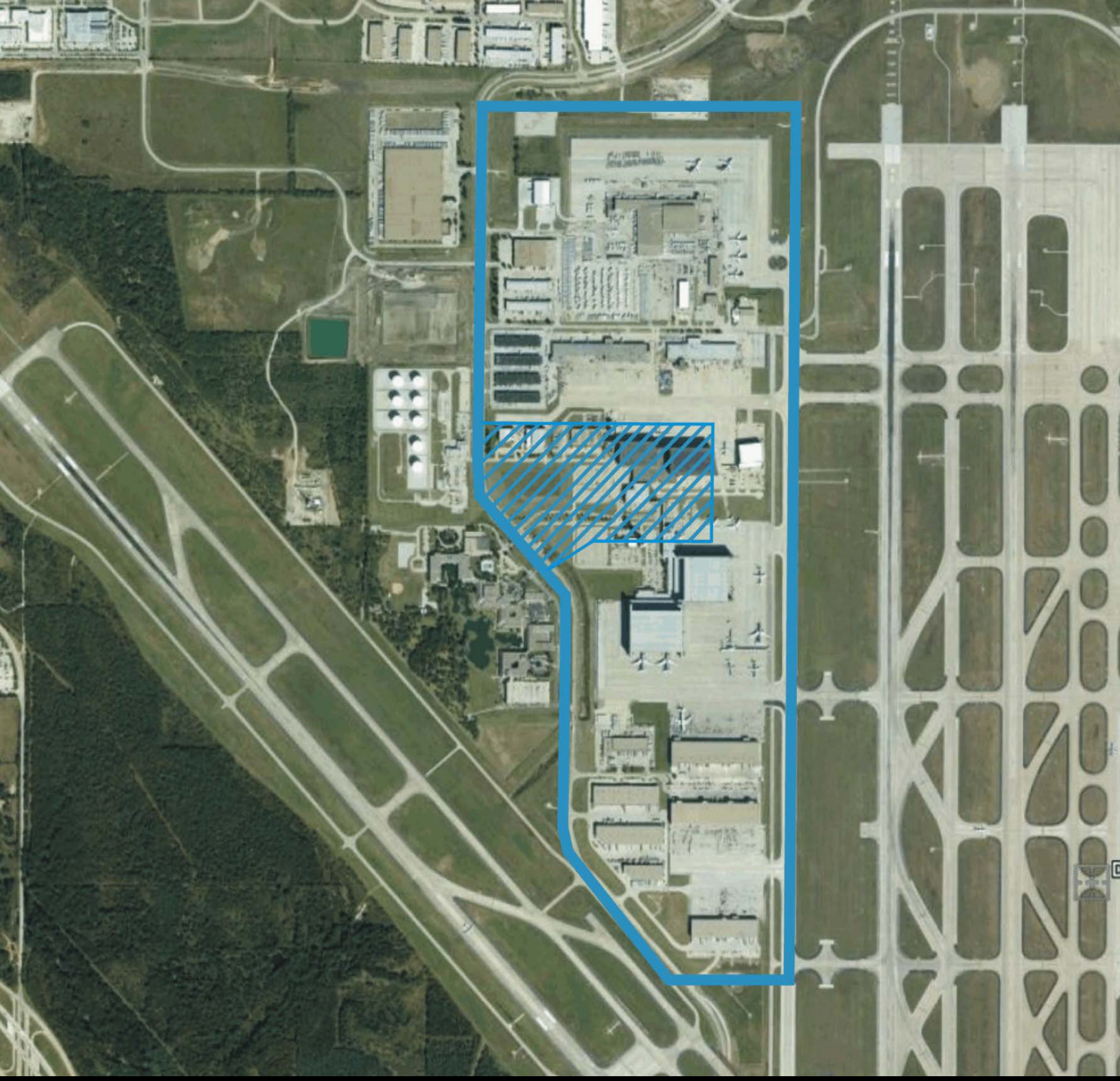


2021 Post Response Action Care Report
AOC C5 - Northwest Cargo VCP
VCP #1461

May 2022

Certified Mail No: 7013 1090 0002 2399 4455

May 5, 2022

Chris Swiderski, Senior Project Manager
Environmental Cleanup Section
Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC 221
Austin, Texas 78711-3087

RE: 2021 Post Response Action Care Report for AOC C5 at Northwest Cargo Area of Dallas/Fort Worth International Airport
Voluntary Clean Up Program No. 1461

Dear Mr. Swiderski:

The Dallas/Fort Worth International Airport (DFW Airport) Board respectfully submits the 2021 Annual Post Response Action Care Report (PRAC) for Area of Concern (AOC) C5 within the Northwest Cargo Area of DFW Airport. AOC C5 was investigated under the Voluntary Cleanup Program (VCP) #1461.

Response Action Objectives have continued to be met. The PCLE zone and plume have shown a steady decrease over time since the RAP. A Plume Management Zone (PMZ) was established as an Institutional Control in the RAP. The current low retarded contaminant velocity for PCE indicates it would take approximately 2,125 years for current PCE concentrations to reach the PMZ boundary, therefore there is currently no potential threat to receptors, and no potential future threat to receptors. Further evidence displayed through the Mann-Kendall evaluation shows the plume as stable or decreasing over the last four years of sampling events.

Post Response Action Care appears to be in compliance with *350.33(i)(3),* therefore, at this time DFW respectfully requests discontinuance of Post Response Action Care activities.

An electronic copy of this report is provided on the USB Flash drive attached to the back cover of the enclosed binder. Please feel free to contact me at (972) 973-5567 or scollins@dfwairport.com; or James Greer at (972) 973-5568 or jgreer1@dfwairport.com, should you have any questions.

Sincerely,

Shannon Collins
Environmental Operations Analyst

cc: R. Horton
J. Greer
E. Rodriguez, DFW Legal
File

POST RESPONSE ACTION CARE REPORT COVER PAGE

Regulatory ID number VCP ID No. 1461 – AOC C5
Report date: March 30, 2022 TCEQ Region No.: 4

TCEQ Program (check one)

___ Corrective Action (Mail Code 127)
___ Superfund PRP Lead (Mail Code 143)
X Voluntary Cleanup Program (Mail Code 221)
___ Municipal Solid Waste Permits (Mail Code 124)
___ Petroleum Storage Tank Program (Mail Code 137)

On-Site Property Information

On-Site Property Name: Dallas Fort Worth International Airport – Northwest Cargo – Area of Concern (AOC) C5

Street no. _____ Pre dir: ___ Street name: _____ Street type _____ Post dir: _____

City: DFW Airport County: Tarrant County Code: 220 Zip: 75261

Nearest street intersection or location description: The site is bound by West 19th Street to the north and West Airfield Drive to the west. The site is located beneath the American Airlines Air Freight Taildock area.

Latitude: Degrees, Minutes, Seconds OR Decimal Degrees (circle one) North 32°54'31"
Longitude: Degrees, Minutes, Seconds OR Decimal Degrees (circle one) West 97°03'410"

Off-Site Affected Property Information

Off-Site Affected Property Name: _____

Street no. _____ Pre dir: ___ Street name: _____ Street type: ___ Post dir: __

City: _____ County: _____ County Code: ___ Zip: _____

[X] Check if no off-site properties affected

Contact Person Information and Acknowledgement

Person (or company) Name: DFW International Airport, Environmental Affairs Department
Contact Person: Robert Horton, PE Title: Vice President, Environmental Affairs Department
Mailing Address: P.O. Box 619428
City: DFW Airport State: TX Zip: 75261-9428 E-mail: rhorton@dfwairport.com
Phone: 972.973.5563 Fax: 972.973.5561

By my signature below, I acknowledge the requirement of 30 TAC §350.2(a) that no person shall submit information to the executive director or to parties who are required to be provided information under this chapter which they know or reasonably should have known to be false or intentionally misleading, or fail to submit available information which is critical to the understanding of the matter at hand or to the basis of critical decisions which reasonably would have been influenced by that information. Violation of this rule may subject a person to the imposition of civil, criminal, or administrative penalties.

Signature of Person _____ Name, print: Robert Horton Date: _____

SIGNATURES AND SEALS

PROFESSIONAL SIGNATURES AND SEALS

As stated in 30 Texas Administrative Code 350.1, "All engineering, geoscientific, and surveying information submitted to the agency shall be prepared by, or under the supervision of, a licensed professional engineer, licensed professional geoscientist, or licensed professional surveyor and shall be signed, sealed, and dated by qualified professionals as required by the Texas Engineering Practice Act, the Texas Geoscience Practice Act, the Texas Professional Land Surveying Practices Act and the licensing and registration boards under these acts."

The information provided within the report presented herein, I certify that was completed by me, or under my direct supervision. I have reviewed the information included within this report, and consider it to be complete, accurate and representative of the site conditions.

Professional Engineer

James Greer	Texas/89295	12/31/21
Professional Engineer	**License State/Number**	**Expiration date**

Signature	**Date**

(972) 973-5568	Jgreer1@dfwairport.com
Telephone number	**E-mail**

Seals, as applicable:

4/25/22

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Affected Property Name/Number: VCP ID No. 1461 – DFW Airport Northwest Cargo – Area of Concern C5

Date of RAP approval: May 22, 2009
Date of RACR approval: August 28, 2012, Institutional Controls for Conditional Certificate of Completion filed 8/5/14

Length of approved PRAC period (default 30 yrs.): 30 years

Check if this is the final report X

If this is the final report, provide documentation in Worksheet 4.0 that the applicable provisions of §350.33(i) have been met.

This reporting period: Start date: September 2020 End date: September 2021

On-site land use for basis of RACR approval		Residential	X	Commercial/industrial
Current on-site land use classification:		Residential	X	Commercial/industrial

During this reporting period, have there been any unexpected events or new conditions at the affected property that required an additional response action?

___ Yes X No

If yes provide a brief explanation.

If a physical control inspection occurred during this reporting period, what is the status of the physical control?

Not Applicable

CHECKLIST FOR REPORT COMPLETENESS

CHECKLIST FOR REPORT COMPLETENESS

			Report Contents	
		Required	**Cover Page**	☒
		Required	**Executive Summary**	☒
		Required	**Checklist for Report Completeness**	☒
No ☐	Has COC concentration monitoring been conducted?	☒ Yes	**Worksheet 1.0** Monitoring Activities	☒
			Attachment 1A* Monitoring Locations Map	☒
No ☐	Have groundwater elevation measurements been taken?	☒ Yes	**Attachment 1B*** Groundwater Gradient Maps	☒
No ☒	Is a physical control present?	☐ Yes	**Worksheet 2.0** Physical Control Inspection, Operation, and Maintenance	☐
No ☐	Is monitoring being performed?	☒ Yes	**Worksheet 3.0** COC Status	☒
			Attachment 3A* Time Series Graphs	☒
			Attachment 3B* Concentration versus Distance Graphs	☒
			Attachment 3C* PCLE Zone Maps and Cross Sections	☒
			Attachment 3D* Data Summary	☒
No ☐	Is this the final report?[1]	☒ Yes	**Worksheet 4.0** Response Action Objectives	☒
No ☐	Is monitoring being performed?	☒ Yes	**Appendix 1*** Analytical Data	☒
			Appendix 2* Disposition of Derived Waste	☒
		Required	**Appendix 3*** Chronology	☒

[1] See §350.33(i) to see if conditions are met to justify termination of post-response action care.

WORKSHEET 1.0
MONITORING ACTIVITIES

WORKSHEET 1.0
MONITORING ACTIVITIES

Were the post-response action care monitoring activities conducted during this reporting period the same as described in the approved RAP? X Yes ___ No

If no, describe the post-response action care environmental monitoring activities conducted during this reporting period.

Not Applicable

Were the sampling procedures used during monitoring for this period the same as described in the approved RAP? X Yes ___ No

If no, explain the variations from the approved RAP and justify the variation.

Not Applicable

Discuss any unexpected events or new conditions that developed on-site (and off-site if applicable) during this reporting period and the resulting responses or modifications made to the monitoring plan. Indicate the date the event or condition occurred, the date discovered, the date reported, the actions taken, and the dates of those actions. Include actions taken in the chronology in Appendix 3.

No unexpected events or new conditions occurred during this reporting period that required modification to the monitoring plan.

Discuss any other actions taken as part of the post-response action care monitoring activities during this reporting period that were beyond the actions specified in the RAP.

There were no additional actions taken as part of the PRAC monitoring activities that were beyond the actions specified in the approved RAP.

NOTE: This report documents the results of the annual sampling activities conducted in September 1 through September 2, 2021.

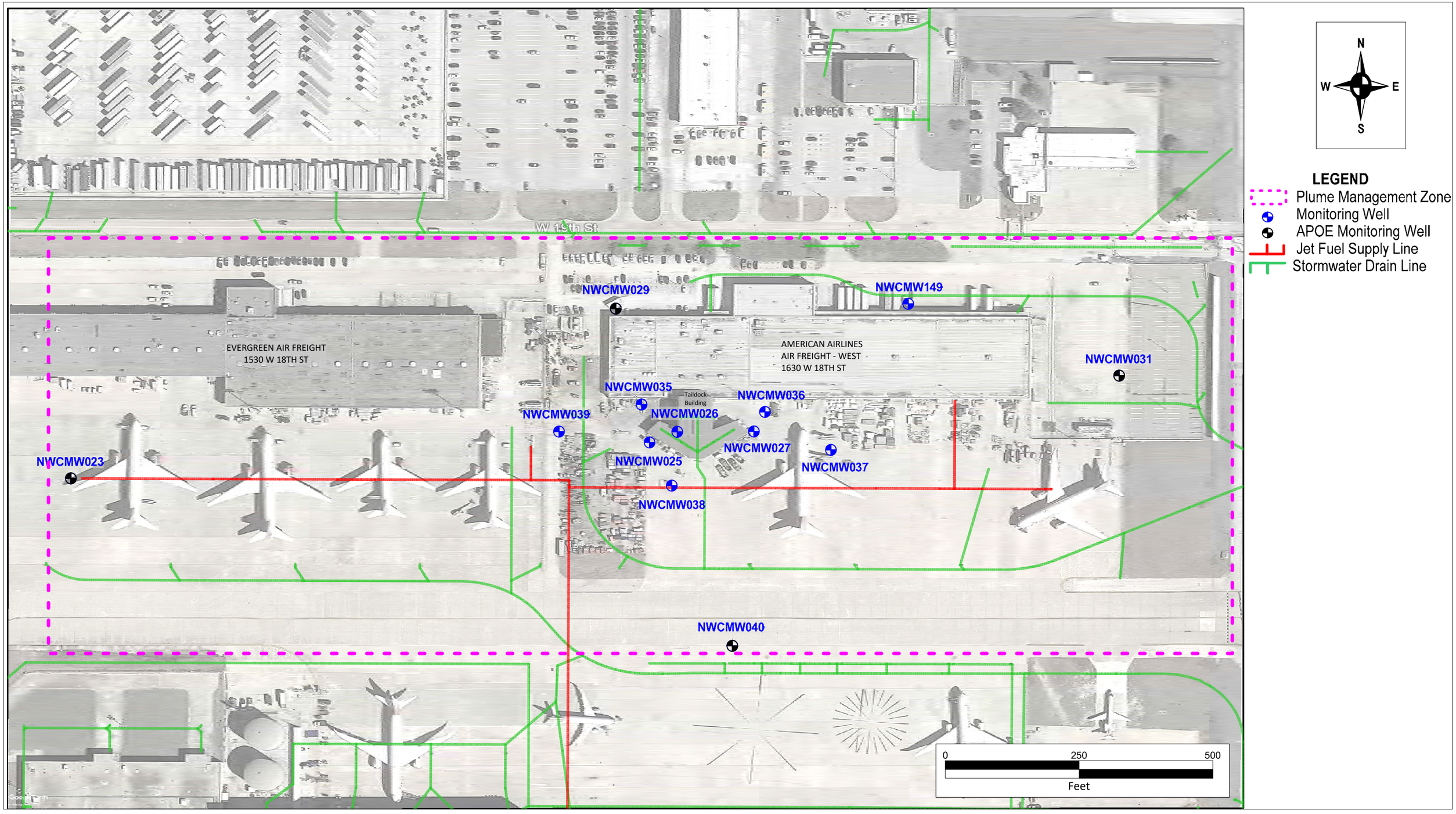
The site features and monitoring well locations are identified on Attachment 1A – Monitoring Well Location Map and Attachment 1B depicts the groundwater gradient measured in August of 2021.

The table below summarizes the monitoring wells sampled for AOC C5:

Summary of AOC C5 Monitoring Wells

APOE	AMP		Source
NWCMW023	NWCMW035	NWCMW038	NWCMW025
NWCMW029	NWCMW036	NWCMW039	NWCMW026
NWCMW031	NWCMW037	NWCMW149	NWCMW027
NWCMW040			

ATTACHMENT 1A
MONITORING LOCATIONS MAP

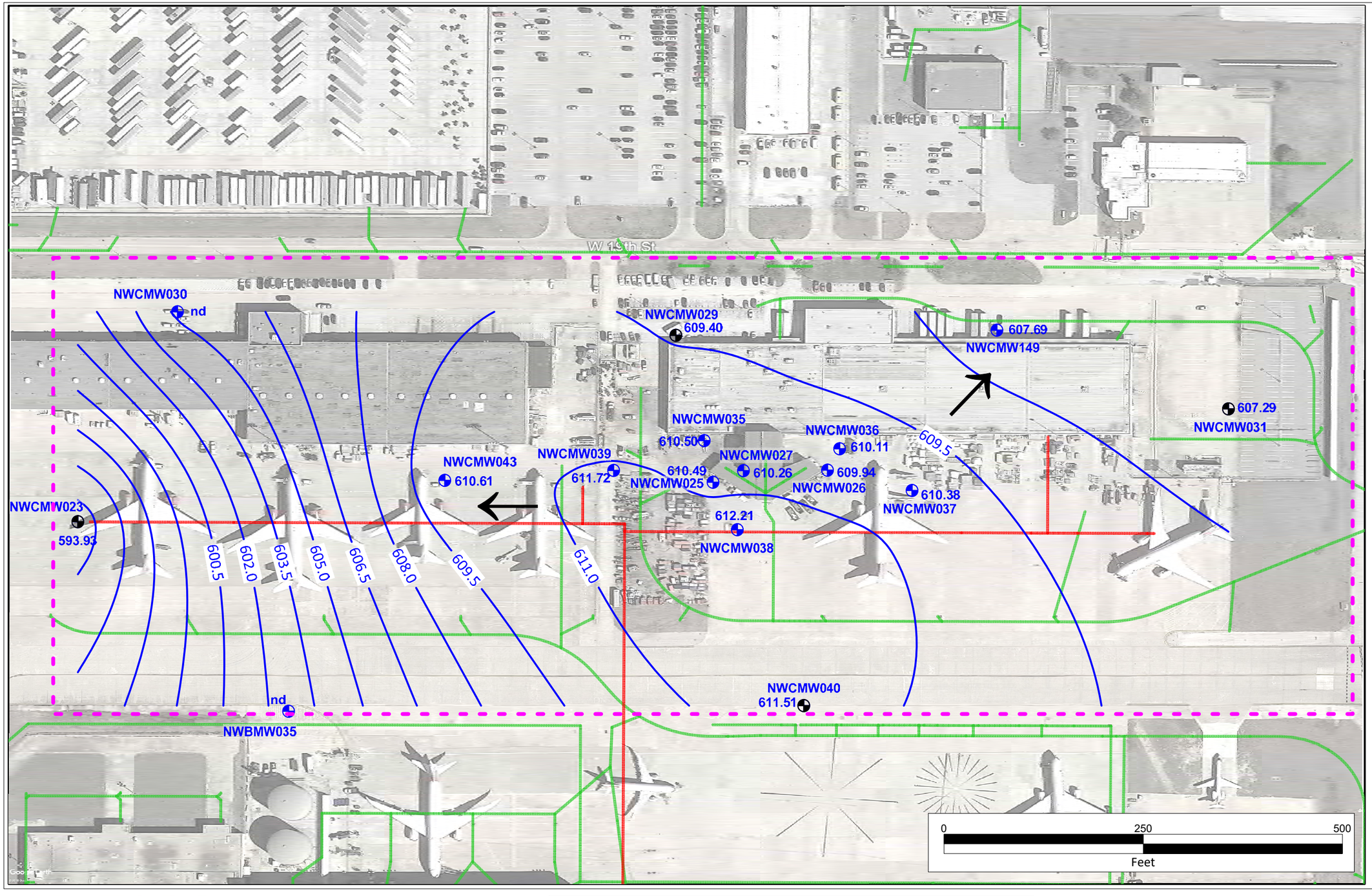


DFW DALLAS FORT WORTH INTERNATIONAL AIRPORT

Monitoring Well Location Map
AOC C5 2021 PRAC

Attachment 1A

ATTACHMENT 1B
GROUNDWATER GRADIENT MAP



N
W E
S

LEGEND

- Plume Management Zone
- Monitoring Well
- APOE Monitoring Well
- Jet Fuel Supply Line
- Stormwater Drain Line
- Groundwater Contour
- Groundwater Flow
- 611.56 Elevation (ft msl)

Wells gauged September 2021

STATE OF TEXAS
JAMES D. GREER
89295
LICENSED PROFESSIONAL ENGINEER

DFW DALLAS FORT WORTH INTERNATIONAL AIRPORT

Groundwater Gradient Map
AOC C5 2021 PRAC

Attachment 1B

WORKSHEET 2.0
PHYSICAL CONTROL INSPECTION, OPERATION AND MAINTENANCE
(NOT APPLICABLE)

WORKSHEET 2.0
PHYSICAL CONTROL INSPECTION, OPERATION AND MAINTENANCE

Not Applicable

Complete this worksheet if a physical control is used as part of the response action.

This worksheet is not applicable to AOC C5 as physical controls are not part of the response action.

Provide a detailed description of post-response action care activities during this reporting period related to the inspection, operation, and maintenance of physical controls during this reporting period. Specifically note any differences from the plan documented in the approved RAP and the justification for the variances.

Has the physical control proved to be effective in meeting the response objectives during this reporting period? ___ Yes ___ No

If yes, explain how it was determined that the physical control is effective. If no, explain the actions taken, or that will be taken, to ensure effectiveness of the physical control.

Discuss any unexpected events or new conditions that developed on-site (and off-site, if applicable) during this reporting period and the resulting responses or modifications made to the monitoring plan. Indicate the date the event or condition occurred, the date discovered, the actions taken, and the dates of those actions. Include this information in the chronology in Appendix 3.

If the physical control is a containment system (e.g., hydraulic containment), what percentage of the time was the system effectively operational?

WORKSHEET 3.0
COC STATUS

WORKSHEET 3.0
COC STATUS

Complete this worksheet when monitoring of environmental media was performed.

General Status

Has the groundwater gradient remained steady in both magnitude and direction during the reporting period? X Yes ___ No

If no, describe the changes in gradient and the effect on COC distribution and concentration, and provide a probable explanation of the cause of gradient shift.

The groundwater gradient remains as presented in the *AOC C5 Final RAP*, the *AOC C5 RACR*, and the *2020 PRAC Report*. Attachment 1B depicts the groundwater gradient measured in September 2021.

Historically, groundwater mounding occurs in the general vicinity of the AA Taildock area, possibly attributed to the topographic divide between two drainage basins. As a result of the mounding effect, the groundwater flow direction radiates outward from the AA Taildock to the northeast, north and west.

The groundwater gradient within immediate vicinity of the AA Taildock Building is extremely low, measured at 0.005 ft/ft in September 2021 (between monitoring wells NWCMW027 and NWCMW149). This is similar to historical gradient values. Groundwater measurements and elevations from September 2021 are summarized on Table 1 provided in Attachment 3D.

Discuss the changes in COC concentrations and their distribution over time for each affected media during the reporting period.

Groundwater is the only affected media at AOC C5. The monitoring program established in the RAP for AOC C5 includes sampling a total of 13 monitoring wells. The wells are sampled and analyzed for the following chlorinated compounds which were identified as COCs in the RAP: tetrachloroethylene (PCE), trichloroethylene (TCE), 1,1-Dichloroethylene (1,1-DCE), cis and trans 1,2-Dichloroethylene (1,2-DCE), and vinyl chloride, as well as NA parameters including alkalinity, nitrate, sulfate, ferrous iron and geochemical parameters (i.e., dissolved oxygen [DO], oxidation-reduction potential [ORP], etc.).

Chemicals of Concern

The AOC-specific Critical Protective Concentration Levels (CPCL) for PCE of 0.5 milligrams per liter (mg/L) has been exceeded in one or more of the following monitoring wells since 2005: NWCMW025, NWCMW026, NWCMW027 and NWCMW036. The aforementioned monitor wells make up the PCLE zone. There have been no exceedances of Attenuation Action Levels (AALs) at any of the wells, as established in the *AOC C5 Final RAP,* and there have been no detections of COCs at any of the APOE wells during the current sampling event.

The dissolved chlorinated plume has been defined and has remained stable. Attachment 3C depicts the Plume Management Zone (PMZ) and PCE groundwater plume at AOC C5 for the

September 2021 sampling event. The analytical data results for the current sampling event and all historical events are summarized in Table 1 provided in Attachment 3D. Only PCE, TCE, cis-1,2-DCE, and vinyl chloride are shown in Table 1. Additional chlorinated solvents including 1,1,1-TCA, 1,1,2-TCA, 1,1-DCA, 1,1-DCE, 1,2-DCA, and Trans-1,2-DCE were analyzed for, but are not depicted on the table because they are either below laboratory detection limits or well below the CPCLs.

During the September 2021 groundwater sampling event one (1) well, NWCMW036, contained concentrations of dissolved PCE that exceeded the CPCL (0.5 mg/L) at 0.8 mg/L. Concentrations of 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, TCE, and vinyl chloride were also detected in one or more groundwater samples in 2021. Concentrations were all below the CPCLs.

Attachments 3A-1 through 3A-13 graph the COC concentrations with time for all monitoring wells at AOC C5, however, only wells with current and historical COC concentrations greater than the CPCLs are discussed below. There have been limited detections of TCE, 1,1-DCE, 1,2-DCE and Vinyl Chloride, but all results were below the CPCL. The following observations are made regarding trends in COC concentrations with time:

- Attachment 3A-2: PCE at NWCMW025 has decreased substantially since the APAR investigation. In 2011 and there was a spike in concentration for PCE but this corresponded to a significant drop in the groundwater elevation in the well. The PCE concentration at this monitoring well has been on a steady decline and has been below the CPCL for the last seven annual sampling events.
- Attachment 3A-3: NWCMW026 has historically had fluctuations in the COC concentrations that at times appear to correspond with variations in the groundwater elevation. A spike in PCE concentration was observed in March of 2010 that coincided with a drop in groundwater elevation. In 2014 the PCE concentration increased to 2.7 mg/L. This increase did not coincide with a decrease in the groundwater elevation as had been observed in the past, but the concentration immediately decreased by the next sampling event. The PCE concentration at monitoring well NWCMW026 has been below the CPCL for the last seven annual sampling events.
- Attachment 3A-4: Concentrations of PCE at NWCMW027 have historically varied with groundwater elevation. PCE concentrations have been consistent between rounds, ranging between 0.3 mg/L and 1.16 mg/L since the APAR. The PCE concentration in this well has been above the CPCL for the previous six annual sampling events but has been trending downward and in the most recent sampling event the PCE results were below the CPCL.
- Attachment 3A-8: Monitoring well NWCMW036 has exceeded the CPCL for PCE in every sampling event since 2009. The detections of PCE have remained relatively consistent ranging from 0.78 mg/L in August of 2016 to 1.58 mg/L in March of 2011. However, the current PCE concentration for 2021 has decreased from 1.0 mg/L in 2020 to 0.8 mg/L in the latest sampling round.

Attachment 3B-1 graphs the concentration of PCE with distance for the monitoring wells at AOC C5. For these graphs, data from the following wells was used: NWCMW025, NWCMW026, NWCMW027, NWCMW036, and NWCMW149. The following observations are made regarding trends in PCE with distance downgradient from monitoring well NWCMW025:

- Beginning September 2010, sampling events display a similar pattern of increasing PCE

concentrations with distance downgradient with the highest concentration of PCE detected at monitoring well NWCMW036.

- PCE concentrations for the September 2014 event displayed a different pattern with distance downgradient, with the highest concentration being reported at well NWCMW026. However, during the subsequent sampling events, concentrations of PCE at well NWCMW026 have remained far below the 2014 level.

Overall changes in the COC concentrations at AOC C5 have shown a decrease in recent years however some increases may in some cases be attributed to seasonal fluctuation in the groundwater elevation. Typically, increases in groundwater elevations with a stable mass of contaminants in groundwater have the potential to dilute dissolved COC concentrations, and this has explained the past concentration decreases at AOC C5 during the October 2012 sampling event compared to the March 2012 sampling event for wells NWCMW027 and NWCMW036. Groundwater elevation decreases at well NWCMW026 explains the increase in COC concentrations observed in March 2010 and March 2011, but not the September 2014 sampling event.

The highest COC concentrations from the APAR and the five most recent sampling rounds are shown in the following table:

COC	CPCL (mg/L	Summary of Highest COC Concentrations (mg/L)						
		APAR	August 2016	August 2017	July 2018	August 2019	Sept 2020	Sept 2021
PCE	**0.5**	3.6	0.78	1.0	0.94	0.94	1	0.8
TCE	**0.5**	0.12	0.21	0.26	0.29	0.29	0.31	0.24
cis-1,2-	**7.0**	0.036	0.18	0.18	0.24	0.24	0.17	0.28
Vinyl Chloride	**0.2**	0.004	0.012	0.0099	0.011	0.011	0.0094	0.016

Geochemical Indicators

As Natural Attenuation (NA) was the remedy for the AOC C5 site, NA parameters continue to be collected as part of the PRAC monitoring program and are discussed here. The results of the geochemical and NA parameters are summarized in Table 2 within Attachment 3D, Data Summary.

Attachments 3A-14 through 26 depict the geochemical and NA parameters with time for all the wells at AOC C5. Attachments 3B-2 through 6 graph the selected NA parameters with distance for the PCLE zone wells. For these graphs, data from the following wells were used: NWCMW025, NWCMW026, NWCMW027, NWCMW036, and NWCMW149. The reference document, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, Environmental Protection Agency (EPA) Office of Research and Development (September 1998), was used to evaluate each biodegradation mechanism for the chlorinated solvent plume.

Based on this document the following observations regarding biodegradation were made for the

impacted wells within the chlorinated solvent PCLE zone:

- ORP - For reductive dechlorination to be possible, ORP values within the affected groundwater should be less than 50 millivolts (mV). Average ORP values in the affected wells are historically less than 50 mV with maximum values decreasing with distance downgradient. This indicates that, based on ORP values, the groundwater within the majority of the PCLE zone is reducing, and therefore reductive dechlorination is possible.

- DO - DO concentrations above 0.5 mg/L inhibit reductive dechlorination. DO values are currently less than 0.5 mg/L in twelve (12) of the thirteen (13) wells sampled. Historically, DO levels in the five (5) wells associated with the PCLE zone (NWCMW025, NWCMW026, NWCMW027, NWCMW036 and NWCMW149) have historically fluctuated above and below 0.5 mg/L, but DO concentrations remain mostly consistent at < 0.5 mg/L with distance downgradient. Based on the most recent DO results, reductive dechlorination is possible within portions of the PCLE zone.

- Nitrate - After depletion of DO, anaerobic microbes will use nitrate as an electron acceptor. Concentrations greater than 1.0 mg/L indicate nitrate is readily available as an electron acceptor. Nitrate concentrations in 12 of the 13 wells sampled in 2021 were less than 1 mg/L. Based on the most recent Nitrate results, conditions may not be favorable for nitrate reduction in most of the PCLE zone.

- Ferrous Iron - In a sequential reaction, the next electron acceptor that the anaerobic microbes typically use is ferric iron (iron [III]). During this process, iron (III) is reduced to iron (II) or ferrous iron. Ferrous iron concentrations greater than 1.0 mg/L indicate that iron (III) reduction is occurring (EPA, 1998). In 2021, ferrous iron concentrations above 1.0 mg/L were present in 6 of the 13 wells at AOC C5 indicating that iron (III) is potentially being used by anaerobic microbes as an electron acceptor at portions of the AOC, therefore promoting a reductive pathway for chlorinated solvents.

- Sulfate - Following the depletion of DO and nitrate, sulfate may be used as an electron acceptor for anaerobic biodegradation by sulfate reduction. Sulfate concentrations greater than 20.0 mg/L may cause competitive exclusion of dechlorinating bacteria. This occurs when sulfate-reducing bacteria compete with dechlorinating bacteria, potentially stalling reductive dechlorination. However, it has been documented that in many chlorinated plumes with high sulfate concentrations reductive dechlorination still occurs. In 2021, sulfate concentrations in all AOC C5 wells were greater than 20.0 mg/L. Historically sulfate concentrations have increased with distance downgradient. There were no indications that sulfate concentrations in wells with PCE detections were lower than the surrounding wells. Therefore, sulfate reduction does not appear to be occurring.

- Ethene/Ethane/Methane - The presence of ethene/ethane/methane above background concentrations serves as evidence that reductive dechlorination is occurring. This process is typically referred to as methanogenesis and generally occurs after DO, nitrate, and sulfate have been depleted. Ethane and ethene are present at low levels in all AOC C5 wells. However, the concentrations in the area of the plume are not present at levels higher than background levels. If reductive dechlorination is occurring, these concentrations should show an increasing trend.

Summary

In summary, PCE remains the only COC above the AOC-specific CPCLs at the site and in one monitor well, as the plume has decreased significantly since the APAR. The analytical data collected to date for the dissolved chlorinated plume indicates that the dissolved chlorinated plume has remained defined and there have been no exceedances of the CPCLs at the APOEs. Historically seasonal variation in concentrations of chlorinated COCs has been observed and, in general, corresponds with the high and low groundwater elevations. Over the last few years concentrations of chlorinated COCs have been observed to be stable or decreasing with time in the majority of the monitoring wells since the APAR. During the September 2021 sampling event, PCE was detected above the CPCL in one well, NWCMW036. None of the samples exceeded the Attenuation Action Levels (AAL).

The ORP values, DO concentrations, and ferrous iron concentrations in the PCLE zone provide indirect evidence of reductive dechlorination within the groundwater at the site. In general, PCE and TCE will degrade in iron-reducing conditions. These conditions appear to have occurred in the area of NWCMW025 and NWCMW026 but not elsewhere throughout the plume. This would account for the limited daughter products present at the site. Sulfate concentrations remain high, indicating sulfate reduction is most likely not occurring. Research has demonstrated that dechlorination of the DCE isomer and vinyl chloride is generally restricted to sulfate reducing and methanogenic conditions. However, these COCs are not present above CPCLs at the site.

Based on the evidence collected to date, MNA as a control remedy has been and remains an appropriate remedial response for the dissolved chlorinated groundwater plume at AOC C5.

Are COC concentrations increasing or PCLE zones expanding in an unauthorized manner beyond the initial PCLE zone boundary? ___ Yes _X_ No

If yes, discuss how the response actions have addressed such an increase or discuss actions that will be taken to abate or mitigate. Include any abatement or mitigation actions in the chronology in Appendix 3.

COC concentrations are not increasing beyond the initial PCLE boundary. PCE concentrations in the wells have either been stable or decreasing over the last 4 sampling rounds.

Have the response actions proved effective in meeting the response objectives for each media? _X_ Yes ___ No

Effectiveness must be related to the standard set in the RAP.
If no, discuss the actions taken or that will be taken to ensure effectiveness of the response actions.

The response action has proved effective in meeting the response objectives for the dissolved chlorinated solvent groundwater plume at AOC C5. The Response Action Objectives (RAOs) continue to be met for the site as discussed in the table below. In addition, there is an extremely low exposure potential at this site. There is currently no potential threat to receptors, and no potential future threat to receptors. Considering the low retarded contaminant velocity for PCE and the closest boundary of the PMZ being located approximately 300 feet to the north of the PCLE zone, it would take approximately 2,125 years for current PCE concentrations to reach the PMZ boundary.

Remedy Standard B Remedy Specific RAO Resolution

Rule	RAO Resolution
§350.33(a)(1), §350.31(b)(2), §350.37 *Persons must, within a reasonable time frame given the particular circumstances of an affected property, remove, decontaminate, and/or control the groundwater human health PCLE zones in accordance with the provisions of this section such that humans will not be exposed to concentrations of COCs in the exposure media in excess of the commercial/industrial critical human health PCLs, as applicable at the prescribed, or any approved alternate human points of exposure (POEs) established for environmental media in accordance with §350.37.*	Data evaluated since the APAR indicates that there is not an ongoing source and PCE concentrations have decreased overall and, in general, decreased or remained stable within each well. Particularly the last six sample events. The dissolved PCE groundwater plume remains contained within the PMZ. **This RAO has been met.**
§350.33(f)(4)(F)(iii)(I) *Persons must remove, decontaminate, and/or control the groundwater PCLE zone to the extent necessary so that the groundwater CPCLs will not be exceeded at the APOE and so that the CPCLs for other environmental media will not be exceeded at their applicable POEs.*	Data collected since September 2009 proves PCLs have not been exceeded at the APOEs. **This RAO has been met.**
§350.33(f)(4)(F)(iii)(III) *Persons must attain the AALs at the AMPs for any portion of a groundwater PCLE zone outside of a physical control.*	MNA does not meet the definition of a physical control in TRRP; therefore, AALs must be attained at the AMPs. There have been no exceedances of the AALs in the chlorinated plume. **This RAO has been met.**

Based on the above analysis, the RAOs for the site continue to be met.

Further evidence the RAOs have been met are observed through an evaluation of the Mann-Kendall test. The Mann-Kendall test is a nonparametric test that can be used to define the stability of a plume based on concentrations at individual wells (Wiedemeier, et. al., 1999). To perform the Mann-Kendall test four or more rounds of sampling are required. The test also requires that the data is not seasonally affected. The test is applied to each monitoring well located within the plume area for each COC. The result of the test is the calculation of the Mann-Kendall S statistic for each COC at each well. The S statistic is compared to a statistical lookup table to determine if the test indicates an increasing or decreasing trend in the data.

For AOC C5, the Mann-Kendall test was performed on the wells associated with the centerline of the plume using analytical data from September of 2017 through 2021 for the COC PCE. The calculated S statistic was compared to the probability table for 80% confidence of an increasing or decreasing trend. It is important to note that if the data indicates no trend, this does not necessarily mean the plume is stable. It may indicate there is too much scatter in the data for a trend to be present. In order to determine if the plume is stable, it is required to calculate the coefficient of variation (CV). If the CV is ≤ 1, the plume is stable. The resulting calculations are provided in Supplement 1 and summarized in the table below.

	PCE	
Well	**S**	**Interpretation**
NWBMW025	-2	Stable
NWBMW026	0	Stable
NWBMW027	-6	Decreasing
NWBMW036	-2	Stable
NWBMW037	-6	Decreasing
NWBMW038	-6	Decreasing

Green = decreasing trend and positive indication of attenuation
Red = increasing trend and negative indication of attenuation

This statistical evaluation indicates that there is evidence that the plume is either decreasing or stable for PCE.

In general, the stable or decreasing trends identified by the Mann-Kendall test reinforce the k_{time} values presented earlier. Wells with scatter or stable trends do not have strong evidence of a trend. This analysis underscores the earlier evaluation that concentrations of COC are either stable or decreasing in the plume.

NAPL

Was NAPL present during the reporting period? ___ Yes X No

If yes, was the NAPL observed prior to this reporting period? ___ Yes X No

If yes, was NAPL recovered during this reporting period? ___ Yes X No

If No, discuss the actions taken or that will be taken to address this issue. If NAPL recovery action is not warranted or required, provide an explanation. If NAPL presence was already known and NAPL management program was approved in the RAP and that plan is being followed, put "NA."

Not Applicable

Is there any indication that the NAPL is spreading or causing a hazard or aesthetic concern?

___ Yes X No

If yes, discuss actions taken or planned to address the hazard or aesthetics concerns.

Not Applicable

Plume Management Zone

Is there an approved PMZ at this affected property? X Yes ____ No (completion of this page is not required)

If yes, have COC concentrations exceeded the attenuation action levels in any sampling event this period? ___ Yes X No

If yes, discuss the actions taken or that will be taken to address this issue. Include all actions taken in the chronology in Appendix 3. If no action is warranted, provide an explanation.

Not Applicable

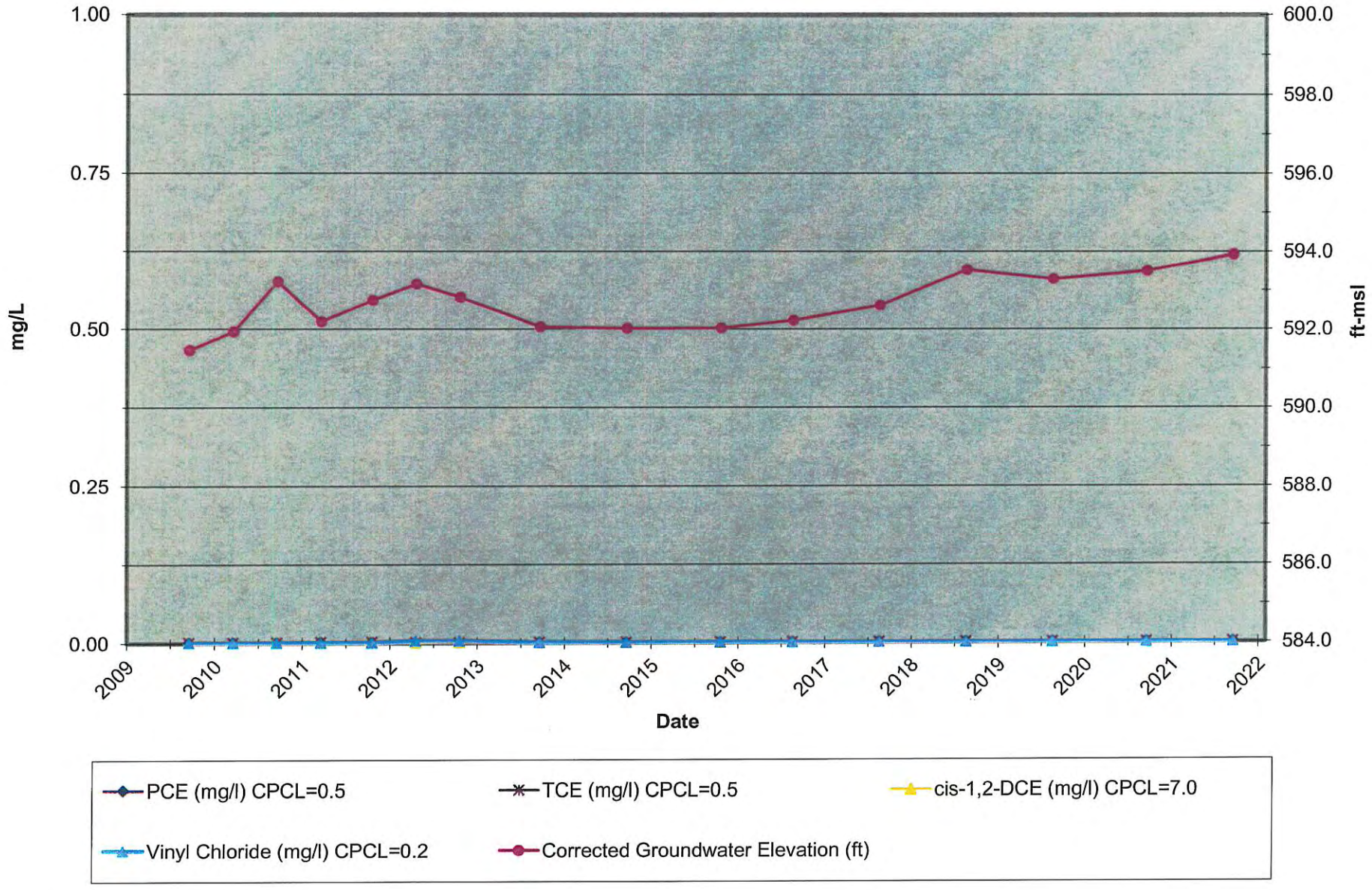
If there is an approved PMZ, have COC concentrations at the groundwater POEs exceeded the critical PCL in any sampling event this period? ___ Yes X No

If yes, state the most likely cause, and discuss the actions taken or that will be taken to address this issue. Include all actions taken in the chronology in Appendix 3.

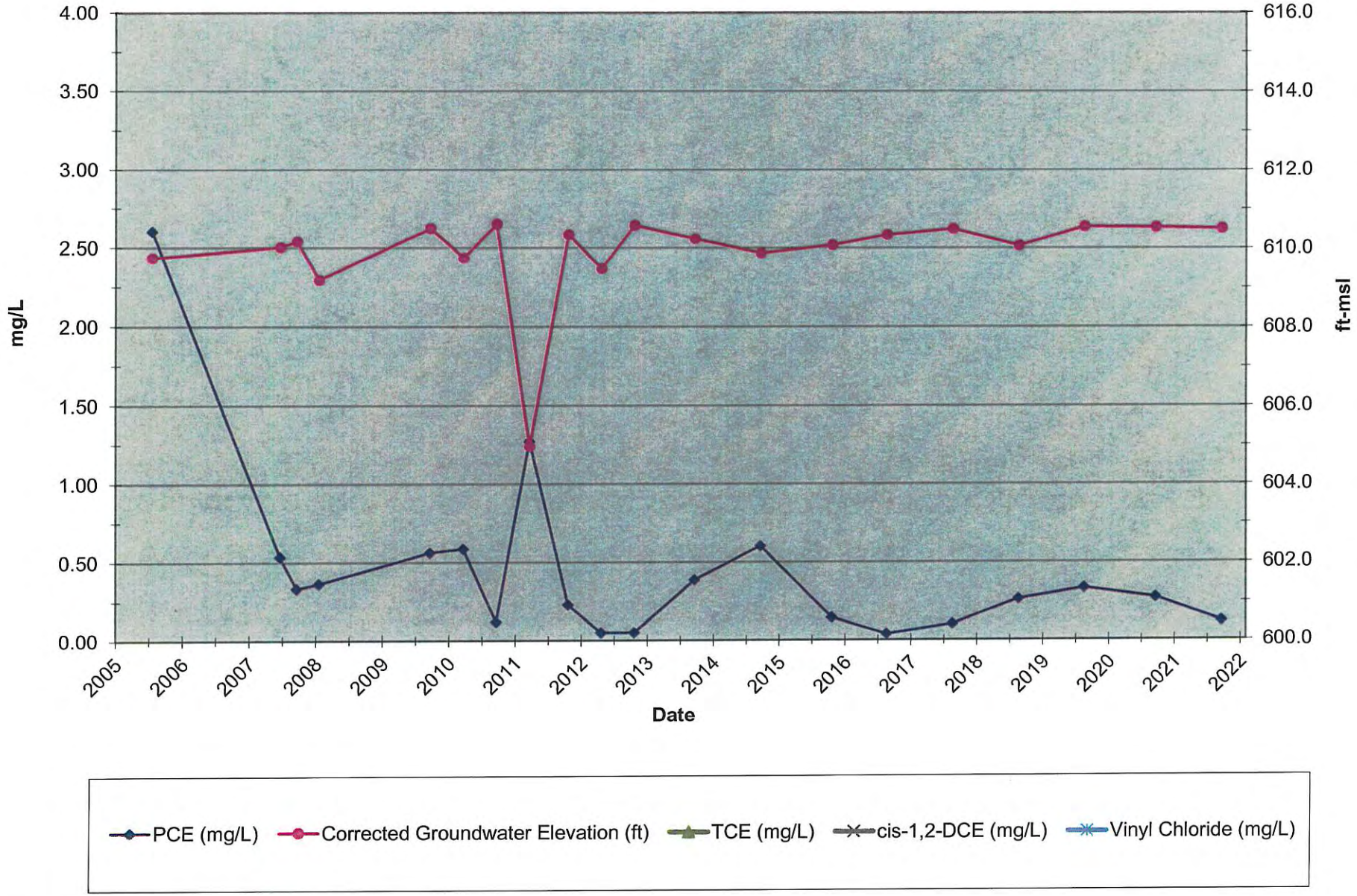
Not Applicable

ATTACHMENT 3A
TIME SERIES GRAPHS

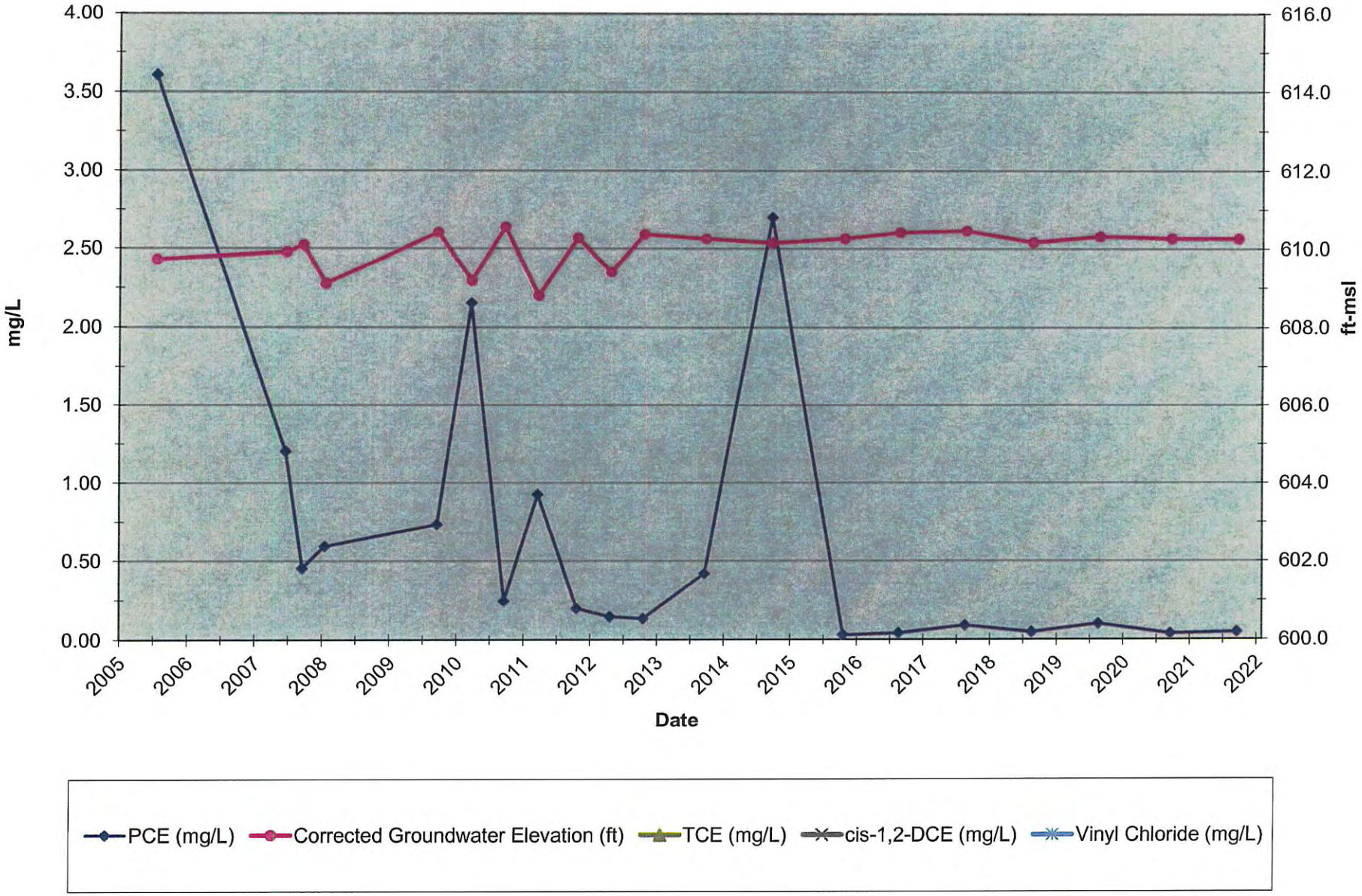
Attachment 3A-1
COC Concentrations with Time - NWCMW023



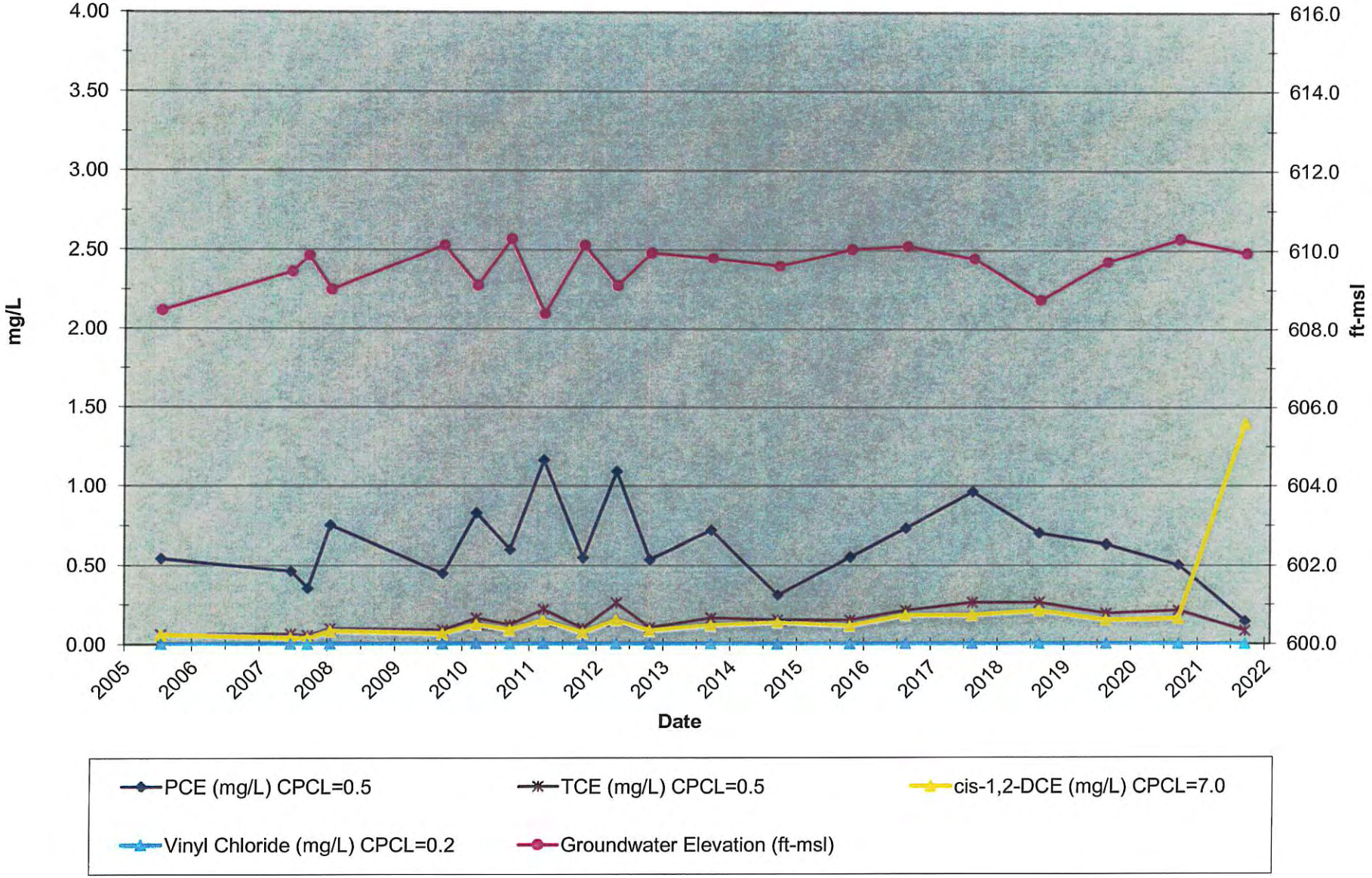
Attachment 3A-2
COC Concentrations with Time - NWCMW025



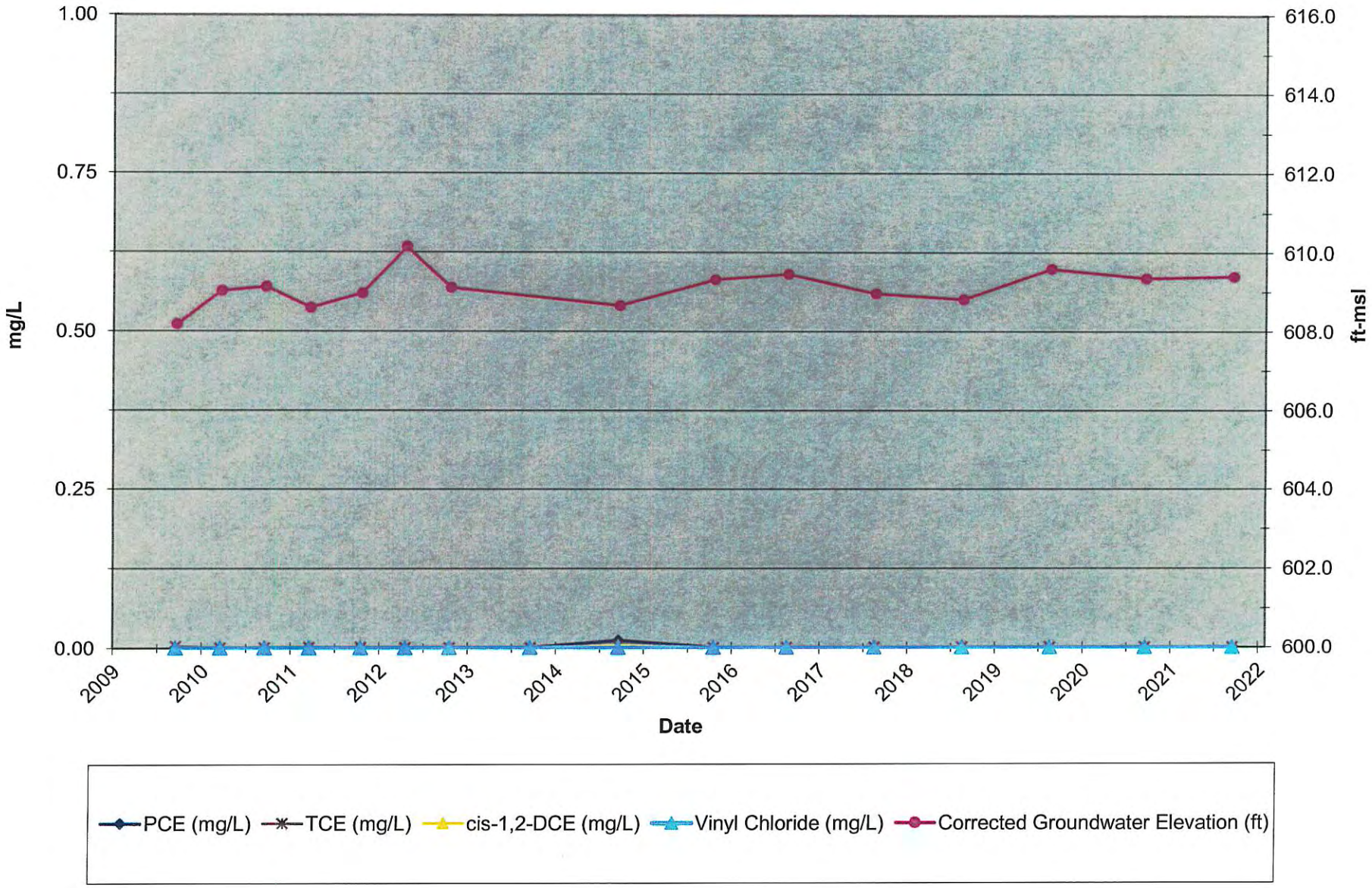
Attachment 3A-3
COC Concentrations with Time - NWCMW026



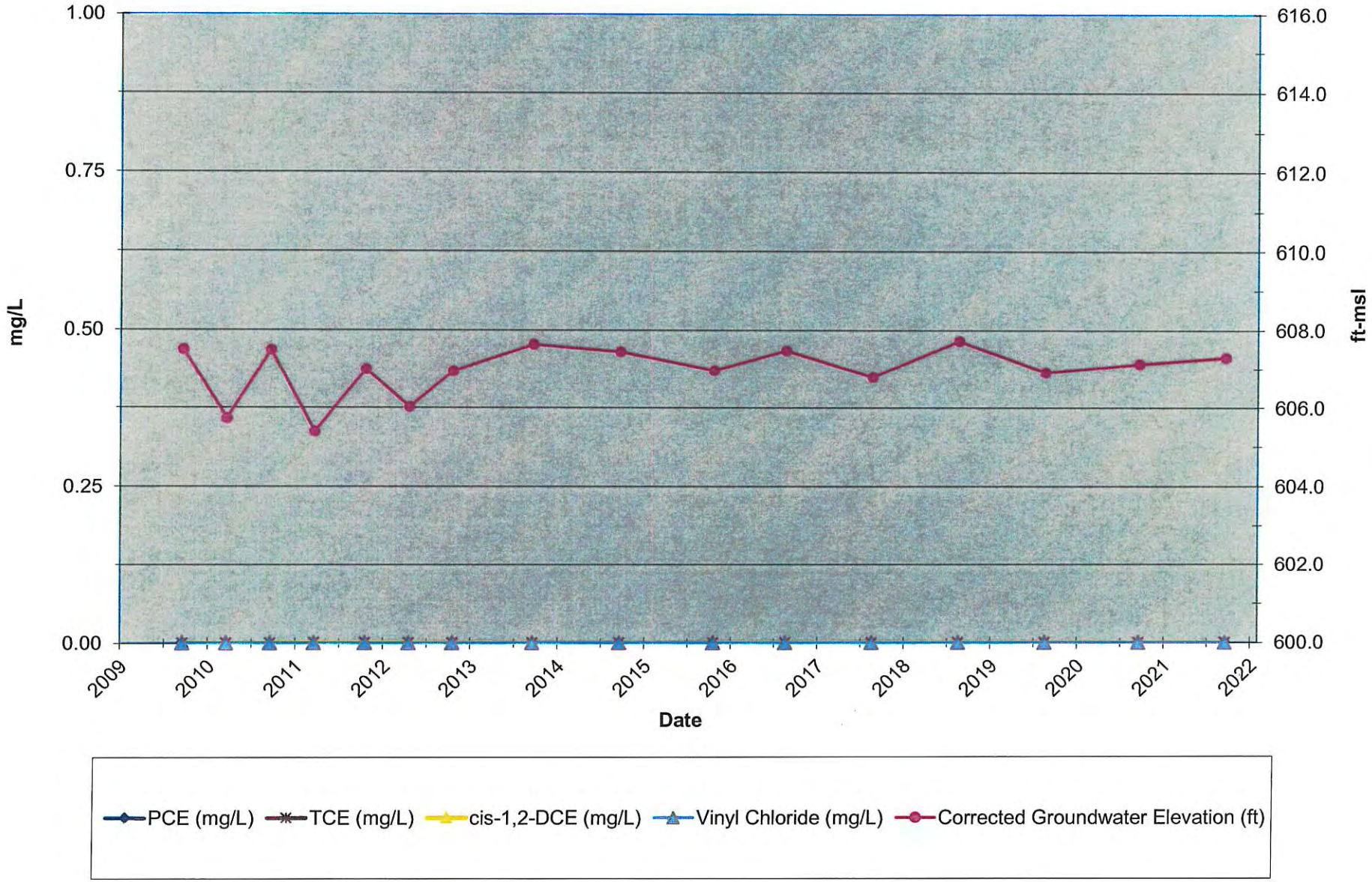
Attachment 3A-4
COC Concentrations with Time - NWCMW027



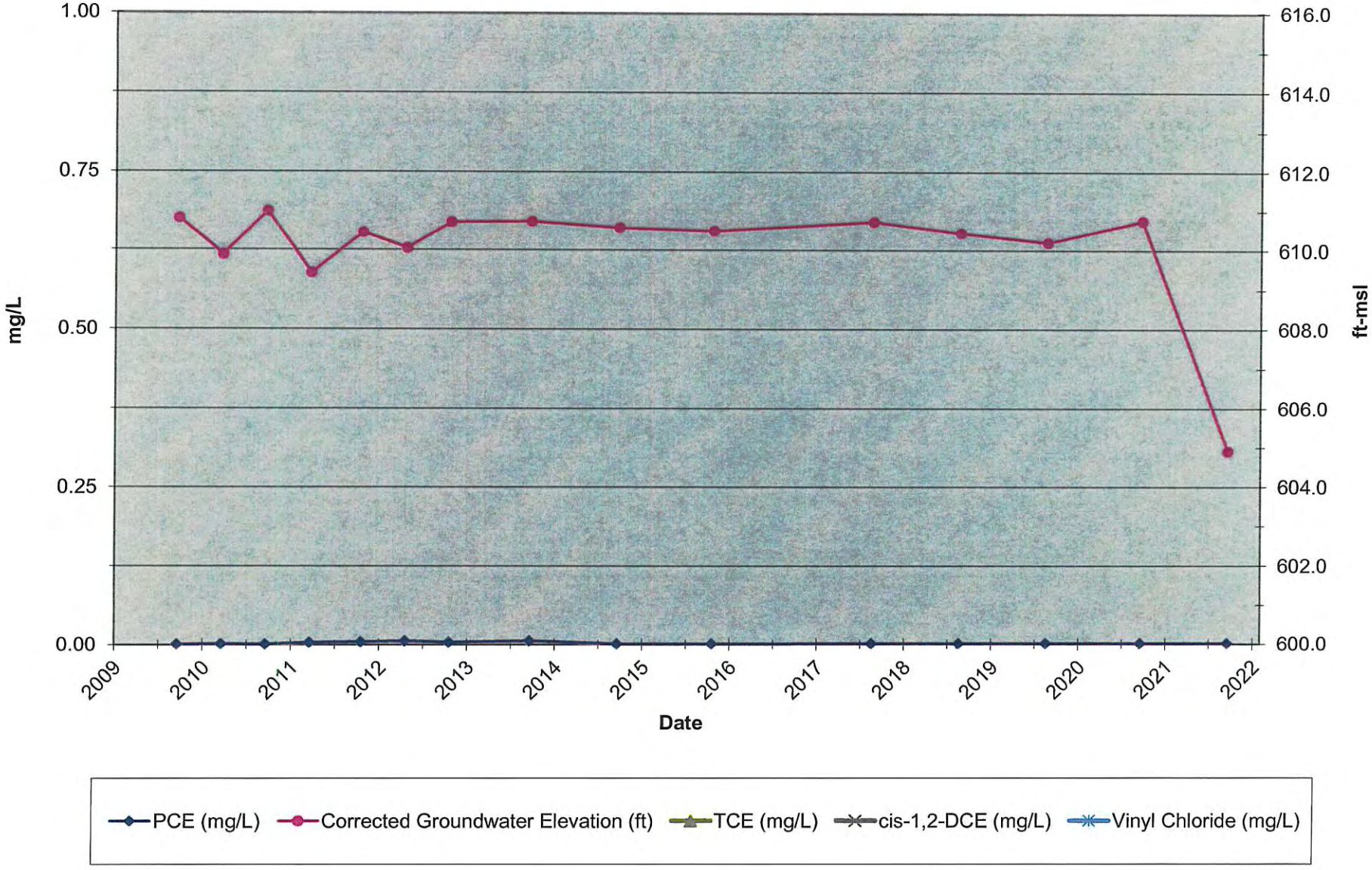
Attachment 3A-5
COC Concentrations with Time - NWCMW029



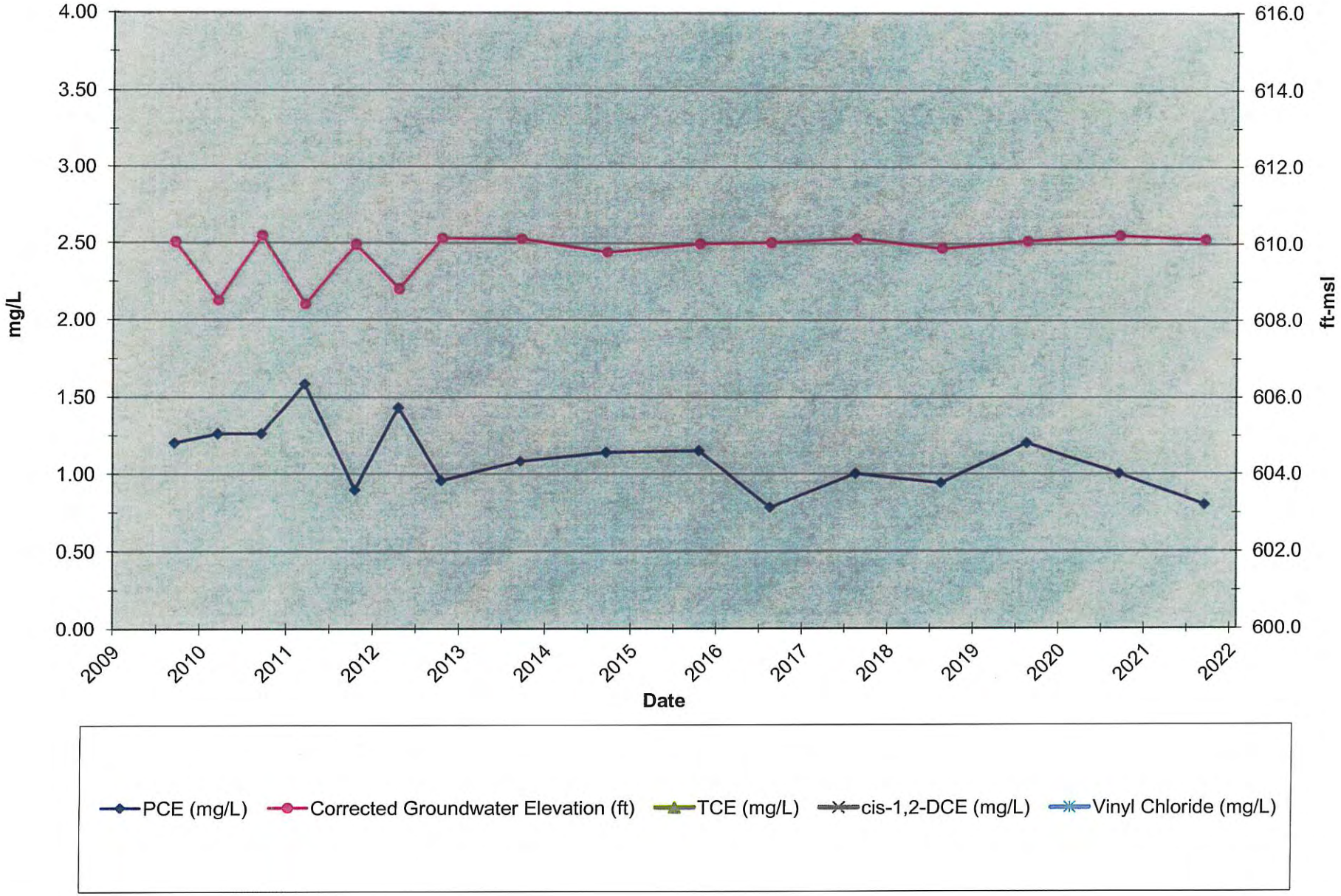
Attachment 3A-6
COC Concentrations with Time - NWCMW031



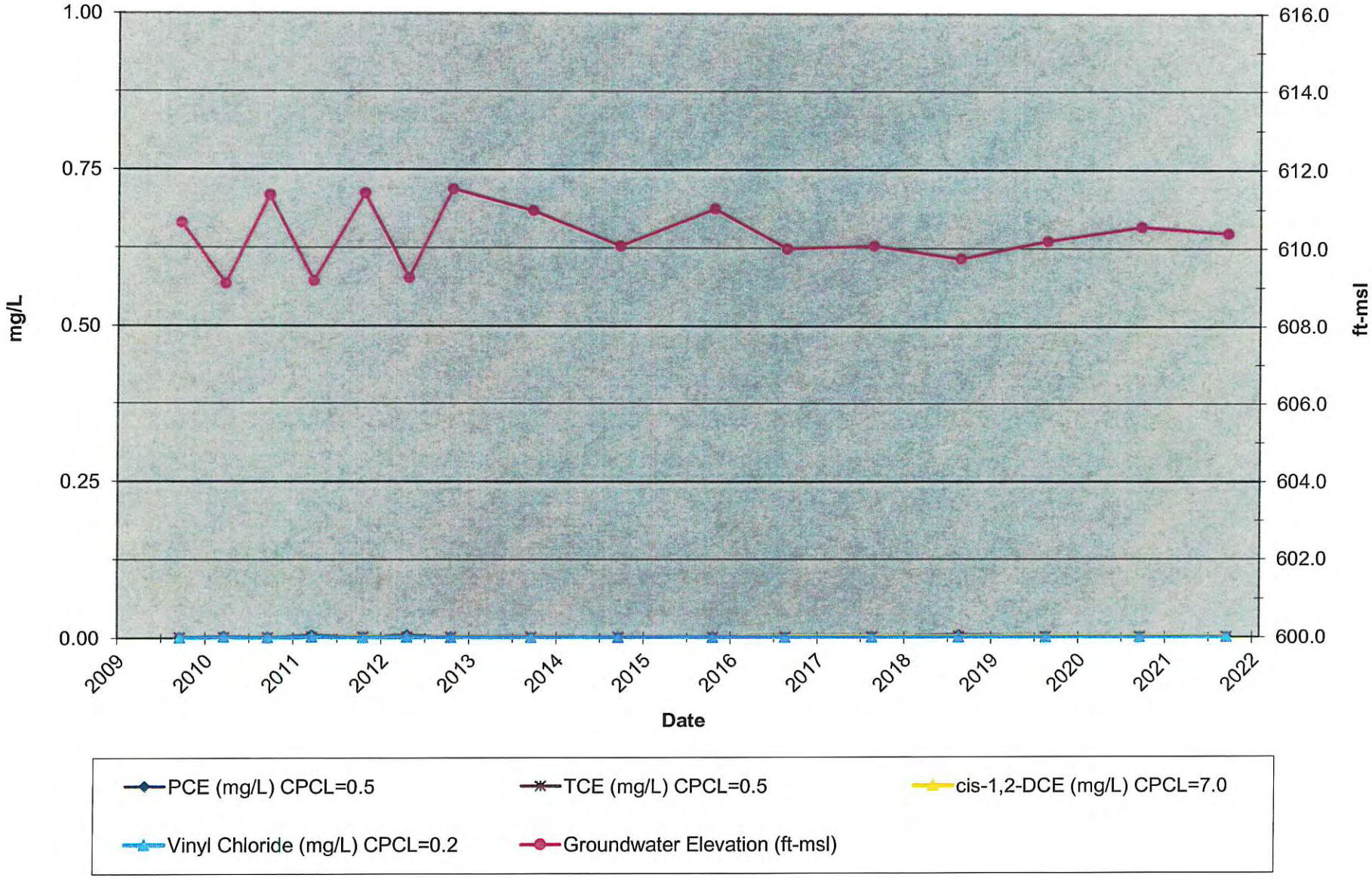
Attachment 3A-7
COC Concentrations with Time - NWCMW035



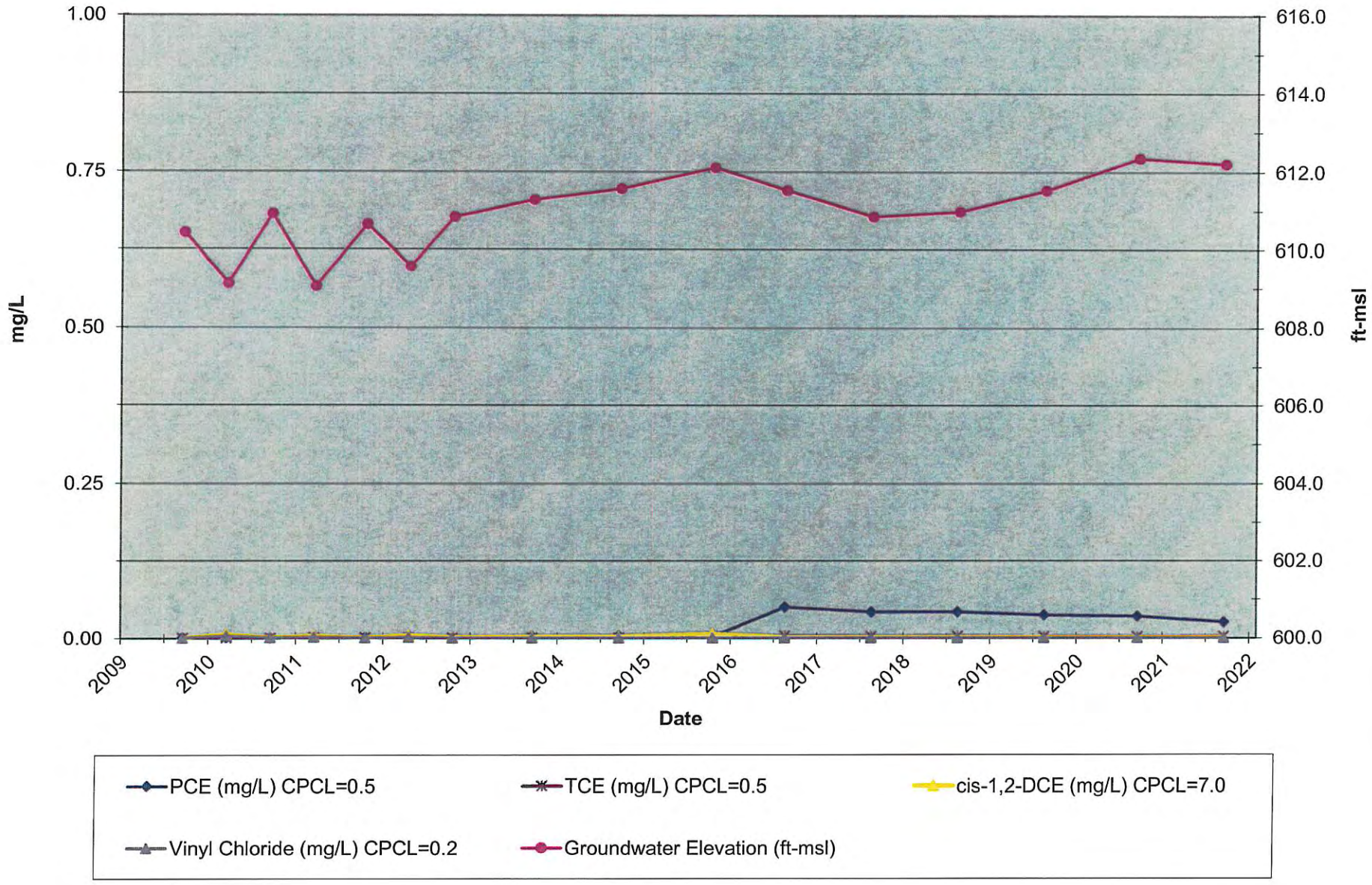
Attachment 3A-8
COC Concentrations with Time - NWCMW036



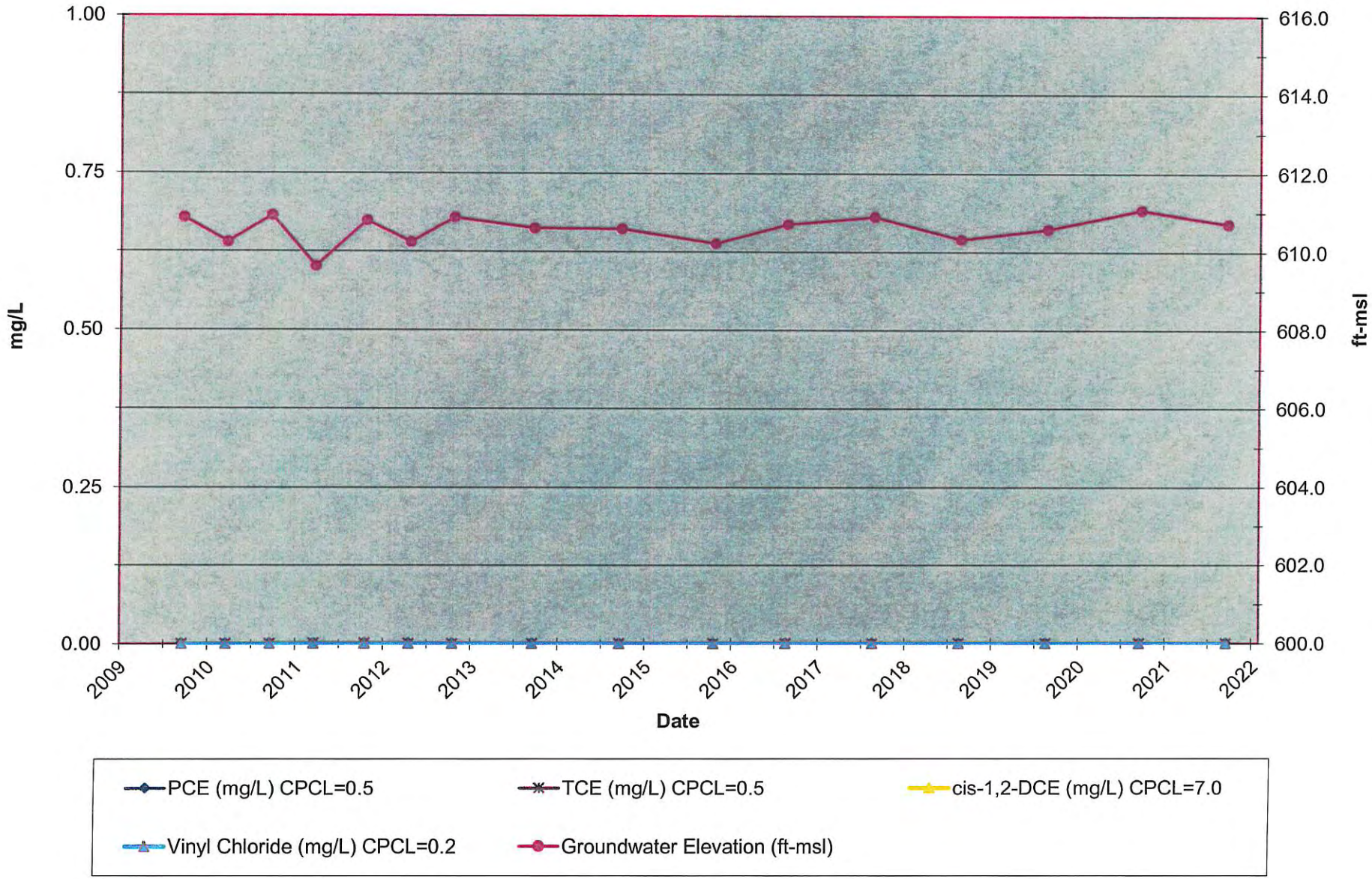
Attachment 3A-9
COC Concentrations with Time - NWCMW037



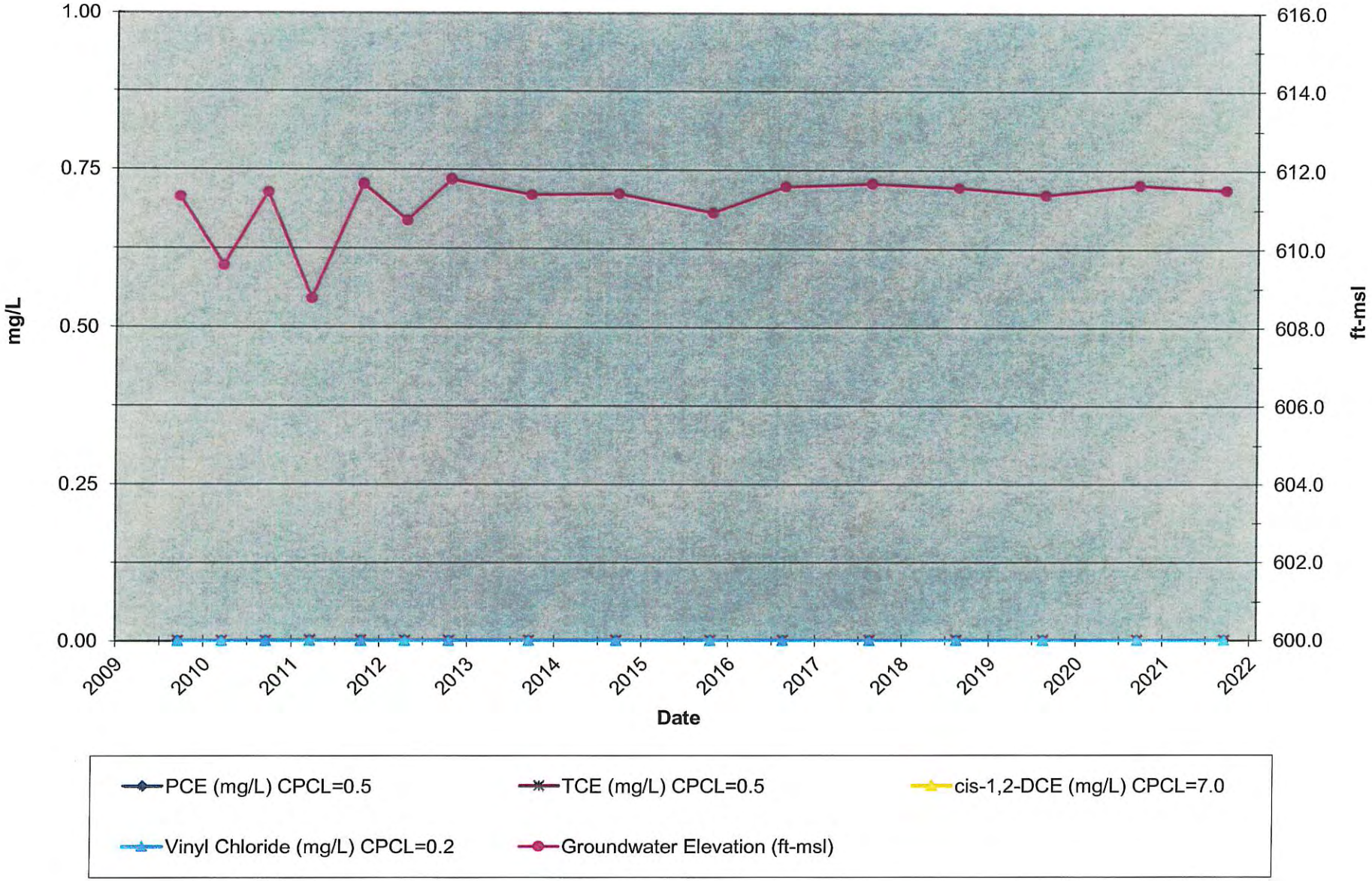
Attachment 3A-10
COC Concentrations with Time - NWCMW038



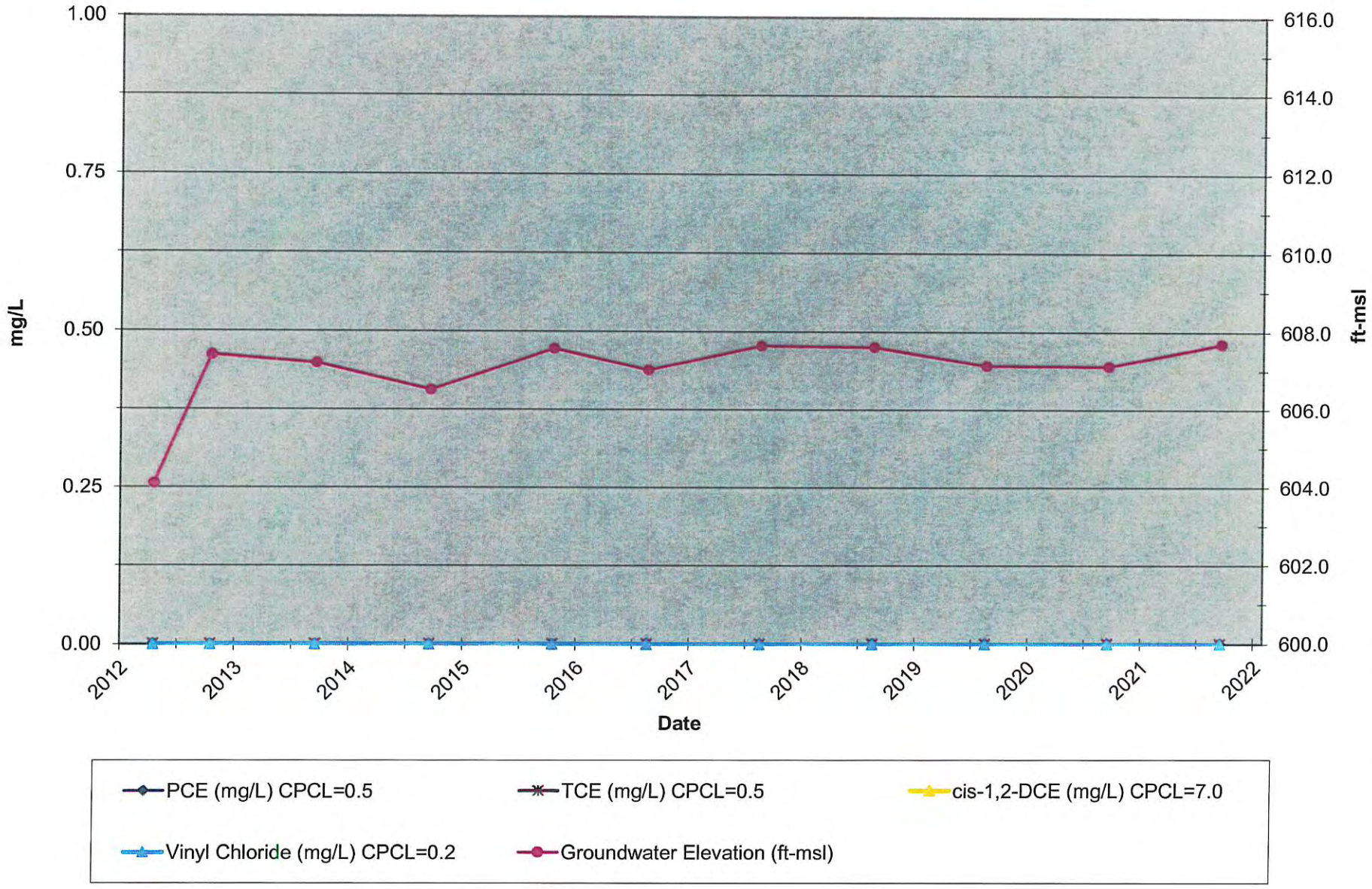
Attachment 3A-11
COC Concentrations with Time - NWCMW039



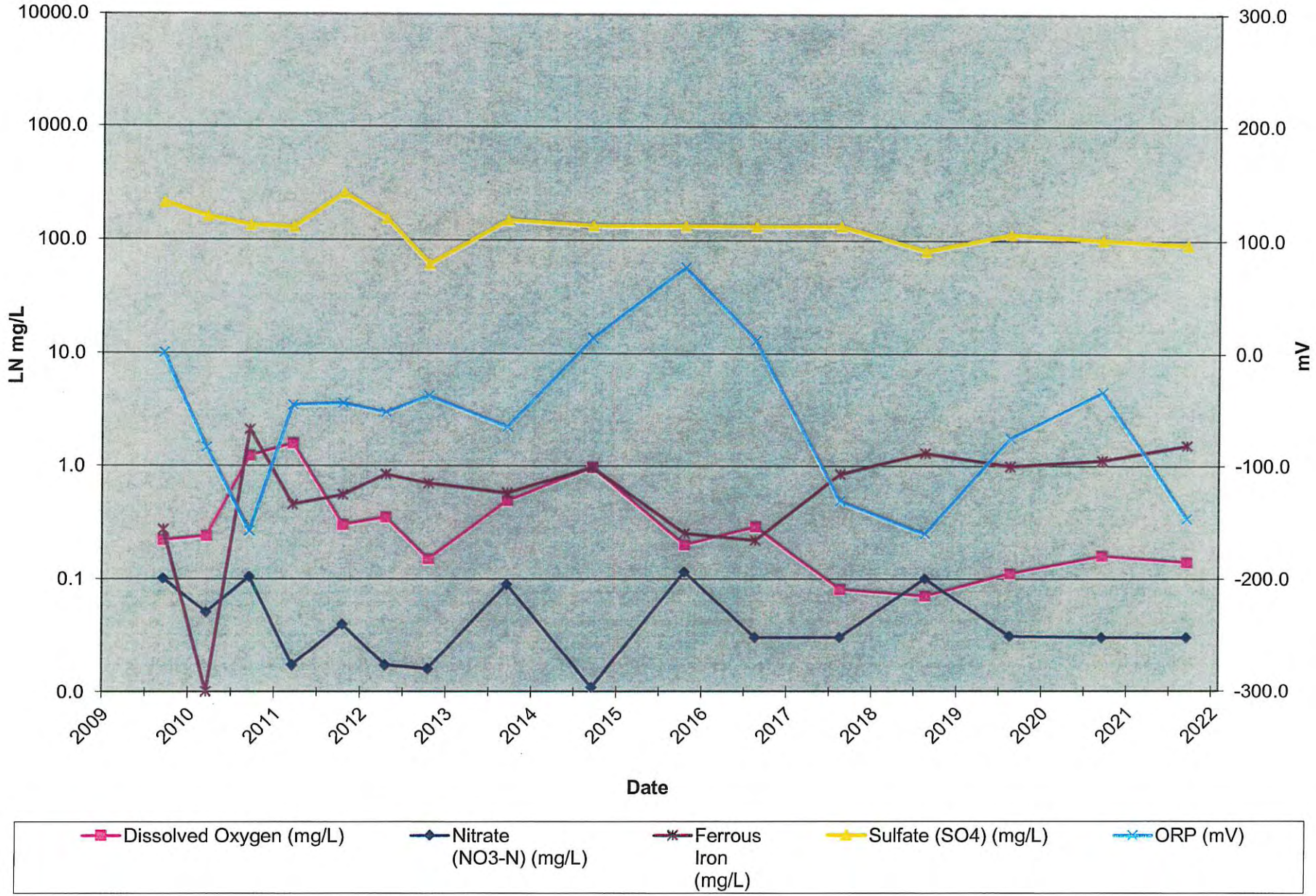
Attachment 3A-12
COC Concentrations with Time - NWCMW040



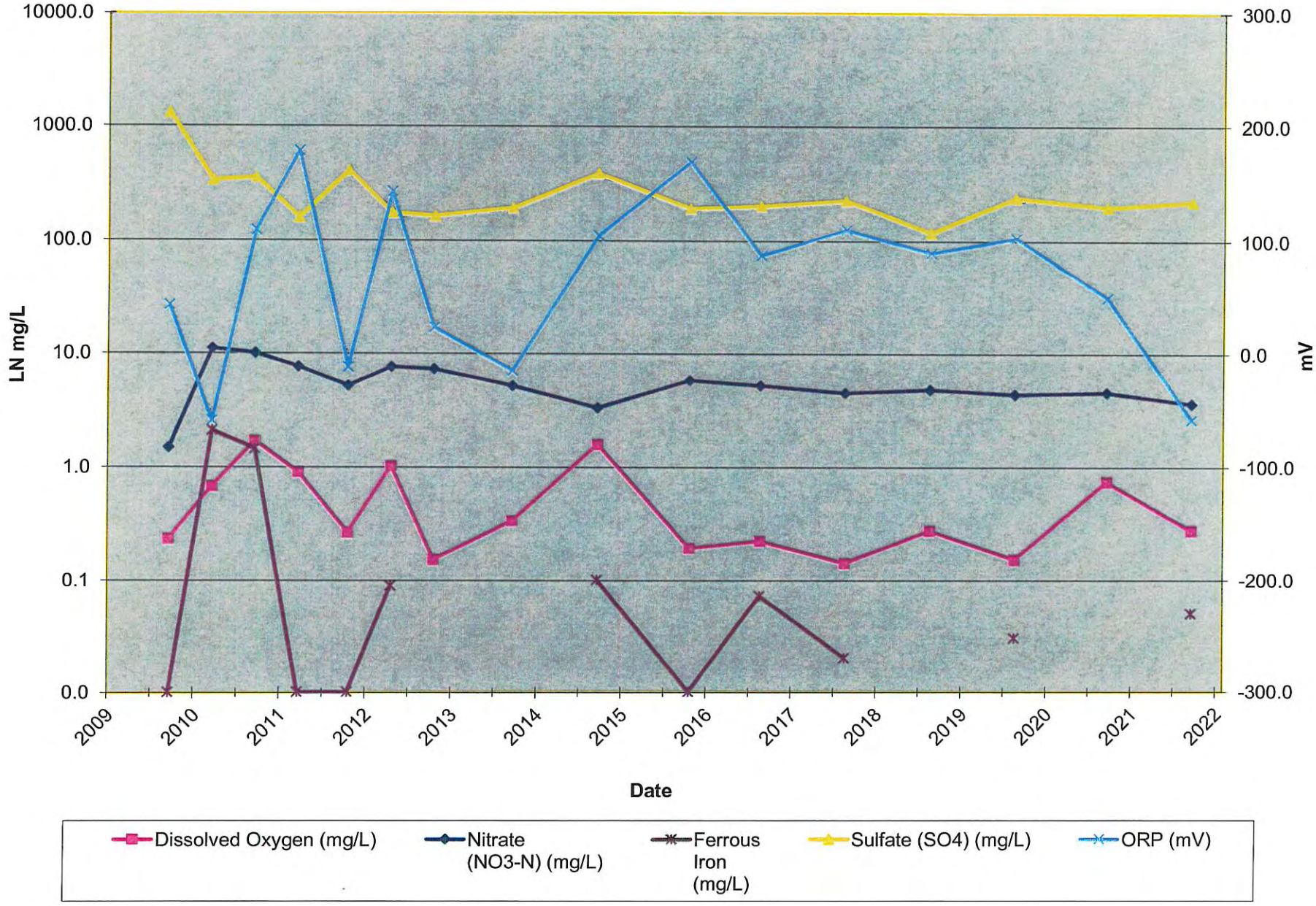
Attachment 3A-13
COC Concentrations with Time - NWCMW149



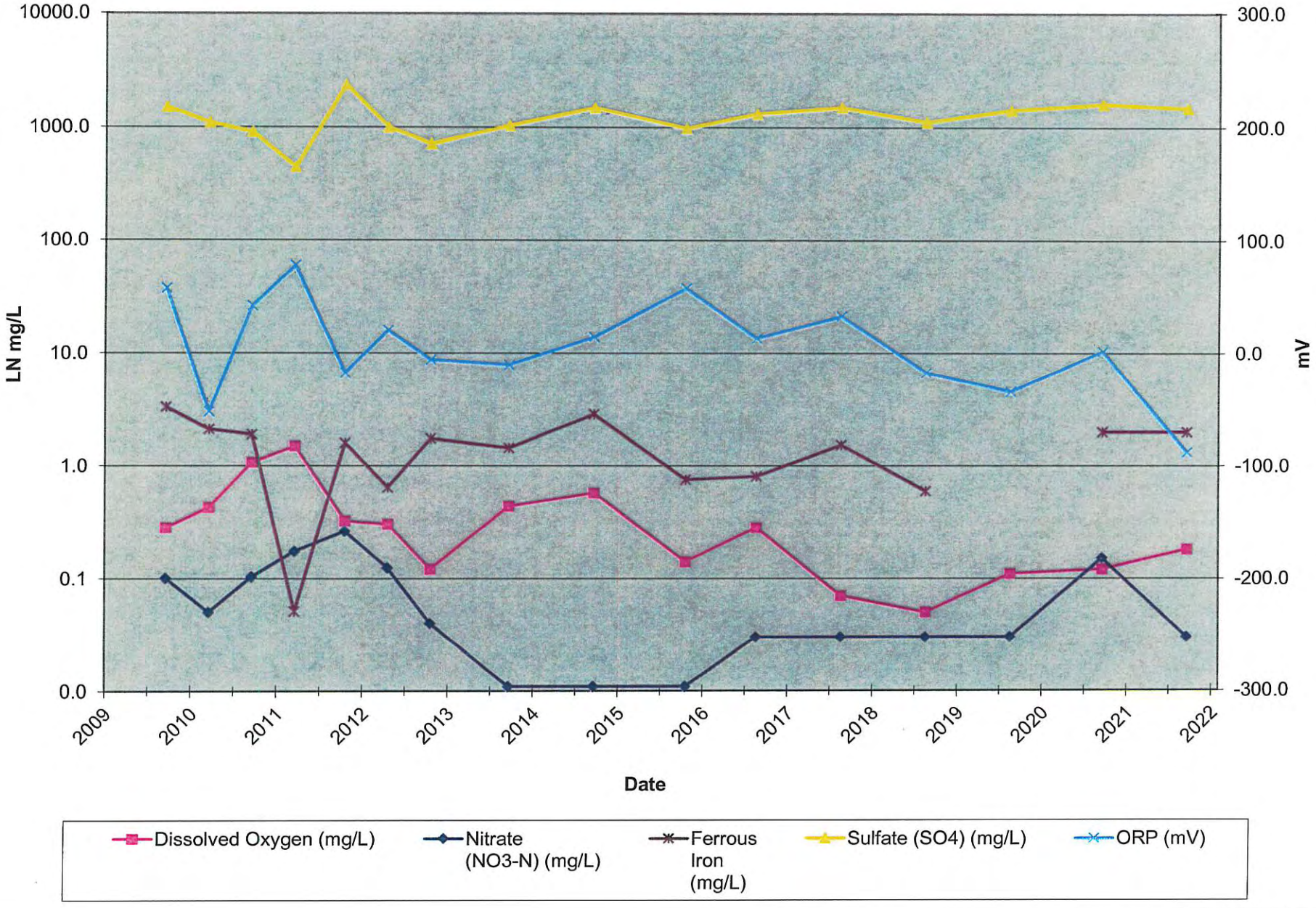
Attachment 3A-14
Geochemical Parameters with Time - NWCMW023
(Note LN Scale)



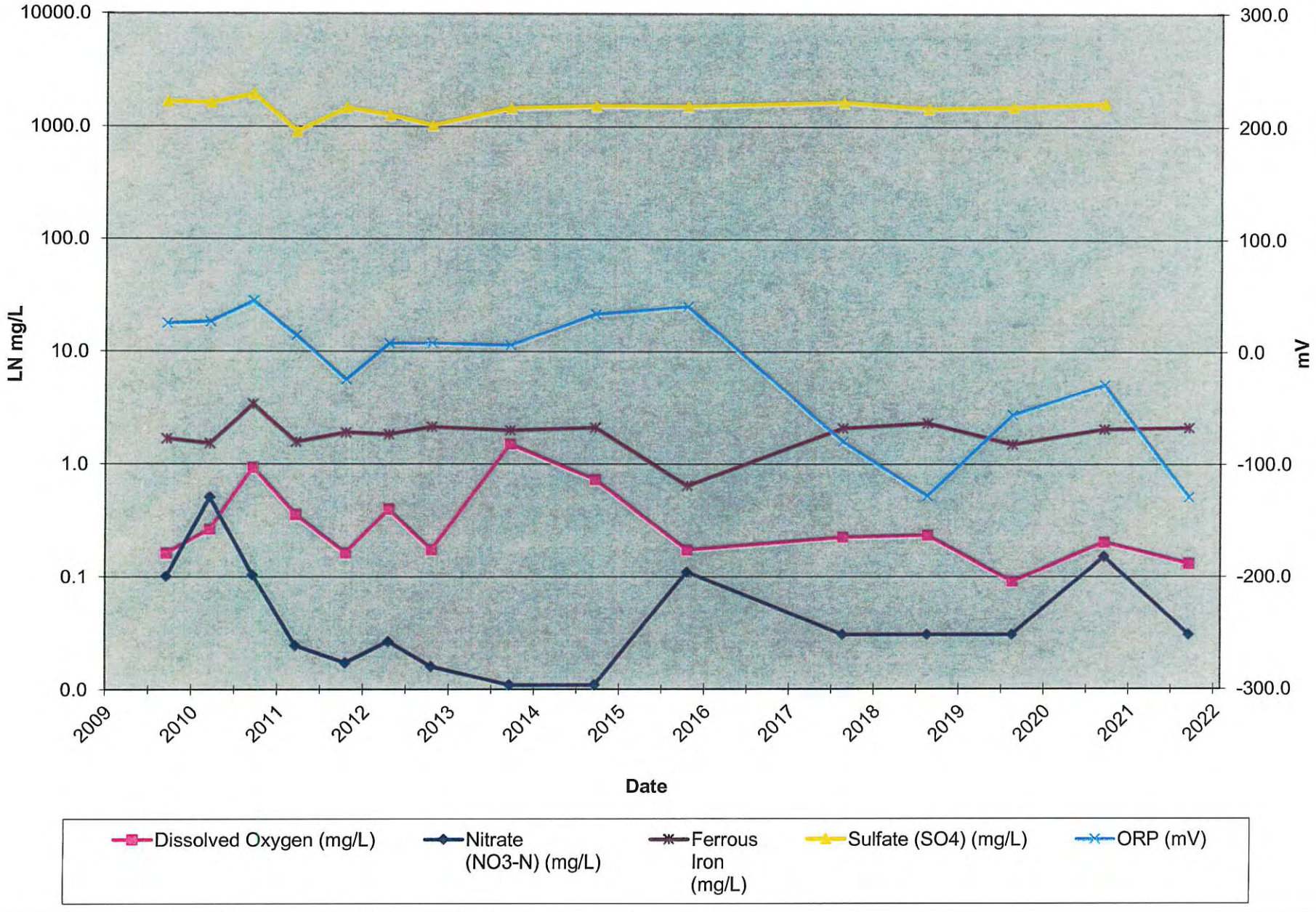
Attachment 3A-18
Geochemical Parameters with Time - NWCMW029
(Note LN Scale)



Attachment 3A-19
Geochemical Parameters with Time - NWCMW031
(Note LN Scale)

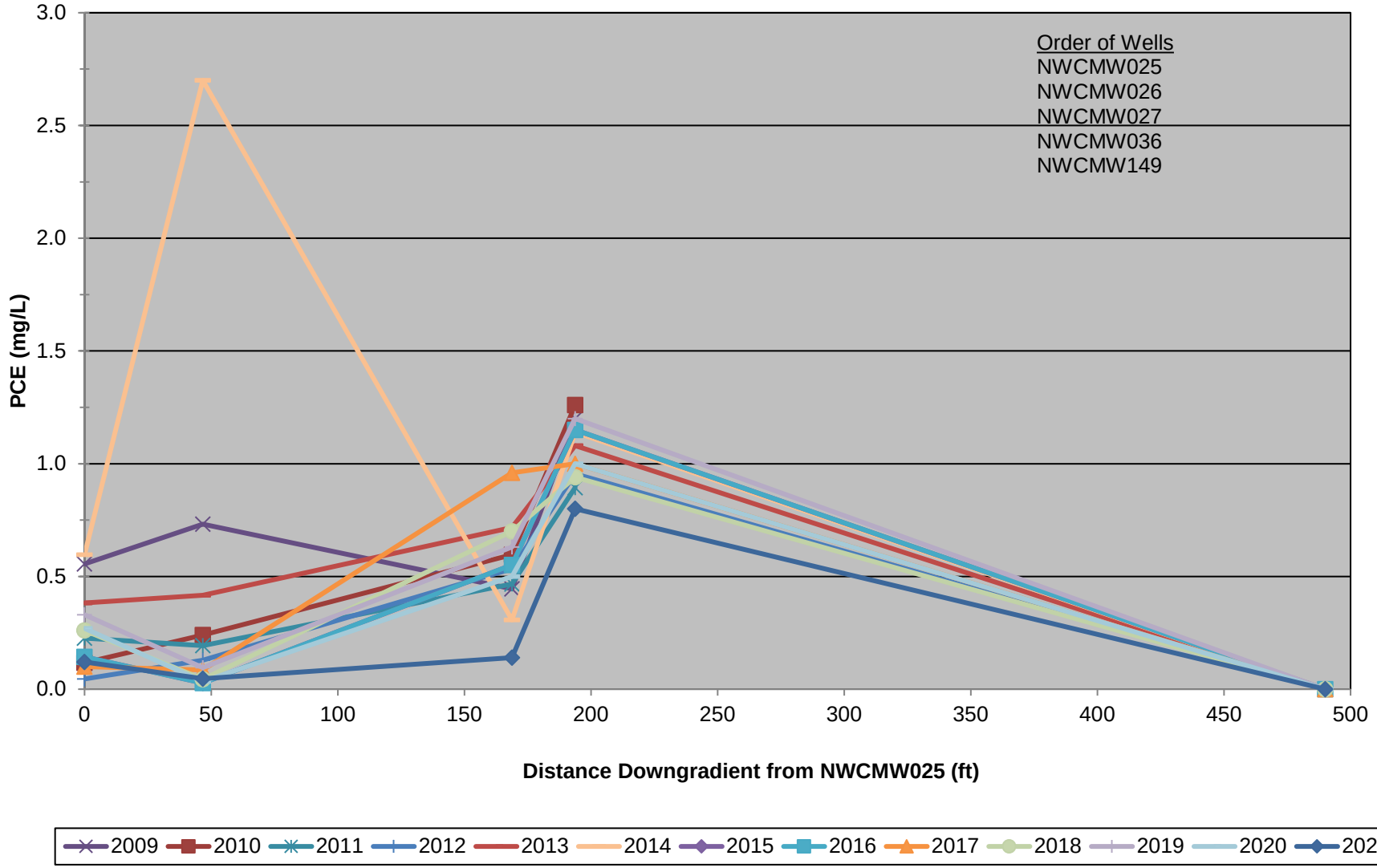


Attachment 3A-20
Geochemical Parameters with Time - NWCMW035
(Note LN Scale)

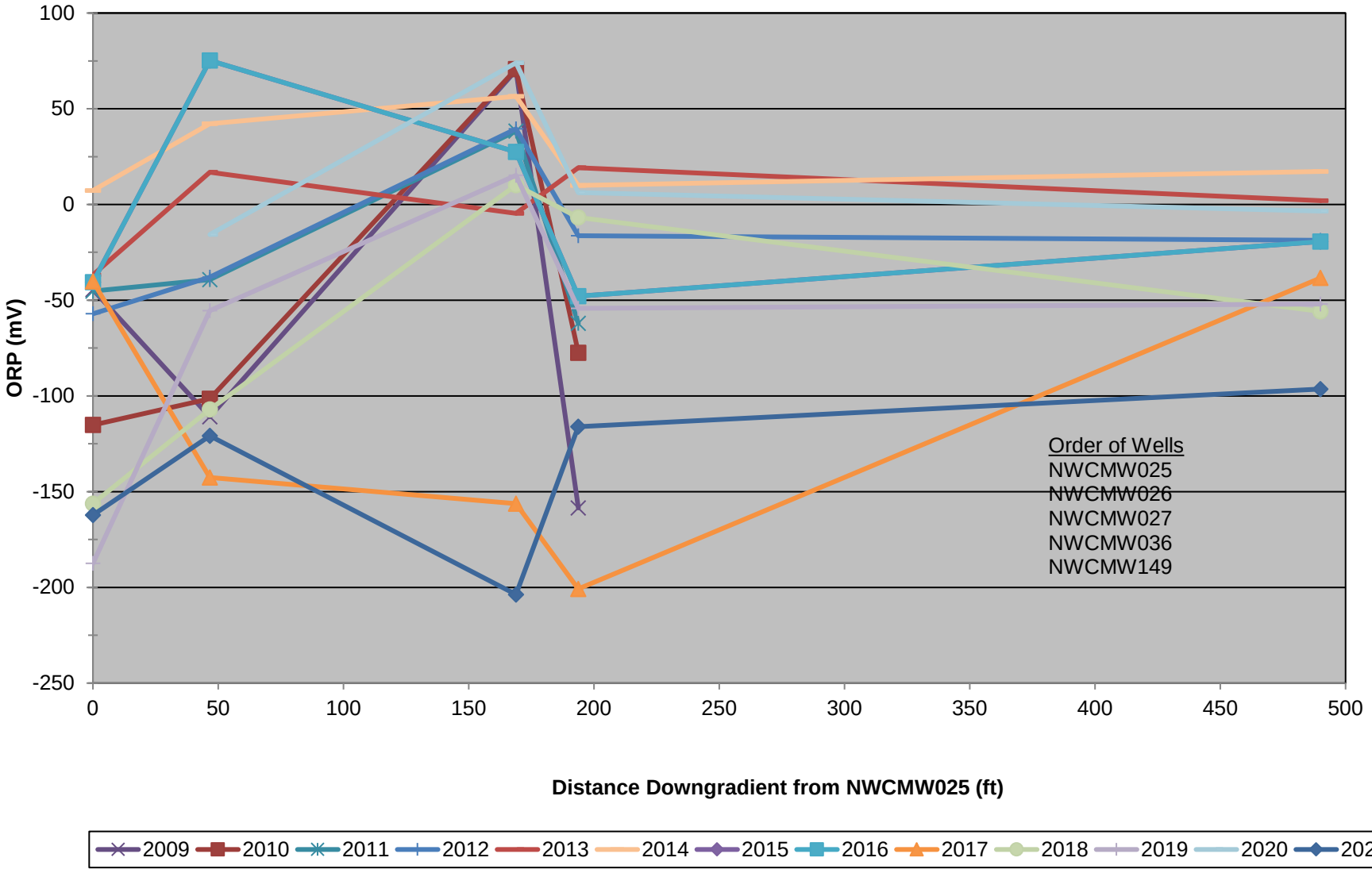


ATTACHMENT 3B
CONCENTRATION VS DISTANCE GRAPHS

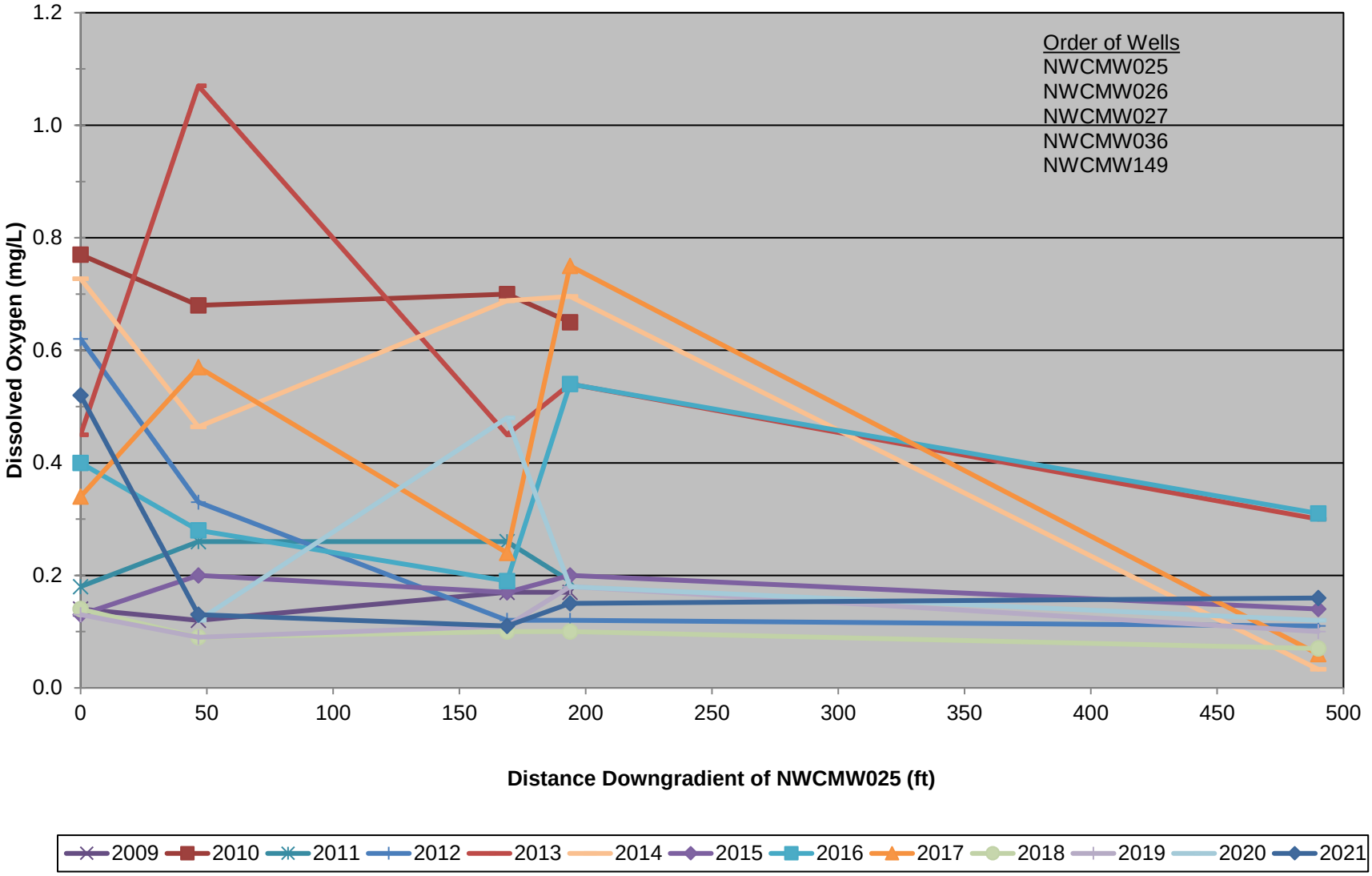
Attachment 3B-1
PCE with Distance



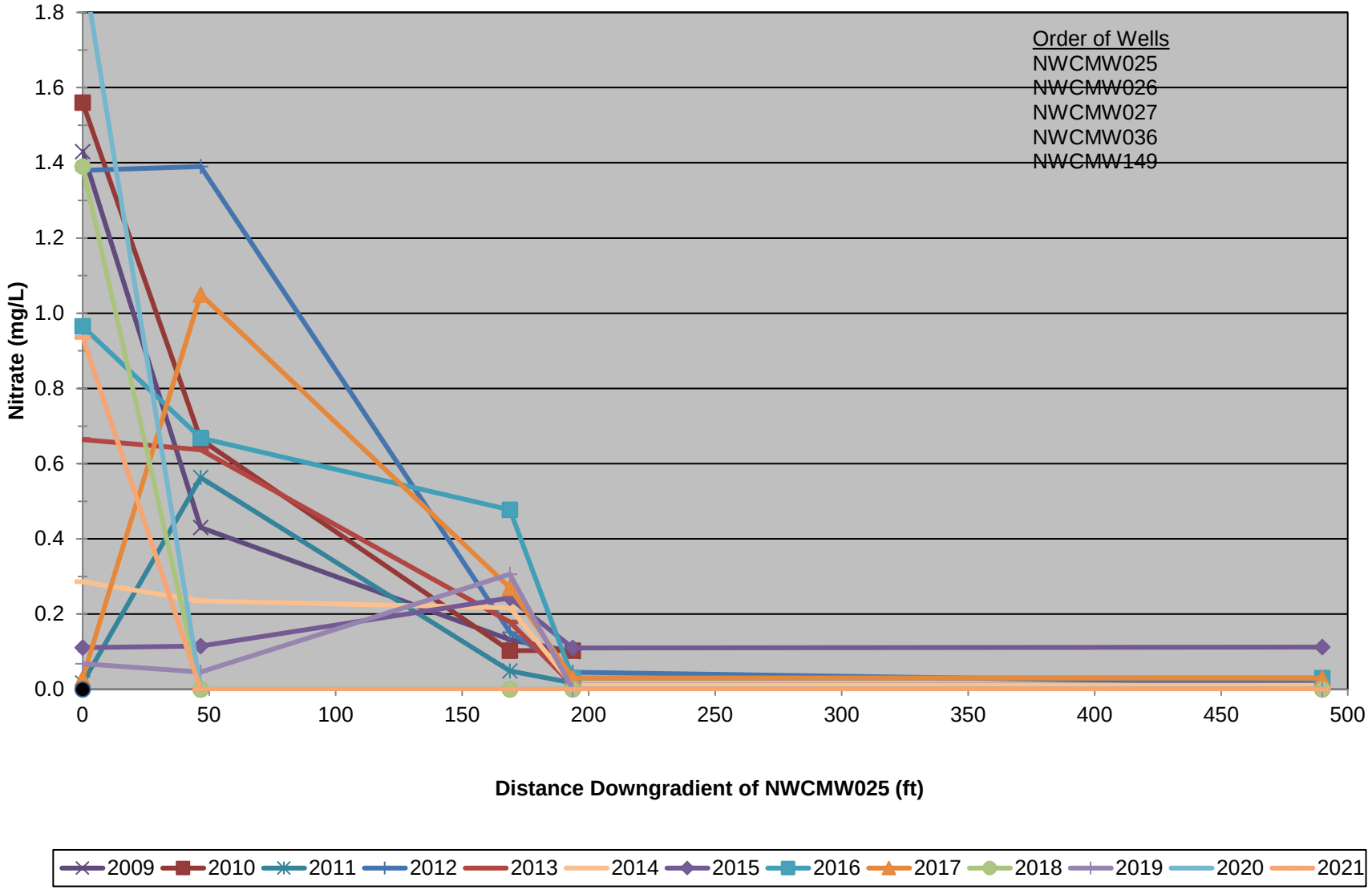
Attachment 3B-2
ORP with Distance



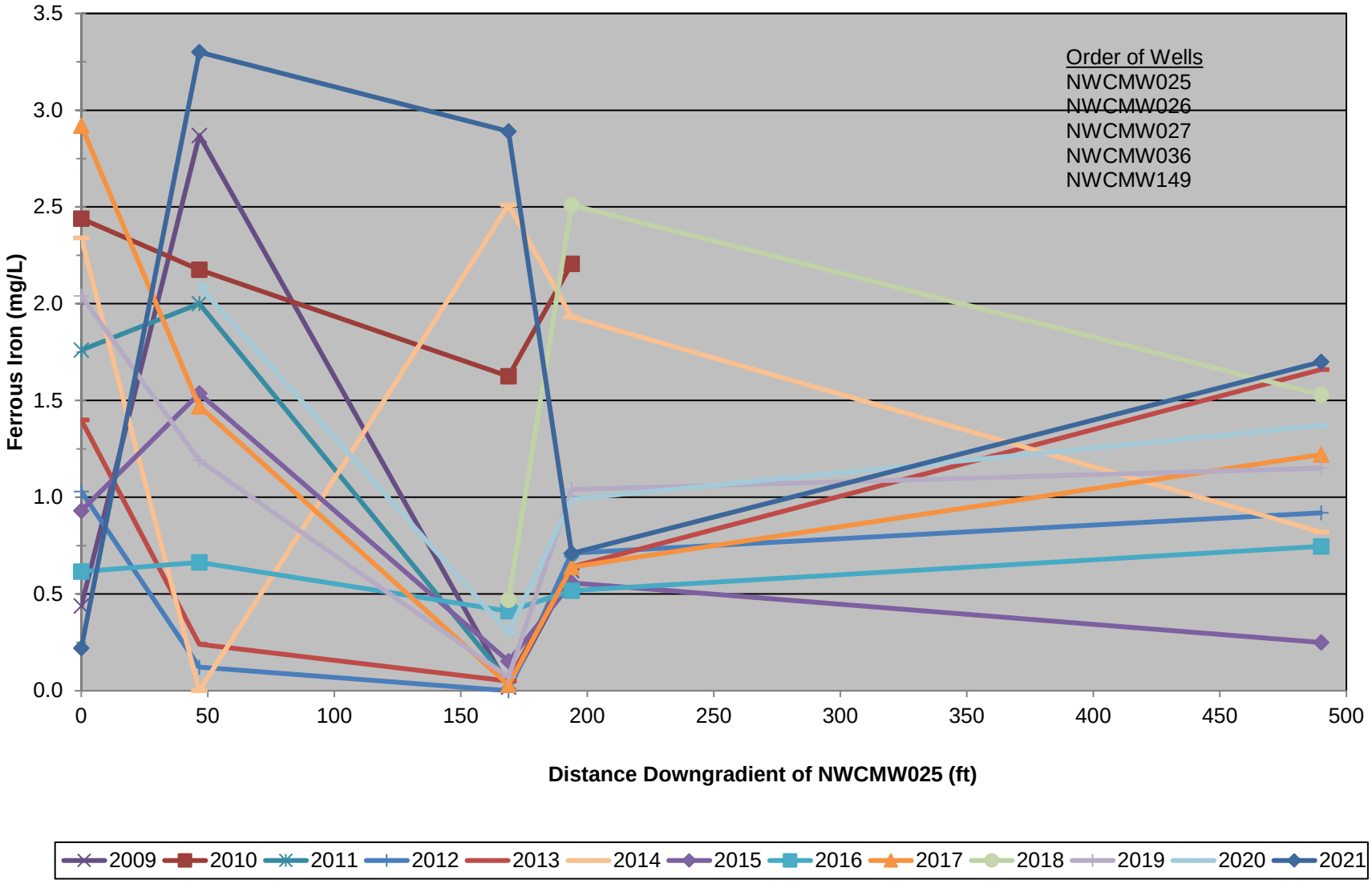
Attachment 3B-3
DO with Distance



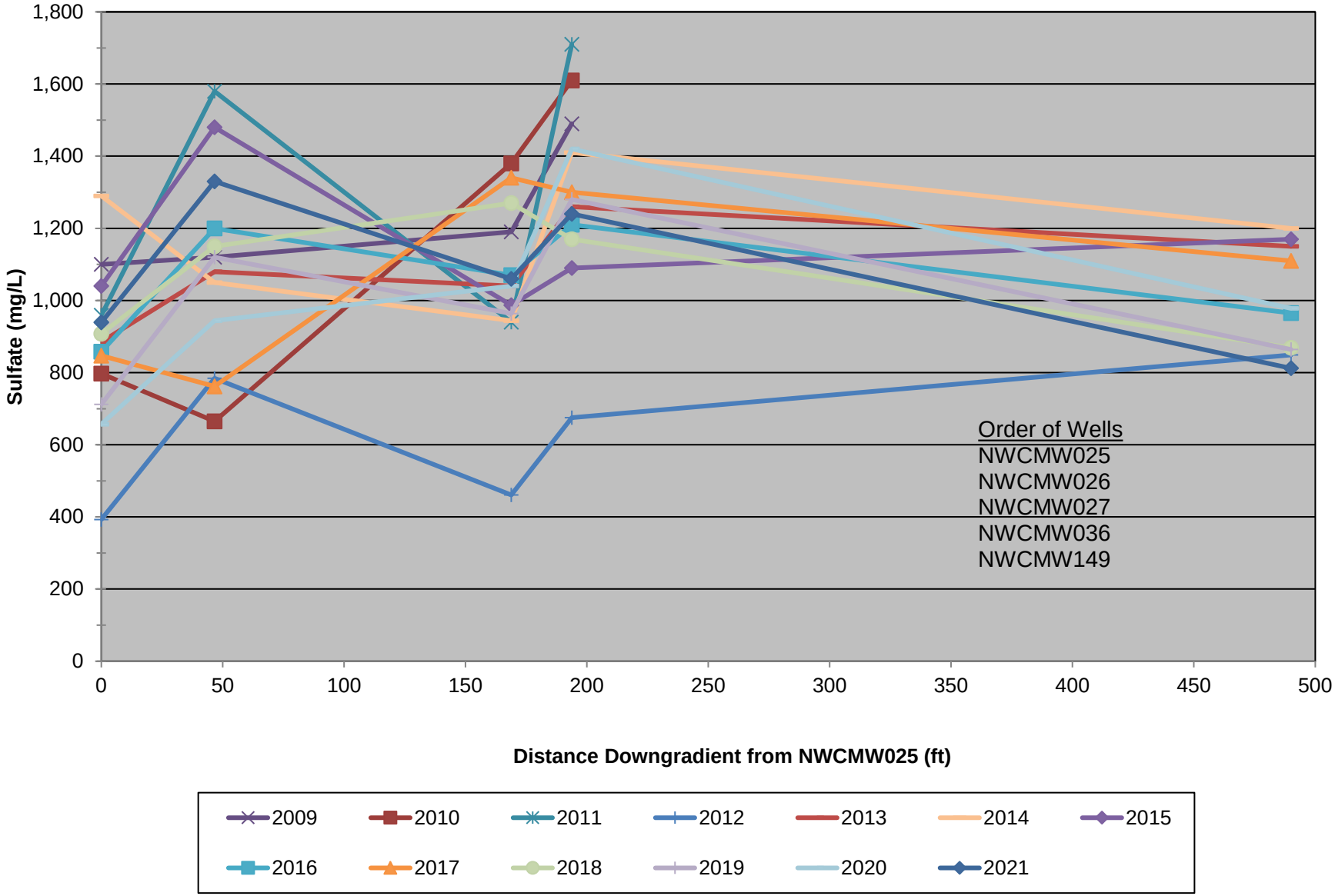
Attachment 3B-4
Nitrate with Distance



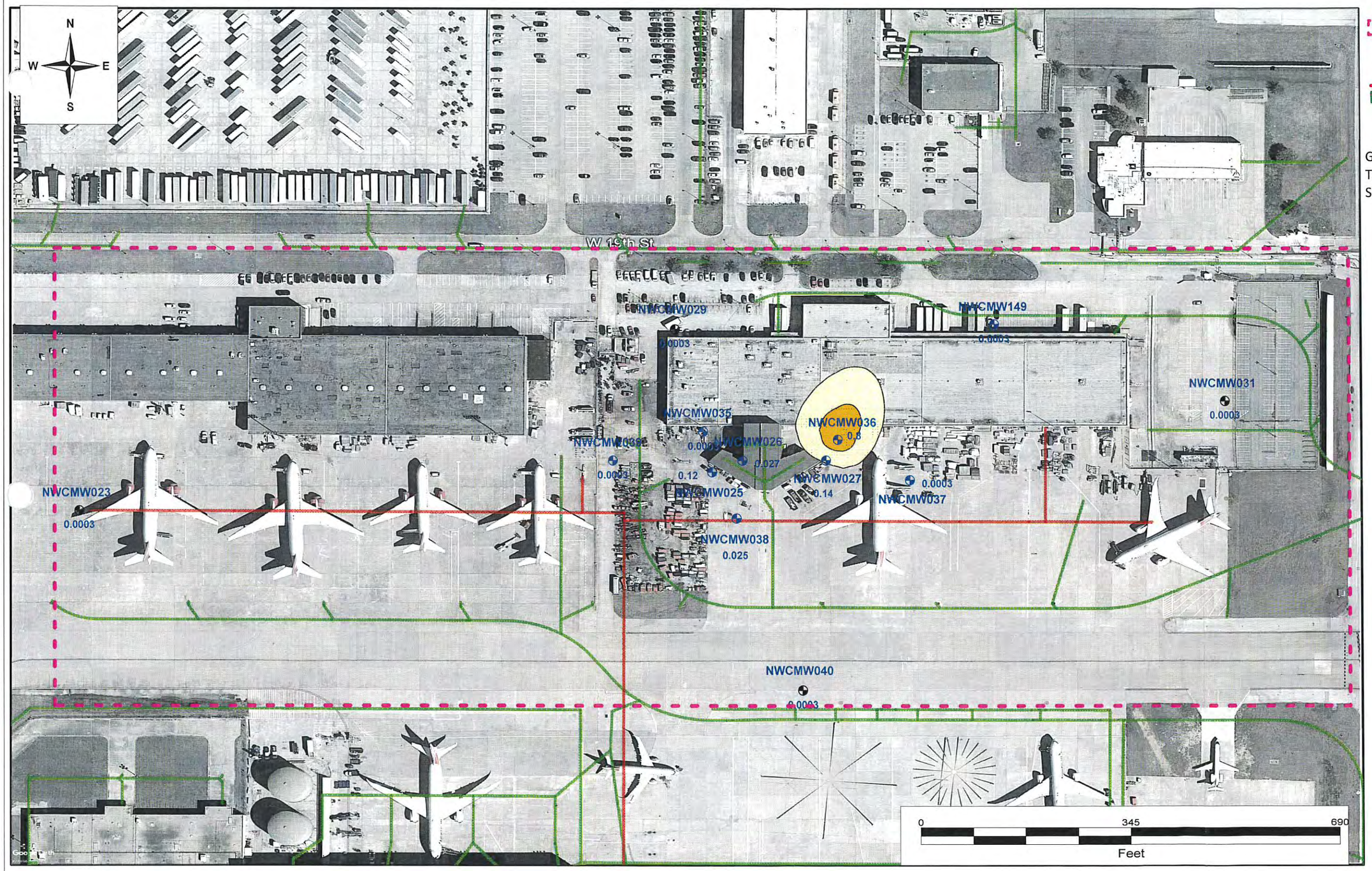
Attachment 3B-5
Ferrous Iron with Distance



Attachment 3B-6
Sulfate with Distance



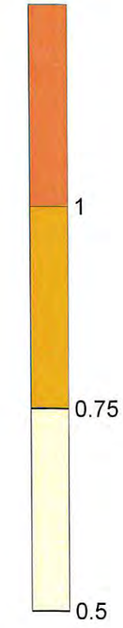
ATTACHMENT 3C
PCLE ZONE MAPS AND CROSS SECTIONS



LEGEND

- Plume Management Zone
- Monitoring Well
- APOE Monitoring Well
- Jet Fuel Supply Line
- Stormwater Drain Line
- *ND* Not Detected above SDL

Groundwater Classification = Class 3
Tectrachloroethene CPCL = 0.5 mg/L
Samples Collected: September 2021



STATE OF TEXAS
JAMES D. GREER
89295
LICENSED PROFESSIONAL ENGINEER
5/10/22

DFW DALLAS FORT WORTH INTERNATIONAL AIRPORT

AOC C5 - PCE GROUNDWATER CONCENTRATION MAP September 2021

Attachment 3C

ATTACHMENT 3D
DATA SUMMARY

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW023										
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 0.5	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/23/09	591.46	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	591.93	0.0002	U	0.000317	U	0.0002	U	0.0002	U
102	09/14/10	593.20	0.0002	U	0.000317	U	0.0002	U	0.0002	U
111	03/30/11	592.18	0.001	U	0.001	U	0.001	U	0.0004	U
112	10/10/11	592.73	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/03/12	593.14	0.00059	UJL	0.00039	UJL	0.00035	UJL	0.0031	UJL
122	10/02/12	592.81	0.000196	U	0.00013	U	0.00035	U	0.0031	U
131	09/18/13	592.05	0.000223	U	0.000195	U	0.000127	U	0.000303	U
142	09/15/14	592.01	0.000223	UR	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	592.02	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/10/16	592.21	0.0003	U	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	592.60	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	593.52	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	593.28	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/09/20	593.50	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/01/21	593.93	0.0003	U	0.0002	U	0.0002	U	0.0002	U

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW025												
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)			TCE (mg/L)			cis-1,2-DCE (mg/L)			Vinyl Chloride (mg/L)		
			CPCL - 0.5		AAL - 3.19	CPCL - 0.5		AAL - NA	CPCL - 7		AAL - NA	CPCL - 0.2		AAL - NA
051	07/26/05	609.73	2.6			0.12			0.025			0.004	U	
071	06/27/07	610.00	0.53			0.027			0.0043			0.0004	U	
072	09/28/07	610.15	0.33			0.025			0.0041			0.00052	J	
081	01/04/08	609.17	0.36			0.039			0.0057			0.00093	J	
091	09/24/09	610.48	0.555			0.0386			0.00586			0.00126	J	
101	03/22/10	609.73	0.58			0.0358			0.00557			0.00103	J	
102	09/15/10	610.59	0.117			0.0112			0.00103			0.0002	U	
111	03/31/11	604.95	1.27	D		0.0874			0.0122			0.00168	J	
112	10/11/11	610.32	0.226	D		0.0203			0.00326	J		0.0004	U	
121	04/04/12	609.46	0.0463			0.00506			0.00106	J		0.00031	U	
122	10/02/12	610.56	0.0456	J		0.00013	U		0.00096	J		0.00031	U	
131	09/18/13	610.22	0.382	D		0.0327			0.00384	J		0.000303	U	
142	09/15/14	609.86	0.596	DXJL		0.0591			0.0121			0.000303	U	
151	10/13/15	610.06	0.143			0.0167			0.00227	J		0.000303	U	
161	08/10/16	610.32	0.035			0.0041	JH		0.001			0.0002	U	
171	08/22/17	610.47	0.1			0.0079			0.0068			0.0002	U	
181	08/03/18	610.05	0.26			0.011			0.011			0.00046	J	
191	08/21/19	610.53	0.33			0.011			0.012			0.00061	J	
201	09/12/20	610.52	0.27	JL		0.018			0.0087			0.00089	J	
211	09/02/21	610.49	0.12			0.0062			0.0076			0.0002		

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW026												
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)			TCE (mg/L)			cis-1,2-DCE (mg/L)			Vinyl Chloride (mg/L)		
			CPCL - 0.5	AAL - 3.7		CPCL - 0.5	AAL - NA		CPCL - 7	AAL - NA		CPCL - 0.2	AAL - NA	
051	07/27/05	609.72	3.6			0.12			0.036			0.004		U
071	06/27/07	609.91	1.2			0.05			0.022			0.0033		J
072	09/28/07	610.08	0.45			0.019			0.015			0.00096		J
081	01/08/08	609.09	0.59			0.038			0.017			0.0017		
091	09/24/09	610.40	0.732			0.0436			0.0189			0.0022		J
101	03/22/10	609.17	2.15			0.123			0.0353			0.004		U
102	09/15/10	610.54	0.24			0.0152			0.00781			0.000551		J
111	03/31/11	608.79	0.924		D	0.112			0.0199			0.00219		
112	10/12/11	610.26	0.193		D	0.0138			0.00626			0.0004		U
121	04/04/12	609.39	0.142		D	0.00866			0.00704			0.00037		J
122	10/03/12	610.35	0.129		J	0.00376		J	0.00661		J	0.00031		U
131	09/18/13	610.24	0.416		D	0.0284			0.011			0.00101		J
142	09/15/14	610.14	2.7		DJL	0.142			0.0335			0.00394		
151	10/13/15	610.25	0.0266			0.00216		J	0.0027		J	0.000303		U
161	08/10/16	610.41	0.038			0.0034		JH	0.0076			0.00054		J
171	08/22/17	610.45	0.085			0.014			0.018			0.0002		U
181	08/03/18	610.16	0.044			0.028			0.24			0.0014		
191	08/21/19	610.31	0.096			0.043			0.14			0.0013		
201	09/15/20	610.26	0.034			0.021			0.1			0.0012		
211	09/01/21	610.26	0.046			0.027			0.051			0.0002		U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW027												
mpling Rou	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5 AAL - 2.59		CPCL - 0.5 AAL - NA		CPCL - 7 AAL - NA		CPCL - 0.2 AAL - NA	
051	07/26/05	608.46	0.54		0.058		0.06		0.002	
071	06/27/07	609.44	0.46		0.061		0.039		0.0017	J
072	09/28/07	609.85	0.35		0.051		0.037		0.0001	J
081	01/04/08	608.99	0.75		0.094		0.082		0.0025	
091	09/24/09	610.11	0.445		0.0845		0.0649		0.0025	J
101	03/22/10	609.10	0.827		0.16		0.123		0.0038	J
102	09/15/10	610.27	0.596		0.119		0.0878		0.0024	J
111	03/31/11	608.38	1.16	D	0.216	D	0.147		0.00411	
112	10/12/11	610.11	0.546	D	0.0949		0.0703		0.00152	J
121	04/04/12	609.09	1.09	DX	0.256	D	0.148		0.003	
122	10/02/12	609.92	0.534	J	0.0999	J	0.0823	J	0.0017	J
131	09/19/13	609.79	0.717	D	0.161	D	0.115		0.00281	
142	09/16/14	609.59	0.307	D	0.149		0.133		0.000303	U
151	10/13/15	610.02	0.551	D	0.147		0.112		0.00217	
161	08/10/16	610.10	0.73		0.21		0.18		0.0034	
171	08/22/17	609.79	0.96		0.26		0.18		0.0029	
181	08/03/18	608.74	0.7		0.26		0.21		0.0035	
191	08/21/19	609.71	0.63		0.19		0.15		0.0027	
201	09/16/20	610.29	0.5		0.21		0.16		0.0007	J
211	09/02/21	609.94	0.14		0.081		1.4		0.0018	

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW029										
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 0.5	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/23/09	608.17	0.0002	J	0.00317	U	0.0002	U	0.0002	U
101	03/22/10	609.01	0.0002	U	0.000317	U	0.0002	U	0.0002	U
102	09/14/10	609.11	0.0002	U	0.000317	U	0.0002	U	0.0002	U
111	03/30/11	608.58	0.001	U	0.001	U	0.001	U	0.0004	U
112	10/10/11	608.95	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/02/12	610.13	0.00088	JL	0.00039	UJL	0.00035	UJL	0.00031	UJL
122	10/02/12	609.09	0.000196	U	0.00013	U	0.00035	U	0.00031	U
131	09/19/13		0.00048	J	0.000195	U	0.000127	U	0.000303	U
142	09/16/14	608.64	0.0116		0.00427	J	0.00422	J	0.000303	U
151	10/13/15	609.30	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/10/16	609.44	0.00052	J	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	608.95	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	608.80	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	609.59	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/09/20	609.35	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/01/21	609.40	0.0003	U	0.0002	U	0.0002	U	0.0002	U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW031										
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 0.5	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/23/09	607.49	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	605.73	0.0002	U	0.000317	U	0.0002	U	0.0002	U
102	09/14/10	607.47	0.0002	U	0.000317	U	0.0002	U	0.0002	U
111	03/30/11	605.39	0.001	U	0.001	U	0.001	U	0.0004	U
112	10/10/11	606.98	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/02/12	606.01	0.00067	JL	0.00039	UJL	0.00035	UJL	0.00031	UJL
122	10/02/12	606.93	0.000196	U	0.00013	U	0.00035	U	0.00031	U
131	09/23/13	607.62	0.000223	U	0.000195	U	0.000127	U	0.000303	U
142	09/16/14	607.43	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	606.95	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/10/16	607.46	0.0003	U	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	606.78	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	607.71	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	606.90	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/09/20	607.12	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/01/21	607.29	0.0003	U	0.0002	U	0.0002	U	0.0002	U

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW035										
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 3.06	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/24/09	610.80	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	609.87	0.0003	J	0.000317	U	0.0002	U	0.0002	U
102	09/15/10	610.98	0.000216	J	0.000317	U	0.0002	U	0.0002	U
111	03/28/11	609.41	0.00286	J	0.001	U	0.001	U	0.0004	U
112	10/11/11	610.43	0.00363	J	0.001	U	0.001	U	0.0004	U
121	04/03/12	610.03	0.00494	BUJL	0.00047	JL	0.00035	UJL	0.00031	UJL
122	10/03/12	610.70	0.00251	J	0.00013	U	0.00035	U	0.00031	U
131	09/23/13	610.72	0.00513		0.00087	J	0.0005	J	0.000303	U
142	09/16/14	610.56	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	610.48	0.000223	U	0.000195	U	0.000127	U	0.000303	U
171	08/22/17	610.72	0.0003	U	0.0002	U	0.0008	J	0.0002	U
181	08/03/18	610.43	0.0003	U	0.0002	U	0.0045		0.0002	U
191	08/21/19	610.19	0.0003	U	0.0002	U	0.0013		0.0002	U
201	09/10/20	610.75	0.0003	U	0.0002	U	0.0015		0.0002	U
211	09/02/21	604.90	0.0003	U	0.0002	U	0.0016		0.0002	U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW036												
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 2.43	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/24/09	610.02	1.2		0.17		0.063		0.0126	
101	03/22/10	608.51	1.26		0.176		0.0652	J	0.0112	
102	09/15/10	610.18	1.26		0.183		0.0609		0.0116	
111	03/31/11	608.41	1.58	D	0.214	D	0.079		0.0139	
112	10/12/11	609.95	0.894	D	0.132		0.0488		0.00661	
121	04/04/12	608.80	1.43	D	0.264	D	0.0773		0.0104	
122	10/02/12	610.11	0.955	J	0.144	FJ	0.0541	FJ	0.0087	J
131	09/24/13	610.10	1.08	DXJL	0.221	DXJH	0.0789	XJH	0.0137	
142	09/16/14	609.76	1.14	D	0.256	JD	0.104		0.000303	U
151	10/13/15	609.98	1.15	D	0.28	D	0.126		0.0112	
161	08/10/16	610.01	0.78		0.2		0.095		0.012	
171	08/22/17	610.12	1		0.23		0.11		0.0099	
181	08/03/18	609.87	0.94		0.29		0.14		0.011	
191	08/21/19	610.06	1.2		0.27		0.12		0.01	
201	09/16/20	610.21	1		0.31		0.17		0.0094	
211	09/02/21	610.11	0.8		0.24		0.28		0.016	

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW037										
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 1.77	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/24/09	610.63	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	609.08	0.00248		0.000642	J	0.0017	J	0.00188	
102	09/15/10	611.33	0.000747	J	0.000317	U	0.000392	J	0.0002	U
111	03/30/11	609.15	0.00402	J	0.00101	J	0.00185	J	0.00136	J
112	10/11/11	611.38	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/03/12	609.23	0.0039	BUJL	0.00104	JL	0.00141	JL	0.00125	JL
122	10/02/12	611.49	0.00064	J	0.0007	J	0.00056	J	0.00031	U
131	09/24/13	610.94	0.00046	JL	0.00082	JH	0.00064	JH	0.000303	U
142	09/16/14	610.04	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	611.00	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/10/16	609.98	0.0003	U	0.00037	J	0.0012		0.0002	U
171	08/22/17	610.05	0.0011		0.0002	U	0.0013		0.0002	U
181	08/03/18	609.74	0.0029		0.00068	J	0.0013		0.0002	U
191	08/21/19	610.18	0.0011		0.00024	J	0.00099	J	0.0002	U
201	09/10/20	610.55	0.00085	UJ	0.00035	J	0.001		0.0002	U
211	09/01/21	610.38	0.0003	U	0.0002	U	0.00094	J	0.0002	U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW038											
Sampling Round	Date Sampled	Corrected Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 2.93	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/24/09	610.42	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	609.11	0.00108		0.000317	U	0.00661	J	0.00365	
102	09/15/10	610.90	0.0002	U	0.000317	U	0.00141		0.000871	J
111	03/30/11	609.04	0.00165	J	0.001	U	0.00409	J	0.00167	J
112	10/11/11	610.63	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/03/12	609.55	0.0035	BUJL	0.00047	JL	0.00478	JL	0.00142	JL
122	10/03/12	610.82	0.000196	U	0.00013	U	0.00116	J	0.00031	U
131	09/25/13	611.26	0.00226	J	0.00029	J	0.0022	J	0.000303	U
142	09/16/14	611.55	0.00269	J	0.000195	U	0.0026	J	0.000303	U
151	10/13/15	612.10	0.00255	J	0.00258	J	0.00691		0.000303	U
161	08/10/16	611.51	0.049		0.0033	JH	0.0012		0.0002	U
171	08/22/17	610.84	0.041		0.0024		0.00082	J	0.0002	U
181	08/03/18	610.97	0.041		0.0029		0.0015		0.0002	U
191	08/21/19	611.51	0.036		0.002		0.001		0.0002	U
201	09/10/20	612.35	0.034		0.0022		0.001		0.0002	U
211	09/02/21	612.21	0.025		0.0024		0.0011		0.0002	U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW039											
Sampling Round	Date Sampled	Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 2.19	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/24/09	610.86	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	610.23	0.0002	U	0.000317	U	0.0002	UJ	0.0002	U
102	09/15/10	610.91	0.0002	U	0.000317	U	0.0002	U	0.0002	U
111	03/30/11	609.62	0.001	U	0.001	U	0.001	U	0.0004	U
112	10/11/11	610.78	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/03/12	610.23	0.00059	UJL	0.00039	UJL	0.00035	UJL	0.00031	UJL
122	10/03/12	610.86	0.000196	U	0.00013	U	0.00035	U	0.00031	U
131	09/25/13	610.59	0.000223	U	0.000195	U	0.000127	U	0.000303	U
142	09/16/14	610.58	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	610.21	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/10/16	610.70	0.0003	U	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	610.89	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	610.32	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	610.58	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/09/20	611.07	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/02/21	610.72	0.0003	U	0.0002	U	0.0002	U	0.0002	U

DFW

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW040										
Sampling Round	Date Sampled	Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 0.5	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
091	09/23/09	611.30	0.0002	U	0.000317	U	0.0002	U	0.0002	U
101	03/22/10	609.56	0.0002	U	0.000317	U	0.0002	UJ	0.0002	U
102	09/14/10	611.42	0.0002	U	0.000317	U	0.0002	U	0.0002	U
111	03/30/11	608.72	0.001	U	0.001	U	0.001	U	0.0004	U
112	10/10/11	611.63	0.001	U	0.001	U	0.001	U	0.0004	U
121	04/03/12	610.69	0.00059	UJL	0.00039	UJL	0.00035	UJL	0.00031	UJL
122	10/03/12	611.75	0.000196	U	0.00013	U	0.00035	U	0.00031	U
131	09/25/13	611.36	0.000223	U	0.000195	U	0.000127	U	0.000303	U
142	09/16/14	611.39	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	610.90	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/09/16	611.58	0.0003	UJ	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	611.66	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	611.56	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	611.37	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/12/20	611.63	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/02/21	611.51	0.0003	U	0.0002	U	0.0002	U	0.0002	U

Table 1
Groundwater Elevation and Chlorinated Solvent Analytical Data
Northwest Cargo AOC C5

NWCMW149										
Sampling Round	Date Sampled	Groundwater Elevation (ft)	PCE (mg/L)		TCE (mg/L)		cis-1,2-DCE (mg/L)		Vinyl Chloride (mg/L)	
			CPCL - 0.5	AAL - 0.5	CPCL - 0.5	AAL - NA	CPCL - 7	AAL - NA	CPCL - 0.2	AAL - NA
121	04/02/12	604.10	0.00059	UJL	0.00039	UJL	0.00035	UJL	0.00031	UJL
122	10/03/12	607.39	0.000196	U	0.00013	U	0.00035	U	0.00031	U
131	09/25/13	607.18	0.000223	U	0.000195	U	0.000127	U	0.000303	U
142	09/18/14	606.49	0.000223	U	0.000195	U	0.000127	U	0.000303	U
151	10/13/15	607.55	0.000223	U	0.000195	U	0.000127	U	0.000303	U
161	08/09/16	607.01	0.0003	UJ	0.0002	U	0.0002	U	0.0002	U
171	08/22/17	607.63	0.0003	U	0.0002	U	0.0002	U	0.0002	U
181	08/03/18	607.60	0.0003	U	0.0002	U	0.0002	U	0.0002	U
191	08/21/19	607.13	0.0003	U	0.0002	U	0.0002	U	0.0002	U
201	09/09/20	607.12	0.0003	U	0.0002	U	0.0002	U	0.0002	U
211	09/01/21	607.69	0.0003	U	0.0002	U	0.0002	U	0.0002	U

Note: Additional chlorinated solvents including 1,1,1-TCA, 1,1,2-TCA, 1,1-DCA, 1,1-DCE, 1,2-DCA, and Trans-1,2-DCE but not shown on table because they are either below laboratory detection limit or well below the CPCLs.

U - Analyzed but not detected above the MDL/SDL
J - Analyte detected below quantitation limit
L - Analytical result biased low
H- Analytical result biased high
D - Sample diluted before analysis.
R - Data is unusable
B - Analyte detected in the trip blank
F - Analyte detected in the field blank
X - Results from reinjection/repeat column

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW023									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/23/09	0.22	0.1 U	0.273	213	0.2	NA	NA	NA
101	03/22/10	0.24	0.05 U	0.01	161 JL	-84	NA	NA	NA
102	09/14/10	1.21	0.103 U	2.083	134	-157.8	NA	NA	581
111	03/30/11	1.56	0.017 U	0.453	129	-46.2	NA	NA	560
112	10/10/11	0.3	0.039 J	0.551	256 JH	-44.5	NA	NA	577
121	04/03/12	0.35	0.017 U	0.83	152 JL	-52.8	NA	NA	608 JL
122	10/02/12	0.15	0.0158 UL	0.692	60.8	-37.8	NA	NA	618
131	09/18/13	0.49	0.0878	0.57	148	-65.7	NA	NA	578
142	09/15/14	0.963	0.0108 U	0.96	132 D	13.4	NA	NA	585
151	10/13/15	0.2	0.114	0.253	132 D	76	NA	NA	633
161	08/10/16	0.29	0.03 U	0.219	131	11.6	0.2 U	0.2 U	638
171	08/22/17	0.08	0.03 U	0.84	132	-131.2	0.236 J	0.234 U	663
181	08/03/18	0.07	0.099 J	1.28	80.4	-160.1	0.144 U	5.24	612
191	08/21/19	0.11	0.0306 J	0.98	113	-75.7	0.485 J	1.8	640
201	09/09/20	0.16	0.03 U	1.1	101	-34.3	0.144 U	1.38	591
211	09/01/21	0.14	0.03 U	1.5	91.8	-147	0.144 U	1.35	531

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW025									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
051	07/26/05	5.38	0.079	0.321	1470	232	NA	NA	NA
071	06/27/07	0.68	1.7	0.01	530	-119	NA	NA	NA
072	09/28/07	0.03	0.68	0.01	1100	4	NA	NA	NA
081	01/04/08	1.97	0.39	0.01	60	-5	NA	NA	NA
091	09/24/09	0.14	1.43	0.44	1100	-44.5	NA	NA	NA
101	03/22/10	1.89	1.49 JH	0.65	604	51.4	NA	NA	NA
102	09/15/10	0.77	1.56	2.44	797	-115.2	NA	NA	123
111	03/31/11	0.49	0.608	0.59	568	15.7	NA	NA	172
112	10/11/11	0.18	0.017 U	1.76	959 JH	-45.2	NA	NA	208 U
121	04/04/12	3.07	0.821	0.61	513	8	NA	NA	67.8
122	10/02/12	0.62	1.38 L	1.03	393	-57.1	NA	NA	115
131	09/18/13	0.45	0.664	1.4	885 D	-36.8	NA	NA	141
142	09/15/14	0.727	0.286	2.34	1290 D	7.3	NA	NA	185
151	10/13/15	0.13	0.111	0.93	1040 D	22	NA	NA	199
161	08/10/16	0.4	0.965	0.615	858	-40.6	0.2 U	0.2 U	187
171	08/22/17	0.34	0.03 U	2.92	847	-40.2	0.144 U	0.234 U	193
181	08/03/18	0.14	1.39	100	908	-156.2	1.39	0.797 J	198
191	08/21/19	0.13	0.0681 J	2.04	712	-187.3	0.322 J	2.04	164
201	09/12/20	0.95	1.93	1.19	657	32.2	0.144 U	0.234 U	98.8
211	09/01/21	0.52	0.936	0.22	939	-162.2	0.144 U	0.234 U	134

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW026									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
051	07/27/05	3.79	0.191	0.117	1480	295	NA	NA	NA
071	06/27/07	0.71	0.51	1.06	740	-47	NA	NA	NA
072	09/28/07	0.38	1.8	1.35	580	-71	NA	NA	NA
081	01/08/08	0.62	0.35 JU	2.12	1100	-8.5	NA	NA	NA
091	09/24/09	0.12	0.43 J	2.869	1120	-110.9	NA	NA	NA
101	03/22/10	1.22	0.5 U	1.346	1210	13.4	NA	NA	NA
102	09/15/10	0.68	0.664	2.175	665	-101.5	NA	NA	113
111	03/31/11	0.21	0.165	2.103	872	-6.7	NA	NA	192
112	10/12/11	0.26	0.563	2	1580 JH	-39.2	NA	NA	212 U
121	04/04/12	0.82	0.613	0.869	1040	17.7	NA	NA	183
122	10/03/12	0.33	1.39	0.1222	784	-37.9	NA	NA	137
131	09/18/13	1.07	0.637	0.24	1080 D	16.9	NA	NA	182
142	09/15/14	0.464	0.235	0	1050 D	42.2	NA	NA	200
151	10/13/15	0.2	0.115	1.536	1480 D	27.9	NA	NA	297
161	08/10/16	0.28	0.668	0.663	1200	75.2	0.2 U	0.2 U	240
171	08/22/17	0.57	1.05	1.47	762	-142.6	0.144 U	0.234 U	150
181	08/03/18	0.09	0.03 U	100	1150	-107	0.144 U	0.449 J	247
191	08/21/19	0.09	0.0459 J	1.19	1120	-55.5	0.361 J	1.21	244
201	09/15/20	0.12	0.03 U	2.09	944	-15.7	0.144 U	1.14	172
211	09/01/21	0.13	0.03 U	3.3	1330	-120.8	0.144 U	0.898 J	256

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW027									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
051	07/26/05	1.47	0.03	0.012	1500	231	NA	NA	NA
071	06/27/07	1.06	0.16 J	0.01	790	-51	NA	NA	NA
072	09/28/07	0.41	0.31 J	0.17	930	4	NA	NA	NA
081	01/04/08	1.9	0.18	0.11	65	20.6	NA	NA	NA
091	09/24/09	0.17	0.132 J	0.018	1190	70.1	NA	NA	NA
101	03/22/10	0.27	0.5 U	0.426	1490	48.4	NA	NA	NA
102	09/15/10	0.7	0.103 U	1.625	1380	70.7	NA	NA	261
111	03/31/11	0.19	0.017 U	0.596	984	55.8	NA	NA	240
112	10/12/11	0.26	0.049 J	0.046	1100 JH	38.3	NA	NA	262
121	04/04/12	0.36	0.061 J	0.206	1790	46.3	NA	NA	257
122	10/02/12	0.12	0.152	0	461	39.5	NA	NA	279
131	09/19/13	0.45	0.179	0.05	1040 D	-4.7	NA	NA	260
142	09/16/14	0.688	0.217	2.51	944 D	56.5	NA	NA	270
151	10/13/15	0.17	0.243	0.152	987 D	48.6	NA	NA	281
161	08/10/16	0.19	0.477	0.411	1070	27.5	0.2 U	0.2 U	276
171	08/22/17	0.24	0.27	0.03	1340	-156.2	0.144 U	0.234 U	283
181	08/03/18	0.1	0.03 U	0.47	1270	10.1	1.4	1.53	277
191	08/21/19	0.11	0.306	0.07	964	15.2	0.367 J	3.44	293
201	09/16/20	0.48	0.03 U	0.3	1040	74	0.144 U	0.796 J	289
211	09/01/21	0.11	0.03 U	2.89	1080	-203.7	0.144 U	0.9 J	309

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW029									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/23/09	0.23	1.48	0.01	1310	42.2	NA	NA	NA
101	03/22/10	0.67	11 JH	2.081	336 JL	-59.6	NA	NA	NA
102	09/14/10	1.68	9.97	1.445	356	108.6	NA	NA	175
111	03/30/11	0.89	7.6	0.01	158	178.3	NA	NA	150
112	10/10/11	0.26	5.14	0.01	408 JH	-12.4	NA	NA	168 U
121	04/02/12	1.01	7.55 JL	0.089	173 JL	142.6	NA	NA	158 JL
122	10/02/12	0.15	7.25 LX	0	162	22.8	NA	NA	171
131	09/19/13	0.33	5.14	0	192	-15.4	NA	NA	147
142	09/16/14	1.571	3.31	0.1	386 D	104.2	NA	NA	150
151	10/13/15	0.19	5.74	0.01	190 D	169.1	NA	NA	170
161	08/10/16	0.22	5.19	0.072	200	87	0.2 U	0.2 U	177
171	08/22/17	0.14	4.47	0.02	225	109.6	0.144 U	0.234 U	174
181	08/03/18	0.27	4.77	0	118	89.3	1.85	0.234 U	160
191	08/21/19	0.15	4.35	0.03	240	102.5	0.346 J	0.693 J	198
201	09/09/20	0.73	4.51	0	198	49.7	0.144 U	0.722 J	193
211	09/01/21	0.27	3.61	0.05	222	-58.2	0.144 U	0.234 U	189

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW031									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/23/09	0.28	0.1 U	3.3	1510	56.9	NA	NA	NA
101	03/22/10	0.42	0.05 U	2.1	1100 JL	-52.1	NA	NA	NA
102	09/14/10	1.06	0.103 U	1.89	908	41.5	NA	NA	244
111	03/30/11	1.49	0.172	0.051	446 BJ	77.2	NA	NA	234
112	10/10/11	0.32	0.259	1.587	2330 JH	-17.9	NA	NA	251
121	04/02/12	0.3	0.123 JL	0.632	997 JL	19.8	NA	NA	250 JL
122	10/02/12	0.12	0.0397 J	1.73	715	-6.3	NA	NA	265
131	09/23/13	0.43	0.0108 U	1.43	1030 D	-10.7	NA	NA	250
142	09/16/14	0.568	0.0108 U	2.84	1470 D	13.9	NA	NA	275
151	10/13/15	0.14	0.0108 U	0.746	975 DX	57.2	NA	NA	257
161	08/10/16	0.28	0.03 U	0.797	1310	12.9	0.2 U	0.2 U	277
171	08/22/17	0.07	0.03 U	1.52	1490	32.4	0.144 U	0.234 U	289
181	08/03/18	0.05	0.03 U	0.59	1110	-17.4	2.4	0.234 U	273
191	08/21/19	0.11	0.03 U	NA	1420	-34.2	0.144 U	0.773 J	291
201	09/09/20	0.12	0.15 U	1.98	1600	1.2	0.144 U	0.985 J	282
211	09/01/21	0.18	0.03 U	1.98	1490	-88.1	0.144 U	0.234 U	273

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW035									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/24/09	0.16	0.1 U	1.658	1680	24.6	NA	NA	NA
101	03/22/10	0.26	0.5 U	1.505	1640	26.1	NA	NA	NA
102	09/15/10	0.92	0.103 U	3.37	1950	44.4	NA	NA	301
111	03/28/11	0.35	0.024 J	1.546	903	13.7	NA	NA	269
112	10/11/11	0.16	0.017 U	1.879	1470 JH	-25.8	NA	NA	285
121	04/03/12	0.39	0.026 JL	1.805	1260 JL	6.5	NA	NA	293 JL
122	10/03/12	0.17	0.0158 U	2.106	1020	6.7	NA	NA	309
131	09/23/13	1.48	0.0108 U	1.97	1450 D	5	NA	NA	268
142	09/16/14	0.718	0.0108 U	2.08	1520 D	33	NA	NA	300
151	10/13/15	0.17	0.109	0.631	1510 D	39.8	NA	NA	314
171	08/22/17	0.22	0.03 U	2.06	1650	-80.5	0.144 U	0.234 U	330
181	08/03/18	0.23	0.03 U	2.3	1450	-129	0.341 J	0.978 J	325
191	08/21/19	0.09	0.03 U	1.48	1500	-56.4	0.247 J	1.79	338
201	09/10/20	0.2	0.15 U	2.03	1620	-30	0.144 U	1.23	327
211	09/10/21	0.13	0.03 U	2.1	1500	-130	0.144 U	1.7	326

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW036									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/24/09	0.17	0.1 U	0.621	1490	-158.5	NA	NA	NA
101	03/22/10	0.25	0.05 U	0.75	1480	38.4	NA	NA	NA
102	09/15/10	0.65	0.103 U	2.206	1610	-77.5	NA	NA	244
111	03/31/11	0.49	0.07 J		1070	-42.3	NA	NA	207
112	10/12/11	0.19	0.017 U	0.659	1710 JH	-62.1	NA	NA	222 U
121	04/04/12	0.28	0.02 J	1.178	1650	-15.1	NA	NA	251
122	10/02/12	0.12	0.0452 J	0.711	675	-16.3	NA	NA	250
131	09/24/13	0.54	0.0108 U	0.64	1260 D	19.2	NA	NA	240
142	09/16/14	0.696	0.0108 U	1.93	1410 D	10	NA	NA	240
151	10/13/15	0.2	0.11	0.557	1090 D	51.8	NA	NA	240
161	08/10/16	0.54	0.03 U	0.517	1210	-47.9	0.2 U	1.69	251
171	08/22/17	0.75	0.03 U	0.64	1300	-200.8	0.144 U	1.67	261
181	08/03/18	0.1	0.03 U	2.51	1170	-6.7	0.144 U	2.76	257
191	08/21/19	0.18	0.03 U	1.04	1280	-54.3	0.407 J	2.96	265
201	09/16/20	0.18	0.03 U	0.99	1420	6.3	0.144 U	1.57	261
211	09/16/21	0.15	0.03 U	0.71	1240	-116.1	0.144 U	2.26	276

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW037									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/24/09	0.26	0.436 J	0.01	826	77.8	NA	NA	NA
101	03/22/10	0.24	0.05 U	0.188	306	-29.2	NA	NA	NA
102	09/15/10	0.76	0.103 U	2.279	375	-151	NA	NA	259
111	03/30/11	0.67	0.017 U	0.01	190	-179.4	NA	NA	55.6
112	10/11/11	0.21	0.017 U	1.143	313 JH	-111.2	NA	NA	267
121	04/03/12	0.22	0.091 JL	0.252	209 JL	-54.1	NA	NA	64 JL
122	10/02/12	0.1	0.0158 UL	1.251	146	-132.2	NA	NA	272
131	09/24/13	0.33	0.0108 U	1.23	301	-36.5	NA	NA	278
142	09/16/14	0.125	0.0108 U	0	410 D	4	NA	NA	218
151	10/13/15	0.19	0.109	0.397	276 DX	8.8	NA	NA	248
161	08/10/16	0.24	0.03 U	0.26	285	-47.7	0.2 U	0.701 J	226
171	08/22/17	0.7	0.03 U	0.5	259	-195.9	0.706 J	0.234 U	194
181	08/03/18	0.13	0.03 U	0.54	273	-195	0.213 J	1.13	205
191	08/21/19	0.16	0.0423 J	0.48	245	-174.9	0.698 J	1.89	195
201	09/10/20	0.17	0.03 U	0.67	280	-149.6	0.144 U	0.234 U	206
211	09/01/21	0.17	0.03 U	0.93	261	-186.5	0.144 U	1.54	232

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW038									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/24/09	0.21	0.1 U	0.333	1590	41.3	NA	NA	NA
101	03/22/10	0.24	0.0919 JH	1.672	466	-10	NA	NA	NA
102	09/15/10	0.76	0.103 U	2.008	1560	56.1	NA	NA	250
111	03/30/11	0.5	0.017 U	3.994	425 BJ	-134	NA	NA	201
112	10/11/11	0.21	0.017 U	0.712	1380 JH	-14.9	NA	NA	247
121	04/03/12	0.33	0.04 JL	2.65	456 JL	-49.7	NA	NA	205 JL
122	10/03/12	0.13	0.0158 U	0.0105	1060	-21.4	NA	NA	253
131	09/25/13	0.56	0.0108 U	1.35	1410 DJL	2.7	NA	NA	213
142	09/16/14	0.116	0.0108 U	0.055	1430 D	17.5	NA	NA	178
151	10/13/15	0.24	0.111	0.517	1410 D	42.8	NA	NA	166
161	08/10/16	0.27	0.12	0.206	193	55.5	0.2 U	0.2 U	67
171	08/22/17	0.15	0.709	0.13	1210	-60.6	0.144 U	0.234 U	53.3
181	08/03/18	0.08	0.895	0.29	305	-47.2	0.144 U	0.797 J	73.3
191	08/21/19	0.16	0.342	0.27	125	-185.1	0.443 J	2.79	81.1
201	09/10/20	0.14	0.662	0.2	194	-24.7	0.144 U	0.234 U	67.5
211	09/10/21	0.16	0.03 U	0.18	54.6	-282.2	0.144 U	1.68	101

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Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW039									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/24/09	0.22	0.414 J	0.113	960	73.1	NA	NA	NA
101	03/22/10	0.63	0.711 JH	0.677	164	42.4	NA	NA	NA
102	09/15/10	0.94	0.103 U	1.533	1220	147.2	NA	NA	244
111	03/30/11	0.71	0.216	0.01	208	57.7	NA	NA	225
112	10/11/11	0.26	0.258	0.01	1010 JH	0	NA	NA	239
121	04/03/12	0.51	0.273 JL	0.152	264 JL	58.1	NA	NA	245 JL
122	10/03/12	0.21	0.034 J	0	567	33.9	NA	NA	249
131	09/25/13	0.43	0.224	0.04	840 DJL	44.8	NA	NA	225
142	09/16/14	0.0069	0.0108 U	0.157	1320 D	64	NA	NA	242
151	10/13/15	0.15	0.11	0.682	1460 D	68.3	NA	NA	239
161	08/10/16	0.42	0.03 U	0.151	1450	50.8	0.2 U	0.2 U	246
171	08/22/17	0.22	0.03 U	0.04	1500	-126.9	0.144 U	0.234 U	249
181	08/03/18	0.07	0.631	0	357	29.1	0.562 J	0.234 U	224
191	08/21/19	0.12	0.03 U	0.06	1440	78.1	0.284 J	1.49	272
201	09/09/20	0.16	0.03 U	0.06	1320	40.3	0.144 U	1.01	255
211	09/09/21	0.17	0.03 U	0.14	1380	-98.5	0.144 U	1.81	255

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW040									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
091	09/23/09	0.55	2.39	0.01	369	65.4	NA	NA	NA
101	03/22/10	2.37	0.671 JH	0.01	55.5	1.2	NA	NA	NA
102	09/14/10	1.13	0.103 U	1.539	937	-17.7	NA	NA	59.8
111	03/30/11	0.79	0.673	0.01	71	-64.8	NA	NA	37.1
112	10/10/11	0.23	0.259	0.02	1580 JH	-66.4	NA	NA	97.8 U*
121	04/03/12	0.28	1.91 JL	0.132	55.1 JL	-69.9	NA	NA	88.1 JL
122	10/03/12	0.15	0.028 J	0.106	241	-60.8	NA	NA	85
131	09/25/13	0.22	0.237	0.01	149 JL	29.4	NA	NA	55
142	09/16/14	0.094	0.0108 U	0	1420 D	-33.3	NA	NA	135
151	10/13/15	0.11	0.109	0.228	1190 D	9.6	NA	NA	85.7
161	08/09/16	0.23	0.054 J	0.195	216	-6	0.2 U	0.2 U	55.8
171	08/22/17	0.09	0.03 U	0.07	229	-236.1	0.144 U	0.27 J	54
181	08/03/18	0.04	0.03 U	0.03	90.4	-300	0.855 J	2.28	73.5
191	08/21/19	0.11	0.0779 J	0.15	164	-123.1	0.144 U	1.95	38
201	09/12/20	0.16	0.03 U		1150	-31.6	0.144 U	1.28	20.5
211	09/12/21	0.17	0.03 U	0	114	-313.8	0.144 U	1.77	90

DFW

Table 2
Natural Attenuation Parameter Results
Northwest Cargo AOC C5

NWCMW149									
Sampling Round	Date Sampled	Dissolved Oxygen (mg/L)	Nitrate (NO_3-N) (mg/L)	Ferrous Iron (mg/L)	Sulfate (SO_4) (mg/L)	ORP (mV)	Ethane (ug/L)	Ethene (ug/L)	Alkalinity (mg/L)
121	04/02/12	2.02	0.115 JL	0.265	1640 JL	105.2	NA	NA	228 JL
122	10/03/12	0.11	0.0158 U	0.92	849 XJH	-18.7	NA	NA	193
131	09/25/13	0.3	0.0108 U	1.66	1150 DJL	2	NA	NA	183
142	09/18/14	0.033	0.0108 U	0.82	1200 D	17.3	NA	NA	270
151	10/13/15	0.14	0.112	0.249	1170 D	53.6	NA	NA	217
161	08/09/16	0.31	0.03 U	0.746	965	-19.4	0.2 U	0.2 U	204
171	08/22/17	0.06	0.03 U	1.22	1110	-38.4	0.144 U	0.234 U	258
181	08/03/18	0.07	0.03 U	1.53	869	-55.8	2.72	1.31	244
191	08/21/19	0.1	0.03 U	1.15	864	-52	0.393 J	0.937 J	244
201	09/09/20	0.12	0.03 U	1.37	978	-3.4	0.144 U	0.971 J	234
211	09/01/21	0.16	0.03 U	1.7	114	-96.4	0.144 U	1.77	90

U - Analyzed but not detected above the MDL/SDL
J - Analyte detected below quantitation limit
L - Analytical result biased low
H- Analytical result biased high
D - Sample diluted before analysis.
R - Data is unusable
B - Analyte detected in the trip blank
F - Analyte detected in the field blank
X - Results from reinjection/repeat column

WORKSHEET 4.0
RESPONSE ACTION OBJECTIVES

WORKSHEET 4.0
RESPONSE ACTION OBJECTIVES

Use this worksheet to document compliance with the response action objectives and compliance with §350.33(i) as basis for recommending termination of post-response action care.

Check the applicable rule provision for termination of post-response action care:

☐ §350.33(i)(1) ☐ §350.33(i)(2) ☒ §350.33(i)(3) ☐ §350.33(i)(4)

§350.33(i)(1)

Are the COC concentrations in surface soil less than the critical surface soil PCL? ___Yes ___No

Are the concentrations of COCs in subsurface soil less than the critical subsurface soil PCL? ___ Yes ___ No

Are the concentrations of COCs in groundwater less than the critical groundwater PCL as documented with three consecutive years of groundwater monitoring? ___ Yes ___ No

If yes to all of the above, you may be able to discontinue post-response action care in compliance with §350.33(i)(1). Provide justification for discontinuing post-response action care.

Not Applicable

§350.33(i)(2)

Does the post-response action care consist entirely of monitoring the effectiveness of a physical control? ___ Yes ___ No

If yes, has the physical control proven successful and secure? ___ Yes ___ No

If yes, to these questions, you may be able to discontinue post-response action care in compliance with §350.33(i)(2). Provide documentation that the physical control is permanent and does not require any inspections or maintenance.

Not Applicable

§350.33(i)(3)

Does the affected property contain only a groundwater PCLE zone? X Yes ___ No

If yes, is the PCLE zone decreasing in size? X Yes ___ No

If yes, are the boundaries of the PCLE zone sufficiently smaller than the boundaries of the institutional control to preclude any potential for the groundwater PCLE zone to migrate beyond the boundaries of the institutional control? X Yes ___ No

If yes to these questions, you may be able to discontinue post-response action care in compliance with §350.33(i)(3). Provide justification for discontinuing post-response action care.

As previously discussed, the Response Action Objections have continued to be met. The PCLE zone and plume have shown a steady decrease over time since the RAP. A Plume Management Zone (PMZ) was established as an Institutional Control. The current low retarded contaminant velocity for PCE indicates it would take approximately 2,125 years for current PCE concentrations to reach the PMZ boundary, therefore there is currently no potential threat to receptors, and no potential future threat to receptors. Further evidence displayed through the Mann-Kendall evaluation shows the plume as stable or decreasing over the last four years of sampling events.

§350.33(i)(4)

Is GWSoil the only PCL exceeded in surface and subsurface soils? ___ Yes ___ No

If yes, is the groundwater PCLE zone decreasing in size? ___ Yes ___ No

If yes, are the boundaries of the PCLE zone sufficiently smaller than the boundaries of the institutional control to preclude any potential for the groundwater PCLE zone to migrate beyond the boundaries of the institutional control? ___ Yes ___ No

If yes, to all the above, you may be able to discontinue post-response action care in compliance with §350.33(i)(4). Provide justification for discontinuing post-response action care.

Not Applicable

If there is not justification to terminate post-response action care, can justification be made to reduce monitoring or inspection requirements? ___ Yes ___ No

If yes, provide justification for reducing monitoring or inspection activities and provide proposed frequency.

Not Applicable

APPENDIX 1.0
ANALYTICAL DATA

Data Usability Summary Report
September 2021 Groundwater Sampling Event
Area of Concern C5
Dallas/Fort Worth International Airport
Voluntary Cleanup Program
DFW Airport, Texas

FOREWORD

This data usability summary report assesses whether sample handling, preparation, analysis, quality control, and reporting were accomplished in accordance with United States Environmental Protection Agency analytical methods and Texas Commission of Environmental Quality guidelines.

Laboratory data were reported and reviewed in accordance with the Texas Commission of Environmental Quality guidance document Review and Reporting of COC Concentration Data under the Texas Risk Reduction Program (RG-366/TRRP-13), May 2010. All required Texas Risk Reduction Program data quality elements, a laboratory review checklist, and the exception report were provided by the laboratory.

Attachment A of this data usability summary provides laboratory's National Environmental Laboratory Accreditation Program certificate applicable to the period during which the laboratory generated the data in this report.

Attachment B of this data usability summary provides analytical parameters for each sample and cross-references between laboratory and field sample identifications.

Attachment C presents a tabulated summary of qualified data after data review.

Attachment D contains the laboratory report, a laboratory review checklist, and exception report.

1.0 DATA USABILITY SUMMARY

This report presents the analytical data for groundwater samples collected as part of the groundwater sampling activities at Area of Concern C5 at Dallas Fort Worth International Airport, Texas Voluntary Cleanup Program site and the quality assurance/quality control (QA/QC) evaluation of those data. An EnSafe Inc. chemist reviewed the data packages reported for these samples. Data were evaluated independently from the laboratory to assess data quality and conformance to the requirements of the Texas Commission on Environmental Quality guidance document *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13), (Texas Commission on Environmental Quality [TCEQ], May 2010). The validation did not include a review of chromatograms or data recalculation.

Samples discussed in this report were collected on September 1-2, 2021, and were analyzed by ALS Laboratory Group, Environmental Services Division in Houston, Texas (Texas certificate number T104704231-21-28).

1.1 Intended Use of the Data

The intended use of the data is to delineate and monitor contaminants of concern in groundwater across the study area.

1.2 Requested Analysis

Samples were analyzed for the following:

- Select volatile organic compounds (VOCs) by SW-846 Method 8260C
- Alkalinity by Standard Methods for the Examination of Water and Wastewater 2320B
- Nitrate and sulfate by SW-846 Method 9056A
- Ethane and ethene by RSK-175

Copies of the laboratory's National Environmental Laboratory Accreditation Program certificate applicable to the period during which the laboratory generated the data may be found in Attachment A.

1.3 Laboratory Submittals and Field Data Examined

Laboratory submittals and field data examined are as follows:

- Reportable data;
- Laboratory review checklist (LRC) and associated exception report (ER); and,
- Applicable field records, preservation, and handling procedures prior to shipment to the laboratory.

2.0 INTRODUCTION

The samples collected, and sample identification cross-references are summarized in Attachment B. The following lists sample quantities and analyses discussed in this report:

- VOCs — 13 groundwater, 1 field duplicate, 1 field blank, and 2 trip blank
- Alkalinity — 13 groundwater and 1 field duplicate
- Nitrate and sulfate — 13 groundwater and 1 field duplicate
- Ethane and ethene — 13 groundwater and 1 field duplicate

Quality Control Objectives

The project quality control objectives used to assess data were adopted from: *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13), (TCEQ, May 2010) and *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium* (SW-846), Method 8000D (U.S. EPA, March 2018). The measurement performance criteria used is defined in Table 1.

Table 1
Measurement Quality Objectives

Quality Control Parameter	Review Criteria
LCS %Rs	60-140% per RG-366/TRRP-13
MS %Rs	60-140% per RG-366/TRRP-13
Surrogate %Rs	Laboratory statistically derived control limits per SW-846 8000D
LCS/LCSD RPD	40% per RG-366/TRRP-13
MS/MSD RPD	40% per RG-366/TRRP-13
Field Duplicates	30% — Results >5x MQL or > 2x MQL when results are <5x MQL per RG-366/TRRP-13
Blank Detections	U — Samples associated with the blank ≤ 5x blank concentration

Notes:

LCS = Laboratory Control Sample
%Rs = Percent recoveries
MS = Matrix spike
LCSD = Laboratory control sample duplicate
RPD = Relative percent difference
MSD = Matrix spike recovery
MQL = Method quantitation limit

3.0 DATA REVIEW RESULTS

Samples discussed in this report were analyzed and reported as definitive data and QC summary information were submitted for data review. The data were reported by the laboratory in two

sample delivery groups (SDG) HS21090065 and HS21090157. Elements of the deliverables provided by the laboratory were as follows:

• Completed chain-of-custody documentation • Analytical results • Sample handling, preservation, and holding time • Laboratory case narrative • Laboratory review checklists and exception reports • Data qualifiers applied to sample results • Dilutions and elevated reporting limits	• Summary of QC results — Laboratory control samples — Matrix spike/matrix spike duplicates (MS/MSD) — Organic surrogates — Blank data (laboratory and trip) — Field duplicate precision

The following flags were used by the laboratory to annotate results:

Laboratory Qualifiers

U = **Undetected** — The analyte was not detected above the sample detection limit (SDL).

J = **Estimated** — Result is less than the method quantitation limit (MQL) but greater than or equal to the SDL and the concentration is an approximate value.

When the QC parameters did not fall within the specific method or data review guidelines, the data reviewer annotated or "flagged" the corresponding compounds. Flags that may be used during data review are as follows:

Data Review Qualifiers

U = **Undetected** — One or more QC parameters were outside control limits, or the concentration of the analyte was above the sample detection limit (SDL), but less than the method quantitation limit (MQL).

J = **Estimated Value** — One or more QC parameters were outside control limits or the analyte's concentration was above the SDL, but less than the MQL.

UJ = **Undetected and Estimated** — The parameter was analyzed but not detected and was estimated because at least one QC parameter was outside of control limits.

JH = **Estimated and Biased High** — Sample result bias is likely to be high.

JL = **Estimated and Biased Low** — Sample result bias is likely to be low.

UJL = **Undetected, Estimated, and Biased Low** — The parameter was undetected, and the sample result bias is likely to be low.

UR = **Rejected/Unusable Data** — One or more QC parameters grossly exceeded control limits.

3.1 Analytical Results

All undetected results are reported at less than the value of the SDL as defined by the Texas Risk Reduction Program rule. All values were estimated (J-flagged) by the laboratory when results were reported below the MQL but above the SDL. Calibrations and internal standards were not reviewed; however, the LRCs indicated that initial and continuing calibration and the internal standard criteria were met.

3.2 Data Review Findings

The overall data quality for the sample results were evaluated based on method compliance, data usability, and scope-of-work satisfaction. Data evaluation for the samples included the following parameters:

- Sample receipt, preservation, and holding times
- Surrogate spikes
- Laboratory control samples
- Matrix spike/matrix spike duplicate
- Blank analysis (laboratory and trip)
- Field duplicate precision

3.2.1 Sample Receipt, Preservation, and Holding Times

All samples were received by the laboratory with the proper documentation and preservation. All samples were prepared and analyzed within the method-recommended holding times.

3.2.2 Surrogate Spikes

Surrogates provide information needed to assess the accuracy of analyses. Known amounts of surrogate compounds, or compounds which are not likely to be found in the actual samples, are added to each organic sample to check for accuracy. If surrogate percent recoveries (%Rs) are close to the known concentrations, the reported target compound concentrations are assumed to be accurate. All surrogate %Rs were acceptable.

3.2.3 Laboratory Control Samples

Laboratory control sample results are used to monitor the overall performance of each step during analysis, including sample preparation and %Rs should fall within the control limits. The laboratory analyzed LCS duplicates and determined the relative percent difference (RPD) between the duplicated values. All LCS %Rs and RPDs were acceptable.

3.2.4 Matrix Spike/Matrix Spike Duplicates

MS/MSDs are generated to provide information about the effect of each sample matrix on the sample preparation and the measurement methodology. MS/MSD %R assess the effect of the sample matrix on the accuracy of the analytical results and a %R above the laboratory control limit could indicate a potential high result bias while a %R below QC limits could indicate a potential low result bias. The RPD between the MS and MSD results is evaluated to assess sample precision.

A matrix spike and matrix spike duplicate were performed on site sample NWCMW023GW211 and the %R for sulfate was 58% which was below the 60-140% QC limit. Sulfate was detected in this sample and was qualified "JL" due to potential low result bias. The qualifications performed were limited to the native (unspiked) sample and not the entire matrix batch, based on reviewer judgment, because the outlier is expected to have minimal effect on data usability to make project decisions.

3.2.5 Blank Analysis (Laboratory, Field, and Trip)

Blanks help determine how much, if any, contamination was introduced in the laboratory or the field. All results associated with a particular laboratory blank were evaluated to determine whether there was an inherent variability in the data, or if a problem was an isolated occurrence that did not affect the data. All laboratory and trip blanks were free from contamination.

3.2.6 Field Duplicate Precision

One field duplicate pair were collected to assess precision:

NWCMW026GW211 and NWCMW026GX211

RPDs between the samples and duplicates were calculated. All calculated RPDs were less than 30% for groundwater except for tetrachloroethene which had an RPD of 31% and therefore was qualified as estimated "J" in both samples.

3.2.7 Sample Dilutions

Samples are often screened to determine the correct dilution for compounds that exceed the calibration range. If the screen indicates dilution is required, the lowest dilution possible is generally applied to the sample to minimize its impact on the reporting limit and the initial analysis may be a diluted analysis. Dilutions may also be required when matrix interference is present in the sample regardless of whether high concentration analytes are present or not. Table 2 summarizes samples and analytes that were reported from diluted runs due to the presence of one elevated analyte concentrations. No adverse effects are anticipated to data usability to make project decisions based on sample dilutions.

Table 2
Sample Dilutions

Analyte	Sample Identification	Dilution Factor
cis-1,2-Dichloroethene	NWCBMW027GW211	20
cis-1,2-Dichloroethene	NWCBMW036GW211	25
Tetrachloroethene	NWCBMW036GW211	25
Trichloroethene	NWCBMW036GW211	25
Sulfate	NWCBMW025GW211	10
Sulfate	NWCBMW040GW211	10
Sulfate	NWCBMW039GW211	100
Sulfate	NWCBMW035GW211	100
Sulfate	NWCBMW027GW211	100
Sulfate	NWCBMW036GW211	100
Sulfate	NWCMW029GW211	10
Sulfate	NWCMW149GW211	20
Sulfate	NWCMW031GW211	20
Sulfate	NWCMW026GW211	20
Sulfate	NWCMW026GX211	20
Sulfate	NWCMW037GW211	10

4.0 OVERALL ASSESSMENT

Data from the September 2021 groundwater sampling activities at Area of Concern C5 at Dallas Fort Worth International Airport, Texas, Voluntary Cleanup Program site were reviewed independently from the laboratory to assess data quality. Analytical completeness was calculated to be 100%. When the parameters did not fall within the measurement performance criteria identified in Section 2, the results were qualified. No results were rejected during data review and results that were not qualified during review are considered usable. Results qualified during data review may be biased high or low, but the data are usable to make project decisions as described

in this data usability summary, according to Texas Commission on Environmental Quality guidelines. Table 3 below provides a summary of the results qualified during data review.

Table 3
Data Qualification Summary

Method	Sample	Analyte	Result	Qualification	Qualification Reason
9056	MWCMW023GW211	Sulfate	91.8	JL	Low matrix spike %R
8260C	NWCMW026GW211	Tetrachloroethene	0.046	J	Field duplicate precision
8260C	NWCMW026GX211	Tetrachloroethene	0.063	J	Field duplicate precision

Notes:
%R = Percent recovery
JL = Estimated and potentially biased low
J = Estimated value

Attachment A of this data usability summary provides the Texas National Environmental Laboratory Accreditation Program certificates applicable to the period during which the laboratory generated the data in this report. Attachment B provides analytical parameters for each sample and cross-references between laboratory and field sample identifications. Attachment C presents a tabulated summary of data after data review, and Attachment D contains the laboratory report, a laboratory review checklist, and exception report.

Attachment A
National Environmental Laboratory Accreditation Program Certificates

Texas Commission on Environmental Quality

NELAP-Recognized Laboratory Accreditation is hereby awarded to

ALS Laboratory Group, Environmental Services Division (Houston, Texas)

10450 Stancliff Road, Suite 210
Houston, TX 77099-4338

in accordance with Texas Water Code Chapter 5, Subchapter R, Title 30 Texas Administrative Code Chapter 25, and the National Environmental Laboratory Accreditation Program.

The laboratory's scope of accreditation includes the fields of accreditation that accompany this certificate. Continued accreditation depends upon successful ongoing participation in the program. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current location(s) and accreditation status for particular methods and analyses (www.tceq.texas.gov/goto/lab). Accreditation does not imply that a product, process, system or person is approved by the Texas Commission on Environmental Quality.

Certificate Number: T104704231-21-28
Effective Date: 8/24/2021
Expiration Date: 4/30/2022

Executive Director Texas Commission on Environmental Quality

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704231-21-28

ALS Laboratory Group, Environmental Services Division (Houston, Texas)

Expiration Date: 4/30/2022

10450 Stancliff Road, Suite 210
Houston, TX 77099-4338

Issue Date: 8/24/2021

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Method EPA 1613

Analyte	AB	Analyte ID	Method ID
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	TX	9618	10120408

Method EPA 200.8

Analyte	AB	Analyte ID	Method ID
Copper	TX	1055	10014605
Lead	TX	1075	10014605

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Matrix: ***Non-Potable Water***

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 120.1

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10006403

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 160.4

Analyte	AB	Analyte ID	Method ID
Residue-volatile	TX	1970	10010409

Method EPA 1613

Analyte	AB	Analyte ID	Method ID
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	TX	9516	10120408
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	TX	9519	10120408
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	TX	9420	10120408
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	TX	9426	10120408
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	TX	9423	10120408
1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-HxCDF)	TX	9471	10120408
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-HxCDD)	TX	9453	10120408
1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-HxCDF)	TX	9474	10120408
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-HxCDD)	TX	9456	10120408
1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-HxCDF)	TX	9477	10120408
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-HxCDD)	TX	9459	10120408
1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-PeCDF)	TX	9543	10120408
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)	TX	9540	10120408
2,3,4,6,7,8-Hexachlorodibenzofuran (2,3,4,6,7,8-HxCDF)	TX	9480	10120408

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Matrix: ***Non-Potable Water***

2,3,4,7,8-Pentachlorodibenzofuran (2,3,4,7,8-PeCDF	TX	9549	10120408
2,3,7,8-Tetrachlorodibenzofuran (2,3,7,8-TCDF)	TX	9612	10120408
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	TX	9618	10120408
Total Heptachlorodibenzofuran (Total HpCDF)	TX	9444	10120408
Total Heptachlorodibenzo-p-dioxin (Total HpCDD)	TX	9438	10120408
Total Hexachlorodibenzofuran (Total HxCDF)	TX	9483	10120408
Total Hexachlorodibenzo-p-dioxin (Total HxCDD)	TX	9468	10120408
Total Pentachlorodibenzofuran (Total PeCDF)	TX	9552	10120408
Total Pentachlorodibenzo-p-dioxin (Total PeCDD)	TX	9555	10120408
Total Tetrachlorodibenzofuran (Total TCDF)	TX	9615	10120408
Total Tetrachlorodibenzo-p-dioxin (Total TCDD)	TX	9609	10120408

Method EPA 1664

Analyte	**AB**	**Analyte ID**	**Method ID**
n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807

Method EPA 180.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Turbidity	TX	2055	10011606

Method EPA 200.8

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10014605
Antimony	TX	1005	10014605
Arsenic	TX	1010	10014605
Barium	TX	1015	10014605
Beryllium	TX	1020	10014605
Boron	TX	1025	10014605
Cadmium	TX	1030	10014605
Calcium	TX	1035	10014605
Chromium	TX	1040	10014605
Cobalt	TX	1050	10014605
Copper	TX	1055	10014605
Iron	TX	1070	10014605

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Matrix: ***Non-Potable Water***

Lead	TX	1075	10014605
Magnesium	TX	1085	10014605
Manganese	TX	1090	10014605
Molybdenum	TX	1100	10014605
Nickel	TX	1105	10014605
Potassium	TX	1125	10014605
Selenium	TX	1140	10014605
Silver	TX	1150	10014605
Sodium	TX	1155	10014605
Strontium	TX	1160	10014605
Thallium	TX	1165	10014605
Tin	TX	1175	10014605
Titanium	TX	1180	10014605
Uranium	TX	3035	10014605
Vanadium	TX	1185	10014605
Zinc	TX	1190	10014605

Method EPA 245.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10036609

Method EPA 300.0

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10053200
Chloride	TX	1575	10053200
Fluoride	TX	1730	10053200
Nitrate as N	TX	1810	10053200
Nitrate-nitrite	TX	1820	10053200
Nitrite as N	TX	1840	10053200
Orthophosphate as P	TX	1870	10053200
Sulfate	TX	2000	10053200

Method EPA 325.1

Analyte	**AB**	**Analyte ID**	**Method ID**

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Matrix: ***Non-Potable Water***

Chloride	TX	1575	10056801

Method EPA 335.1

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001

Method EPA 335.2

Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10278203

Method EPA 335.4

Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10061402

Method EPA 350.1

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10063408

Method EPA 350.3

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10064401

Method EPA 365.3

Analyte	AB	Analyte ID	Method ID
Orthophosphate as P	TX	1870	10070801
Phosphorus	TX	1910	10070801

Method EPA 375.4

Analyte	AB	Analyte ID	Method ID
Sulfate	TX	2000	10073800

Method EPA 376.1

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10074201

Method EPA 410.4

Analyte	AB	Analyte ID	Method ID
Chemical oxygen demand (COD)	TX	1565	10077404

Method EPA 415.1

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10078407

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Matrix: ***Non-Potable Water***

Method EPA 420.1

Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10079400

Method EPA 420.4

Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10080203

Method EPA 6020

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10156419
Antimony	TX	1005	10156419
Arsenic	TX	1010	10156419
Barium	TX	1015	10156419
Beryllium	TX	1020	10156419
Boron	TX	1025	10156419
Cadmium	TX	1030	10156419
Calcium	TX	1035	10156419
Chromium	TX	1040	10156419
Cobalt	TX	1050	10156419
Copper	TX	1055	10156419
Iron	TX	1070	10156419
Lead	TX	1075	10156419
Lithium	TX	1080	10156419
Magnesium	TX	1085	10156419
Manganese	TX	1090	10156419
Molybdenum	TX	1100	10156419
Nickel	TX	1105	10156419
Potassium	TX	1125	10156419
Selenium	TX	1140	10156419
Silver	TX	1150	10156419
Sodium	TX	1155	10156419
Strontium	TX	1160	10156419

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Matrix: ***Non-Potable Water***

Thallium	TX	1165	10156419
Tin	TX	1175	10156419
Titanium	TX	1180	10156419
Vanadium	TX	1185	10156419
Zinc	TX	1190	10156419

Method EPA 608

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603
4,4'-DDT	TX	7365	10103603
Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
Endrin ketone	TX	7535	10103603

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Certificate: T104704231-21-28

ALS Laboratory Group, Environmental Services Division (Houston, Texas)

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10450 Stancliff Road, Suite 210
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Issue Date: 8/24/2021

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Matrix: ***Non-Potable Water***

gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603
Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603

Method EPA 624

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207
Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207

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Matrix: ***Non-Potable Water***

Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,2-Dichloroethylene	TX	4645	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl bromide (Bromomethane)	TX	4950	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
Naphthalene	TX	5005	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	**AB**	**Analyte ID**	**Method ID**
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401
1,2-Dichlorobenzene	TX	4610	10107401
1,2-Diphenylhydrazine	TX	6220	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10107401
2,4,5-Trichlorophenol	TX	6835	10107401

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Matrix: ***Non-Potable Water***

2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401
Benzo(k)fluoranthene	TX	5600	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10107401
Butyl benzyl phthalate	TX	5670	10107401

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Matrix: ***Non-Potable Water***

Chrysene	TX	5855	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Fluoranthene	TX	6265	10107401
Fluorene	TX	6270	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401
Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorobenzene	TX	6590	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401
Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162206

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Matrix: ***Non-Potable Water***

Method EPA 7470

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165603

Method EPA 8011

Analyte	AB	Analyte ID	Method ID
1,2,3-Trichloropropane	TX	5180	10173009
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10173009
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10173009

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Diesel range organics (DRO)	TX	9369	10173203
Ethanol	TX	4750	10173203
Ethylene glycol	TX	4785	10173203
Gasoline range organics (GRO)	TX	9408	10173203
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173203
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173203
Methanol	TX	4930	10173203
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173203
n-Propanol (1-Propanol)	TX	5055	10173203
Propylene Glycol	TX	6657	10173203
tert-Butyl alcohol	TX	4420	10173203

Method EPA 8081

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178402
4,4'-DDE	TX	7360	10178402
4,4'-DDT	TX	7365	10178402
Aldrin	TX	7025	10178402
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178402
alpha-Chlordane	TX	7240	10178402
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178402
Chlordane (tech.)	TX	7250	10178402

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Matrix: ***Non-Potable Water***

delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178402
Dieldrin	TX	7470	10178402
Endosulfan I	TX	7510	10178402
Endosulfan II	TX	7515	10178402
Endosulfan sulfate	TX	7520	10178402
Endrin	TX	7540	10178402
Endrin aldehyde	TX	7530	10178402
Endrin ketone	TX	7535	10178402
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178402
gamma-Chlordane	TX	7245	10178402
Heptachlor	TX	7685	10178402
Heptachlor epoxide	TX	7690	10178402
Hexachlorobenzene	TX	6275	10178402
Methoxychlor	TX	7810	10178402
Mirex	TX	7870	10178402
Toxaphene (Chlorinated camphene)	TX	8250	10178402

Method EPA 8082

Analyte	**AB**	**Analyte ID**	**Method ID**
Aroclor-1016 (PCB-1016)	TX	8880	10179201
Aroclor-1221 (PCB-1221)	TX	8885	10179201
Aroclor-1232 (PCB-1232)	TX	8890	10179201
Aroclor-1242 (PCB-1242)	TX	8895	10179201
Aroclor-1248 (PCB-1248)	TX	8900	10179201
Aroclor-1254 (PCB-1254)	TX	8905	10179201
Aroclor-1260 (PCB-1260)	TX	8910	10179201
PCBs (total)	TX	8870	10179201

Method EPA 8151

Analyte	**AB**	**Analyte ID**	**Method ID**
2,4,5-T	TX	8655	10183003
2,4-D	TX	8545	10183003
2,4-DB	TX	8560	10183003

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Matrix: ***Non-Potable Water***

Dalapon	TX	8555	10183003
Dicamba	TX	8595	10183003
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10183003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183003
MCPA	TX	7775	10183003
MCPP	TX	7780	10183003
Silvex (2,4,5-TP)	TX	8650	10183003

Method EPA 8260

Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184404
1,1,1-Trichloroethane	TX	5160	10184404
1,1,2,2-Tetrachloroethane	TX	5110	10184404
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184404
1,1,2-Trichloroethane	TX	5165	10184404
1,1-Dichloroethane	TX	4630	10184404
1,1-Dichloroethylene	TX	4640	10184404
1,1-Dichloropropene	TX	4670	10184404
1,2,3-Trichlorobenzene	TX	5150	10184404
1,2,3-Trichloropropane	TX	5180	10184404
1,2,4-Trichlorobenzene	TX	5155	10184404
1,2,4-Trimethylbenzene	TX	5210	10184404
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184404
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184404
1,2-Dichlorobenzene	TX	4610	10184404
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184404
1,2-Dichloropropane	TX	4655	10184404
1,3,5-Trimethylbenzene	TX	5215	10184404
1,3-Dichlorobenzene	TX	4615	10184404
1,3-Dichloropropane	TX	4660	10184404
1,4-Dichlorobenzene	TX	4620	10184404

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Matrix: ***Non-Potable Water***

1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184404
1-Chlorohexane	TX	4510	10184404
1-Propanol	TX	5060	10184404
2,2-Dichloropropane	TX	4665	10184404
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184404
2-Chloroethyl vinyl ether	TX	4500	10184404
2-Chlorotoluene	TX	4535	10184404
2-Hexanone (MBK)	TX	4860	10184404
2-Pentanone	TX	5045	10184404
4-Chlorotoluene	TX	4540	10184404
4-Isopropyltoluene (p-Cymene)	TX	4915	10184404
4-Methyl-2-pentanone (MIBK)	TX	4995	10184404
Acetone (2-Propanone)	TX	4315	10184404
Acetonitrile	TX	4320	10184404
Acrolein (Propenal)	TX	4325	10184404
Acrylonitrile	TX	4340	10184404
Allyl alcohol	TX	4350	10184404
Allyl chloride (3-Chloropropene)	TX	4355	10184404
Benzene	TX	4375	10184404
Benzyl chloride	TX	5635	10184404
Bromobenzene	TX	4385	10184404
Bromochloromethane	TX	4390	10184404
Bromodichloromethane	TX	4395	10184404
Bromoform	TX	4400	10184404
Carbon disulfide	TX	4450	10184404
Carbon tetrachloride	TX	4455	10184404
Chlorobenzene	TX	4475	10184404
Chlorodibromomethane	TX	4575	10184404
Chloroethane (Ethyl chloride)	TX	4485	10184404
Chloroform	TX	4505	10184404

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Matrix: ***Non-Potable Water***

Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184404
cis-1,2-Dichloroethylene	TX	4645	10184404
cis-1,3-Dichloropropene	TX	4680	10184404
Dibromofluoromethane	TX	4590	10184404
Dibromomethane (Methylene bromide)	TX	4595	10184404
Dichlorodifluoromethane (Freon-12)	TX	4625	10184404
Diethyl ether	TX	4725	10184404
Di-isopropylether (DIPE)	TX	9375	10184404
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184404
Ethanol	TX	4750	10184404
Ethyl acetate	TX	4755	10184404
Ethyl methacrylate	TX	4810	10184404
Ethylbenzene	TX	4765	10184404
Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)	TX	4770	10184404
Hexachlorobutadiene	TX	4835	10184404
Iodomethane (Methyl iodide)	TX	4870	10184404
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184404
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10184404
Isopropylbenzene (Cumene)	TX	4900	10184404
m+p-xylene	TX	5240	10184404
Methacrylonitrile	TX	4925	10184404
Methyl acetate	TX	4940	10184404
Methyl acrylate	TX	4945	10184404
Methyl bromide (Bromomethane)	TX	4950	10184404
Methyl chloride (Chloromethane)	TX	4960	10184404
Methyl methacrylate	TX	4990	10184404
Methyl tert-butyl ether (MTBE)	TX	5000	10184404
Methylcyclohexane	TX	4965	10184404
Methylene chloride (Dichloromethane)	TX	4975	10184404
Naphthalene	TX	5005	10184404

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Matrix: ***Non-Potable Water***

n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184404
n-Butylbenzene	TX	4435	10184404
n-Propylbenzene	TX	5090	10184404
o-Xylene	TX	5250	10184404
Propionitrile (Ethyl cyanide)	TX	5080	10184404
Pyridine	TX	5095	10184404
sec-Butylbenzene	TX	4440	10184404
Styrene	TX	5100	10184404
T-amylmethylether (TAME)	TX	4370	10184404
tert-Butyl alcohol	TX	4420	10184404
tert-Butylbenzene	TX	4445	10184404
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184404
Toluene	TX	5140	10184404
trans-1,2-Dichloroethylene	TX	4700	10184404
trans-1,3-Dichloropropylene	TX	4685	10184404
trans-1,4-Dichloro-2-butene	TX	4605	10184404
Trichloroethene (Trichloroethylene)	TX	5170	10184404
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184404
Vinyl acetate	TX	5225	10184404
Vinyl chloride	TX	5235	10184404
Xylene (total)	TX	5260	10184404

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
1,2,4,5-Tetrachlorobenzene	TX	6715	10185203
1,2,4-Trichlorobenzene	TX	5155	10185203
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10185203
1,2-Dichlorobenzene	TX	4610	10185203
1,2-Dinitrobenzene	TX	6155	10185203
1,2-Diphenylhydrazine	TX	6220	10185203
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185203

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Matrix: ***Non-Potable Water***

1,3-Dichlorobenzene	TX	4615	10185203
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185203
1,4-Dichlorobenzene	TX	4620	10185203
1,4-Dinitrobenzene	TX	6165	10185203
1,4-Naphthoquinone	TX	6420	10185203
1,4-Phenylenediamine	TX	6630	10185203
1-Chloronaphthalene	TX	5790	10185203
1-Naphthylamine	TX	6425	10185203
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10185203
2,3,4,6-Tetrachlorophenol	TX	6735	10185203
2,4,5-Trichlorophenol	TX	6835	10185203
2,4,5-Trimethylaniline	TX	6880	10185203
2,4,6-Trichlorophenol	TX	6840	10185203
2,4-Diaminotoluene	TX	5880	10185203
2,4-Dichlorophenol	TX	6000	10185203
2,4-Dimethylphenol	TX	6130	10185203
2,4-Dinitrophenol	TX	6175	10185203
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185203
2,6-Dichlorophenol	TX	6005	10185203
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185203
2-Acetylaminofluorene	TX	5515	10185203
2-Chloronaphthalene	TX	5795	10185203
2-Chlorophenol	TX	5800	10185203
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185203
2-Methylaniline (o-Toluidine)	TX	5145	10185203
2-Methylnaphthalene	TX	6385	10185203
2-Methylphenol (o-Cresol)	TX	6400	10185203
2-Naphthylamine	TX	6430	10185203
2-Nitroaniline	TX	6460	10185203
2-Nitrophenol	TX	6490	10185203

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NELAP - Recognized Laboratory Fields of Accreditation

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ALS Laboratory Group, Environmental Services Division (Houston, Texas)

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10450 Stancliff Road, Suite 210
Houston, TX 77099-4338

Issue Date: 8/24/2021

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Matrix: ***Non-Potable Water***

2-Picoline (2-Methylpyridine)	TX	5050	10185203
3,3'-Dichlorobenzidine	TX	5945	10185203
3,3'-Dimethylbenzidine	TX	6120	10185203
3-Methylcholanthrene	TX	6355	10185203
3-Methylphenol (m-Cresol)	TX	6405	10185203
3-Nitroaniline	TX	6465	10185203
4-Aminobiphenyl	TX	5540	10185203
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185203
4-Chloro-3-methylphenol	TX	5700	10185203
4-Chloroaniline	TX	5745	10185203
4-Chlorophenyl phenylether	TX	5825	10185203
4-Dimethyl aminoazobenzene	TX	6105	10185203
4-Methylphenol (p-Cresol)	TX	6410	10185203
4-Nitroaniline	TX	6470	10185203
4-Nitrobiphenyl	TX	6480	10185203
4-Nitrophenol	TX	6500	10185203
4-Nitroquinoline-1-oxide	TX	6510	10185203
5-Chloro-2-methylaniline	TX	5695	10185203
5-Nitro-o-toluidine	TX	6570	10185203
7,12-Dimethylbenz(a) anthracene	TX	6115	10185203
a-a-Dimethylphenethylamine	TX	6125	10185203
Acenaphthene	TX	5500	10185203
Acenaphthylene	TX	5505	10185203
Acetophenone	TX	5510	10185203
Aniline	TX	5545	10185203
Anthracene	TX	5555	10185203
Aramite	TX	5560	10185203
Atrazine	TX	7065	10185203
Azinphos-methyl (Guthion)	TX	7075	10185203
Azobenzene	TX	5562	10185203

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Matrix: ***Non-Potable Water***

Benzenethiol (Thiophenol)	TX	6750	10185203
Benzidine	TX	5595	10185203
Benzo(a)anthracene	TX	5575	10185203
Benzo(a)pyrene	TX	5580	10185203
Benzo(b)fluoranthene	TX	5585	10185203
Benzo(e)pyrene	TX	5605	10185203
Benzo(g,h,i)perylene	TX	5590	10185203
Benzo(k)fluoranthene	TX	5600	10185203
Benzoic acid	TX	5610	10185203
Benzyl alcohol	TX	5630	10185203
Biphenyl	TX	5640	10185203
bis(2-Chloroethoxy)methane	TX	5760	10185203
bis(2-Chloroethyl) ether	TX	5765	10185203
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185203
Butyl benzyl phthalate	TX	5670	10185203
Caprolactam	TX	7180	10185203
Captan	TX	7190	10185203
Carbaryl (Sevin)	TX	7195	10185203
Carbazole	TX	5680	10185203
Carbophenothion	TX	7220	10185203
Chlorobenzilate	TX	7260	10185203
Chrysene	TX	5855	10185203
Coumaphos	TX	7315	10185203
Demeton	TX	7390	10185203
Demeton	TX	7390	10185203
Demeton-o	TX	7395	10185203
Demeton-s	TX	7385	10185203
Diallate	TX	7405	10185203
Dibenz(a,h) anthracene	TX	5895	10185203
Dibenz(a,j) acridine	TX	5900	10185203

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Matrix: ***Non-Potable Water***

Dibenzofuran	TX	5905	10185203
Dichlorovos (DDVP, Dichlorvos)	TX	8610	10185203
Diethyl phthalate	TX	6070	10185203
Dimethoate	TX	7475	10185203
Dimethoate	TX	7475	10185203
Dimethyl phthalate	TX	6135	10185203
Di-n-butyl phthalate	TX	5925	10185203
Di-n-octyl phthalate	TX	6200	10185203
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10185203
Dioxathion	TX	7495	10185203
Diphenylamine	TX	6205	10185203
Disulfoton	TX	8625	10185203
Ethion	TX	7565	10185203
Ethyl methanesulfonate	TX	6260	10185203
Famphur	TX	7580	10185203
Fluoranthene	TX	6265	10185203
Fluorene	TX	6270	10185203
Hexachlorobenzene	TX	6275	10185203
Hexachlorobutadiene	TX	4835	10185203
Hexachlorocyclopentadiene	TX	6285	10185203
Hexachloroethane	TX	4840	10185203
Hexachlorophene	TX	6290	10185203
Hexachloropropene	TX	6295	10185203
Indeno(1,2,3-cd) pyrene	TX	6315	10185203
Isodrin	TX	7725	10185203
Isophorone	TX	6320	10185203
Isosafrole	TX	6325	10185203
Kepone	TX	7740	10185203
Maleic anhydride	TX	6335	10185203
Methapyrilene	TX	6345	10185203

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Matrix: ***Non-Potable Water***

Methyl methanesulfonate	TX	6375	10185203
Methyl parathion (Parathion, methyl)	TX	7825	10185203
Mevinphos	TX	7850	10185203
Naled	TX	7905	10185203
Naphthalene	TX	5005	10185203
Nitrobenzene	TX	5015	10185203
n-Nitrosodiethylamine	TX	6525	10185203
n-Nitrosodimethylamine	TX	6530	10185203
n-Nitrosodi-n-butylamine	TX	5025	10185203
n-Nitrosodi-n-propylamine	TX	6545	10185203
n-Nitrosodiphenylamine	TX	6535	10185203
n-Nitrosomethylethylamine	TX	6550	10185203
n-Nitrosomorpholine	TX	6555	10185203
n-Nitrosopiperidine	TX	6560	10185203
n-Nitrosopyrrolidine	TX	6565	10185203
o,o,o-Triethyl phosphorothioate	TX	8290	10185203
o-Anisidine	TX	5550	10185203
Parathion, ethyl	TX	7955	10185203
p-Cresidine	TX	5860	10185203
Pentachlorobenzene	TX	6590	10185203
Pentachloronitrobenzene (PCNB)	TX	6600	10185203
Pentachlorophenol	TX	6605	10185203
Phenacetin	TX	6610	10185203
Phenanthrene	TX	6615	10185203
Phenol	TX	6625	10185203
Phorate	TX	7985	10185203
Phosmet (Imidan)	TX	8000	10185203
Phthalic anhydride	TX	6640	10185203
Pronamide (Kerb)	TX	6650	10185203
Pyrene	TX	6665	10185203

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Matrix: ***Non-Potable Water***

Pyridine	TX	5095	10185203
Quinoline	TX	6670	10185203
Resorcinol	TX	6680	10185203
Safrole	TX	6685	10185203
Sulfotepp	TX	8155	10185203
Terbufos	TX	8185	10185203
Tetrachlorvinphos (Stirophos, Gardona)	TX	8197	10185203
Thionazin (Zinophos)	TX	8235	10185203
Toluene diisocyanate	TX	6775	10185203
Trifluralin (Treflan)	TX	8295	10185203

Method EPA 8290

Analyte	AB	Analyte ID	Method ID
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	TX	9516	10187209
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	TX	9519	10187209
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	TX	9420	10187209
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	TX	9426	10187209
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	TX	9423	10187209
1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-HxCDF)	TX	9471	10187209
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-HxCDD)	TX	9453	10187209
1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-HxCDF)	TX	9474	10187209
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-HxCDD)	TX	9456	10187209
1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-HxCDF)	TX	9477	10187209
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-HxCDD)	TX	9459	10187209
1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-PeCDF)	TX	9543	10187209
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)	TX	9540	10187209
2,3,4,6,7,8-Hexachlorodibenzofuran (2,3,4,6,7,8-HxCDF)	TX	9480	10187209
2,3,4,7,8-Pentachlorodibenzofuran (2,3,4,7,8-PeCDF	TX	9549	10187209
2,3,7,8-Tetrachlorodibenzofuran (2,3,7,8-TCDF)	TX	9612	10187209
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	TX	9618	10187209
Total Heptachlorodibenzofuran (Total HpCDF)	TX	9444	10187209

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Matrix: ***Non-Potable Water***

Total Heptachlorodibenzo-p-dioxin (Total HpCDD)	TX	9438	10187209
Total Hexachlorodibenzofuran (Total HxCDF)	TX	9483	10187209
Total Hexachlorodibenzo-p-dioxin (Total HxCDD)	TX	9468	10187209
Total Pentachlorodibenzofuran (Total PeCDF)	TX	9552	10187209
Total Pentachlorodibenzo-p-dioxin (Total PeCDD)	TX	9555	10187209
Total Tetrachlorodibenzofuran (Total TCDF)	TX	9615	10187209
Total Tetrachlorodibenzo-p-dioxin (Total TCDD)	TX	9609	10187209

Method EPA 8316

Analyte	**AB**	**Analyte ID**	**Method ID**
Acrylamide	TX	4330	10188202

Method EPA 8330

Analyte	**AB**	**Analyte ID**	**Method ID**
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10189807
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10189807
2,4,6-Trinitrotoluene (2,4,6-TNT)	TX	9651	10189807
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10189807
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10189807
2-Amino-4,6-dinitrotoluene (2-am-dnt)	TX	9303	10189807
2-Nitrotoluene	TX	9507	10189807
3-Nitrotoluene	TX	9510	10189807
4-Amino-2,6-dinitrotoluene (4-am-dnt)	TX	9306	10189807
4-Nitrotoluene	TX	9513	10189807
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	TX	6415	10189807
Nitrobenzene	TX	5015	10189807
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	TX	9522	10189807
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	TX	9432	10189807

Method EPA 9014

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10193803
Total cyanide	TX	1645	10193803

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Matrix: ***Non-Potable Water***

Method EPA 9038

Analyte	AB	Analyte ID	Method ID
Sulfate	TX	2000	10196608

Method EPA 9040

Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10196802

Method EPA 9050

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198604

Method EPA 9056

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209

Method EPA 9060

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201

Method EPA 9065

Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200405

Method EPA 9066

Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609

Method EPA 9250

Analyte	AB	Analyte ID	Method ID
Chloride	TX	1575	10207202

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Matrix: ***Non-Potable Water***

Method EPA RSK 175

Analyte	AB	Analyte ID	Method ID
2-methylpropane (Isobutane)	TX	4942	10212905
Ethane	TX	4747	10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
n-Butane	TX	5007	10212905
n-Propane	TX	5029	10212905

Method HACH 8000

Analyte	AB	Analyte ID	Method ID
Chemical oxygen demand (COD)	TX	1565	60003001

Method SM 2120 B

Analyte	AB	Analyte ID	Method ID
Color	TX	1605	20223807

Method SM 2310 B (4a)

Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO3	TX	1500	20002806

Method SM 2320 B

Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO3	TX	1505	20045005

Method SM 2340 B

Analyte	AB	Analyte ID	Method ID
Total hardness as CaCO3	TX	1755	20046008

Method SM 2510 B

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	20048004

Method SM 2540 B

Analyte	AB	Analyte ID	Method ID
Residue-total (total solids)	TX	1950	20004608

Method SM 2540 C

Analyte	AB	Analyte ID	Method ID

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Matrix: ***Non-Potable Water***

Residue-filterable (TDS)	TX	1955	20049803

Method SM 2540 D

Analyte	**AB**	**Analyte ID**	**Method ID**
Residue-nonfilterable (TSS)	TX	1960	20004802

Method SM 3500-Cr B

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	20065809

Method SM 4500-Cl F

Analyte	**AB**	**Analyte ID**	**Method ID**
Total residual chlorine	TX	1940	20080482

Method SM 4500-Cl¯ E

Analyte	**AB**	**Analyte ID**	**Method ID**
Chloride	TX	1575	20019209

Method SM 4500-CN¯ C

Analyte	**AB**	**Analyte ID**	**Method ID**
Total cyanide	TX	1645	20020808

Method SM 4500-CN¯ E

Analyte	**AB**	**Analyte ID**	**Method ID**
Total cyanide	TX	1645	20021209

Method SM 4500-CN¯ G

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	20021607

Method SM 4500-H+ B

Analyte	**AB**	**Analyte ID**	**Method ID**
pH	TX	1900	20104603

Method SM 4500-NH3 D

Analyte	**AB**	**Analyte ID**	**Method ID**
Ammonia as N	TX	1515	20108809
Kjeldahl Nitrogen (Total Kjeldahl Nitrogen-TKN)	TX	1790	20108809

Method SM 4500-NH3 F

Analyte	**AB**	**Analyte ID**	**Method ID**
Ammonia as N	TX	1515	20023001

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Matrix: ***Non-Potable Water***

Method SM 4500-NH3 G

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	20023205

Method SM 4500-O G

Analyte	AB	Analyte ID	Method ID
Oxygen, dissolved	TX	1880	20025405

Method SM 4500-P E

Analyte	AB	Analyte ID	Method ID
Orthophosphate as P	TX	1870	20025803
Phosphorus	TX	1910	20025803

Method SM 4500-$S2^{-}$ D

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20125400

Method SM 4500-$S2^{-}$ F

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20126209

Method SM 4500-SiO2 D

Analyte	AB	Analyte ID	Method ID
Silica as SiO2	TX	1990	20127202

Method SM 4500-$SO3^{-}$ B

Analyte	AB	Analyte ID	Method ID
Sulfite	TX	2015	20026806

Method SM 5210 B

Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401

Method SM 5310 B

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20137206

Method SM 5310 C

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20138209

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Matrix: ***Non-Potable Water***

Method SM 5540 C

Analyte	AB	Analyte ID	Method ID
Surfactants - MBAS	TX	2025	20144405

Method TCEQ 1005

Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

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Matrix: ***Solid & Chemical Materials***

Method ASTM D2216

Analyte	AB	Analyte ID	Method ID
Moisture	TX	10337	ASTM D2216-05

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 1030

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10117201

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 200.8

Analyte	AB	Analyte ID	Method ID
Uranium	TX	3035	10014605

Method EPA 300.0

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053200
Chloride	TX	1575	10053200
Fluoride	TX	1730	10053200
Nitrate as N	TX	1810	10053200
Nitrate-nitrite	TX	1820	10053200
Nitrite as N	TX	1840	10053200
Orthophosphate as P	TX	1870	10053200
Sulfate	TX	2000	10053200

Method EPA 310.1

Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO3	TX	1505	10054805

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Matrix: ***Solid & Chemical Materials***

Method EPA 350.3

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10064401

Method EPA 365.3

Analyte	AB	Analyte ID	Method ID
Orthophosphate as P	TX	1870	10070801
Phosphorus	TX	1910	10070801

Method EPA 6020

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10156204
Antimony	TX	1005	10156204
Arsenic	TX	1010	10156204
Barium	TX	1015	10156204
Beryllium	TX	1020	10156204
Boron	TX	1025	10156204
Cadmium	TX	1030	10156204
Calcium	TX	1035	10156204
Chromium	TX	1040	10156204
Cobalt	TX	1050	10156204
Copper	TX	1055	10156204
Iron	TX	1070	10156204
Lead	TX	1075	10156204
Lithium	TX	1080	10156204
Magnesium	TX	1085	10156204
Manganese	TX	1090	10156204
Molybdenum	TX	1100	10156204
Nickel	TX	1105	10156204
Potassium	TX	1125	10156204
Selenium	TX	1140	10156204
Silver	TX	1150	10156204
Sodium	TX	1155	10156204

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Matrix: ***Solid & Chemical Materials***

Strontium	TX	1160	10156204
Thallium	TX	1165	10156204
Tin	TX	1175	10156204
Titanium	TX	1180	10156204
Vanadium	TX	1185	10156204
Zinc	TX	1190	10156204

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162206

Method EPA 7470

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10165603

Method EPA 7471

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10166004

Method EPA 8015

Analyte	**AB**	**Analyte ID**	**Method ID**
Diesel range organics (DRO)	TX	9369	10173203
Ethanol	TX	4750	10173203
Ethylene glycol	TX	4785	10173203
Gasoline range organics (GRO)	TX	9408	10173203
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173203
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173203
Methanol	TX	4930	10173203
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173203
n-Propanol (1-Propanol)	TX	5055	10173203
Propylene Glycol	TX	6657	10173203
tert-Butyl alcohol	TX	4420	10173203

Method EPA 8081

Analyte	**AB**	**Analyte ID**	**Method ID**
4,4'-DDD	TX	7355	10178402

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Matrix: ***Solid & Chemical Materials***

4,4'-DDE	TX	7360	10178402
4,4'-DDT	TX	7365	10178402
Aldrin	TX	7025	10178402
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178402
alpha-Chlordane	TX	7240	10178402
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178402
Chlordane (tech.)	TX	7250	10178402
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178402
Dieldrin	TX	7470	10178402
Endosulfan I	TX	7510	10178402
Endosulfan II	TX	7515	10178402
Endosulfan sulfate	TX	7520	10178402
Endrin	TX	7540	10178402
Endrin aldehyde	TX	7530	10178402
Endrin ketone	TX	7535	10178402
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178402
gamma-Chlordane	TX	7245	10178402
Heptachlor	TX	7685	10178402
Heptachlor epoxide	TX	7690	10178402
Methoxychlor	TX	7810	10178402
Mirex	TX	7870	10178402
Toxaphene (Chlorinated camphene)	TX	8250	10178402

Method EPA 8082

Analyte	**AB**	**Analyte ID**	**Method ID**
Aroclor-1016 (PCB-1016)	TX	8880	10179201
Aroclor-1221 (PCB-1221)	TX	8885	10179201
Aroclor-1232 (PCB-1232)	TX	8890	10179201
Aroclor-1242 (PCB-1242)	TX	8895	10179201
Aroclor-1248 (PCB-1248)	TX	8900	10179201
Aroclor-1254 (PCB-1254)	TX	8905	10179201

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Matrix: ***Solid & Chemical Materials***

Aroclor-1260 (PCB-1260)	TX	8910	10179201
PCBs (total)	TX	8870	10179201

Method EPA 8260

Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184404
1,1,1-Trichloroethane	TX	5160	10184404
1,1,2,2-Tetrachloroethane	TX	5110	10184404
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184404
1,1,2-Trichloroethane	TX	5165	10184404
1,1-Dichloroethane	TX	4630	10184404
1,1-Dichloroethylene	TX	4640	10184404
1,1-Dichloropropene	TX	4670	10184404
1,2,3-Trichlorobenzene	TX	5150	10184404
1,2,3-Trichloropropane	TX	5180	10184404
1,2,4-Trichlorobenzene	TX	5155	10184404
1,2,4-Trimethylbenzene	TX	5210	10184404
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184404
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184404
1,2-Dichlorobenzene	TX	4610	10184404
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184404
1,2-Dichloropropane	TX	4655	10184404
1,3,5-Trimethylbenzene	TX	5215	10184404
1,3-Dichlorobenzene	TX	4615	10184404
1,3-Dichloropropane	TX	4660	10184404
1,4-Dichlorobenzene	TX	4620	10184404
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184404
1-Chlorohexane	TX	4510	10184404
1-Propanol	TX	5060	10184404
2,2-Dichloropropane	TX	4665	10184404
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184404

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Matrix: ***Solid & Chemical Materials***

2-Chloroethyl vinyl ether	TX	4500	10184404
2-Chlorotoluene	TX	4535	10184404
2-Hexanone (MBK)	TX	4860	10184404
4-Chlorotoluene	TX	4540	10184404
4-Isopropyltoluene (p-Cymene)	TX	4915	10184404
4-Methyl-2-pentanone (MIBK)	TX	4995	10184404
Acetone (2-Propanone)	TX	4315	10184404
Acetonitrile	TX	4320	10184404
Acrolein (Propenal)	TX	4325	10184404
Acrylonitrile	TX	4340	10184404
Allyl chloride (3-Chloropropene)	TX	4355	10184404
Benzene	TX	4375	10184404
Benzyl chloride	TX	5635	10184404
Bromobenzene	TX	4385	10184404
Bromochloromethane	TX	4390	10184404
Bromodichloromethane	TX	4395	10184404
Bromoform	TX	4400	10184404
Carbon disulfide	TX	4450	10184404
Carbon tetrachloride	TX	4455	10184404
Chlorobenzene	TX	4475	10184404
Chlorodibromomethane	TX	4575	10184404
Chloroethane (Ethyl chloride)	TX	4485	10184404
Chloroform	TX	4505	10184404
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184404
cis-1,2-Dichloroethylene	TX	4645	10184404
cis-1,3-Dichloropropene	TX	4680	10184404
Dibromofluoromethane	TX	4590	10184404
Dibromomethane (Methylene bromide)	TX	4595	10184404
Dichlorodifluoromethane (Freon-12)	TX	4625	10184404
Diethyl ether	TX	4725	10184404

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Matrix: ***Solid & Chemical Materials***

Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184404
Ethanol	TX	4750	10184404
Ethyl acetate	TX	4755	10184404
Ethyl methacrylate	TX	4810	10184404
Ethylbenzene	TX	4765	10184404
Ethylene oxide	TX	4795	10184404
Hexachlorobutadiene	TX	4835	10184404
Iodomethane (Methyl iodide)	TX	4870	10184404
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184404
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10184404
Isopropylbenzene (Cumene)	TX	4900	10184404
m+p-xylene	TX	5240	10184404
Methacrylonitrile	TX	4925	10184404
Methyl acetate	TX	4940	10184404
Methyl acrylate	TX	4945	10184404
Methyl bromide (Bromomethane)	TX	4950	10184404
Methyl chloride (Chloromethane)	TX	4960	10184404
Methyl methacrylate	TX	4990	10184404
Methyl tert-butyl ether (MTBE)	TX	5000	10184404
Methylcyclohexane	TX	4965	10184404
Methylene chloride (Dichloromethane)	TX	4975	10184404
Naphthalene	TX	5005	10184404
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184404
n-Butylbenzene	TX	4435	10184404
n-Propylbenzene	TX	5090	10184404
o-Xylene	TX	5250	10184404
Pentachloroethane	TX	5035	10184404
Propionitrile (Ethyl cyanide)	TX	5080	10184404
Pyridine	TX	5095	10184404
sec-Butylbenzene	TX	4440	10184404

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Matrix: ***Solid & Chemical Materials***

Styrene	TX	5100	10184404
tert-Butyl alcohol	TX	4420	10184404
tert-Butylbenzene	TX	4445	10184404
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184404
Toluene	TX	5140	10184404
trans-1,2-Dichloroethylene	TX	4700	10184404
trans-1,3-Dichloropropylene	TX	4685	10184404
trans-1,4-Dichloro-2-butene	TX	4605	10184404
Trichloroethene (Trichloroethylene)	TX	5170	10184404
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184404
Vinyl acetate	TX	5225	10184404
Vinyl chloride	TX	5235	10184404
Xylene (total)	TX	5260	10184404

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
1,2,4,5-Tetrachlorobenzene	TX	6715	10185203
1,2,4-Trichlorobenzene	TX	5155	10185203
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10185203
1,2-Dichlorobenzene	TX	4610	10185203
1,2-Dinitrobenzene	TX	6155	10185203
1,2-Diphenylhydrazine	TX	6220	10185203
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185203
1,3-Dichlorobenzene	TX	4615	10185203
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185203
1,4-Dichlorobenzene	TX	4620	10185203
1,4-Dinitrobenzene	TX	6165	10185203
1,4-Naphthoquinone	TX	6420	10185203
1,4-Phenylenediamine	TX	6630	10185203
1-Chloronaphthalene	TX	5790	10185203
1-Naphthylamine	TX	6425	10185203

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Matrix: ***Solid & Chemical Materials***

2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10185203
2,3,4,6-Tetrachlorophenol	TX	6735	10185203
2,4,5-Trichlorophenol	TX	6835	10185203
2,4,5-Trimethylaniline	TX	6880	10185203
2,4,6-Trichlorophenol	TX	6840	10185203
2,4-Diaminotoluene	TX	5880	10185203
2,4-Dichlorophenol	TX	6000	10185203
2,4-Dimethylphenol	TX	6130	10185203
2,4-Dinitrophenol	TX	6175	10185203
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185203
2,6-Dichlorophenol	TX	6005	10185203
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185203
2-Acetylaminofluorene	TX	5515	10185203
2-Chloronaphthalene	TX	5795	10185203
2-Chlorophenol	TX	5800	10185203
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185203
2-Methylaniline (o-Toluidine)	TX	5145	10185203
2-Methylnaphthalene	TX	6385	10185203
2-Methylphenol (o-Cresol)	TX	6400	10185203
2-Naphthylamine	TX	6430	10185203
2-Nitroaniline	TX	6460	10185203
2-Nitrophenol	TX	6490	10185203
2-Picoline (2-Methylpyridine)	TX	5050	10185203
3,3'-Dichlorobenzidine	TX	5945	10185203
3,3'-Dimethylbenzidine	TX	6120	10185203
3-Methylcholanthrene	TX	6355	10185203
3-Methylphenol (m-Cresol)	TX	6405	10185203
3-Nitroaniline	TX	6465	10185203
4-Aminobiphenyl	TX	5540	10185203
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185203

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Matrix: ***Solid & Chemical Materials***

4-Chloro-3-methylphenol	TX	5700	10185203
4-Chloroaniline	TX	5745	10185203
4-Chlorophenyl phenylether	TX	5825	10185203
4-Methylphenol (p-Cresol)	TX	6410	10185203
4-Nitroaniline	TX	6470	10185203
4-Nitrophenol	TX	6500	10185203
4-Nitroquinoline-1-oxide	TX	6510	10185203
5-Nitro-o-toluidine	TX	6570	10185203
7,12-Dimethylbenz(a) anthracene	TX	6115	10185203
a-a-Dimethylphenethylamine	TX	6125	10185203
Acenaphthene	TX	5500	10185203
Acenaphthylene	TX	5505	10185203
Acetophenone	TX	5510	10185203
Aniline	TX	5545	10185203
Anthracene	TX	5555	10185203
Aramite	TX	5560	10185203
Atrazine	TX	7065	10185203
Azinphos-methyl (Guthion)	TX	7075	10185203
Azobenzene	TX	5562	10185203
Benzenethiol (Thiophenol)	TX	6750	10185203
Benzidine	TX	5595	10185203
Benzo(a)anthracene	TX	5575	10185203
Benzo(a)pyrene	TX	5580	10185203
Benzo(b)fluoranthene	TX	5585	10185203
Benzo(e)pyrene	TX	5605	10185203
Benzo(g,h,i)perylene	TX	5590	10185203
Benzo(k)fluoranthene	TX	5600	10185203
Benzoic acid	TX	5610	10185203
Benzyl alcohol	TX	5630	10185203
Biphenyl	TX	5640	10185203

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Matrix: ***Solid & Chemical Materials***

bis(2-Chloroethoxy)methane	TX	5760	10185203
bis(2-Chloroethyl) ether	TX	5765	10185203
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185203
Butyl benzyl phthalate	TX	5670	10185203
Caprolactam	TX	7180	10185203
Carbaryl (Sevin)	TX	7195	10185203
Carbazole	TX	5680	10185203
Carbophenothion	TX	7220	10185203
Chlorobenzilate	TX	7260	10185203
Chrysene	TX	5855	10185203
Demeton	TX	7390	10185203
Demeton-o	TX	7395	10185203
Demeton-s	TX	7385	10185203
Diallate	TX	7405	10185203
Dibenz(a,h) anthracene	TX	5895	10185203
Dibenz(a,j) acridine	TX	5900	10185203
Dibenzo(a,e) pyrene	TX	5890	10185203
Dibenzofuran	TX	5905	10185203
Dichlorovos (DDVP, Dichlorvos)	TX	8610	10185203
Diethyl phthalate	TX	6070	10185203
Dimethoate	TX	7475	10185203
Dimethyl phthalate	TX	6135	10185203
Di-n-butyl phthalate	TX	5925	10185203
Di-n-octyl phthalate	TX	6200	10185203
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10185203
Diphenylamine	TX	6205	10185203
Disulfoton	TX	8625	10185203
Ethyl methanesulfonate	TX	6260	10185203
Fluoranthene	TX	6265	10185203
Fluorene	TX	6270	10185203

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Matrix: ***Solid & Chemical Materials***

Hexachlorobenzene	TX	6275	10185203
Hexachlorobutadiene	TX	4835	10185203
Hexachlorocyclopentadiene	TX	6285	10185203
Hexachloroethane	TX	4840	10185203
Hexachlorophene	TX	6290	10185203
Hexachloropropene	TX	6295	10185203
Indeno(1,2,3-cd) pyrene	TX	6315	10185203
Isodrin	TX	7725	10185203
Isophorone	TX	6320	10185203
Isosafrole	TX	6325	10185203
Kepone	TX	7740	10185203
Malathion	TX	7770	10185203
Methapyrilene	TX	6345	10185203
Methyl methanesulfonate	TX	6375	10185203
Methyl parathion (Parathion, methyl)	TX	7825	10185203
Mevinphos	TX	7850	10185203
Naphthalene	TX	5005	10185203
Nitrobenzene	TX	5015	10185203
n-Nitrosodiethylamine	TX	6525	10185203
n-Nitrosodimethylamine	TX	6530	10185203
n-Nitrosodi-n-butylamine	TX	5025	10185203
n-Nitrosodi-n-propylamine	TX	6545	10185203
n-Nitrosodiphenylamine	TX	6535	10185203
n-Nitrosomethylethylamine	TX	6550	10185203
n-Nitrosomorpholine	TX	6555	10185203
n-Nitrosopiperidine	TX	6560	10185203
n-Nitrosopyrrolidine	TX	6565	10185203
o,o,o-Triethyl phosphorothioate	TX	8290	10185203
o-Anisidine	TX	5550	10185203
Parathion, ethyl	TX	7955	10185203

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Matrix: ***Solid & Chemical Materials***

p-Cresidine	TX	5860	10185203
Pentachlorobenzene	TX	6590	10185203
Pentachloronitrobenzene (PCNB)	TX	6600	10185203
Pentachlorophenol	TX	6605	10185203
Phenacetin	TX	6610	10185203
Phenanthrene	TX	6615	10185203
Phenol	TX	6625	10185203
Phorate	TX	7985	10185203
Pronamide (Kerb)	TX	6650	10185203
Pyrene	TX	6665	10185203
Pyridine	TX	5095	10185203
Quinoline	TX	6670	10185203
Safrole	TX	6685	10185203
Sulfotepp	TX	8155	10185203
Terbufos	TX	8185	10185203
Tetrachlorvinphos (Stirophos, Gardona)	TX	8197	10185203
Thionazin (Zinophos)	TX	8235	10185203
Toluene diisocyanate	TX	6775	10185203

Method EPA 8290

Analyte	AB	Analyte ID	Method ID
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	TX	9516	10187209
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	TX	9519	10187209
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	TX	9420	10187209
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	TX	9426	10187209
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	TX	9423	10187209
1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-HxCDF)	TX	9471	10187209
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-HxCDD)	TX	9453	10187209
1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-HxCDF)	TX	9474	10187209
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-HxCDD)	TX	9456	10187209
1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-HxCDF)	TX	9477	10187209

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704231-21-28

ALS Laboratory Group, Environmental Services Division (Houston, Texas)

Expiration Date: 4/30/2022

10450 Stancliff Road, Suite 210
Houston, TX 77099-4338

Issue Date: 8/24/2021

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-HxCDD)	TX	9459	10187209
1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-PeCDF)	TX	9543	10187209
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)	TX	9540	10187209
2,3,4,6,7,8-Hexachlorodibenzofuran (2,3,4,6,7,8-HxCDF)	TX	9480	10187209
2,3,4,7,8-Pentachlorodibenzofuran (2,3,4,7,8-PeCDF	TX	9549	10187209
2,3,7,8-Tetrachlorodibenzofuran (2,3,7,8-TCDF)	TX	9612	10187209
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	TX	9618	10187209
Total Heptachlorodibenzofuran (Total HpCDF)	TX	9444	10187209
Total Heptachlorodibenzo-p-dioxin (Total HpCDD)	TX	9438	10187209
Total Hexachlorodibenzofuran (Total HxCDF)	TX	9483	10187209
Total Hexachlorodibenzo-p-dioxin (Total HxCDD)	TX	9468	10187209
Total Pentachlorodibenzofuran (Total PeCDF)	TX	9552	10187209
Total Pentachlorodibenzo-p-dioxin (Total PeCDD)	TX	9555	10187209
Total Tetrachlorodibenzofuran (Total TCDF)	TX	9615	10187209
Total Tetrachlorodibenzo-p-dioxin (Total TCDD)	TX	9609	10187209

Method EPA 8316

Analyte	**AB**	**Analyte ID**	**Method ID**
Acrylamide	TX	4330	10188202

Method EPA 8330

Analyte	**AB**	**Analyte ID**	**Method ID**
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10189807
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10189807
2,4,6-Trinitrotoluene (2,4,6-TNT)	TX	9651	10189807
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10189807
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10189807
2-Amino-4,6-dinitrotoluene (2-am-dnt)	TX	9303	10189807
2-Nitrotoluene	TX	9507	10189807
3-Nitrotoluene	TX	9510	10189807
4-Amino-2,6-dinitrotoluene (4-am-dnt)	TX	9306	10189807
4-Nitrotoluene	TX	9513	10189807
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	TX	6415	10189807

Texas Commission on Environmental Quality

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ALS Laboratory Group, Environmental Services Division (Houston, Texas)

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Houston, TX 77099-4338

Issue Date: 8/24/2021

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Matrix: ***Solid & Chemical Materials***

Nitrobenzene	TX	5015	10189807
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	TX	9522	10189807
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	TX	9432	10189807

Method EPA 9014

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10193803
Total cyanide	TX	1645	10193803

Method EPA 9038

Analyte	**AB**	**Analyte ID**	**Method ID**
Sulfate	TX	2000	10196608

Method EPA 9040

Analyte	**AB**	**Analyte ID**	**Method ID**
Corrosivity	TX	1615	10197203
pH	TX	1900	10196802

Method EPA 9045

Analyte	**AB**	**Analyte ID**	**Method ID**
Corrosivity	TX	1615	10197805
pH	TX	1900	10197805

Method EPA 9050

Analyte	**AB**	**Analyte ID**	**Method ID**
Conductivity	TX	1610	10198604

Method EPA 9056

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209

Texas Commission on Environmental Quality

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Matrix: ***Solid & Chemical Materials***

Method	Analyte	AB	Analyte ID	Method ID
EPA 9060	Total Organic Carbon (TOC)	TX	2040	10200201
EPA 9065	Total phenolics	TX	1905	10200405
EPA 9071	n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10201204
EPA 9095	Paint Filter Liquids Test	TX	10312	10204009
EPA 9250	Chloride	TX	1575	10207202
SM 2320 B	Alkalinity as CaCO3	TX	1505	20045005
SM 2510 B	Conductivity	TX	1610	20048004
SM 2540 G	Residue-total (total solids)	TX	1950	20005203
SSA/ASA Part 3:34	Carbon, organic (Walkley-Black)	TX	10340	SSA/ASA Pt 3:34
TCEQ 1005	Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

Attachment B
Sample Identifications and Analytical Parameters

Table B-1
Sample Identifications and Analytical Parameters

Laboratory Identification	Sample Identification	Sample Date	Sample Type	SW8260C	RSK-175	SM 2320B	SW9056A
HS21090065-01	NWCMW029GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-02	NWCMW149GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-03	NWCMW031GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-04	NWCMW026GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-05	NWCMW026GX211	9/1/2021	Field duplicate	X	X	X	X
HS21090065-06	NWCMW023GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-07	NWCMW037GW211	9/1/2021	Groundwater	X	X	X	X
HS21090065-08	TB090121	9/1/2021	Trip blank	X			
HS21090157-01	NWCBMW040GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-02	NWCBMW039GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-03	NWCBMW038GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-04	NWCBMW035GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-05	NWCBMW027GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-06	NWCBMW025GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-07	NWCBMW036GW211	9/2/2021	Groundwater	X	X	X	X
HS21090157-08	TB090221	9/2/2021	Trip blank	X			
HS21090157-09	FB090221	9/2/2021	Field blank	X			

Notes:

SW8260C = Select volatile organic compounds via SW-846 Method 8260C
RSK-175 = Ethane and ethene via RSK-175
SM 2320B = Alkalinity via standard methods 2320B
SW9056A = Nitrate and sulfate via SW-846 method 9056A
X = The sample was analyzed for the parameter listed in the column header.

Attachment C
Final Results after Data Review

Table C-1
Final Results after Data Review

		Sample Delivery Group		HS21090065			HS21090065			HS21090065			HS21090065		
		Lab ID		HS21090065-01			HS21090065-02			HS21090065-03			HS21090065-04		
		Sample ID		NWCMW029GW211			NWCMW149GW211			NWCMW031GW211			NWCMW026GW211		
		Sample Date		9/1/2021			9/1/2021			9/1/2021			9/1/2021		
		Sample Type		Groundwater			Groundwater			Groundwater			Groundwater		
Method	**Analyte**	**CAS No**	**Units**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**
RSKSOP-175	Ethane	74-84-0	µg/L	0.144	U		0.144	U		0.144	U		0.144	U	
RSKSOP-175	Ethene	74-85-1	µg/L	0.234	U		0.234	U		0.234	U		0.898	J	
SM 2320B	Alkalinity (as CaCO3)	471-34-1	mg/L	189			238			273			256		
SW8260	1,1,1-Trichloroethane	71-55-6	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,1,2-Trichloroethane	79-00-5	mg/L	0.0003	U		0.0003	U		0.0003	U		0.0003	U	
SW8260	1,1-Dichloroethane	75-34-3	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,1-Dichloroethene	75-35-4	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,2-Dichloroethane	107-06-2	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	cis-1,2-Dichloroethene	156-59-2	mg/L	0.0002	U		0.0002	U		0.0002	U		0.051		
SW8260	Tetrachloroethene	127-18-4	mg/L	0.0003	U		0.0003	U		0.0003	U		0.046	J	fd
SW8260	trans-1,2-Dichloroethene	156-60-5	mg/L	0.0002	U		0.0002	U		0.0002	U		0.00057	J	
SW8260	Trichloroethene	79-01-6	mg/L	0.0002	U		0.0002	U		0.0002	U		0.027		
SW8260	Vinyl chloride	75-01-4	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW9056	Nitrate (as Nitrogen)	14797-55-8	mg/L	3.61			0.03	U		0.03	U		0.03	U	
SW9056	Sulfate	14808-79-8	mg/L	222			812			1490			1330		

Table C-1 (Continued)
Final Results after Data Review

		Sample Delivery Group		HS21090065			HS21090065			HS21090065			HS21090065		
		Lab ID		HS21090065-05			HS21090065-06			HS21090065-07			HS21090065-08		
		Sample ID		NWCMW026GX211			NWCMW023GW211			NWCMW037GW211			TB090121		
		Sample Date		9/1/2021			9/1/2021			9/1/2021			9/1/2021		
		Sample Type		Field duplicate			Groundwater			Groundwater			Trip blank		
Method	**Analyte**	**CAS No**	**Units**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**	**Result**	**Qual**	**RC**
RSKSOP-175	Ethane	74-84-0	µg/L	0.144	U		0.144	U		0.144	U		NA		
RSKSOP-175	Ethene	74-85-1	µg/L	1.06			1.35			1.54			NA		
SM 2320B	Alkalinity (as CaCO3)	471-34-1	mg/L	196			531			232			NA		
SW8260	1,1,1-Trichloroethane	71-55-6	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,1,2-Trichloroethane	79-00-5	mg/L	0.0003	U		0.0003	U		0.0003	U		0.0003	U	
SW8260	1,1-Dichloroethane	75-34-3	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,1-Dichloroethene	75-35-4	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	1,2-Dichloroethane	107-06-2	mg/L	0.0002	U		0.0002	U		0.0002	U		0.0002	U	
SW8260	cis-1,2-Dichloroethene	156-59-2	mg/L	0.067			0.0002	U		0.00094	J		0.0002	U	
SW8260	Tetrachloroethene	127-18-4	mg/L	0.063	J	fd	0.0003	U		0.0003	U		0.0003	U	
SW8260	trans-1,2-Dichloroethene	156-60-5	mg/L	0.00063	J		0.0002	U		0.0002	U		0.0002	U	
SW8260	Trichloroethene	79-01-6	mg/L	0.036			0.0002	U		0.0002	U		0.0002	U	
SW8260	Vinyl chloride	75-01-4	mg/L	0.00099	J		0.0002	U		0.0002	U		0.0002	U	
SW9056	Nitrate (as Nitrogen)	14797-55-8	mg/L	0.03	U		0.03	U		0.03	U		NA		
SW9056	Sulfate	14808-79-8	mg/L	1050			91.8	JL	ms/msd	261			NA		

Table C-1
Final Results after Data Review

		Sample Delivery Group		HS21090157		HS21090157		HS21090157		HS21090157	
		Lab ID		HS21090157-01		HS21090157-02		HS21090157-03		HS21090157-04	
		Sample ID		NWCBMW040GW211		NWCBMW039GW211		NWCBMW038GW211		NWCBMW035GW211	
		Sample Date		9/2/2021		9/2/2021		9/2/2021		9/2/2021	
		Sample Type		Groundwater		Groundwater		Groundwater		Groundwater	
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	Result	Qual	Result	Qual	Result	Qual
RSKSOP-175	Ethane	74-84-0	µg/L	0.144	U	0.144	U	0.144	U	0.144	U
RSKSOP-175	Ethene	74-85-1	µg/L	1.77		1.81		1.68		1.7	
SM 2320B	Alkalinity (as CaCO3)	471-34-1	mg/L	90		255		101		326	
SW8260	1,1,1-Trichloroethane	71-55-6	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	1,1,2-Trichloroethane	79-00-5	mg/L	0.0003	U	0.0003	U	0.0003	U	0.0003	U
SW8260	1,1-Dichloroethane	75-34-3	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	1,1-Dichloroethene	75-35-4	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	1,2-Dichloroethane	107-06-2	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	cis-1,2-Dichloroethene	156-59-2	mg/L	0.0002	U	0.0002	U	0.0011		0.0016	
SW8260	Tetrachloroethene	127-18-4	mg/L	0.0003	U	0.0003	U	0.025		0.0003	U
SW8260	trans-1,2-Dichloroethene	156-60-5	mg/L	0.0002	U	0.0002	U	0.00041	J	0.0002	U
SW8260	Trichloroethene	79-01-6	mg/L	0.0002	U	0.0002	U	0.0024		0.0002	U
SW8260	Vinyl chloride	75-01-4	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW9056	Nitrate (as Nitrogen)	14797-55-8	mg/L	0.03	U	0.03	U	0.03	U	0.03	U
SW9056	Sulfate	14808-79-8	mg/L	114		1380		54.6		1500	

Table C-1 (continued)
Final Results after Data Review

		Sample Delivery Group		HS21090157		HS21090157		HS21090157		HS21090157	
		Lab ID		HS21090157-05		HS21090157-06		HS21090157-07		HS21090157-08	
		Sample ID		NWCBMW027GW211		NWCBMW025GW211		NWCBMW036GW211		TB090221	
		Sample Date		9/2/2021		9/2/2021		9/2/2021		9/2/2021	
		Sample Type		Groundwater		Groundwater		Groundwater		Trip blank	
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	Result	Qual	Result	Qual	Result	Qual
RSKSOP-175	Ethane	74-84-0	µg/L	0.144	U	0.144	U	0.144	U	NA	
RSKSOP-175	Ethene	74-85-1	µg/L	0.9	J	0.234	U	2.26		NA	
SM 2320B	Alkalinity (as CaCO3)	471-34-1	mg/L	309		134		276		NA	
SW8260	1,1,1-Trichloroethane	71-55-6	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	1,1,2-Trichloroethane	79-00-5	mg/L	0.0038		0.0003	U	0.0003	U	0.0003	U
SW8260	1,1-Dichloroethane	75-34-3	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	1,1-Dichloroethene	75-35-4	mg/L	0.00084	J	0.0002	U	0.0002	U	0.0002	U
SW8260	1,2-Dichloroethane	107-06-2	mg/L	0.0002	U	0.0002	U	0.0002	U	0.0002	U
SW8260	cis-1,2-Dichloroethene	156-59-2	mg/L	1.4		0.0076		0.28		0.0002	U
SW8260	Tetrachloroethene	127-18-4	mg/L	0.14		0.12		0.8		0.0003	U
SW8260	trans-1,2-Dichloroethene	156-60-5	mg/L	0.005		0.0002	U	0.0033		0.0002	U
SW8260	Trichloroethene	79-01-6	mg/L	0.081		0.0062		0.24		0.0002	U
SW8260	Vinyl chloride	75-01-4	mg/L	0.0018		0.0002	U	0.016		0.0002	U
SW9056	Nitrate (as Nitrogen)	14797-55-8	mg/L	0.03	U	0.936		0.03	U	NA	
SW9056	Sulfate	14808-79-8	mg/L	1060		939		1240		NA	

Table C-1 (continued) Final Results after Data Review					
			Sample Delivery Group	HS21090157	
			Lab ID	HS21090157-09	
			Sample ID	FB090221	
			Sample Date	9/2/2021	
			Sample Type	Field blank	
Method	**Analyte**	**CAS No**	**Units**	Result	Qual
RSKSOP-175	Ethane	74-84-0	µg/L	NA	
RSKSOP-175	Ethene	74-85-1	µg/L	NA	
SM 2320B	Alkalinity (as CaCO3)	471-34-1	mg/L	NA	
SW8260	1,1,1-Trichloroethane	71-55-6	mg/L	0.0002	U
SW8260	1,1,2-Trichloroethane	79-00-5	mg/L	0.0003	U
SW8260	1,1-Dichloroethane	75-34-3	mg/L	0.0002	U
SW8260	1,1-Dichloroethene	75-35-4	mg/L	0.0002	U
SW8260	1,2-Dichloroethane	107-06-2	mg/L	0.0002	U
SW8260	cis-1,2-Dichloroethene	156-59-2	mg/L	0.0002	U
SW8260	Tetrachloroethene	127-18-4	mg/L	0.0003	U
SW8260	trans-1,2-Dichloroethene	156-60-5	mg/L	0.0002	U
SW8260	Trichloroethene	79-01-6	mg/L	0.0002	U
SW8260	Vinyl chloride	75-01-4	mg/L	0.0002	U
SW9056	Nitrate (as Nitrogen)	14797-55-8	mg/L	NA	
SW9056	Sulfate	14808-79-8	mg/L	NA	

Table C-1 (Continued)
Final Results after Data Review

Notes

CAS No	=	chemical abstracts service number
Qual	=	final qualifier
RC	=	reason code
µg/L	=	micrograms per liter
mg/L	=	milligrams per liter
NA	=	not analyzed
J	=	*Estimated* — The result is less than the method quantitation limit but greater than or equal to the sample detection limit.
JL	=	*Estimated and biased low* — The positive result was flagged as estimated "JL", indicating potential low bias.
U	=	*Undetected* — The analyte was undetected above the listed sample detection limit.

Qualification Reason Code

ms/msd	=	Matrix spike / matrix spike duplicate percent recovery outlier.
fd	=	Field duplicate relative percent difference outlier.

Attachment D
Laboratory Report, Laboratory Review Checklist, and Exception Report

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 09, 2021

Shannon Collins
Dallas/Fort Worth International Airport
PO Box 619428
DFW Airport, TX 75261-9428

Work Order: **HS21090065**

Laboratory Results for: **AOC C5 PRAC**

Dear Shannon Collins,

ALS Environmental received 8 sample(s) on Sep 01, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Ragen Giga
Project Manager

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Work Order: HS21090065

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21090065-01	NWCMW029GW211	Water		01-Sep-2021 08:55	01-Sep-2021 15:17	☐
HS21090065-02	NWCMW149GW211	Water		01-Sep-2021 09:35	01-Sep-2021 15:17	☐
HS21090065-03	NWCMW031GW211	Water		01-Sep-2021 10:05	01-Sep-2021 15:17	☐
HS21090065-04	NWCMW026GW211	Water		01-Sep-2021 11:00	01-Sep-2021 15:17	☐
HS21090065-05	NWCMW026GX211	Water		01-Sep-2021 11:00	01-Sep-2021 15:17	☐
HS21090065-06	NWCMW023GW211	Water		01-Sep-2021 13:30	01-Sep-2021 15:17	☐
HS21090065-07	NWCMW037GW211	Water		01-Sep-2021 14:25	01-Sep-2021 15:17	☐
HS21090065-08	TB090121	Water	CG-070221-667	01-Sep-2021 00:00	01-Sep-2021 15:17	☐

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Work Order: HS21090065

CASE NARRATIVE

Work Order Comments

- Custody seals for vials on bubble bags
  Not salvaged.
  Times Differ : NWCMW149GW211
  COC - 09:35 All Vials - 09:25

Laboratory Review Checklist: Reportable Data								
Laboratory Name: ALS Laboratory Group			LRC Date: 09/09/2021					
Project Name: AOC C5 PRAC			Laboratory Job Number: HS21090065					
Reviewer Name: Ragen Giga			Prep Batch Number(s): R390732, R390802, R390816, R390895, R391021					
#[1]	**A[2]**	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			2
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				3
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 09/09/2021				
Project Name: AOC C5 PRAC			Laboratory Job Number: HS21090065				
Reviewer Name: Ragen Giga			Prep Batch Number(s): R390732, R390802, R390816, R390895, R391021				
#[1]	**A[2]**	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?			X		
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 09/09/2021
Project Name: AOC C5 PRAC	Laboratory Job Number: HS21090065
Reviewer Name: Ragen Giga	Prep Batch Number(s): R390732, R390802, R390816, R390895, R391021

ER#[5]	Description
1	Batch R390732, Anions by Method SW9056, Sample NWCMW023GW211, MS recovered below lower control limits for Sulfate Batch R391021, Anions by Method SW9056, Sample HS2109033401, MS and MSD were performed on an unrelated sample
2	Batch 390895, Dissolved Gases by Method RSK-175, Sample HS21081403-11, Duplicate RPD was performed on an unrelated sample
3	Login Notes: Custody seals for vials on bubble bags. Not salvaged. Times Differ : NWCMW149GW211 COC - 09:35 All Vials - 09:25

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW029GW211
Collection Date: 01-Sep-2021 08:55

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 01:15
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 01:15
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 01:15
Surr: 1,2-Dichloroethane-d4	*92.3*			*70-126*	*%REC*	*1*	*04-Sep-2021 01:15*
Surr: 4-Bromofluorobenzene	*97.1*			*81-113*	*%REC*	*1*	*04-Sep-2021 01:15*
Surr: Dibromofluoromethane	*93.9*			*77-123*	*%REC*	*1*	*04-Sep-2021 01:15*
Surr: Toluene-d8	*98.4*			*82-127*	*%REC*	*1*	*04-Sep-2021 01:15*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 10:53
Ethene	< 0.234		0.234	1.00	ug/L	1	07-Sep-2021 10:53
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**189**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 19:04
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	**3.61**		**0.0300**	**0.100**	**mg/L**	1	02-Sep-2021 18:03
Sulfate	**222**		**2.00**	**5.00**	**mg/L**	10	09-Sep-2021 03:07

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW149GW211
Collection Date: 01-Sep-2021 09:35

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 05:51
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 05:51
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 05:51
Surr: 1,2-Dichloroethane-d4	*94.2*			*70-126*	*%REC*	*1*	*04-Sep-2021 05:51*
Surr: 4-Bromofluorobenzene	*97.1*			*81-113*	*%REC*	*1*	*04-Sep-2021 05:51*
Surr: Dibromofluoromethane	*90.3*			*77-123*	*%REC*	*1*	*04-Sep-2021 05:51*
Surr: Toluene-d8	*99.3*			*82-127*	*%REC*	*1*	*04-Sep-2021 05:51*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 11:04
Ethene	< 0.234		0.234	1.00	ug/L	1	07-Sep-2021 11:04
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**238**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 19:17
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 18:10
Sulfate	**812**		**4.00**	**10.0**	**mg/L**	20	09-Sep-2021 03:15

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW031GW211
Collection Date: 01-Sep-2021 10:05

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 06:12
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 06:12
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:12
Surr: 1,2-Dichloroethane-d4	*99.8*			*70-126*	*%REC*	*1*	*04-Sep-2021 06:12*
Surr: 4-Bromofluorobenzene	*98.8*			*81-113*	*%REC*	*1*	*04-Sep-2021 06:12*
Surr: Dibromofluoromethane	*98.4*			*77-123*	*%REC*	*1*	*04-Sep-2021 06:12*
Surr: Toluene-d8	*120*			*82-127*	*%REC*	*1*	*04-Sep-2021 06:12*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 11:14
Ethene	< 0.234		0.234	1.00	ug/L	1	07-Sep-2021 11:14
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**273**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 19:23
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 18:18
Sulfate	**1,490**		**4.00**	**10.0**	**mg/L**	20	09-Sep-2021 03:22

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW026GW211
Collection Date: 01-Sep-2021 11:00

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:34
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 06:34
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:34
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:34
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:34
cis-1,2-Dichloroethene	**0.051**		**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:34
Tetrachloroethene	**0.046**	J, fd	**0.00030**	**0.0010**	**mg/L**	1	04-Sep-2021 06:34
trans-1,2-Dichloroethene	**0.00057**	J	**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:34
Trichloroethene	**0.027**		**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:34
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:34
Surr: 1,2-Dichloroethane-d4	*93.7*			*70-126*	*%REC*	*1*	*04-Sep-2021 06:34*
Surr: 4-Bromofluorobenzene	*96.5*			*81-113*	*%REC*	*1*	*04-Sep-2021 06:34*
Surr: Dibromofluoromethane	*93.0*			*77-123*	*%REC*	*1*	*04-Sep-2021 06:34*
Surr: Toluene-d8	*97.9*			*82-127*	*%REC*	*1*	*04-Sep-2021 06:34*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 11:36
Ethene	**0.898**	J	**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 11:36
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**256**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 19:29
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 18:25
Sulfate	**1,330**		**4.00**	**10.0**	**mg/L**	20	09-Sep-2021 03:29

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW026GX211
Collection Date: 01-Sep-2021 11:00

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:55
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 06:55
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:55
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:55
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 06:55
cis-1,2-Dichloroethene	**0.067**		**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:55
Tetrachloroethene	**0.063**	J,fd	**0.00030**	**0.0010**	**mg/L**	1	04-Sep-2021 06:55
trans-1,2-Dichloroethene	**0.00063**	J	**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:55
Trichloroethene	**0.036**		**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:55
Vinyl chloride	**0.00099**	J	**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 06:55
Surr: 1,2-Dichloroethane-d4	*94.7*			*70-126*	*%REC*	*1*	*04-Sep-2021 06:55*
Surr: 4-Bromofluorobenzene	*84.6*			*81-113*	*%REC*	*1*	*04-Sep-2021 06:55*
Surr: Dibromofluoromethane	*95.2*			*77-123*	*%REC*	*1*	*04-Sep-2021 06:55*
Surr: Toluene-d8	*94.8*			*82-127*	*%REC*	*1*	*04-Sep-2021 06:55*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 11:44
Ethene	**1.06**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 11:44
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**196**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 19:36
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 18:33
Sulfate	**1,050**		**4.00**	**10.0**	**mg/L**	20	09-Sep-2021 03:37

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW023GW211
Collection Date: 01-Sep-2021 13:30

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 07:16
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 07:16
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:16
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*1*	*04-Sep-2021 07:16*
Surr: 4-Bromofluorobenzene	*99.3*			*81-113*	*%REC*	*1*	*04-Sep-2021 07:16*
Surr: Dibromofluoromethane	*100*			*77-123*	*%REC*	*1*	*04-Sep-2021 07:16*
Surr: Toluene-d8	*99.2*			*82-127*	*%REC*	*1*	*04-Sep-2021 07:16*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 11:52
Ethene	**1.35**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 11:52
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**531**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:04
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 19:17
Sulfate	**91.8**	JL,ms/msd	**0.200**	**0.500**	**mg/L**	1	02-Sep-2021 19:17

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: NWCMW037GW211
Collection Date: 01-Sep-2021 14:25

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-07
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 07:38
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
cis-1,2-Dichloroethene	**0.00094**	J	**0.00020**	**0.0010**	**mg/L**	1	04-Sep-2021 07:38
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 07:38
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 07:38
Surr: 1,2-Dichloroethane-d4	*94.1*			*70-126*	*%REC*	*1*	*04-Sep-2021 07:38*
Surr: 4-Bromofluorobenzene	*98.1*			*81-113*	*%REC*	*1*	*04-Sep-2021 07:38*
Surr: Dibromofluoromethane	*93.1*			*77-123*	*%REC*	*1*	*04-Sep-2021 07:38*
Surr: Toluene-d8	*98.9*			*82-127*	*%REC*	*1*	*04-Sep-2021 07:38*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 12:00
Ethene	**1.54**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 12:00
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**232**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:11
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	02-Sep-2021 19:39
Sulfate	**261**		**2.00**	**5.00**	**mg/L**	10	09-Sep-2021 03:44

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
Sample ID: TB090121
Collection Date: 01-Sep-2021 00:00

ANALYTICAL REPORT
WorkOrder:HS21090065
Lab ID:HS21090065-08
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: PC
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 00:32
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	04-Sep-2021 00:32
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	04-Sep-2021 00:32
Surr: 1,2-Dichloroethane-d4	*92.2*			*70-126*	*%REC*	*1*	*04-Sep-2021 00:32*
Surr: 4-Bromofluorobenzene	*96.5*			*81-113*	*%REC*	*1*	*04-Sep-2021 00:32*
Surr: Dibromofluoromethane	*92.2*			*77-123*	*%REC*	*1*	*04-Sep-2021 00:32*
Surr: Toluene-d8	*99.5*			*82-127*	*%REC*	*1*	*04-Sep-2021 00:32*

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

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R390732 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21090065-01	NWCMW029GW211	01 Sep 2021 08:55			02 Sep 2021 18:03	1
HS21090065-02	NWCMW149GW211	01 Sep 2021 09:35			02 Sep 2021 18:10	1
HS21090065-03	NWCMW031GW211	01 Sep 2021 10:05			02 Sep 2021 18:18	1
HS21090065-04	NWCMW026GW211	01 Sep 2021 11:00			02 Sep 2021 18:25	1
HS21090065-05	NWCMW026GX211	01 Sep 2021 11:00			02 Sep 2021 18:33	1
HS21090065-06	NWCMW023GW211	01 Sep 2021 13:30			02 Sep 2021 19:17	1
HS21090065-07	NWCMW037GW211	01 Sep 2021 14:25			02 Sep 2021 19:39	1
Batch ID: R390802 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS21090065-01	NWCMW029GW211	01 Sep 2021 08:55			03 Sep 2021 19:04	1
HS21090065-02	NWCMW149GW211	01 Sep 2021 09:35			03 Sep 2021 19:17	1
HS21090065-03	NWCMW031GW211	01 Sep 2021 10:05			03 Sep 2021 19:23	1
HS21090065-04	NWCMW026GW211	01 Sep 2021 11:00			03 Sep 2021 19:29	1
HS21090065-05	NWCMW026GX211	01 Sep 2021 11:00			03 Sep 2021 19:36	1
HS21090065-06	NWCMW023GW211	01 Sep 2021 13:30			03 Sep 2021 20:04	1
HS21090065-07	NWCMW037GW211	01 Sep 2021 14:25			03 Sep 2021 20:11	1
Batch ID: R390816 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS21090065-01	NWCMW029GW211	01 Sep 2021 08:55			04 Sep 2021 01:15	1
HS21090065-02	NWCMW149GW211	01 Sep 2021 09:35			04 Sep 2021 05:51	1
HS21090065-03	NWCMW031GW211	01 Sep 2021 10:05			04 Sep 2021 06:12	1
HS21090065-04	NWCMW026GW211	01 Sep 2021 11:00			04 Sep 2021 06:34	1
HS21090065-05	NWCMW026GX211	01 Sep 2021 11:00			04 Sep 2021 06:55	1
HS21090065-06	NWCMW023GW211	01 Sep 2021 13:30			04 Sep 2021 07:16	1
HS21090065-07	NWCMW037GW211	01 Sep 2021 14:25			04 Sep 2021 07:38	1
HS21090065-08	TB090121	01 Sep 2021 00:00			04 Sep 2021 00:32	1
Batch ID: R390895 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Water	
HS21090065-01	NWCMW029GW211	01 Sep 2021 08:55			07 Sep 2021 10:53	1
HS21090065-02	NWCMW149GW211	01 Sep 2021 09:35			07 Sep 2021 11:04	1
HS21090065-03	NWCMW031GW211	01 Sep 2021 10:05			07 Sep 2021 11:14	1
HS21090065-04	NWCMW026GW211	01 Sep 2021 11:00			07 Sep 2021 11:36	1
HS21090065-05	NWCMW026GX211	01 Sep 2021 11:00			07 Sep 2021 11:44	1
HS21090065-06	NWCMW023GW211	01 Sep 2021 13:30			07 Sep 2021 11:52	1
HS21090065-07	NWCMW037GW211	01 Sep 2021 14:25			07 Sep 2021 12:00	1

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R391021 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21090065-01	NWCMW029GW211	01 Sep 2021 08:55			09 Sep 2021 03:07	10
HS21090065-02	NWCMW149GW211	01 Sep 2021 09:35			09 Sep 2021 03:15	20
HS21090065-03	NWCMW031GW211	01 Sep 2021 10:05			09 Sep 2021 03:22	20
HS21090065-04	NWCMW026GW211	01 Sep 2021 11:00			09 Sep 2021 03:29	20
HS21090065-05	NWCMW026GX211	01 Sep 2021 11:00			09 Sep 2021 03:37	20
HS21090065-07	NWCMW037GW211	01 Sep 2021 14:25			09 Sep 2021 03:44	10

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390895 (0) **Instrument: FID-4** **Method: DISSOLVED GASES BY RSK-175**

MBLK Sample ID: **MBLK-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 09:57**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259784** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	< 0.144	1.00								
Ethene	< 0.234	1.00								

LCS Sample ID: **LCS-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 10:06**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259815** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.17	1.00	18.04	0	101	75 - 125				
Ethene	13.35	1.00	16.8	0	79.4	75 - 125				

LCSD Sample ID: **LCSD-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 10:14**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.7	1.00	18.04	0	104	75 - 125	18.17	2.9	30	
Ethene	16.22	1.00	16.8	0	96.5	75 - 125	13.35	19.4	30	

DUP Sample ID: **HS21081403-11DUP** Units: **ug/L** Analysis Date: **07-Sep-2021 14:16**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259807** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	< 0.144	1.00					0	0	30	
Ethene	1.229	1.00					0.5736	72.7	30	R

The following samples were analyzed in this batch:

HS21090065-01	HS21090065-02	HS21090065-03	HS21090065-04
HS21090065-05	HS21090065-06	HS21090065-07	

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390816 (0) **Instrument: VOA9** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 23:50**
Client ID: Run ID: **VOA9_390816** SeqNo: **6258299** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	< 0.00020	0.0010							
1,1,2-Trichloroethane	< 0.00030	0.0010							
1,1-Dichloroethane	< 0.00020	0.0010							
1,1-Dichloroethene	< 0.00020	0.0010							
1,2-Dichloroethane	< 0.00020	0.0010							
cis-1,2-Dichloroethene	< 0.00020	0.0010							
Tetrachloroethene	< 0.00030	0.0010							
trans-1,2-Dichloroethene	< 0.00020	0.0010							
Trichloroethene	< 0.00020	0.0010							
Vinyl chloride	< 0.00020	0.0010							
Surr: 1,2-Dichloroethane-d4	*0.047*	*0.0010*	*0.05*	*0*	*94.8*	*70 - 123*			
Surr: 4-Bromofluorobenzene	*0.049*	*0.0010*	*0.05*	*0*	*97.7*	*82 - 115*			
Surr: Dibromofluoromethane	*0.047*	*0.0010*	*0.05*	*0*	*93.3*	*73 - 126*			
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*97.9*	*81 - 120*			

LCS Sample ID: **VLCSW-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 23:07**
Client ID: Run ID: **VOA9_390816** SeqNo: **6258298** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	0.021	0.0010	0.02	0	104	70 - 130			
1,1,2-Trichloroethane	0.021	0.0010	0.02	0	104	77 - 113			
1,1-Dichloroethane	0.024	0.0010	0.02	0	118	71 - 122			
1,1-Dichloroethene	0.022	0.0010	0.02	0	110	70 - 130			
1,2-Dichloroethane	0.021	0.0010	0.02	0	105	70 - 124			
cis-1,2-Dichloroethene	0.024	0.0010	0.02	0	119	75 - 122			
Tetrachloroethene	0.020	0.0010	0.02	0	102	76 - 119			
trans-1,2-Dichloroethene	0.024	0.0010	0.02	0	120	72 - 127			
Trichloroethene	0.024	0.0010	0.02	0	118	77 - 121			
Vinyl chloride	0.022	0.0010	0.02	0	111	70 - 130			
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*89.4*	*70 - 123*			
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*99.6*	*82 - 115*			
Surr: Dibromofluoromethane	*0.048*	*0.0010*	*0.05*	*0*	*95.6*	*73 - 126*			
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*99.4*	*81 - 120*			

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390816 (0) **Instrument: VOA9** **Method: LOW LEVEL VOLATILES BY SW8260C**

MS Sample ID: **HS21090066-01MS** Units: **mg/L** Analysis Date: **04-Sep-2021 01:36**
Client ID: Run ID: **VOA9_390816** SeqNo: **6258304** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.021	0.0010	0.02	0	107	70 - 130				
1,1,2-Trichloroethane	0.020	0.0010	0.02	0	102	70 - 117				
1,1-Dichloroethane	0.019	0.0010	0.02	0	93.1	70 - 127				
1,1-Dichloroethene	0.022	0.0010	0.02	0	112	70 - 130				
1,2-Dichloroethane	0.019	0.0010	0.02	0	96.2	70 - 127				
cis-1,2-Dichloroethene	0.019	0.0010	0.02	0	93.7	70 - 128				
Tetrachloroethene	0.023	0.0010	0.02	0	114	70 - 130				
trans-1,2-Dichloroethene	0.019	0.0010	0.02	0	95.7	70 - 130				
Trichloroethene	0.023	0.0010	0.02	0	114	70 - 129				
Vinyl chloride	0.019	0.0010	0.02	0	95.8	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*89.7*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*0.051*	*0.0010*	*0.05*	*0*	*102*	*81 - 113*				
Surr: Dibromofluoromethane	*0.046*	*0.0010*	*0.05*	*0*	*92.2*	*77 - 123*				
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*99.9*	*82 - 127*				

MS Sample ID: **HS21090065-01MS** Units: **mg/L** Analysis Date: **04-Sep-2021 02:19**
Client ID: **NWCMW029GW211** Run ID: **VOA9_390816** SeqNo: **6258306** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.023	0.0010	0.02	0	114	70 - 130				
1,1,2-Trichloroethane	0.021	0.0010	0.02	0	106	70 - 117				
1,1-Dichloroethane	0.020	0.0010	0.02	0	97.8	70 - 127				
1,1-Dichloroethene	0.023	0.0010	0.02	0	113	70 - 130				
1,2-Dichloroethane	0.020	0.0010	0.02	0	99.1	70 - 127				
cis-1,2-Dichloroethene	0.019	0.0010	0.02	0	94.8	70 - 128				
Tetrachloroethene	0.025	0.0010	0.02	0	126	70 - 130				
trans-1,2-Dichloroethene	0.021	0.0010	0.02	0	105	70 - 130				
Trichloroethene	0.024	0.0010	0.02	0	118	70 - 129				
Vinyl chloride	0.021	0.0010	0.02	0	105	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*89.3*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*101*	*81 - 113*				
Surr: Dibromofluoromethane	*0.046*	*0.0010*	*0.05*	*0*	*92.8*	*77 - 123*				
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*98.2*	*82 - 127*				

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390816 (0) **Instrument: VOA9** **Method: LOW LEVEL VOLATILES BY SW8260C**

MSD Sample ID: **HS21090066-01MSD** Units: **mg/L** Analysis Date: **04-Sep-2021 01:57**
Client ID: Run ID: **VOA9_390816** SeqNo: **6258305** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.021	0.0010	0.02	0	107	70 - 130	0.02137	0.191	20	
1,1,2-Trichloroethane	0.021	0.0010	0.02	0	103	70 - 117	0.02030	1.2	20	
1,1-Dichloroethane	0.018	0.0010	0.02	0	90.0	70 - 127	0.01861	3.37	20	
1,1-Dichloroethene	0.022	0.0010	0.02	0	111	70 - 130	0.02249	0.924	20	
1,2-Dichloroethane	0.019	0.0010	0.02	0	96.4	70 - 127	0.01925	0.192	20	
cis-1,2-Dichloroethene	0.019	0.0010	0.02	0	93.1	70 - 128	0.01874	0.662	20	
Tetrachloroethene	0.024	0.0010	0.02	0	117	70 - 130	0.02285	2.81	20	
trans-1,2-Dichloroethene	0.019	0.0010	0.02	0	95.1	70 - 130	0.01914	0.589	20	
Trichloroethene	0.022	0.0010	0.02	0	110	70 - 129	0.02290	3.94	20	
Vinyl chloride	0.019	0.0010	0.02	0	93.4	70 - 130	0.01915	2.55	20	
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*90.5*	*70 - 126*	*0.04486*	*0.879*	*20*	
Surr: 4-Bromofluorobenzene	*0.051*	*0.0010*	*0.05*	*0*	*101*	*81 - 113*	*0.05075*	*0.386*	*20*	
Surr: Dibromofluoromethane	*0.046*	*0.0010*	*0.05*	*0*	*92.4*	*77 - 123*	*0.04609*	*0.216*	*20*	
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*101*	*82 - 127*	*0.04993*	*1.11*	*20*	

MSD Sample ID: **HS21090065-01MSD** Units: **mg/L** Analysis Date: **04-Sep-2021 02:40**
Client ID: **NWCMW029GW211** Run ID: **VOA9_390816** SeqNo: **6258307** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.023	0.0010	0.02	0	116	70 - 130	0.02282	2.05	20	
1,1,2-Trichloroethane	0.021	0.0010	0.02	0	103	70 - 117	0.02114	2.18	20	
1,1-Dichloroethane	0.019	0.0010	0.02	0	96.5	70 - 127	0.01957	1.39	20	
1,1-Dichloroethene	0.022	0.0010	0.02	0	109	70 - 130	0.02268	3.59	20	
1,2-Dichloroethane	0.020	0.0010	0.02	0	99.2	70 - 127	0.01981	0.172	20	
cis-1,2-Dichloroethene	0.020	0.0010	0.02	0	98.1	70 - 128	0.01896	3.43	20	
Tetrachloroethene	0.025	0.0010	0.02	0	126	70 - 130	0.02516	0.385	20	
trans-1,2-Dichloroethene	0.020	0.0010	0.02	0	102	70 - 130	0.02095	2.38	20	
Trichloroethene	0.024	0.0010	0.02	0	121	70 - 129	0.02367	2.12	20	
Vinyl chloride	0.020	0.0010	0.02	0	99.7	70 - 130	0.02096	5.05	20	
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*90.1*	*70 - 126*	*0.04464*	*0.864*	*20*	
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*101*	*81 - 113*	*0.05042*	*0.162*	*20*	
Surr: Dibromofluoromethane	*0.046*	*0.0010*	*0.05*	*0*	*93.0*	*77 - 123*	*0.04639*	*0.21*	*20*	
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*99.5*	*82 - 127*	*0.04912*	*1.26*	*20*	

The following samples were analyzed in this batch: HS21090065-01 HS21090065-02 HS21090065-03 HS21090065-04 HS21090065-05 HS21090065-06 HS21090065-07 HS21090065-08

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390732 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **02-Sep-2021 10:09**
Client ID: Run ID: **ICS-Integrion_390732** SeqNo: **6256457** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	< 0.0300	0.100								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **02-Sep-2021 10:16**
Client ID: Run ID: **ICS-Integrion_390732** SeqNo: **6256458** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.762	0.100	4	0	94.1	80 - 120				
Sulfate	20.05	0.500	20	0	100	80 - 120				

LCSD Sample ID: **LCSD** Units: **mg/L** Analysis Date: **02-Sep-2021 17:48**
Client ID: Run ID: **ICS-Integrion_390732** SeqNo: **6256463** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.656	0.100	4	0	91.4	80 - 120	3.762	2.87	20	
Sulfate	19.76	0.500	20	0	98.8	80 - 120	20.05	1.45	20	

MS Sample ID: **HS21090065-06MS** Units: **mg/L** Analysis Date: **02-Sep-2021 19:24**
Client ID: **NWCMW023GW211** Run ID: **ICS-Integrion_390732** SeqNo: **6256473** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	1.881	0.100	2	0	94.0	80 - 120				
Sulfate	97.57	0.500	10	91.77	58.0	80 - 120				SO

MSD Sample ID: **HS21090065-06MSD** Units: **mg/L** Analysis Date: **02-Sep-2021 19:32**
Client ID: **NWCMW023GW211** Run ID: **ICS-Integrion_390732** SeqNo: **6256474** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	1.912	0.100	2	0	95.6	80 - 120	1.881	1.67	20	
Sulfate	99.8	0.500	10	91.77	80.3	80 - 120	97.57	2.26	20	O

The following samples were analyzed in this batch: HS21090065-01 HS21090065-02 HS21090065-03 HS21090065-04 HS21090065-05 HS21090065-06 HS21090065-07

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R390802 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:40**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258047** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	< 5.00	5.00								

LCS Sample ID: **LCS1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:49**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258048** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1021	5.00	1000	0	102	85 - 115				

LCSD Sample ID: **LCSD1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:57**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258049** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1018	5.00	1000	0	102	85 - 115	1021	0.22	20	

DUP Sample ID: **HS21090065-01DUP** Units: **mg/L** Analysis Date: **03-Sep-2021 19:11**
Client ID: **NWCMW029GW211** Run ID: **ManTech01_390802** SeqNo: **6258051** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	207.4	5.00					189	9.29	20	

The following samples were analyzed in this batch:

HS21090065-01	HS21090065-02	HS21090065-03	HS21090065-04
HS21090065-05	HS21090065-06	HS21090065-07	

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: HS21090065

QC BATCH REPORT

Batch ID: R391021 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **09-Sep-2021 02:01**
Client ID: Run ID: **ICS-Integrion_391021** SeqNo: **6262661** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **09-Sep-2021 02:08**
Client ID: Run ID: **ICS-Integrion_391021** SeqNo: **6262662** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	19.72	0.500	20	0	98.6	80 - 120				

MS Sample ID: **HS21090334-01MS** Units: **mg/L** Analysis Date: **08-Sep-2021 19:43**
Client ID: Run ID: **ICS-Integrion_391021** SeqNo: **6262655** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	242.9	0.500	10	240	29.3	80 - 120				SEO

MSD Sample ID: **HS21090334-01MSD** Units: **mg/L** Analysis Date: **08-Sep-2021 19:50**
Client ID: Run ID: **ICS-Integrion_391021** SeqNo: **6262656** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	243	0.500	10	240	30.4	80 - 120	242.9	0.0423	20	SEO

The following samples were analyzed in this batch: HS21090065-01 HS21090065-02 HS21090065-03 HS21090065-04 HS21090065-05 HS21090065-07

Client: Dallas/Fort Worth International Airport
Project: AOC C5 PRAC
WorkOrder: **HS21090065**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

Sample Receipt Checklist

Work Order ID: HS21090065 **Date/Time Received:** **01-Sep-2021 15:17**

Client Name: DFW **Received by:** **Sonia West**

Completed By: */S/ Paresh M. Giga* 02-Sep-2021 10:26 **Reviewed by:** */S/ Ragen Giga* 02-Sep-2021 17:39

eSignature Date/Time eSignature Date/Time

Matrices: **Water** Carrier name: **ALS Courier**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.4C U/C	IR31
Cooler(s)/Kit(s):	46495	
Date/Time sample(s) sent to storage:	9/2/2021 10:45	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:
Custody seals for vials on bubble bags
Not salvaged.
Times Differ : NWCMW149GW211
COC - 09:35 All Vials - 09:25

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Chain-Of-Custody (Voluntary Cleanup Program - VCP)

DFW DALLAS FORT WORTH INTERNATIONAL AIRPORT

ENVIRONMENTAL AFFAIRS DEPARTMENT
3003 SOUTH SERVICE RD., P.O. BOX 619428
DFW AIRPORT, TX 75261-9428
T 972 973 5560 F 972 973 5561

Turnaround Time:
Normal: 7 Days R

Comments:

Laboratory ID Number:

Note: *MS/MSD selected for VOCs only.

Attention: James Greer / Shannon Collins Phone No.: 817 9666007

Project: AOC C5 PRAC

Sampled By: James Greer Rick Rosales

Special Instructions: TRRP Package

Disposal: Dispose ☒ Return ☐ Pickup ☐ Hold ☐

Analysis(es) Requested (Required Method) & [Preservative]

Sample ID	*MS/MSD	Collect Date	Collect Time	Sample Matrix	Grab	Composite	Container Types	TPH Total Hydrocarbons (1006) [H]	Benzene (8260C) [H]	Chlorinated VOC (8260C) [H]	1,4 Dioxane (8260C) [H]	SVOC (8270C)	Ethane/Ethene (AM20GAX) [H]	Nitrate (9056) [None]	Sulfate (9056) [None]	Alkalinity (SM2320B) [None]	Total RCRA Metals (6010B/7470A) [N]	Dissolved RCRA Metals (6010B/7470A) [None]	Total Arsenic (6010B) [N]	Dissolved Arsenic (6010B) [None]				Number of Containers	Turbidity Reading in NTUs (If Applicable)
NWCMW029GW211	X	9/1/21	0855	W	X		P, V			X			X	X	X	X								3	
NWCMW149GW211			0935	W	X		P, V			X			X	X	X	X								7	
NWCMW031GW211			1005	W	X		P, V			X			X	X	X	X								7	
NWCMW026GW211			1100	W	X		P, V			X			X	X	X	X								7	
NWCMW026GX211			1100	W	X		P, V			X			X	X	X	X								7	
NWCMW023GW211			1330	W	X		P, V			X			X	X	X	X								7	
NWCMW037GW211			1425	W	X		P, V			X			X	X	X	X								7	
TB090121																								

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
	9/1/21	1517		9/1/21	1517
Relinquished By (Signature)	9-1-21	1751 hrs	Received By (Signature)		
Relinquished By (Signature)	9-2-21	08:00	Received By (Signature)		

Note Attachments if

Preservative: [H] = Hydrochloric Acid HCl, [N] = Nitric Acid HNO3, [S] = Sulfuric Acid H2SO4, [T] = Trisodium Phosphate, [None] = Ice Only

Container: [A] = Amber Glass, [C] = Cubitainer, [G] = Glass, [P] = Poly, [V] = VOA

HS21090065

Dallas/Fort Worth International Airport
AOC C5 PRAC


CUSTODY SEAL
Date: 9/12/21
Signature

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 10, 2021

Shannon Collins
Dallas/Fort Worth International Airport
PO Box 619428
DFW Airport, TX 75261-9428

Work Order: **HS21090157**

Laboratory Results for: **NW Cargo AOC C5**

Dear Shannon Collins,

ALS Environmental received 9 sample(s) on Sep 02, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Ragen Giga
Project Manager

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Work Order: HS21090157

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21090157-01	NWCBMW040GW211	Water		02-Sep-2021 09:15	02-Sep-2021 16:10	☐
HS21090157-02	NWCBMW039GW211	Water		02-Sep-2021 10:25	02-Sep-2021 16:10	☐
HS21090157-03	NWCBMW038GW211	Water		02-Sep-2021 10:45	02-Sep-2021 16:10	☐
HS21090157-04	NWCBMW035GW211	Water		02-Sep-2021 11:00	02-Sep-2021 16:10	☐
HS21090157-05	NWCBMW027GW211	Water		02-Sep-2021 13:10	02-Sep-2021 16:10	☐
HS21090157-06	NWCBMW025GW211	Water		02-Sep-2021 13:45	02-Sep-2021 16:10	☐
HS21090157-07	NWCBMW036GW211	Water		02-Sep-2021 14:25	02-Sep-2021 16:10	☐
HS21090157-08	TB090221	Water		02-Sep-2021 09:15	02-Sep-2021 16:10	☐
HS21090157-09	FB090221	Water		02-Sep-2021 15:00	02-Sep-2021 16:10	☐

Laboratory Review Checklist: Reportable Data								
Laboratory Name: ALS Laboratory Group			LRC Date: 09/10/2021					
Project Name: NW Cargo AOC C5			Laboratory Job Number: HS21090157					
Reviewer Name: Ragen Giga			Prep Batch Number(s): R390802, R390895, R390931, R390937, R391066, R391087, R391138					
#[1]	**A[2]**	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			1
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				2
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data								
Laboratory Name: ALS Laboratory Group			LRC Date: 09/10/2021					
Project Name: NW Cargo AOC C5			Laboratory Job Number: HS21090157					
Reviewer Name: Ragen Giga			Prep Batch Number(s): R390802, R390895, R390931, R390937, R391066, R391087, R391138					
#[1]	**A[2]**	**Description**	**Yes**	**No**	**NA[3]**	**NR[4]**	**ER#[5]**
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?			X		
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports	
Laboratory Name: ALS Laboratory Group	LRC Date: 09/10/2021
Project Name: NW Cargo AOC C5	Laboratory Job Number: HS21090157
Reviewer Name: Ragen Giga	Prep Batch Number(s): R390802, R390895, R390931, R390937, R391066, R391087, R391138

ER#[5]	Description
1	Batch R390895, Dissolved Gases by RSK-175, Sample HS21081403-11, Duplicate is for an unrelated sample
2	Login Notes: Custody seals on sample containers too wet to salvage.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);
NA = Not Applicable;
NR = Not Reviewed;
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW040GW211
Collection Date: 02-Sep-2021 09:15

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 01:25
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 01:25
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:25
Surr: 1,2-Dichloroethane-d4	*103*			*70-126*	*%REC*	*1*	*08-Sep-2021 01:25*
Surr: 4-Bromofluorobenzene	*83.0*			*81-113*	*%REC*	*1*	*08-Sep-2021 01:25*
Surr: Dibromofluoromethane	*103*			*77-123*	*%REC*	*1*	*08-Sep-2021 01:25*
Surr: Toluene-d8	*102*			*82-127*	*%REC*	*1*	*08-Sep-2021 01:25*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 12:43
Ethene	**1.77**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 12:43
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**90.0**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:18
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 19:39
Sulfate	**114**		**2.00**	**5.00**	**mg/L**	10	09-Sep-2021 19:26

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW039GW211
Collection Date: 02-Sep-2021 10:25

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 01:46
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 01:46
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 01:46
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*1*	*08-Sep-2021 01:46*
Surr: 4-Bromofluorobenzene	*83.7*			*81-113*	*%REC*	*1*	*08-Sep-2021 01:46*
Surr: Dibromofluoromethane	*102*			*77-123*	*%REC*	*1*	*08-Sep-2021 01:46*
Surr: Toluene-d8	*103*			*82-127*	*%REC*	*1*	*08-Sep-2021 01:46*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 12:59
Ethene	**1.81**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 12:59
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**255**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:24
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 20:02
Sulfate	**1,380**		**20.0**	**50.0**	**mg/L**	100	09-Sep-2021 19:33

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW038GW211
Collection Date: 02-Sep-2021 10:45

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 00:02
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 00:02
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 00:02
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 00:02
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 00:02
cis-1,2-Dichloroethene	**0.0011**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 00:02
Tetrachloroethene	**0.025**		**0.00030**	**0.0010**	**mg/L**	1	08-Sep-2021 00:02
trans-1,2-Dichloroethene	**0.00041**	J	**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 00:02
Trichloroethene	**0.0024**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 00:02
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 00:02
Surr: 1,2-Dichloroethane-d4	*99.6*			*70-126*	*%REC*	*1*	*08-Sep-2021 00:02*
Surr: 4-Bromofluorobenzene	*82.9*			*81-113*	*%REC*	*1*	*08-Sep-2021 00:02*
Surr: Dibromofluoromethane	*101*			*77-123*	*%REC*	*1*	*08-Sep-2021 00:02*
Surr: Toluene-d8	*102*			*82-127*	*%REC*	*1*	*08-Sep-2021 00:02*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 13:06
Ethene	**1.68**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 13:06
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**101**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:32
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 20:16
Sulfate	**54.6**		**0.200**	**0.500**	**mg/L**	1	03-Sep-2021 20:16

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW035GW211
Collection Date: 02-Sep-2021 11:00

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 02:07
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
cis-1,2-Dichloroethene	**0.0016**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:07
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 02:07
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:07
Surr: 1,2-Dichloroethane-d4	*99.4*			*70-126*	*%REC*	*1*	*08-Sep-2021 02:07*
Surr: 4-Bromofluorobenzene	*83.8*			*81-113*	*%REC*	*1*	*08-Sep-2021 02:07*
Surr: Dibromofluoromethane	*100*			*77-123*	*%REC*	*1*	*08-Sep-2021 02:07*
Surr: Toluene-d8	*104*			*82-127*	*%REC*	*1*	*08-Sep-2021 02:07*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 13:21
Ethene	**1.70**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 13:21
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**326**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:38
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 20:24
Sulfate	**1,500**		**20.0**	**50.0**	**mg/L**	100	09-Sep-2021 20:33

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW027GW211
Collection Date: 02-Sep-2021 13:10

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:28
1,1,2-Trichloroethane	**0.0038**		**0.00030**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:28
1,1-Dichloroethene	**0.00084**	J	**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:28
cis-1,2-Dichloroethene	**1.4**		**0.0040**	**0.020**	**mg/L**	20	09-Sep-2021 15:45
Tetrachloroethene	**0.14**		**0.00030**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
trans-1,2-Dichloroethene	**0.0050**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
Trichloroethene	**0.081**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
Vinyl chloride	**0.0018**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:28
Surr: 1,2-Dichloroethane-d4	*93.9*			*70-126*	*%REC*	*1*	*08-Sep-2021 02:28*
Surr: 1,2-Dichloroethane-d4	*94.3*			*70-126*	*%REC*	*20*	*09-Sep-2021 15:45*
Surr: 4-Bromofluorobenzene	*81.0*			*81-113*	*%REC*	*1*	*08-Sep-2021 02:28*
Surr: 4-Bromofluorobenzene	*94.3*			*81-113*	*%REC*	*20*	*09-Sep-2021 15:45*
Surr: Dibromofluoromethane	*99.3*			*77-123*	*%REC*	*1*	*08-Sep-2021 02:28*
Surr: Dibromofluoromethane	*91.7*			*77-123*	*%REC*	*20*	*09-Sep-2021 15:45*
Surr: Toluene-d8	*101*			*82-127*	*%REC*	*1*	*08-Sep-2021 02:28*
Surr: Toluene-d8	*98.2*			*82-127*	*%REC*	*20*	*09-Sep-2021 15:45*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 13:29
Ethene	**0.900**	J	**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 13:29
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**309**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:45
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 20:53
Sulfate	**1,060**		**20.0**	**50.0**	**mg/L**	100	09-Sep-2021 20:40

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW025GW211
Collection Date: 02-Sep-2021 13:45

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 02:49
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
cis-1,2-Dichloroethene	**0.0076**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:49
Tetrachloroethene	**0.12**		**0.00030**	**0.0010**	**mg/L**	1	08-Sep-2021 02:49
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
Trichloroethene	**0.0062**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 02:49
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 02:49
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*1*	*08-Sep-2021 02:49*
Surr: 4-Bromofluorobenzene	*83.3*			*81-113*	*%REC*	*1*	*08-Sep-2021 02:49*
Surr: Dibromofluoromethane	*102*			*77-123*	*%REC*	*1*	*08-Sep-2021 02:49*
Surr: Toluene-d8	*102*			*82-127*	*%REC*	*1*	*08-Sep-2021 02:49*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 13:50
Ethene	< 0.234		0.234	1.00	ug/L	1	07-Sep-2021 13:50
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**134**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 20:52
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	**0.936**		**0.0300**	**0.100**	**mg/L**	1	03-Sep-2021 21:08
Sulfate	**939**		**2.00**	**5.00**	**mg/L**	10	03-Sep-2021 21:15

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: NWCBMW036GW211
Collection Date: 02-Sep-2021 14:25

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-07
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**					Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 03:10
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 03:10
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 03:10
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 03:10
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 03:10
cis-1,2-Dichloroethene	**0.28**		**0.0050**	**0.025**	**mg/L**	25	09-Sep-2021 16:08
Tetrachloroethene	**0.80**		**0.0075**	**0.025**	**mg/L**	25	09-Sep-2021 16:08
trans-1,2-Dichloroethene	**0.0033**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 03:10
Trichloroethene	**0.24**		**0.0050**	**0.025**	**mg/L**	25	09-Sep-2021 16:08
Vinyl chloride	**0.016**		**0.00020**	**0.0010**	**mg/L**	1	08-Sep-2021 03:10
Surr: 1,2-Dichloroethane-d4	*97.9*			*70-126*	*%REC*	*1*	*08-Sep-2021 03:10*
Surr: 1,2-Dichloroethane-d4	*94.3*			*70-126*	*%REC*	*25*	*09-Sep-2021 16:08*
Surr: 4-Bromofluorobenzene	*83.0*			*81-113*	*%REC*	*1*	*08-Sep-2021 03:10*
Surr: 4-Bromofluorobenzene	*94.5*			*81-113*	*%REC*	*25*	*09-Sep-2021 16:08*
Surr: Dibromofluoromethane	*99.6*			*77-123*	*%REC*	*1*	*08-Sep-2021 03:10*
Surr: Dibromofluoromethane	*91.0*			*77-123*	*%REC*	*25*	*09-Sep-2021 16:08*
Surr: Toluene-d8	*98.7*			*82-127*	*%REC*	*1*	*08-Sep-2021 03:10*
Surr: Toluene-d8	*98.1*			*82-127*	*%REC*	*25*	*09-Sep-2021 16:08*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**					Analyst: PPM
Ethane	< 0.144		0.144	1.00	ug/L	1	07-Sep-2021 14:08
Ethene	**2.26**		**0.234**	**1.00**	**ug/L**	1	07-Sep-2021 14:08
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Total (As CaCO3)	**276**		**5.00**	**5.00**	**mg/L**	1	03-Sep-2021 21:15
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Nitrogen, Nitrate (As N)	< 0.0300		0.0300	0.100	mg/L	1	03-Sep-2021 21:23
Sulfate	**1,240**		**20.0**	**50.0**	**mg/L**	100	09-Sep-2021 20:48

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: TB090221
Collection Date: 02-Sep-2021 09:15

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-08
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 07:32
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 07:32
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:32
Surr: 1,2-Dichloroethane-d4	*116*			*70-126*	*%REC*	*1*	*08-Sep-2021 07:32*
Surr: 4-Bromofluorobenzene	*98.7*			*81-113*	*%REC*	*1*	*08-Sep-2021 07:32*
Surr: Dibromofluoromethane	*114*			*77-123*	*%REC*	*1*	*08-Sep-2021 07:32*
Surr: Toluene-d8	*101*			*82-127*	*%REC*	*1*	*08-Sep-2021 07:32*

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Sample ID: FB090221
Collection Date: 02-Sep-2021 15:00

ANALYTICAL REPORT
WorkOrder:HS21090157
Lab ID:HS21090157-09
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 07:10
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	08-Sep-2021 07:10
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	08-Sep-2021 07:10
Surr: 1,2-Dichloroethane-d4	*116*			*70-126*	*%REC*	*1*	*08-Sep-2021 07:10*
Surr: 4-Bromofluorobenzene	*96.8*			*81-113*	*%REC*	*1*	*08-Sep-2021 07:10*
Surr: Dibromofluoromethane	*111*			*77-123*	*%REC*	*1*	*08-Sep-2021 07:10*
Surr: Toluene-d8	*103*			*82-127*	*%REC*	*1*	*08-Sep-2021 07:10*

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

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R390802 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS21090157-01	NWCBMW040GW211	02 Sep 2021 09:15			03 Sep 2021 20:18	1
HS21090157-02	NWCBMW039GW211	02 Sep 2021 10:25			03 Sep 2021 20:24	1
HS21090157-03	NWCBMW038GW211	02 Sep 2021 10:45			03 Sep 2021 20:32	1
HS21090157-04	NWCBMW035GW211	02 Sep 2021 11:00			03 Sep 2021 20:38	1
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			03 Sep 2021 20:45	1
HS21090157-06	NWCBMW025GW211	02 Sep 2021 13:45			03 Sep 2021 20:52	1
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			03 Sep 2021 21:15	1
Batch ID: R390895 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Water	
HS21090157-01	NWCBMW040GW211	02 Sep 2021 09:15			07 Sep 2021 12:43	1
HS21090157-02	NWCBMW039GW211	02 Sep 2021 10:25			07 Sep 2021 12:59	1
HS21090157-03	NWCBMW038GW211	02 Sep 2021 10:45			07 Sep 2021 13:06	1
HS21090157-04	NWCBMW035GW211	02 Sep 2021 11:00			07 Sep 2021 13:21	1
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			07 Sep 2021 13:29	1
HS21090157-06	NWCBMW025GW211	02 Sep 2021 13:45			07 Sep 2021 13:50	1
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			07 Sep 2021 14:08	1
Batch ID: R390931 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS21090157-01	NWCBMW040GW211	02 Sep 2021 09:15			08 Sep 2021 01:25	1
HS21090157-02	NWCBMW039GW211	02 Sep 2021 10:25			08 Sep 2021 01:46	1
HS21090157-03	NWCBMW038GW211	02 Sep 2021 10:45			08 Sep 2021 00:02	1
HS21090157-04	NWCBMW035GW211	02 Sep 2021 11:00			08 Sep 2021 02:07	1
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			08 Sep 2021 02:28	1
HS21090157-06	NWCBMW025GW211	02 Sep 2021 13:45			08 Sep 2021 02:49	1
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			08 Sep 2021 03:10	1
Batch ID: R390937 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS21090157-08	TB090221	02 Sep 2021 09:15			08 Sep 2021 07:32	1
HS21090157-09	FB090221	02 Sep 2021 15:00			08 Sep 2021 07:10	1
Batch ID: R391066 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21090157-01	NWCBMW040GW211	02 Sep 2021 09:15			09 Sep 2021 19:26	10
HS21090157-02	NWCBMW039GW211	02 Sep 2021 10:25			09 Sep 2021 19:33	100
HS21090157-04	NWCBMW035GW211	02 Sep 2021 11:00			09 Sep 2021 20:33	100
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			09 Sep 2021 20:40	100
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			09 Sep 2021 20:48	100
Batch ID: R391087 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			09 Sep 2021 15:45	20
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			09 Sep 2021 16:08	25

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R391138 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21090157-01	NWCBMW040GW211	02 Sep 2021 09:15			03 Sep 2021 19:39	1
HS21090157-02	NWCBMW039GW211	02 Sep 2021 10:25			03 Sep 2021 20:02	1
HS21090157-03	NWCBMW038GW211	02 Sep 2021 10:45			03 Sep 2021 20:16	1
HS21090157-04	NWCBMW035GW211	02 Sep 2021 11:00			03 Sep 2021 20:24	1
HS21090157-05	NWCBMW027GW211	02 Sep 2021 13:10			03 Sep 2021 20:53	1
HS21090157-06	NWCBMW025GW211	02 Sep 2021 13:45			03 Sep 2021 21:15	10
HS21090157-06	NWCBMW025GW211	02 Sep 2021 13:45			03 Sep 2021 21:08	1
HS21090157-07	NWCBMW036GW211	02 Sep 2021 14:25			03 Sep 2021 21:23	1

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390895 (0) **Instrument: FID-4** **Method: DISSOLVED GASES BY RSK-175**

MBLK Sample ID: **MBLK-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 09:57**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259784** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	< 0.144	1.00								
Ethene	< 0.234	1.00								

LCS Sample ID: **LCS-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 10:06**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259815** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.17	1.00	18.04	0	101	75 - 125				
Ethene	13.35	1.00	16.8	0	79.4	75 - 125				

LCSD Sample ID: **LCSD-210907** Units: **ug/L** Analysis Date: **07-Sep-2021 10:14**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259786** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.7	1.00	18.04	0	104	75 - 125	18.17	2.9	30	
Ethene	16.22	1.00	16.8	0	96.5	75 - 125	13.35	19.4	30	

DUP Sample ID: **HS21081403-11DUP** Units: **ug/L** Analysis Date: **07-Sep-2021 14:16**
Client ID: Run ID: **FID-4_390895** SeqNo: **6259807** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	< 0.144	1.00					0	0	30	
Ethene	1.229	1.00					0.5736	72.7	30	R

The following samples were analyzed in this batch: HS21090157-01 HS21090157-02 HS21090157-03 HS21090157-04 HS21090157-05 HS21090157-06 HS21090157-07

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390931 (0) **Instrument: VOA7** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-210907** Units: **mg/L** Analysis Date: **07-Sep-2021 22:17**
Client ID: Run ID: **VOA7_390931** SeqNo: **6260681** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	< 0.00020	0.0010								
1,1,2-Trichloroethane	< 0.00030	0.0010								
1,1-Dichloroethane	< 0.00020	0.0010								
1,1-Dichloroethene	< 0.00020	0.0010								
1,2-Dichloroethane	< 0.00020	0.0010								
cis-1,2-Dichloroethene	< 0.00020	0.0010								
Tetrachloroethene	< 0.00030	0.0010								
trans-1,2-Dichloroethene	< 0.00020	0.0010								
Trichloroethene	< 0.00020	0.0010								
Vinyl chloride	< 0.00020	0.0010								
Surr: 1,2-Dichloroethane-d4	*0.049*	*0.0010*	*0.05*	*0*	*98.1*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.045*	*0.0010*	*0.05*	*0*	*89.8*	*82 - 115*				
Surr: Dibromofluoromethane	*0.047*	*0.0010*	*0.05*	*0*	*94.7*	*73 - 126*				
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*101*	*81 - 120*				

LCS Sample ID: **VLCSW-210907** Units: **mg/L** Analysis Date: **07-Sep-2021 21:35**
Client ID: Run ID: **VOA7_390931** SeqNo: **6260680** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.019	0.0010	0.02	0	96.2	70 - 130				
1,1,2-Trichloroethane	0.018	0.0010	0.02	0	91.8	77 - 113				
1,1-Dichloroethane	0.019	0.0010	0.02	0	94.6	71 - 122				
1,1-Dichloroethene	0.021	0.0010	0.02	0	106	70 - 130				
1,2-Dichloroethane	0.019	0.0010	0.02	0	94.3	70 - 124				
cis-1,2-Dichloroethene	0.019	0.0010	0.02	0	95.3	75 - 122				
Tetrachloroethene	0.018	0.0010	0.02	0	92.4	76 - 119				
trans-1,2-Dichloroethene	0.020	0.0010	0.02	0	99.4	72 - 127				
Trichloroethene	0.019	0.0010	0.02	0	96.7	77 - 121				
Vinyl chloride	0.022	0.0010	0.02	0	110	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.050*	*0.0010*	*0.05*	*0*	*101*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.051*	*0.0010*	*0.05*	*0*	*102*	*82 - 115*				
Surr: Dibromofluoromethane	*0.050*	*0.0010*	*0.05*	*0*	*101*	*73 - 126*				
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*98.3*	*81 - 120*				

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390931 (0) **Instrument: VOA7** **Method: LOW LEVEL VOLATILES BY SW8260C**

MS Sample ID: **HS21090157-03MS** Units: **mg/L** Analysis Date: **08-Sep-2021 00:23**
Client ID: **NWCBMW038GW211** Run ID: **VOA7_390931** SeqNo: **6260734** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.017	0.0010	0.02	0	84.5	70 - 130				
1,1,2-Trichloroethane	0.015	0.0010	0.02	0	77.3	70 - 117				
1,1-Dichloroethane	0.017	0.0010	0.02	0	84.8	70 - 127				
1,1-Dichloroethene	0.026	0.0010	0.02	0	129	70 - 130				
1,2-Dichloroethane	0.015	0.0010	0.02	0	75.2	70 - 127				
cis-1,2-Dichloroethene	0.018	0.0010	0.02	0.001101	85.1	70 - 128				
Tetrachloroethene	0.044	0.0010	0.02	0.02452	96.9	70 - 130				
trans-1,2-Dichloroethene	0.019	0.0010	0.02	0.0004056	90.8	70 - 130				
Trichloroethene	0.019	0.0010	0.02	0.002396	83.4	70 - 129				
Vinyl chloride	0.025	0.0010	0.02	0	126	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.047*	*0.0010*	*0.05*	*0*	*94.7*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*0.048*	*0.0010*	*0.05*	*0*	*95.2*	*81 - 113*				
Surr: Dibromofluoromethane	*0.049*	*0.0010*	*0.05*	*0*	*97.5*	*77 - 123*				
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*98.3*	*82 - 127*				

MSD Sample ID: **HS21090157-03MSD** Units: **mg/L** Analysis Date: **08-Sep-2021 00:44**
Client ID: **NWCBMW038GW211** Run ID: **VOA7_390931** SeqNo: **6260735** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.016	0.0010	0.02	0	81.0	70 - 130	0.01689	4.2	20	
1,1,2-Trichloroethane	0.016	0.0010	0.02	0	79.7	70 - 117	0.01546	3.01	20	
1,1-Dichloroethane	0.016	0.0010	0.02	0	81.0	70 - 127	0.01697	4.6	20	
1,1-Dichloroethene	0.024	0.0010	0.02	0	119	70 - 130	0.02570	7.85	20	
1,2-Dichloroethane	0.015	0.0010	0.02	0	75.2	70 - 127	0.01505	0.0281	20	
cis-1,2-Dichloroethene	0.017	0.0010	0.02	0.001101	80.5	70 - 128	0.01812	5.13	20	
Tetrachloroethene	0.043	0.0010	0.02	0.02452	91.2	70 - 130	0.04390	2.62	20	
trans-1,2-Dichloroethene	0.017	0.0010	0.02	0.0004056	85.1	70 - 130	0.01856	6.3	20	
Trichloroethene	0.019	0.0010	0.02	0.002396	82.1	70 - 129	0.01908	1.36	20	
Vinyl chloride	0.024	0.0010	0.02	0	118	70 - 130	0.02510	6.54	20	
Surr: 1,2-Dichloroethane-d4	*0.048*	*0.0010*	*0.05*	*0*	*96.6*	*70 - 126*	*0.04737*	*1.92*	*20*	
Surr: 4-Bromofluorobenzene	*0.049*	*0.0010*	*0.05*	*0*	*97.4*	*81 - 113*	*0.04760*	*2.25*	*20*	
Surr: Dibromofluoromethane	*0.049*	*0.0010*	*0.05*	*0*	*98.8*	*77 - 123*	*0.04877*	*1.3*	*20*	
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*99.3*	*82 - 127*	*0.04914*	*1.04*	*20*	

The following samples were analyzed in this batch: HS21090157-01 HS21090157-02 HS21090157-03 HS21090157-04 HS21090157-05 HS21090157-06 HS21090157-07

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390937 (0) **Instrument: VOA4** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-210907** Units: **mg/L** Analysis Date: **08-Sep-2021 06:48**
Client ID: Run ID: **VOA4_390937** SeqNo: **6260858** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	< 0.00020	0.0010								
1,1,2-Trichloroethane	< 0.00030	0.0010								
1,1-Dichloroethane	< 0.00020	0.0010								
1,1-Dichloroethene	< 0.00020	0.0010								
1,2-Dichloroethane	< 0.00020	0.0010								
cis-1,2-Dichloroethene	< 0.00020	0.0010								
Tetrachloroethene	< 0.00030	0.0010								
trans-1,2-Dichloroethene	< 0.00020	0.0010								
Trichloroethene	< 0.00020	0.0010								
Vinyl chloride	< 0.00020	0.0010								
Surr: 1,2-Dichloroethane-d4	*0.061*	*0.0010*	*0.05*	*0*	*122*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.049*	*0.0010*	*0.05*	*0*	*98.8*	*82 - 115*				
Surr: Dibromofluoromethane	*0.054*	*0.0010*	*0.05*	*0*	*108*	*73 - 126*				
Surr: Toluene-d8	*0.052*	*0.0010*	*0.05*	*0*	*103*	*81 - 120*				

LCS Sample ID: **VLCSW-210907** Units: **mg/L** Analysis Date: **08-Sep-2021 06:03**
Client ID: Run ID: **VOA4_390937** SeqNo: **6260857** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.023	0.0010	0.02	0	113	70 - 130				
1,1,2-Trichloroethane	0.019	0.0010	0.02	0	96.8	77 - 113				
1,1-Dichloroethane	0.022	0.0010	0.02	0	108	71 - 122				
1,1-Dichloroethene	0.023	0.0010	0.02	0	115	70 - 130				
1,2-Dichloroethane	0.024	0.0010	0.02	0	121	70 - 124				
cis-1,2-Dichloroethene	0.022	0.0010	0.02	0	112	75 - 122				
Tetrachloroethene	0.019	0.0010	0.02	0	96.7	76 - 119				
trans-1,2-Dichloroethene	0.021	0.0010	0.02	0	104	72 - 127				
Trichloroethene	0.022	0.0010	0.02	0	111	77 - 121				
Vinyl chloride	0.022	0.0010	0.02	0	108	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.055*	*0.0010*	*0.05*	*0*	*110*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.052*	*0.0010*	*0.05*	*0*	*104*	*82 - 115*				
Surr: Dibromofluoromethane	*0.055*	*0.0010*	*0.05*	*0*	*111*	*73 - 126*				
Surr: Toluene-d8	*0.053*	*0.0010*	*0.05*	*0*	*106*	*81 - 120*				

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390937 (0) **Instrument: VOA4** **Method: LOW LEVEL VOLATILES BY SW8260C**

MS Sample ID: **HS21090021-10MS** Units: **mg/L** Analysis Date: **08-Sep-2021 11:36**
Client ID: Run ID: **VOA4_390937** SeqNo: **6261207** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.021	0.0010	0.02	0	105	70 - 130				
1,1,2-Trichloroethane	0.019	0.0010	0.02	0	93.6	70 - 117				
1,1-Dichloroethane	0.019	0.0010	0.02	0	96.0	70 - 127				
1,1-Dichloroethene	0.020	0.0010	0.02	0	98.4	70 - 130				
1,2-Dichloroethane	0.021	0.0010	0.02	0	107	70 - 127				
cis-1,2-Dichloroethene	0.020	0.0010	0.02	0	102	70 - 128				
Tetrachloroethene	0.020	0.0010	0.02	0	97.5	70 - 130				
trans-1,2-Dichloroethene	0.019	0.0010	0.02	0	93.1	70 - 130				
Trichloroethene	0.023	0.0010	0.02	0.004466	93.9	70 - 129				
Vinyl chloride	0.019	0.0010	0.02	0	96.7	70 - 130				
Surr: 1,2-Dichloroethane-d4	*0.054*	*0.0010*	*0.05*	*0*	*108*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*0.052*	*0.0010*	*0.05*	*0*	*104*	*81 - 113*				
Surr: Dibromofluoromethane	*0.053*	*0.0010*	*0.05*	*0*	*105*	*77 - 123*				
Surr: Toluene-d8	*0.052*	*0.0010*	*0.05*	*0*	*104*	*82 - 127*				

MSD Sample ID: **HS21090021-10MSD** Units: **mg/L** Analysis Date: **08-Sep-2021 11:58**
Client ID: Run ID: **VOA4_390937** SeqNo: **6261208** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1-Trichloroethane	0.021	0.0010	0.02	0	106	70 - 130	0.02105	0.982	20	
1,1,2-Trichloroethane	0.018	0.0010	0.02	0	87.6	70 - 117	0.01872	6.6	20	
1,1-Dichloroethane	0.021	0.0010	0.02	0	103	70 - 127	0.01921	6.95	20	
1,1-Dichloroethene	0.020	0.0010	0.02	0	98.0	70 - 130	0.01968	0.421	20	
1,2-Dichloroethane	0.022	0.0010	0.02	0	110	70 - 127	0.02133	2.74	20	
cis-1,2-Dichloroethene	0.021	0.0010	0.02	0	104	70 - 128	0.02050	1.07	20	
Tetrachloroethene	0.019	0.0010	0.02	0	94.8	70 - 130	0.01951	2.81	20	
trans-1,2-Dichloroethene	0.019	0.0010	0.02	0	95.1	70 - 130	0.01861	2.18	20	
Trichloroethene	0.022	0.0010	0.02	0.004466	88.9	70 - 129	0.02324	4.36	20	
Vinyl chloride	0.018	0.0010	0.02	0	91.4	70 - 130	0.01935	5.68	20	
Surr: 1,2-Dichloroethane-d4	*0.053*	*0.0010*	*0.05*	*0*	*106*	*70 - 126*	*0.05379*	*1.18*	*20*	
Surr: 4-Bromofluorobenzene	*0.052*	*0.0010*	*0.05*	*0*	*103*	*81 - 113*	*0.05189*	*0.335*	*20*	
Surr: Dibromofluoromethane	*0.052*	*0.0010*	*0.05*	*0*	*104*	*77 - 123*	*0.05258*	*1.57*	*20*	
Surr: Toluene-d8	*0.051*	*0.0010*	*0.05*	*0*	*103*	*82 - 127*	*0.05203*	*1.05*	*20*	

The following samples were analyzed in this batch: HS21090157-08 HS21090157-09

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R391087 (0) **Instrument: VOA7** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-210909** Units: **mg/L** Analysis Date: **09-Sep-2021 09:52**
Client ID: Run ID: **VOA7_391087** SeqNo: **6264348** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	< 0.00020	0.0010								
Tetrachloroethene	< 0.00030	0.0010								
Trichloroethene	< 0.00020	0.0010								
Surr: 1,2-Dichloroethane-d4	*0.045*	*0.0010*	*0.05*	*0*	*90.3*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.046*	*0.0010*	*0.05*	*0*	*92.9*	*82 - 115*				
Surr: Dibromofluoromethane	*0.047*	*0.0010*	*0.05*	*0*	*93.2*	*73 - 126*				
Surr: Toluene-d8	*0.050*	*0.0010*	*0.05*	*0*	*100*	*81 - 120*				

LCS Sample ID: **VLCSW-210909** Units: **mg/L** Analysis Date: **09-Sep-2021 09:11**
Client ID: Run ID: **VOA7_391087** SeqNo: **6264347** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	0.019	0.0010	0.02	0	96.3	75 - 122				
Tetrachloroethene	0.020	0.0010	0.02	0	99.8	76 - 119				
Trichloroethene	0.020	0.0010	0.02	0	98.8	77 - 121				
Surr: 1,2-Dichloroethane-d4	*0.048*	*0.0010*	*0.05*	*0*	*96.5*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*99.1*	*82 - 115*				
Surr: Dibromofluoromethane	*0.050*	*0.0010*	*0.05*	*0*	*99.1*	*73 - 126*				
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*97.3*	*81 - 120*				

MS Sample ID: **HS21081622-02MS** Units: **mg/L** Analysis Date: **09-Sep-2021 10:55**
Client ID: Run ID: **VOA7_391087** SeqNo: **6264351** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	0.017	0.0010	0.02	0	85.6	70 - 128				
Tetrachloroethene	0.019	0.0010	0.02	0	97.3	70 - 130				
Trichloroethene	0.019	0.0010	0.02	0	95.7	70 - 129				
Surr: 1,2-Dichloroethane-d4	*0.048*	*0.0010*	*0.05*	*0*	*95.8*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*99.6*	*81 - 113*				
Surr: Dibromofluoromethane	*0.048*	*0.0010*	*0.05*	*0*	*96.8*	*77 - 123*				
Surr: Toluene-d8	*0.049*	*0.0010*	*0.05*	*0*	*97.9*	*82 - 127*				

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R391087 (0) **Instrument: VOA7** **Method: LOW LEVEL VOLATILES BY SW8260C**

MSD Sample ID: **HS21081622-02MSD** Units: **mg/L** Analysis Date: **09-Sep-2021 11:16**
Client ID: Run ID: **VOA7_391087** SeqNo: **6264352** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	0.017	0.0010	0.02	0	84.8	70 - 128	0.01711	0.847	20	
Tetrachloroethene	0.018	0.0010	0.02	0	92.5	70 - 130	0.01946	5.07	20	
Trichloroethene	0.018	0.0010	0.02	0	90.7	70 - 129	0.01913	5.34	20	
Surr: 1,2-Dichloroethane-d4	*0.049*	*0.0010*	*0.05*	*0*	*97.8*	*70 - 126*	*0.04788*	*2.07*	*20*	
Surr: 4-Bromofluorobenzene	*0.050*	*0.0010*	*0.05*	*0*	*100*	*81 - 113*	*0.04981*	*0.391*	*20*	
Surr: Dibromofluoromethane	*0.048*	*0.0010*	*0.05*	*0*	*96.3*	*77 - 123*	*0.04839*	*0.481*	*20*	
Surr: Toluene-d8	*0.048*	*0.0010*	*0.05*	*0*	*95.7*	*82 - 127*	*0.04896*	*2.35*	*20*	

The following samples were analyzed in this batch: HS21090157-05 HS21090157-07

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R390802 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:40**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258047** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	< 5.00	5.00								

LCS Sample ID: **LCS1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:49**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258048** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1021	5.00	1000	0	102	85 - 115				

LCSD Sample ID: **LCSD1-210903** Units: **mg/L** Analysis Date: **03-Sep-2021 18:57**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258049** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1018	5.00	1000	0	102	85 - 115	1021	0.22	20	

DUP Sample ID: **HS21090065-01DUP** Units: **mg/L** Analysis Date: **03-Sep-2021 19:11**
Client ID: Run ID: **ManTech01_390802** SeqNo: **6258051** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	207.4	5.00					189	9.29	20	

The following samples were analyzed in this batch:

HS21090157-01	HS21090157-02	HS21090157-03	HS21090157-04
HS21090157-05	HS21090157-06	HS21090157-07	

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R391066 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **09-Sep-2021 09:08**
Client ID: Run ID: **ICS-Integrion_391066** SeqNo: **6263731** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **09-Sep-2021 09:15**
Client ID: Run ID: **ICS-Integrion_391066** SeqNo: **6263732** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	19.73	0.500	20	0	98.6	80 - 120				

MS Sample ID: **HS21081283-04MS** Units: **mg/L** Analysis Date: **09-Sep-2021 10:59**
Client ID: Run ID: **ICS-Integrion_391066** SeqNo: **6263739** PrepDate: DF: **500**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	9064	250	5000	3969	102	80 - 120				

MSD Sample ID: **HS21081283-04MSD** Units: **mg/L** Analysis Date: **09-Sep-2021 11:07**
Client ID: Run ID: **ICS-Integrion_391066** SeqNo: **6263740** PrepDate: DF: **500**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	9257	250	5000	3969	106	80 - 120	9064	2.11	20	

The following samples were analyzed in this batch: HS21090157-01 HS21090157-02 HS21090157-04 HS21090157-05 HS21090157-07

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: HS21090157

QC BATCH REPORT

Batch ID: R391138 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **03-Sep-2021 19:25**
Client ID: Run ID: **ICS-Integrion_391138** SeqNo: **6265455** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	< 0.0300	0.100								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **03-Sep-2021 19:32**
Client ID: Run ID: **ICS-Integrion_391138** SeqNo: **6265456** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.839	0.100	4	0	96.0	80 - 120				
Sulfate	20.45	0.500	20	0	102	80 - 120				

MS Sample ID: **HS21090157-01MS** Units: **mg/L** Analysis Date: **03-Sep-2021 19:47**
Client ID: **NWCBMW040GW211** Run ID: **ICS-Integrion_391138** SeqNo: **6265458** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	1.874	0.100	2	0.0125	93.1	80 - 120				
Sulfate	123.3	0.500	10	112.3	110	80 - 120				EO

MSD Sample ID: **HS21090157-01MSD** Units: **mg/L** Analysis Date: **03-Sep-2021 19:54**
Client ID: **NWCBMW040GW211** Run ID: **ICS-Integrion_391138** SeqNo: **6265459** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	1.859	0.100	2	0.0125	92.3	80 - 120	1.874	0.809	20	
Sulfate	120.4	0.500	10	112.3	81.4	80 - 120	123.3	2.35	20	EO

The following samples were analyzed in this batch:

HS21090157-01	HS21090157-02	HS21090157-03	HS21090157-04
HS21090157-05	HS21090157-06	HS21090157-07	

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
WorkOrder: **HS21090157**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

Client: Dallas/Fort Worth International Airport
Project: NW Cargo AOC C5
Work Order: HS21090157

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21090157-01	NWCBMW040GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-01	NWCBMW040GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-01	NWCBMW040GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-02	NWCBMW039GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-02	NWCBMW039GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-02	NWCBMW039GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-03	NWCBMW038GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-03	NWCBMW038GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-03	NWCBMW038GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-04	NWCBMW035GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-04	NWCBMW035GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-04	NWCBMW035GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-05	NWCBMW027GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-05	NWCBMW027GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-05	NWCBMW027GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-06	NWCBMW025GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-06	NWCBMW025GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-06	NWCBMW025GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-07	NWCBMW036GW211	Login	9/3/2021 12:21:39 PM	JRM	WET168
HS21090157-07	NWCBMW036GW211	Login	9/3/2021 12:21:39 PM	JRM	VOA037
HS21090157-07	NWCBMW036GW211	Login	9/3/2021 12:21:39 PM	JRM	RSK002
HS21090157-08	TB090221	Login	9/3/2021 12:21:39 PM	JRM	VOA037

Sample Receipt Checklist

Work Order ID: HS21090157 **Date/Time Received:** **02-Sep-2021 16:10**

Client Name: DFW **Received by:** **Jared R. Makan**

Completed By: */S/ Paresh M. Giga* 03-Sep-2021 10:15 **Reviewed by:** */S/ Ragen Giga* 04-Sep-2021 13:48

eSignature Date/Time eSignature Date/Time

Matrices: **Water** Carrier name: **Greyhound**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	0.9°C UC/C	IR31
Cooler(s)/Kit(s):	47161	
Date/Time sample(s) sent to storage:	09/03/2021 10:15	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑

pH adjusted by:

Login Notes: Custody seals on sample containers too wet to salvage.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Chain-Of-Custody (Voluntary Cleanup Program - VCP)

DALLAS FORT WORTH INTERNATIONAL AIRPORT

ENVIRONMENTAL AFFAIRS DEPARTMENT
3003 SOUTH SERVICE RD., P.O. BOX 619428
DFW AIRPORT, TX 75261-9428
T 972 973 5560 F 972 973 5561

Turnaround Time:
Normal: 7 Days X

Comments:

Laboratory ID Number:

Note: *MS/MSD selected for VOCs only.

Attention: James Greer & Shannon Collins Phone No.: 9179666007

Project: NW Cargo AOC C5

Sampled By: James Greer Rick Rosales

Special Instructions: TRRP Package

Disposal: Dispose ☐ Return ☐ Pickup ☐ Hold ☐

Analysis(es) Requested (Required Method) & [Preservative]

SHORT HOLDING TIME

Sample ID	*MS/MSD	Collect Date	Collect Time	Sample Matrix	Grab	Composite	Container Types	TPH/Total Petroleum Hydrocarbons (1005) [H]	Benzene (8260C) [H]	Chlorinated VOC (8260C) [H]	1,4 Dioxane (8260C) [H]	SVOC (8270C)	Ethene/Ethane (AM20GAx) [T]	Nitrate (9056) [None]	Sulfate (9056) [None]	Alkalinity (SM2320B) [None]	Total RCRA Metals (6010B/7470A) [N]	Dissolved RCRA Metals (6010B/7470A) [None]	Total Arsenic (6010B) [N]	Dissolved Arsenic (6010B) [None]	Number of Containers	Turbidity Reading in NTUs (If Applicable)
NWC BMW040GW211		9/2/21	0915		X		P, V			X			X	X	X	X						7	
NWC BMW039GW211			1025		X		P, V			X			X	X	X	X						7	
NWC BMW038GW211	X		1045		X		P, V			X			X	X	X	X						13	
NWC BMW035GW211			1100		X		P, V			X			X	X	X	X						7	
NWC BMW027GW211			1310		X		P, V			X			X	X	X	X						7	
NWC BMW025GW211			1345		X		P, V			X			X	X	X	X						7	
NWC BMW036GW211			1425		X		P, V			X			X	X	X	X						7	
TB090221			0915		X		V			X												2	
EB090224			1500		X		V			X												3	

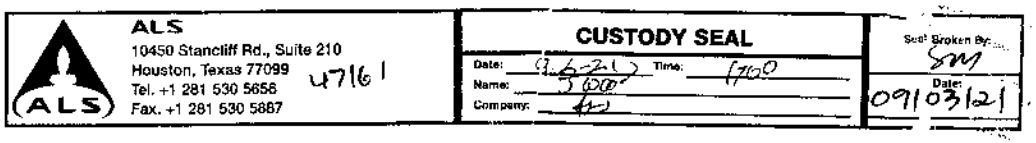
	Date	Time		Date	Time
Relinquished By (Signature):	9/2/21	1610	Received By (Signature):	9.2.21	1610
Relinquished By (Signature):	9-2-21		Received By (Signature):	9/3/21	1025
Relinquished By (Signature):			Received By (Signature):		

HS21090157

Dallas/Fort Worth International Airport
NW Cargo AOC C5

Preservative: [H] = Hydrochlo
[T] = Trisodium
Container: [A] = Amber Glass

Note Attachments if Any:



ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

47161

CUSTODY SEAL

Date: 9-2-21 Time: 1700
Name: JOE
Company: ALS

Seal Broken By: SM
Date: 09103121

47161

02SEP21 06:16P ** LABEL **

GLI 3089595234

Schd: GLO 7219

HOUSTON GPX, TX

ALS GLOBAL DALLAS
281-530-5656

47161

JM 09103121
10:15

ALS GLOBAL DALLAS
10450 STANCLIFF RD

HOUSTON, TX 77099
Phone: 281-530-5656

Manual Wght:
160.0
Tariff Wght:
160.0

PO/Ref #:
546327

GPX DIRECT (B)
Agency Phone: (713)759-6550

WWW.SHIPGREYHOUND.COM

APPENDIX 2.0
DISPOSITION OF DERIVED WASTE

2388

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: TXR000066217
2. Page 1 of: 1
3. Emergency Response Phone: (817) 709-9572
4. Manifest Tracking Number: 021557742 JJK

GENERATOR

5. Generator's Name and Mailing Address
Dallas/Fort Worth International Airport
3122 E 30th Street, PO Drawer 619428
DFW Airport TX 75261
Generator's Phone: (817) 709-9572

Generator's Site Address (if different than mailing address)
Dallas/Fort Worth International Airport
2426 E. Airfield Drive
DFW Airport TX 75261
Jared Black

6. Transporter 1 Company Name: Green Planet, Inc.
U.S. EPA ID Number: TXR000079479

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Itasca Landfill
2650 FM 66
Itasca TX 76055-
Facility's Phone: (254) 221-4443
U.S. EPA ID Number: TXR000084604

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
☐	1. Non-Hazardous According to 40CFR Non-Regulated material (Chilled Water)	08	DF	440	G	NHNI	1191	
☐	2. Non-Hazardous According to 40CFR Non-Regulated material (Cleaner, Liquid)	01	DM	30	G	NHNI	1191	
☐	3. Non-Hazardous According to 40CFR Non-Regulated material (Wastewater)	01	DF	05	G	NHNI	1191	
☐	4. Non-Hazardous According to 40CFR Non-Regulated material (Wastewater)	05	DF	25	G	NHNI	1191	

14. Special Handling Instructions and Additional Information
1. 5110 18 11104
2. 5110 18 11950
3. 5110 21 36159
4. 5110 21 34181
1.87
113
100, 11

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X Jared Black
Signature: X
Month: 11 Day: 17 Year: 21

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Francisco Valencia
Signature: Francisco Valencia
Month: 11 Day: 17 Year: 21

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

RECEIVED
JAN 06 2021
By

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132	H132	H132	H132

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Kim Woods
Signature:
Month: 12 Day: 1 Year: 21

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

SITE
ITASCA LANDFILL 254-687-2511
2559 FM 66-ITASCA, TX 76055

CUSTOMER 007030
GREEN PLANET, INC
6371 Highway 276 W
ROYCE CITY, TX 75189
Contract:51102136161
Generator:2388 - DALLAS FORT WORTH INTERNATIONAL A

SITE	TICKET #	CELL
01	379324	

WEIGHMASTER: KIMBERLY W.

DATE/TIME IN	DATE/TIME OUT
12/1/21 2:04 pm	12/1/21 2:04 pm

VEHICLE	CONTAINER
GREENP	5

REFERENCE: DFW AIRPORT
BILL OF LADING: 021557742JJK

MANUAL IN GROSS WEIGHT 32,793 NET TONS 0.11
TARE OUT TARE WEIGHT 32,579 NET WEIGHT 214

INBOUND
INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
5.00	YD	Tracking QTY				
0.11	tn	SW-SPECIAL Origin:C1 LIQUID,IN-STATE 100%				
		WASTE-LIQUID				
5.00	pa	SW-SPECIAL				
		WASTE-LIQUID				

I HEREBY CERTIFY THAT THIS LOAD DOES NOT CONTAIN UNAUTHORIZED OR HAZARDOUS WASTE.

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (04/19)

SIGNATURE _____

SITE
ITASCA LANDFILL 254-687-2511
2559 FM 66-ITASCA, TX 76055

CUSTOMER 007030
GREEN PLANET, INC
6371 Highway 276 W
ROYCE CITY, TX 75189
Contract:51101811104
Generator:DALLAS/FORT WORTH INTERNATIONAL AIRPORT

SITE	TICKET #	CELL
01	379320	

WEIGHMASTER: KIMBERLY W.

DATE/TIME IN	DATE/TIME OUT
12/1/21 2:01 pm	12/1/21 2:01 pm

VEHICLE	CONTAINER
GREENP	8

REFERENCE: DFW AIRPORT
BILL OF LADING: 021557742JJK

MANUAL IN GROSS WEIGHT 36,320 NET TONS 1.87
TARE OUT TARE WEIGHT 32,580 NET WEIGHT 3,740

INBOUND
INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
8.00	YD	Tracking QTY				
1.87	tn	SW-SPECIAL Origin:C1 LIQUID,IN-STATE 100%				
		WASTE-LIQUID				
8.00	dr	SW-SPECIAL				
		WASTE-LIQUID				

I HEREBY CERTIFY THAT THIS LOAD DOES NOT CONTAIN UNAUTHORIZED OR HAZARDOUS WASTE.

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (04/19)

SIGNATURE _____

SITE
ITASCA LANDFILL 254-687-2511
2559 FM 66-ITASCA, TX 76055

CUSTOMER 007030
GREEN PLANET, INC
6371 Highway 276 W
ROYCE CITY, TX 75189
Contract:51101811950
Generator:DALLAS/FORT WORTH INTERNATIONAL AIRPORT

SITE	TICKET #	CELL
01	379321	

WEIGHMASTER: KIMBERLY W.

DATE/TIME IN	DATE/TIME OUT
12/1/21 2:02 pm	12/1/21 2:02 pm

VEHICLE	CONTAINER
GREENP	1

REFERENCE: DFW AIRPORT
BILL OF LADING: 021557742JJK

MANUAL IN GROSS WEIGHT 32,835 NET TONS 0.13
TARE OUT TARE WEIGHT 32,579 NET WEIGHT 256

INBOUND
INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
1.00	YD	Tracking QTY				
0.13	tn	SW-SPECIAL WASTE-LIQUID Origin:C1 LIQUID,IN-STATE 100%				
1.00	pa	SW-SPECIAL WASTE-LIQUID				

I HEREBY CERTIFY THAT THIS LOAD DOES NOT CONTAIN UNAUTHORIZED OR HAZARDOUS WASTE.

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (04/19)

SIGNATURE _____

SITE
ITASCA LANDFILL 254-687-2511
2559 FM 66-ITASCA, TX 76055

CUSTOMER 007030
GREEN PLANET, INC
6371 Highway 276 W
ROYCE CITY, TX 75189
Contract:51102136159
Generator:2388 - DALLAS FORT WORTH INTERNATIONAL A

SITE	TICKET #	CELL
01	379322	

WEIGHMASTER: KIMBERLY W.

DATE/TIME IN	DATE/TIME OUT
12/1/21 2:03 pm	12/1/21 2:03 pm

VEHICLE	CONTAINER
GREENP	1

REFERENCE: DFW AIRPORT
BILL OF LADING: 021557742JJK

MANUAL IN GROSS WEIGHT 32,623 NET TONS 0.02
TARE OUT TARE WEIGHT 32,579 NET WEIGHT 44

INBOUND
INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
1.00	YD	Tracking QTY				
0.02	tn	SW-SPECIAL WASTE-LIQUID Origin:C1 LIQUID,IN-STATE 100%				
1.00	pa	SW-SPECIAL WASTE-LIQUID				

I HEREBY CERTIFY THAT THIS LOAD DOES NOT CONTAIN UNAUTHORIZED OR HAZARDOUS WASTE.

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (04/19)

SIGNATURE _____

2388

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: TXR000066217
2. Page 1 of: 1
3. Emergency Response Phone: (817) 709-9572
4. Manifest Tracking Number: 021557742 JJK

GENERATOR

5. Generator's Name and Mailing Address
Dallas/Fort Worth International Airport
3122 E 30th Street, PO Drawer 619428
DFW Airport TX 75261
Generator's Phone: Jared Black (817) 709-9572

Generator's Site Address (if different than mailing address)
Dallas/Fort Worth International Airport
2426 E. Airfield Drive
DFW Airport TX 75261

6. Transporter 1 Company Name: Green Planet, Inc.
U.S. EPA ID Number: TXR000079479

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Itasca Landfill
2569 FM 66
Itasca TX 76055- (254) 221-4443
Facility's Phone:
U.S. EPA ID Number: TXR000084604

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
☐	1. Non-Hazardous According to 40CFR Non-Regulated material (Chilled Water)	01	DF	440	G	NHNI	1191	
☐	2. Non-Hazardous According to 40CFR Non-Regulated material (Cleaner, Liquid)	01	DM	30	G	NHNI	1191	
☐	3. Non-Hazardous According to 40CFR Non-Regulated material (Wastewater)	01	DF	05	G	NHNI	1191	
☐	4. Non-Hazardous According to 40CFR Non-Regulated material (Wastewater)	05	DF	25	G	NHNI	1191	

14. Special Handling Instructions and Additional Information
1. 5110 18 11104
2. 5110 18 11950
3. 5110 21 36159
4. 5110 21 34161

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X Jared Black
Signature: X
Month: 11 Day: 17 Year: 21

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Francisco Valencia
Signature: Francisco Valencia
Month: 11 Day: 17 Year: 21

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132	H132	H132	H132

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

GENERATOR'S INITIAL COPY

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Work Order: HS21100454

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21100454-01	NWC-AOC C5-1	Liquid		07-Oct-2021 10:15	07-Oct-2021 15:00	☐
HS21100454-02	NWC-AOC C5-2	Liquid		07-Oct-2021 10:18	07-Oct-2021 15:00	☐
HS21100454-03	NWC-AOC B1	Liquid		07-Oct-2021 10:20	07-Oct-2021 15:00	☐
HS21100454-04	NEC-S-1	Liquid		07-Oct-2021 10:23	07-Oct-2021 15:00	☐
HS21100454-05	NEC-S-2	Liquid		07-Oct-2021 10:30	07-Oct-2021 15:00	☐
HS21100454-06	NEC-P-	Liquid		07-Oct-2021 10:35	07-Oct-2021 15:00	☐

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Work Order: HS21100454

CASE NARRATIVE

Work Order Comments

- NEC-S-1 - VOC 2nd & 3rd vials of 3 contains >6mm headspace

GC Semivolatiles by Method TX1005

Batch ID: 171213

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R393683

Sample ID: CCV

- 2-Hexanone and Methyl-tert-butyl ether are exceeded %D limits on CCV. Associated samples are ND for these analytes.

Sample ID: HS21100465-11MS

- MS and MSD are for an unrelated sample

Sample ID: NEC-S-1 (HS21100454-04)

- Lowest practical dilution due to foamy matrix.

Sample ID: VLCSW-211018

- Methyl-tert-butyl ether is exceeded %recovery limits on LCS. Associated samples are ND for this analyte.

Batch ID: R393580

Sample ID: HS21100511-10MS

- MS and MSD are for an unrelated sample

Batch ID: R393574

Sample ID: HS21100511-08MS

- MS and MSD are for an unrelated sample

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC C5-1
Collection Date: 07-Oct-2021 10:15

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-01
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
1,2,4-Trichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
1,2-Dibromo-3-chloropropane	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 00:44
1,2-Dibromoethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 00:44
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 00:44
2-Butanone	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 00:44
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 00:44
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	17-Oct-2021 00:44
Acetone	< 0.0020		0.0020	0.0020	mg/L	1	17-Oct-2021 00:44
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 00:44
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 00:44
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	17-Oct-2021 00:44
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 00:44
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Chloroform	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
cis-1,2-Dichloroethene	**0.0014**		**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 00:44
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	17-Oct-2021 00:44
Cyclohexane	< 0.00030	n	0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Dichlorodifluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Isopropylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 00:44
Methyl acetate	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 00:44
Methyl tert-butyl ether	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Methylcyclohexane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC C5-1
Collection Date: 07-Oct-2021 10:15

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-01
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 00:44
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Trichlorofluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 00:44
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 00:44
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*1*	*17-Oct-2021 00:44*
Surr: 4-Bromofluorobenzene	*95.3*			*81-113*	*%REC*	*1*	*17-Oct-2021 00:44*
Surr: Dibromofluoromethane	*99.5*			*77-123*	*%REC*	*1*	*17-Oct-2021 00:44*
Surr: Toluene-d8	*98.4*			*82-127*	*%REC*	*1*	*17-Oct-2021 00:44*

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC C5-2
Collection Date: 07-Oct-2021 10:18

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-02
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
1,2,4-Trichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
1,2-Dibromo-3-chloropropane	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 15:58
1,2-Dibromoethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 15:58
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 15:58
2-Butanone	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 15:58
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 15:58
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	17-Oct-2021 15:58
Acetone	< 0.0020		0.0020	0.0020	mg/L	1	17-Oct-2021 15:58
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 15:58
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 15:58
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	17-Oct-2021 15:58
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 15:58
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Chloroform	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
cis-1,2-Dichloroethene	**0.054**		**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 15:58
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	17-Oct-2021 15:58
Cyclohexane	< 0.00030	n	0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Dichlorodifluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Isopropylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 15:58
Methyl acetate	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 15:58
Methyl tert-butyl ether	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Methylcyclohexane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC C5-2
Collection Date: 07-Oct-2021 10:18

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-02
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 15:58
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Tetrachloroethene	**0.0014**		**0.00030**	**0.0010**	**mg/L**	1	17-Oct-2021 15:58
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Trichloroethene	**0.0015**		**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 15:58
Trichlorofluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 15:58
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 15:58
Surr: 1,2-Dichloroethane-d4	*104*			*70-126*	*%REC*	*1*	*17-Oct-2021 15:58*
Surr: 4-Bromofluorobenzene	*93.0*			*81-113*	*%REC*	*1*	*17-Oct-2021 15:58*
Surr: Dibromofluoromethane	*99.8*			*77-123*	*%REC*	*1*	*17-Oct-2021 15:58*
Surr: Toluene-d8	*97.7*			*82-127*	*%REC*	*1*	*17-Oct-2021 15:58*

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC B1
Collection Date: 07-Oct-2021 10:20

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-03
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
1,2,4-Trichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
1,2-Dibromo-3-chloropropane	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 16:20
1,2-Dibromoethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:20
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:20
2-Butanone	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 16:20
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 16:20
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	17-Oct-2021 16:20
Acetone	< 0.0020		0.0020	0.0020	mg/L	1	17-Oct-2021 16:20
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:20
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:20
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	17-Oct-2021 16:20
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:20
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Chloroform	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
cis-1,2-Dichloroethene	**0.0045**		**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 16:20
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	17-Oct-2021 16:20
Cyclohexane	< 0.00030	n	0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Dichlorodifluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Isopropylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 16:20
Methyl acetate	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 16:20
Methyl tert-butyl ether	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
Methylcyclohexane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NWC-AOC B1
Collection Date: 07-Oct-2021 10:20

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-03
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 16:20
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:20
Trichloroethene	**0.00050**	J	**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 16:20
Trichlorofluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Vinyl chloride	**0.00047**	J	**0.00020**	**0.0010**	**mg/L**	1	17-Oct-2021 16:20
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:20
Surr: 1,2-Dichloroethane-d4	*105*			*70-126*	*%REC*	*1*	*17-Oct-2021 16:20*
Surr: 4-Bromofluorobenzene	*93.1*			*81-113*	*%REC*	*1*	*17-Oct-2021 16:20*
Surr: Dibromofluoromethane	*101*			*77-123*	*%REC*	*1*	*17-Oct-2021 16:20*
Surr: Toluene-d8	*98.1*			*82-127*	*%REC*	*1*	*17-Oct-2021 16:20*

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NEC-S-1
Collection Date: 07-Oct-2021 10:23

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-04
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
1,1,2,2-Tetrachloroethane	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
1,1,2-Trichloroethane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
1,1-Dichloroethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
1,1-Dichloroethene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
1,2,4-Trichlorobenzene	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
1,2-Dibromo-3-chloropropane	< 0.050		0.050	0.050	mg/L	50	18-Oct-2021 10:36
1,2-Dibromoethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
1,2-Dichlorobenzene	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
1,2-Dichloroethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
1,2-Dichloropropane	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
1,3-Dichlorobenzene	< 0.020		0.020	0.050	mg/L	50	18-Oct-2021 10:36
1,4-Dichlorobenzene	< 0.020		0.020	0.050	mg/L	50	18-Oct-2021 10:36
2-Butanone	< 0.025		0.025	0.10	mg/L	50	18-Oct-2021 10:36
2-Hexanone	< 0.050		0.050	0.10	mg/L	50	18-Oct-2021 10:36
4-Methyl-2-pentanone	< 0.035		0.035	0.10	mg/L	50	18-Oct-2021 10:36
Acetone	< 0.10		0.10	0.10	mg/L	50	18-Oct-2021 10:36
Benzene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Bromodichloromethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Bromoform	< 0.020		0.020	0.050	mg/L	50	18-Oct-2021 10:36
Bromomethane	< 0.020		0.020	0.050	mg/L	50	18-Oct-2021 10:36
Carbon disulfide	< 0.030		0.030	0.10	mg/L	50	18-Oct-2021 10:36
Carbon tetrachloride	< 0.025		0.025	0.050	mg/L	50	18-Oct-2021 10:36
Chlorobenzene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Chloroethane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Chloroform	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Chloromethane	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
cis-1,2-Dichloroethene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
cis-1,3-Dichloropropene	< 0.0050		0.0050	0.050	mg/L	50	18-Oct-2021 10:36
Cyclohexane	< 0.015	n	0.015	0.050	mg/L	50	18-Oct-2021 10:36
Dibromochloromethane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Dichlorodifluoromethane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Ethylbenzene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Isopropylbenzene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
m,p-Xylene	< 0.025		0.025	0.10	mg/L	50	18-Oct-2021 10:36
Methyl acetate	< 0.050		0.050	0.050	mg/L	50	18-Oct-2021 10:36
Methyl tert-butyl ether	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Methylcyclohexane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NEC-S-1
Collection Date: 07-Oct-2021 10:23

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-04
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Methylene chloride	< 0.050		0.050	0.10	mg/L	50	18-Oct-2021 10:36
o-Xylene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Styrene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Tetrachloroethene	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Toluene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
trans-1,2-Dichloroethene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
trans-1,3-Dichloropropene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Trichloroethene	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Trichlorofluoromethane	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Vinyl chloride	< 0.010		0.010	0.050	mg/L	50	18-Oct-2021 10:36
Xylenes, Total	< 0.015		0.015	0.050	mg/L	50	18-Oct-2021 10:36
Surr: 1,2-Dichloroethane-d4	*105*			*70-126*	*%REC*	*50*	*18-Oct-2021 10:36*
Surr: 4-Bromofluorobenzene	*95.7*			*81-113*	*%REC*	*50*	*18-Oct-2021 10:36*
Surr: Dibromofluoromethane	*99.9*			*77-123*	*%REC*	*50*	*18-Oct-2021 10:36*
Surr: Toluene-d8	*99.1*			*82-127*	*%REC*	*50*	*18-Oct-2021 10:36*

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NEC-S-2
Collection Date: 07-Oct-2021 10:30

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-05
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
1,2,4-Trichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
1,2-Dibromo-3-chloropropane	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 16:42
1,2-Dibromoethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:42
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:42
2-Butanone	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 16:42
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 16:42
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	17-Oct-2021 16:42
Acetone	**0.053**		**0.0020**	**0.0020**	**mg/L**	1	17-Oct-2021 16:42
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:42
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	17-Oct-2021 16:42
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	17-Oct-2021 16:42
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	17-Oct-2021 16:42
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Chloroform	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	17-Oct-2021 16:42
Cyclohexane	< 0.00030	n	0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Dichlorodifluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Isopropylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 16:42
Methyl acetate	< 0.0010		0.0010	0.0010	mg/L	1	17-Oct-2021 16:42
Methyl tert-butyl ether	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Methylcyclohexane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NEC-S-2
Collection Date: 07-Oct-2021 10:30

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-05
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	17-Oct-2021 16:42
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Trichlorofluoromethane	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 16:42
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 16:42
Surr: 1,2-Dichloroethane-d4	*105*			*70-126*	*%REC*	*1*	*17-Oct-2021 16:42*
Surr: 4-Bromofluorobenzene	*93.8*			*81-113*	*%REC*	*1*	*17-Oct-2021 16:42*
Surr: Dibromofluoromethane	*98.4*			*77-123*	*%REC*	*1*	*17-Oct-2021 16:42*
Surr: Toluene-d8	*99.3*			*82-127*	*%REC*	*1*	*17-Oct-2021 16:42*

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

Client: Dallas/Fort Worth International Airport
Project: Waste Profiling - VCP
Sample ID: NEC-P-
Collection Date: 07-Oct-2021 10:35

ANALYTICAL REPORT
WorkOrder:HS21100454
Lab ID:HS21100454-06
Matrix:Liquid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**						Analyst: AKP
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 17:25
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 17:25
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	17-Oct-2021 17:25
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 17:25
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	17-Oct-2021 17:25
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	17-Oct-2021 17:25
Surr: 1,2-Dichloroethane-d4	*106*			*70-126*	*%REC*	*1*	*17-Oct-2021 17:25*
Surr: 4-Bromofluorobenzene	*97.1*			*81-113*	*%REC*	*1*	*17-Oct-2021 17:25*
Surr: Dibromofluoromethane	*101*			*77-123*	*%REC*	*1*	*17-Oct-2021 17:25*
Surr: Toluene-d8	*99.6*			*82-127*	*%REC*	*1*	*17-Oct-2021 17:25*
LOW-LEVEL TEXAS TPH BY TX1005	**Method:TX1005**				Prep:TX1005PR / 13-Oct-2021		Analyst: SAM
nC6 to nC12	< 0.20		0.20	0.49	mg/L	1	14-Oct-2021 00:56
>nC12 to nC28	< 0.20		0.20	0.49	mg/L	1	14-Oct-2021 00:56
>nC28 to nC35	< 0.20		0.20	0.49	mg/L	1	14-Oct-2021 00:56
Total Petroleum Hydrocarbon	< 0.20		0.20	0.49	mg/L	1	14-Oct-2021 00:56
Surr: 2-Fluorobiphenyl	*104*			*70-130*	*%REC*	*1*	*14-Oct-2021 00:56*
Surr: Trifluoromethyl benzene	*106*			*70-130*	*%REC*	*1*	*14-Oct-2021 00:56*

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

APPENDIX 3.0
CHRONOLOGY

Chronology of Abatement/Interim Measures, Previous Assessment or Response Activities

This section is a summary of documented abatement or previous assessment activities conducted at AOC C5.

Date(s) of Activity	Description of Activity	Summary of Sampling and Testing Conducted	Summary of Conclusions	Source
September 2021	11th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2021
September 2020	10th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2020
August 2019	9th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2019
July 2018	8th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2018
August 2017	7th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The laboratory analytical results are presented in this PRAC Report	DFW Airport, 2017
August 2016	6th PRAC sampling event conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2016

Date(s) of Activity	Description of Activity	Summary of Sampling and Testing Conducted	Summary of Conclusions	Source
October 2015	5th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this PRAC Report	DFW Airport, 2015
September 2014	4th PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the 2014 PRAC Report	DFW Airport, 2014
September 2013	3rd PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the 2014 PRAC Report	DFW Airport, 2013
October 2012	2nd PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the 2014 PRAC Report	DFW Airport, 2012
August 28, 2012	Response Action Completion Report (RACR) approved by TCEQ			TCEQ, 2012
March 2012	1st PRAC sampling event conducted in accordance with RAP	13 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the 2014 PRAC Report	DFW Airport, 2012
March 2012	Installation of AMP well NWCMW149		The boring log for this well is presented in the RACR	DFW Airport, 2012
October 2011	Fifth round of remedial sampling conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the RACR	DFW Airport, 2012

Date(s) of Activity	Description of Activity	Summary of Sampling and Testing Conducted	Summary of Conclusions	Source
March 2011	Fourth round of remedial sampling conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the RACR	DFW Airport, 2012
September 2010	Third round of remedial sampling conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the RACR	DFW Airport, 2012
March 2010	Second round of remedial sampling conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in the RACR	DFW Airport, 2012
February 1, 2010	Northwest Cargo Area APAR approved by TCEQ			TCEQ, 2010
November 16, 2009	Final Northwest Cargo Area APAR submitted by DFW	The investigation included the collection of 929 soil samples and 517 groundwater samples from 503 Geoprobe® and 195 permanent well locations.	A total of 15 AOCs were identified above the RAL. However, only 6 AOCs were identified above the AOC specific critical PCL within the Northwest Cargo Area. The COCs are VOCs, PSH, and TPH.	DFW Airport, 2009a
September 2009	First round of remedial sampling conducted in accordance with RAP	12 groundwater samples were collected from wells associated with AOC C5 and analyzed for VOCs and natural attenuation parameters	The analytical results are presented in this RACR	
July 2009	Installation of six additional AMP wells		The boring logs for this new well is presented in this RACR	
May 22, 2009	Final AOC C5 Response Action Plan approved by TCEQ			TCEQ, 2009

Date(s) of Activity	Description of Activity	Summary of Sampling and Testing Conducted	Summary of Conclusions	Source
March 20, 2009	Final AOC C5 Response Action Plan submitted by DFW		The RAP recommended Monitoring Natural Attenuation under Remedy Standard B as the remedy for the site.	DFW Airport, 2009b
January 2008	Third and final round of MNA groundwater sampling was conducted in preparation for the RAP	A total of 3 groundwater samples were collected from AOC C5 and analyzed for VOCs and natural attenuation parameters.	The analytical results were evaluated in the RAP.	DFW Airport, 2009b
October 2007	Second round of MNA groundwater sampling was conducted in preparation for the RAP	A total of 3 groundwater samples were collected from AOC C5 and analyzed for VOCs, natural attenuation parameters, RCRA 8 Metals.	The analytical results were evaluated in the RAP.	DFW Airport, 2009b
July 2007	First round of MNA groundwater sampling was conducted in preparation for the RAP	A total of 3 groundwater samples were collected from AOC C5 and analyzed for VOCs and natural attenuation parameters.	The analytical results were evaluated in the RAP.	DFW Airport, 2009b
June 2003 to August 2005	Northwest Cargo APAR Investigation at AOC C5	Installation and sampling of soil and groundwater at nine Geoprobe® and three monitoring well locations.	Identification of a groundwater plume with chlorinated COCs present above CPCLs at three monitoring well locations.	DFW Airport, 2009a
July 29, 2002	Northwest Cargo Area accepted into VCP by TCEQ			TCEQ, 2002
March 2002	Northwest Cargo Area VCP Application submitted by DFW			DFW Airport, 2002

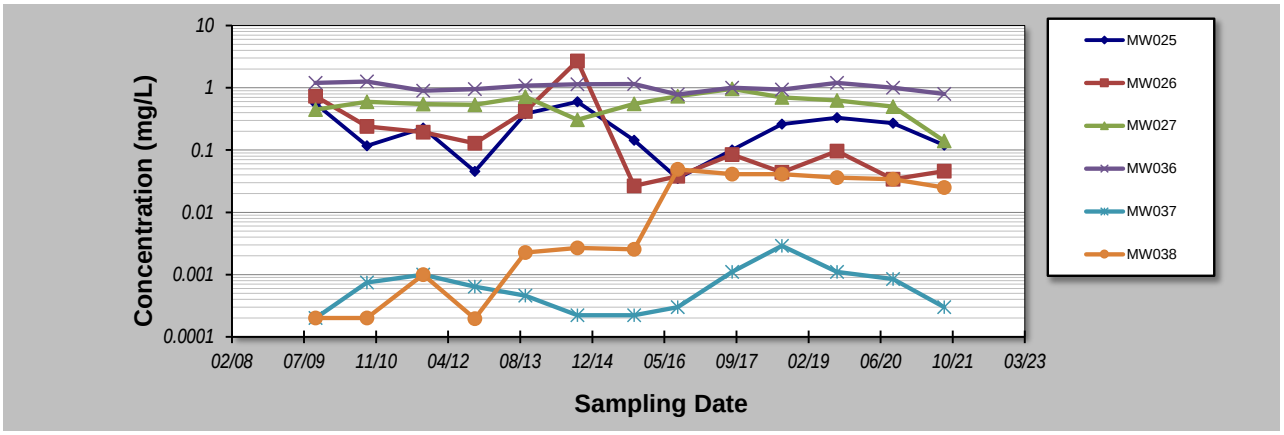
SUPPLEMENT 1.0
SUPPORTING CALCULATIONS

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 8-Jan-21
Facility Name: NW Cargo VCP AOC C5
Conducted By: James Greer

Job ID: 2020 RAER
Constituent: PCE
Concentration Units: mg/L

Sampling Point ID:	MW025	MW026	MW027	MW036	MW037	MW038
Sampling Event	Sampling Date	PCE CONCENTRATION (mg/L)					
1	24-Sep-09	0.555	0.732	0.445	1.2	0.0002	0.0002
2	15-Sep-10	0.117	0.24	0.596	1.26	0.000747	0.0002
3	11-Oct-11	0.226	0.193	0.546	0.894	0.001	0.001
4	2-Oct-12	0.0456	0.129	0.534	0.955	0.00064	0.000196
5	18-Sep-13	0.382	0.416	0.717	1.08	0.00046	0.00226
6	15-Sep-14	0.596	2.7	0.307	1.14	0.000223	0.00269
7	13-Oct-15	0.143	0.0266	0.551	1.15	0.000223	0.00255
8	10-Aug-16	0.035	0.038	0.73	0.78	0.0003	0.049
9	22-Aug-17	0.1	0.085	0.96	1	0.0011	0.041
10	3-Aug-18	0.26	0.044	0.7	0.94	0.0029	0.041
11	21-Aug-19	0.33	0.096	0.63	1.2	0.0011	0.036
12	12-Sep-20	0.27	0.034	0.5	1	0.00085	0.034
13	2-Sep-21	0.12	0.046	0.14	0.8	0.0003	0.025
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.74	1.98	0.36	0.15	0.94	1.08
Mann-Kendall Statistic (S):		-4	-34	2	-18	15	40
Confidence Factor:		57.1%	97.9%	52.4%	84.7%	79.9%	99.3%
Concentration Trend:		Stable	Decreasing	No Trend	Stable	No Trend	Increasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.