:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 19:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 19:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 19:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 19:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 19:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 19:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 19:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 19:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 19:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 19:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 19:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 19:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 19:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 19:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 19:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 19:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 19:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 19:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 19:48	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 19:48	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 19:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 19:48	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 19:48	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 19:48	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 19:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 19:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 19:48	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 19:48	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 19:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 19:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 19:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 19:48	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-34D **Lab ID: 92406866001** Collected: 11/08/18 10:45 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 19:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 19:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 19:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 19:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 19:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 19:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 19:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 19:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 19:48	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 19:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 19:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 19:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		11/13/18 19:48	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		11/13/18 19:48	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 19:48	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 12:48	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	50-150	1		11/14/18 12:48	17060-07-0	
Toluene-d8 (S)	102	%	50-150	1		11/14/18 12:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-35D **Lab ID: 92406866002** Collected: 11/08/18 11:05 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 20:04	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 20:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 20:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 20:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 20:04	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 20:04	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 20:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 20:04	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 20:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 20:04	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 20:04	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 20:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 20:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 20:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 20:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 20:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 20:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:04	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 20:04	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 20:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 20:04	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 20:04	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 20:04	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 20:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 20:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 20:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 20:04	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 20:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 20:04	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-35D **Lab ID: 92406866002** Collected: 11/08/18 11:05 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 20:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 20:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 20:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 20:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 20:04	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 20:04	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 20:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 20:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 20:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		11/13/18 20:04	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		11/13/18 20:04	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		11/13/18 20:04	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 13:08	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	93	%	50-150	1		11/14/18 13:08	17060-07-0	
Toluene-d8 (S)	93	%	50-150	1		11/14/18 13:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-31D **Lab ID: 92406866003** Collected: 11/08/18 11:35 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 20:21	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 20:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 20:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 20:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 20:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 20:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 20:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 20:21	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 20:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 20:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 20:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 20:21	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:21	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 20:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 20:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 20:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 20:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 20:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:21	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 20:21	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 20:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 20:21	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 20:21	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 20:21	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 20:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 20:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 20:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 20:21	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 20:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 20:21	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-31D **Lab ID: 92406866003** Collected: 11/08/18 11:35 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 20:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 20:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 20:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 20:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 20:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 20:21	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 20:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 20:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 20:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		11/13/18 20:21	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		11/13/18 20:21	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		11/13/18 20:21	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 13:27	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		11/14/18 13:27	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		11/14/18 13:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-33D-235 **Lab ID: 92406866004** Collected: 11/08/18 13:15 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 20:37	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 20:37	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 20:37	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 20:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 20:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 20:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 20:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 20:37	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 20:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 20:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 20:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 20:37	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:37	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 20:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 20:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 20:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 20:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 20:37	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:37	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 20:37	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 20:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 20:37	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 20:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 20:37	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 20:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 20:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 20:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 20:37	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 20:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 20:37	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-33D-235 **Lab ID: 92406866004** Collected: 11/08/18 13:15 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 20:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 20:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 20:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 20:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 20:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 20:37	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 20:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 20:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 20:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		11/13/18 20:37	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		11/13/18 20:37	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 20:37	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 14:25	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	95	%	50-150	1		11/14/18 14:25	17060-07-0	
Toluene-d8 (S)	123	%	50-150	1		11/14/18 14:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-33D-295 **Lab ID: 92406866005** Collected: 11/08/18 13:25 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 20:54	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 20:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 20:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 20:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 20:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 20:54	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 20:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 20:54	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 20:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 20:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 20:54	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 20:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 20:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 20:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 20:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 20:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 20:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 20:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 20:54	107-06-2	
1,1-Dichloroethene	**4.2**	ug/L	1.0	1		11/13/18 20:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 20:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 20:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 20:54	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 20:54	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 20:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 20:54	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 20:54	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 20:54	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 20:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 20:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 20:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 20:54	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 20:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 20:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 20:54	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-33D-295 **Lab ID: 92406866005** Collected: 11/08/18 13:25 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 20:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 20:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 20:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 20:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 20:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 20:54	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 20:54	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 20:54	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 20:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 20:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 20:54	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		11/13/18 20:54	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		11/13/18 20:54	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 20:54	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**6.1**	ug/L	2.0	1		11/14/18 14:45	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	92	%	50-150	1		11/14/18 14:45	17060-07-0	
Toluene-d8 (S)	115	%	50-150	1		11/14/18 14:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-30D-413 **Lab ID: 92406866006** Collected: 11/08/18 13:35 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 21:10	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 21:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 21:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 21:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 21:10	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 21:10	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 21:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 21:10	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 21:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 21:10	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 21:10	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 21:10	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 21:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 21:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 21:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 21:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 21:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 21:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 21:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:10	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 21:10	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 21:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 21:10	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 21:10	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 21:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 21:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 21:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 21:10	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 21:10	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 21:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 21:10	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-30D-413 **Lab ID: 92406866006** Collected: 11/08/18 13:35 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 21:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 21:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 21:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 21:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 21:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 21:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 21:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 21:10	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 21:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 21:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 21:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		11/13/18 21:10	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 21:10	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		11/13/18 21:10	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 22:32	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	50-150	1		11/14/18 22:32	17060-07-0	
Toluene-d8 (S)	86	%	50-150	1		11/14/18 22:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-30D-273 **Lab ID: 92406866007** Collected: 11/08/18 13:50 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 21:27	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 21:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 21:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 21:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 21:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 21:27	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 21:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 21:27	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 21:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 21:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 21:27	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 21:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 21:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 21:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 21:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 21:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 21:27	75-71-8	
1,1-Dichloroethane	**1.2**	ug/L	1.0	1		11/13/18 21:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 21:27	107-06-2	
1,1-Dichloroethene	**44.0**	ug/L	1.0	1		11/13/18 21:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:27	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 21:27	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 21:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 21:27	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 21:27	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 21:27	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 21:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 21:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 21:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 21:27	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 21:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 21:27	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-30D-273 **Lab ID: 92406866007** Collected: 11/08/18 13:50 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 21:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:27	120-82-1	
1,1,1-Trichloroethane	**2.1**	ug/L	1.0	1		11/13/18 21:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 21:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 21:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 21:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 21:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 21:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 21:27	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 21:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 21:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 21:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		11/13/18 21:27	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		11/13/18 21:27	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		11/13/18 21:27	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**22.2**	ug/L	2.0	1		11/14/18 22:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	117	%	50-150	1		11/14/18 22:51	17060-07-0	
Toluene-d8 (S)	137	%	50-150	1		11/14/18 22:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-29D **Lab ID: 92406866008** Collected: 11/08/18 14:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 21:44	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 21:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 21:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 21:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 21:44	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 21:44	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 21:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 21:44	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 21:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 21:44	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 21:44	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 21:44	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:44	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 21:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 21:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 21:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 21:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 21:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 21:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 21:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 21:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 21:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 21:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 21:44	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 21:44	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 21:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 21:44	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 21:44	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 21:44	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 21:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 21:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 21:44	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 21:44	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 21:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 21:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 21:44	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-29D **Lab ID: 92406866008** Collected: 11/08/18 14:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 21:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 21:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 21:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 21:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 21:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 21:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 21:44	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 21:44	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 21:44	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 21:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 21:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 21:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		11/13/18 21:44	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 21:44	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 21:44	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 23:11	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	92	%	50-150	1		11/14/18 23:11	17060-07-0	
Toluene-d8 (S)	145	%	50-150	1		11/14/18 23:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-32D **Lab ID: 92406866009** Collected: 11/08/18 14:15 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 22:00	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 22:00	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 22:00	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 22:00	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 22:00	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 22:00	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 22:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 22:00	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 22:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 22:00	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 22:00	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 22:00	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:00	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 22:00	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 22:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 22:00	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 22:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 22:00	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:00	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:00	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:00	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:00	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 22:00	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 22:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 22:00	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 22:00	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 22:00	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 22:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 22:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 22:00	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 22:00	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 22:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 22:00	127-18-4	

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-32D **Lab ID: 92406866009** Collected: 11/08/18 14:15 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 22:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 22:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 22:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 22:00	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 22:00	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 22:00	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 22:00	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 22:00	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 22:00	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		11/13/18 22:00	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 22:00	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		11/13/18 22:00	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 23:30	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%	50-150	1		11/14/18 23:30	17060-07-0	
Toluene-d8 (S)	177	%	50-150	1		11/14/18 23:30	2037-26-5	S3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-36D **Lab ID: 92406866010** Collected: 11/08/18 14:30 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 22:17	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 22:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 22:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 22:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 22:17	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 22:17	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 22:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 22:17	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 22:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 22:17	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 22:17	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 22:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 22:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 22:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 22:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 22:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 22:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:17	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 22:17	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 22:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 22:17	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 22:17	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 22:17	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 22:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 22:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 22:17	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 22:17	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 22:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 22:17	127-18-4	

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-36D **Lab ID: 92406866010** Collected: 11/08/18 14:30 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 22:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:17	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 22:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 22:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 22:17	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 22:17	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 22:17	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 22:17	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 22:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 22:17	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		11/13/18 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		11/13/18 22:17	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		11/13/18 22:17	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 23:50	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%	50-150	1		11/14/18 23:50	17060-07-0	
Toluene-d8 (S)	122	%	50-150	1		11/14/18 23:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-28D **Lab ID: 92406866011** Collected: 11/08/18 14:50 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 22:33	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 22:33	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 22:33	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 22:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 22:33	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 22:33	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 22:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 22:33	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 22:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 22:33	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 22:33	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 22:33	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:33	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 22:33	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 22:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 22:33	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 22:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 22:33	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:33	107-06-2	
1,1-Dichloroethene	**6.9**	ug/L	1.0	1		11/13/18 22:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:33	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:33	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:33	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:33	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 22:33	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 22:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 22:33	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 22:33	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 22:33	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 22:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 22:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 22:33	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 22:33	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 22:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 22:33	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-28D **Lab ID: 92406866011** Collected: 11/08/18 14:50 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 22:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:33	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 22:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 22:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 22:33	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 22:33	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 22:33	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 22:33	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 22:33	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 22:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		11/13/18 22:33	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 22:33	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 22:33	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**2.3**	ug/L	2.0	1		11/15/18 00:09	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	90	%	50-150	1		11/15/18 00:09	17060-07-0	
Toluene-d8 (S)	122	%	50-150	1		11/15/18 00:09	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-25D-130 **Lab ID: 92406866012** Collected: 11/08/18 13:40 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 23:23	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 23:23	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 23:23	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 23:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 23:23	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 23:23	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 23:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 23:23	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 23:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 23:23	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 23:23	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 23:23	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 23:23	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 23:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 23:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 23:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 23:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 23:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 23:23	75-71-8	
1,1-Dichloroethane	**4.4**	ug/L	1.0	1		11/13/18 23:23	75-34-3	
1,2-Dichloroethane	**1.1**	ug/L	1.0	1		11/13/18 23:23	107-06-2	
1,1-Dichloroethene	**109**	ug/L	1.0	1		11/13/18 23:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 23:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 23:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:23	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:23	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:23	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:23	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 23:23	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 23:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 23:23	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 23:23	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 23:23	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 23:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 23:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 23:23	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 23:23	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 23:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 23:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 23:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 23:23	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-25D-130 **Lab ID: 92406866012** Collected: 11/08/18 13:40 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 23:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 23:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 23:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 23:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 23:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 23:23	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 23:23	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 23:23	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 23:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 23:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 23:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		11/13/18 23:23	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		11/13/18 23:23	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		11/13/18 23:23	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**40.2**	ug/L	2.0	1		11/15/18 00:28	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	50-150	1		11/15/18 00:28	17060-07-0	
Toluene-d8 (S)	132	%	50-150	1		11/15/18 00:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-25D-190 **Lab ID: 92406866013** Collected: 11/08/18 13:55 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 22:50	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 22:50	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 22:50	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 22:50	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 22:50	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 22:50	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 22:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 22:50	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 22:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 22:50	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 22:50	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 22:50	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:50	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 22:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 22:50	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 22:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 22:50	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 22:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 22:50	75-71-8	
1,1-Dichloroethane	**13.7**	ug/L	1.0	1		11/13/18 22:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 22:50	107-06-2	
1,1-Dichloroethene	**61.0**	ug/L	1.0	1		11/13/18 22:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 22:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:50	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:50	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 22:50	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 22:50	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 22:50	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 22:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 22:50	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 22:50	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 22:50	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 22:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 22:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 22:50	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 22:50	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 22:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 22:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 22:50	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: MW-25D-190 **Lab ID: 92406866013** Collected: 11/08/18 13:55 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 22:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 22:50	120-82-1	
1,1,1-Trichloroethane	**9.8**	ug/L	1.0	1		11/13/18 22:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 22:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 22:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 22:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 22:50	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 22:50	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 22:50	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 22:50	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 22:50	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 22:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		11/13/18 22:50	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 22:50	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 22:50	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**49.3**	ug/L	2.0	1		11/19/18 16:53	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		11/19/18 16:53	17060-07-0	
Toluene-d8 (S)	98	%	50-150	1		11/19/18 16:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: DUP-110818 **Lab ID: 92406866014** Collected: 11/08/18 09:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 23:06	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 23:06	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 23:06	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 23:06	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 23:06	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 23:06	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 23:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 23:06	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 23:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 23:06	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 23:06	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 23:06	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 23:06	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 23:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 23:06	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 23:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 23:06	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 23:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 23:06	75-71-8	
1,1-Dichloroethane	**14.2**	ug/L	1.0	1		11/13/18 23:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 23:06	107-06-2	
1,1-Dichloroethene	**65.9**	ug/L	1.0	1		11/13/18 23:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 23:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 23:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:06	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:06	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 23:06	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 23:06	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 23:06	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 23:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 23:06	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 23:06	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 23:06	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		11/13/18 23:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 23:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 23:06	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 23:06	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 23:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 23:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 23:06	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 23:06	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: DUP-110818 **Lab ID: 92406866014** Collected: 11/08/18 09:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 23:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 23:06	120-82-1	
1,1,1-Trichloroethane	**9.8**	ug/L	1.0	1		11/13/18 23:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 23:06	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 23:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 23:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 23:06	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 23:06	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 23:06	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 23:06	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 23:06	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 23:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		11/13/18 23:06	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/13/18 23:06	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		11/13/18 23:06	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**47.0**	ug/L	2.0	1		11/15/18 01:07	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%	50-150	1		11/15/18 01:07	17060-07-0	
Toluene-d8 (S)	68	%	50-150	1		11/15/18 01:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: TRIP BLANK **Lab ID: 92406866015** Collected: 11/08/18 00:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	25.0	1		11/13/18 17:52	67-64-1	
Benzene	ND	ug/L	1.0	1		11/13/18 17:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/13/18 17:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/13/18 17:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/13/18 17:52	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/13/18 17:52	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/13/18 17:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/13/18 17:52	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/13/18 17:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/13/18 17:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/13/18 17:52	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/13/18 17:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 17:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/13/18 17:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/13/18 17:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/13/18 17:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/13/18 17:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/13/18 17:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/13/18 17:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/13/18 17:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/13/18 17:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/13/18 17:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 17:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/13/18 17:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 17:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/13/18 17:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/13/18 17:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/13/18 17:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 17:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/13/18 17:52	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/13/18 17:52	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/13/18 17:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/13/18 17:52	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/13/18 17:52	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/13/18 17:52	99-87-6	
Methylene Chloride	**5.3**	ug/L	2.0	1		11/13/18 17:52	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/13/18 17:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/13/18 17:52	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/13/18 17:52	91-20-3	
Styrene	ND	ug/L	1.0	1		11/13/18 17:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 17:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/13/18 17:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/13/18 17:52	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Sample: TRIP BLANK **Lab ID: 92406866015** Collected: 11/08/18 00:00 Received: 11/12/18 09:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		11/13/18 17:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/13/18 17:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/13/18 17:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/13/18 17:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/13/18 17:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/13/18 17:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/13/18 17:52	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/13/18 17:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/13/18 17:52	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/13/18 17:52	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/13/18 17:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/13/18 17:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		11/13/18 17:52	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		11/13/18 17:52	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		11/13/18 17:52	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/14/18 11:50	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	50-150	1		11/14/18 11:50	17060-07-0	
Toluene-d8 (S)	116	%	50-150	1		11/14/18 11:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

QC Batch: 442054 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92406866001, 92406866002, 92406866003, 92406866004, 92406866005, 92406866006, 92406866007, 92406866008, 92406866009, 92406866010, 92406866011, 92406866012, 92406866013, 92406866014, 92406866015

METHOD BLANK: 2426860 Matrix: Water
Associated Lab Samples: 92406866001, 92406866002, 92406866003, 92406866004, 92406866005, 92406866006, 92406866007, 92406866008, 92406866009, 92406866010, 92406866011, 92406866012, 92406866013, 92406866014, 92406866015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,1-Dichloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,1-Dichloroethene	ug/L	ND	1.0	11/13/18 17:02	
1,1-Dichloropropene	ug/L	ND	1.0	11/13/18 17:02	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/13/18 17:02	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/13/18 17:02	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/13/18 17:02	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
1,2-Dichloroethane	ug/L	ND	1.0	11/13/18 17:02	
1,2-Dichloropropane	ug/L	ND	1.0	11/13/18 17:02	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
1,3-Dichloropropane	ug/L	ND	1.0	11/13/18 17:02	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
2,2-Dichloropropane	ug/L	ND	1.0	11/13/18 17:02	
2-Butanone (MEK)	ug/L	ND	5.0	11/13/18 17:02	
2-Chlorotoluene	ug/L	ND	1.0	11/13/18 17:02	
2-Hexanone	ug/L	ND	5.0	11/13/18 17:02	
4-Chlorotoluene	ug/L	ND	1.0	11/13/18 17:02	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/13/18 17:02	
Acetone	ug/L	ND	25.0	11/13/18 17:02	
Benzene	ug/L	ND	1.0	11/13/18 17:02	
Bromobenzene	ug/L	ND	1.0	11/13/18 17:02	
Bromochloromethane	ug/L	ND	1.0	11/13/18 17:02	
Bromodichloromethane	ug/L	ND	1.0	11/13/18 17:02	
Bromoform	ug/L	ND	1.0	11/13/18 17:02	
Bromomethane	ug/L	ND	2.0	11/13/18 17:02	
Carbon tetrachloride	ug/L	ND	1.0	11/13/18 17:02	
Chlorobenzene	ug/L	ND	1.0	11/13/18 17:02	
Chloroethane	ug/L	ND	1.0	11/13/18 17:02	
Chloroform	ug/L	ND	1.0	11/13/18 17:02	
Chloromethane	ug/L	ND	1.0	11/13/18 17:02	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/13/18 17:02	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/13/18 17:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

METHOD BLANK: 2426860 Matrix: Water

Associated Lab Samples: 92406866001, 92406866002, 92406866003, 92406866004, 92406866005, 92406866006, 92406866007, 92406866008, 92406866009, 92406866010, 92406866011, 92406866012, 92406866013, 92406866014, 92406866015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	1.0	11/13/18 17:02	
Dibromomethane	ug/L	ND	1.0	11/13/18 17:02	
Dichlorodifluoromethane	ug/L	ND	1.0	11/13/18 17:02	
Diisopropyl ether	ug/L	ND	1.0	11/13/18 17:02	
Ethylbenzene	ug/L	ND	1.0	11/13/18 17:02	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/13/18 17:02	
m&p-Xylene	ug/L	ND	2.0	11/13/18 17:02	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/13/18 17:02	
Methylene Chloride	ug/L	ND	2.0	11/13/18 17:02	
Naphthalene	ug/L	ND	1.0	11/13/18 17:02	
o-Xylene	ug/L	ND	1.0	11/13/18 17:02	
p-Isopropyltoluene	ug/L	ND	1.0	11/13/18 17:02	
Styrene	ug/L	ND	1.0	11/13/18 17:02	
Tetrachloroethene	ug/L	ND	1.0	11/13/18 17:02	
Toluene	ug/L	ND	1.0	11/13/18 17:02	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/13/18 17:02	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/13/18 17:02	
Trichloroethene	ug/L	ND	1.0	11/13/18 17:02	
Trichlorofluoromethane	ug/L	ND	1.0	11/13/18 17:02	
Vinyl acetate	ug/L	ND	2.0	11/13/18 17:02	
Vinyl chloride	ug/L	ND	1.0	11/13/18 17:02	
Xylene (Total)	ug/L	ND	1.0	11/13/18 17:02	
1,2-Dichloroethane-d4 (S)	%	87	70-130	11/13/18 17:02	
4-Bromofluorobenzene (S)	%	102	70-130	11/13/18 17:02	
Toluene-d8 (S)	%	108	70-130	11/13/18 17:02	

LABORATORY CONTROL SAMPLE: 2426861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.2	102	70-130	
1,1,1-Trichloroethane	ug/L	50	49.7	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.1	100	70-130	
1,1,2-Trichloroethane	ug/L	50	53.1	106	70-130	
1,1-Dichloroethane	ug/L	50	49.2	98	70-130	
1,1-Dichloroethene	ug/L	50	49.7	99	70-130	
1,1-Dichloropropene	ug/L	50	57.1	114	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.7	99	70-130	
1,2,3-Trichloropropane	ug/L	50	51.6	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.2	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.2	108	70-130	
1,2-Dichlorobenzene	ug/L	50	48.5	97	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

LABORATORY CONTROL SAMPLE: 2426861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.6	95	70-130	
1,2-Dichloropropane	ug/L	50	50.5	101	70-130	
1,3-Dichlorobenzene	ug/L	50	48.3	97	70-130	
1,3-Dichloropropane	ug/L	50	53.7	107	70-131	
1,4-Dichlorobenzene	ug/L	50	47.8	96	70-130	
2,2-Dichloropropane	ug/L	50	51.2	102	69-130	
2-Butanone (MEK)	ug/L	100	110	110	64-135	
2-Chlorotoluene	ug/L	50	47.1	94	70-130	
2-Hexanone	ug/L	100	98.7	99	66-135	
4-Chlorotoluene	ug/L	50	46.6	93	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.9	99	70-130	
Acetone	ug/L	100	105	105	61-157	
Benzene	ug/L	50	52.2	104	70-130	
Bromobenzene	ug/L	50	48.0	96	70-130	
Bromochloromethane	ug/L	50	58.4	117	70-130	
Bromodichloromethane	ug/L	50	44.3	89	70-130	
Bromoform	ug/L	50	45.7	91	70-130	
Bromomethane	ug/L	50	42.4	85	38-128	
Carbon tetrachloride	ug/L	50	45.8	92	70-130	
Chlorobenzene	ug/L	50	50.5	101	70-130	
Chloroethane	ug/L	50	36.9	74	37-142	
Chloroform	ug/L	50	52.0	104	70-130	
Chloromethane	ug/L	50	37.4	75	48-120	
cis-1,2-Dichloroethene	ug/L	50	49.8	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.8	104	70-130	
Dibromochloromethane	ug/L	50	50.9	102	70-130	
Dibromomethane	ug/L	50	49.9	100	70-130	
Dichlorodifluoromethane	ug/L	50	37.3	75	53-134	
Diisopropyl ether	ug/L	50	53.5	107	71-135	
Ethylbenzene	ug/L	50	49.5	99	70-130	
Hexachloro-1,3-butadiene	ug/L	50	50.6	101	68-132	
m&p-Xylene	ug/L	100	98.7	99	70-130	
Methyl-tert-butyl ether	ug/L	50	53.4	107	70-130	
Methylene Chloride	ug/L	50	47.9	96	67-132	
Naphthalene	ug/L	50	46.7	93	70-130	
o-Xylene	ug/L	50	50.1	100	70-130	
p-Isopropyltoluene	ug/L	50	46.3	93	70-130	
Styrene	ug/L	50	49.6	99	70-130	
Tetrachloroethene	ug/L	50	52.3	105	69-130	
Toluene	ug/L	50	47.5	95	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.9	98	70-130	
trans-1,3-Dichloropropene	ug/L	50	52.3	105	70-130	
Trichloroethene	ug/L	50	53.6	107	70-130	
Trichlorofluoromethane	ug/L	50	42.1	84	63-126	
Vinyl acetate	ug/L	100	104	104	55-143	
Vinyl chloride	ug/L	50	47.5	95	70-131	
Xylene (Total)	ug/L	150	149	99	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

LABORATORY CONTROL SAMPLE: 2426861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2426862 2426863

Parameter	Units	92406645001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	2000	2000	1630	1940	81	97	73-134	17	30	
1,1,1-Trichloroethane	ug/L	ND	2000	2000	1880	2270	94	114	82-143	19	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	2000	2000	1600	1920	80	96	70-136	18	30	
1,1,2-Trichloroethane	ug/L	ND	2000	2000	1910	2360	95	118	70-135	21	30	
1,1-Dichloroethane	ug/L	ND	2000	2000	1870	2240	93	112	72-139	18	30	
1,1-Dichloroethene	ug/L	ND	2000	2000	1950	2230	97	112	81-154	14	30	
1,1-Dichloropropene	ug/L	ND	2000	2000	2040	2450	102	123	79-149	18	30	
1,2,3-Trichlorobenzene	ug/L	ND	2000	2000	1580	1950	79	97	70-135	21	30	
1,2,3-Trichloropropane	ug/L	ND	2000	2000	1640	1970	82	99	71-137	19	30	
1,2,4-Trichlorobenzene	ug/L	ND	2000	2000	1600	1960	80	98	73-140	21	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2000	2000	1430	1670	72	84	65-134	16	30	
1,2-Dibromoethane (EDB)	ug/L	ND	2000	2000	1710	2100	85	105	72-137	21	30	
1,2-Dichlorobenzene	ug/L	ND	2000	2000	1660	2000	83	100	70-133	19	30	
1,2-Dichloroethane	ug/L	ND	2000	2000	1710	2100	86	105	73-137	20	30	
1,2-Dichloropropane	ug/L	ND	2000	2000	1920	2300	96	115	79-140	18	30	
1,3-Dichlorobenzene	ug/L	ND	2000	2000	1670	2000	84	100	70-135	18	30	
1,3-Dichloropropane	ug/L	ND	2000	2000	1700	2160	85	108	76-143	23	30	
1,4-Dichlorobenzene	ug/L	ND	2000	2000	1660	2000	83	100	70-133	18	30	
2,2-Dichloropropane	ug/L	ND	2000	2000	1730	2110	87	106	61-148	20	30	
2-Butanone (MEK)	ug/L	ND	4000	4000	3550	4220	89	106	60-139	17	30	
2-Chlorotoluene	ug/L	ND	2000	2000	1650	1990	82	100	73-144	19	30	
2-Hexanone	ug/L	ND	4000	4000	3120	3740	78	94	65-138	18	30	
4-Chlorotoluene	ug/L	ND	2000	2000	1620	1930	81	96	76-137	17	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4000	4000	3280	4130	82	103	65-135	23	30	
Acetone	ug/L	ND	4000	4000	3690	4200	92	105	60-148	13	30	
Benzene	ug/L	ND	2000	2000	2020	2450	101	122	72-151	19	30	
Bromobenzene	ug/L	ND	2000	2000	1660	2010	83	101	70-136	19	30	
Bromochloromethane	ug/L	ND	2000	2000	2070	2470	103	124	77-141	18	30	
Bromodichloromethane	ug/L	ND	2000	2000	1610	1970	80	99	76-138	20	30	
Bromoform	ug/L	ND	2000	2000	1270	1580	63	79	63-130	22	30	
Bromomethane	ug/L	ND	2000	2000	559	865	28	43	15-152	43	30	R1
Carbon tetrachloride	ug/L	ND	2000	2000	1750	2130	87	106	70-143	20	30	
Chlorobenzene	ug/L	ND	2000	2000	1750	2090	87	105	70-138	18	30	
Chloroethane	ug/L	ND	2000	2000	1660	2000	83	100	52-163	19	30	
Chloroform	ug/L	ND	2000	2000	1900	2290	95	114	74-139	18	30	
Chloromethane	ug/L	ND	2000	2000	1060	1270	53	64	41-139	18	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2426862 2426863

Parameter	Units	92406645001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
cis-1,2-Dichloroethene	ug/L	3550	2000	2000	5210	5650	83	105	77-141	8	30	
cis-1,3-Dichloropropene	ug/L	ND	2000	2000	1870	2270	93	113	74-137	19	30	
Dibromochloromethane	ug/L	ND	2000	2000	1550	1910	77	96	70-134	21	30	
Dibromomethane	ug/L	ND	2000	2000	1870	2240	94	112	76-138	18	30	
Dichlorodifluoromethane	ug/L	ND	2000	2000	1150	1360	58	68	47-155	16	30	
Diisopropyl ether	ug/L	ND	2000	2000	1760	2070	88	103	63-144	16	30	
Ethylbenzene	ug/L	ND	2000	2000	1740	2090	87	104	66-153	18	30	
Hexachloro-1,3-butadiene	ug/L	ND	2000	2000	1600	2000	80	100	65-149	22	30	
m&p-Xylene	ug/L	ND	4000	4000	3510	4180	88	105	69-152	17	30	
Methyl-tert-butyl ether	ug/L	ND	2000	2000	1800	2240	90	112	54-156	22	30	
Methylene Chloride	ug/L	ND	2000	2000	1840	2160	92	108	42-159	16	30	
Naphthalene	ug/L	ND	2000	2000	1530	1840	76	92	61-148	19	30	
o-Xylene	ug/L	ND	2000	2000	1780	2160	89	108	73-148	20	30	
p-Isopropyltoluene	ug/L	ND	2000	2000	1610	1970	80	98	73-146	20	30	
Styrene	ug/L	ND	2000	2000	1710	2050	85	102	70-135	18	30	
Tetrachloroethene	ug/L	ND	2000	2000	1760	2150	88	108	59-143	20	30	
Toluene	ug/L	ND	2000	2000	1830	2200	92	110	59-148	18	30	
trans-1,2-Dichloroethene	ug/L	ND	2000	2000	1920	2220	96	111	76-146	14	30	
trans-1,3-Dichloropropene	ug/L	ND	2000	2000	1780	2200	89	110	71-135	21	30	
Trichloroethene	ug/L	14800	2000	2000	17500	18800	137	197	77-147	7	30	M1
Trichlorofluoromethane	ug/L	ND	2000	2000	1830	2160	92	108	76-148	17	30	
Vinyl acetate	ug/L	ND	4000	4000	3520	4250	88	106	49-151	19	30	
Vinyl chloride	ug/L	ND	2000	2000	1630	1910	82	96	70-156	16	30	
Xylene (Total)	ug/L	ND	6000	6000	5290	6350	88	106	63-158	18	30	
1,2-Dichloroethane-d4 (S)	%						88	87	70-130			
4-Bromofluorobenzene (S)	%						99	100	70-130			
Toluene-d8 (S)	%						97	99	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

QC Batch: 442270 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92406866001, 92406866002, 92406866003, 92406866004, 92406866005, 92406866015

METHOD BLANK: 2427641 Matrix: Water
Associated Lab Samples: 92406866001, 92406866002, 92406866003, 92406866004, 92406866005, 92406866015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/14/18 11:31	
1,2-Dichloroethane-d4 (S)	%	92	50-150	11/14/18 11:31	
Toluene-d8 (S)	%	119	50-150	11/14/18 11:31	

LABORATORY CONTROL SAMPLE: 2427642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	20.0	100	71-125	
1,2-Dichloroethane-d4 (S)	%			101	50-150	
Toluene-d8 (S)	%			104	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2427643 2427644

Parameter	Units	92406866003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.7	17.8	89	89	50-150	1	30	
1,2-Dichloroethane-d4 (S)	%						94	95	50-150		30	
Toluene-d8 (S)	%						126	105	50-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

QC Batch: 442319 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92406866006, 92406866007, 92406866008, 92406866009, 92406866010, 92406866011, 92406866012

METHOD BLANK: 2427932 Matrix: Water
Associated Lab Samples: 92406866006, 92406866007, 92406866008, 92406866009, 92406866010, 92406866011, 92406866012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/14/18 17:40	
1,2-Dichloroethane-d4 (S)	%	88	50-150	11/14/18 17:40	
Toluene-d8 (S)	%	98	50-150	11/14/18 17:40	

LABORATORY CONTROL SAMPLE: 2427933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.5	93	71-125	
1,2-Dichloroethane-d4 (S)	%			102	50-150	
Toluene-d8 (S)	%			135	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2427934 2427935

Parameter	Units	2611462001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.5	17.2	85	84	50-150	1	30	
1,2-Dichloroethane-d4 (S)	%						95	94	50-150		30	
Toluene-d8 (S)	%						110	127	50-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

QC Batch: 442320 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92406866014

METHOD BLANK: 2427939 Matrix: Water
Associated Lab Samples: 92406866014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/14/18 17:21	
1,2-Dichloroethane-d4 (S)	%	101	50-150	11/14/18 17:21	
Toluene-d8 (S)	%	122	50-150	11/14/18 17:21	

LABORATORY CONTROL SAMPLE: 2427940

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.8	94	71-125	
1,2-Dichloroethane-d4 (S)	%			96	50-150	
Toluene-d8 (S)	%			121	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2427941 2427942

Parameter	Units	92406671045 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.6	17.3	83	82	50-150	2	30	
1,2-Dichloroethane-d4 (S)	%						97	104	50-150		30	
Toluene-d8 (S)	%						139	106	50-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

QC Batch: 443132
QC Batch Method: EPA 8260B Mod.
Analysis Method: EPA 8260B Mod.
Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92406866013

METHOD BLANK: 2431857 Matrix: Water
Associated Lab Samples: 92406866013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/19/18 16:34	
1,2-Dichloroethane-d4 (S)	%	97	50-150	11/19/18 16:34	
Toluene-d8 (S)	%	98	50-150	11/19/18 16:34	

LABORATORY CONTROL SAMPLE: 2431858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.7	93	71-125	
1,2-Dichloroethane-d4 (S)	%			98	50-150	
Toluene-d8 (S)	%			99	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2431859 2431860

Parameter	Units	92406671049 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	2.2	20	20	18.8	17.9	83	78	50-150	5	30	
1,2-Dichloroethane-d4 (S)	%						102	103	50-150		30	
Toluene-d8 (S)	%						97	98	50-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KOPFLEX OFFSITE
Pace Project No.: 92406866

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92406866001	**MW-34D**	EPA 8260B	442054		
92406866002	**MW-35D**	EPA 8260B	442054		
92406866003	**MW-31D**	EPA 8260B	442054		
92406866004	**MW-33D-235**	EPA 8260B	442054		
92406866005	**MW-33D-295**	EPA 8260B	442054		
92406866006	**MW-30D-413**	EPA 8260B	442054		
92406866007	**MW-30D-273**	EPA 8260B	442054		
92406866008	**MW-29D**	EPA 8260B	442054		
92406866009	**MW-32D**	EPA 8260B	442054		
92406866010	**MW-36D**	EPA 8260B	442054		
92406866011	**MW-28D**	EPA 8260B	442054		
92406866012	**MW-25D-130**	EPA 8260B	442054		
92406866013	**MW-25D-190**	EPA 8260B	442054		
92406866014	**DUP-110818**	EPA 8260B	442054		
92406866015	**TRIP BLANK**	EPA 8260B	442054		
92406866001	**MW-34D**	EPA 8260B Mod.	442270		
92406866002	**MW-35D**	EPA 8260B Mod.	442270		
92406866003	**MW-31D**	EPA 8260B Mod.	442270		
92406866004	**MW-33D-235**	EPA 8260B Mod.	442270		
92406866005	**MW-33D-295**	EPA 8260B Mod.	442270		
92406866006	**MW-30D-413**	EPA 8260B Mod.	442319		
92406866007	**MW-30D-273**	EPA 8260B Mod.	442319		
92406866008	**MW-29D**	EPA 8260B Mod.	442319		
92406866009	**MW-32D**	EPA 8260B Mod.	442319		
92406866010	**MW-36D**	EPA 8260B Mod.	442319		
92406866011	**MW-28D**	EPA 8260B Mod.	442319		
92406866012	**MW-25D-130**	EPA 8260B Mod.	442319		
92406866013	**MW-25D-190**	EPA 8260B Mod.	443132		
92406866014	**DUP-110818**	EPA 8260B Mod.	442320		
92406866015	**TRIP BLANK**	EPA 8260B Mod.	442270		

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP

Project **WO# : 92406866**

92406866

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Date/Initials Person Examining Contents: MH 11-12-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.5 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.4

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY **Field Data Required?** ☐ Yes ☐ No

received 5 vials for MW-30D-273

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: JT **Date:** 11/12

Project Manager SRF Review: JT **Date:** 11/12

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO# : 92406866

PM: PTE Due Date: 11/19/18

CLIENT: 92-WSP

P1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																6												
4																6												
5																6												
6																6												
7																6												
8																6												
9																6												
10																6												
11																6												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project WO#: 92406866

PM: PTE Due Date: 11/19/18

CLIENT: 92-WSP

P2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																4												
4																												
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7																												
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12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr. Ste. 300 Herndon VA 20171

No. 009916 — WSP

Project Name	WSP USA Contact Name	Laboratory Name & Location
Koppers Offsite	Eric Johnson	Pace Huntsville, NC
Project Location	**WSP USA Contact E-mail**	**Laboratory Project Manager**
Hanover, MD	eric.johnson @wsp.com	Taylor Ezell
Project Number & Task	**WSP USA Contact Phone**	**Requested Turn-Around-Time**
31401545.011	703 709 6500	☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR
Sampler(s) Name(s)	**Sampler(s) Signature(s)**	
Molly Long		

Requested Analyses & Preservatives: VOCs (8260); 1,4-Dioxane (8260 SIMS)

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs (8260)	1,4-Dioxane (8260 SIMS)	Sample Comments
MW-34D	AQ	11/8/18		10	45	6	X	X	92406866 001
MW-35D				11	05	6	X	X	002
MW-31D				11	35	6	X	X	003
MW-33D-235				13	15	6	X	X	004
MW-33D-295				13	25	6	X	X	005
MW-30D-413				13	35	6	X	X	006
MW-30D-273				13	50	5	X	X	007
MW-29D				14	00	6	X	X	008
MW-32D				14	15	6	X	X	009
MW-36D				14	30	6	X	X	010
MW-28D				14	50	6	X	X	011
MW-25D-130				13	40	6	X	X	012
MW-25D-190				13	55	6	X	X	013
Dup-110818				09	00	6	X	X	014
Trip Blank		Lab Provided				4	X	X	lab provided 015

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Chris Cresci	11/9/18		FedEx				
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
			Michael G Pace	11-12-18	9:37	54°	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)