



ENSOLUM

GAS MITIGATION MONTHLY REPORT - NOVEMBER 2022

Property:

**South Hobbs G/SA Unit
Unit F, Section 5, Township 19S, Range 38E
Latitude 32.690683, Longitude -103.173158
Lea County, New Mexico**

**New Mexico EMNRD OCD
Order No. R-4934-F, Case No. 14981**

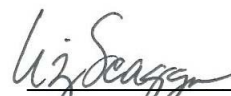
January 20, 2023

Prepared for:

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Principal



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GAS MITIGATION MONTHLY REPORT – NOVEMBER 2022

South Hobbs G/SA Unit Operations
Order No. R-4934-F, Case No. 14981
Unit F, Section 5, Township 19S, Range 38E
Latitude 32.690683, Longitude -103.173158
Lea County, New Mexico

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Occidental Permian LTD (OXY)
Site Name:	South Hobbs G/SA Unit Operations (Site)
Location:	Unit F, Section 5, Township 19 South, Range 38 East Latitude 32.690683, Longitude -103.173158 Lea County, New Mexico
Property Owner:	OXY
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) New Mexico Oil Conservation Division (NMOCD) Order No. R-4934-F Case No. 14981

This Gas Mitigation Monthly Report - November 2022 summarizes activities subsequent to the *Gas Mitigation Monthly Report - November 2021*, dated December 14, 2021, the *Gas Mitigation Monthly Report - December 2021*, dated January 20, 2022, the *Gas Mitigation Monthly Report - January 2022*, dated March 1, 2022, the *Gas Mitigation Monthly Report - February 2022*, dated March 24, 2022, the *Gas Mitigation Monthly Report - March 2022*, dated May 4, 2022, the *Gas Mitigation Monthly Report - April 2022*, dated July 11, 2022, the *Gas Mitigation Monthly Report - May 2022*, dated July 22, 2022 and the *Gas Mitigation Monthly Report - June 2022*, dated July 22, 2022, the *Gas Mitigation Monthly Report - July 2022*, dated September 1, 2022, the *Gas Mitigation Monthly Report - August 2022*, dated December 6, 2022, the *Gas Mitigation Monthly Report - September 2022*, dated December 6, 2022, and the *Gas Mitigation Monthly Report - October 2022*, dated January 20, 2023. All wells are located within operations that are part of the South Hobbs Grayburg/San Andres Unit (SHU) Field in the southwestern area of the City of Hobbs, Lea County, New Mexico. Collectively, the Levey water well (Levey Well) and the two monitoring wells (MW-1 and MW-2) are referred to as the "Site".

OXY has investigated groundwater and oil and gas operation well conditions in the area of the Site. A Site Map, which indicates the approximate locations of the Levey Well and monitoring wells MW-1 and MW-2 in relation to pertinent structures and general Site boundaries, is included as **Figure 1** in **Appendix A**.

South Hobbs G/SA Unit Operations
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January 20, 2023



On June 30, 2019, elevated pressure was observed at the Levey Well. At the request of the New Mexico Oil Conservation Division (NMOCD), localized area wells were “shut in” from operational use. Over time, the pressure being observed at the Levey Well declined until pressure was no longer recorded. Observations and water analysis of the Levey water well did identify free gas in the well bore; however, pressure from the underlying groundwater-bearing zone was no longer present. Operational data was analyzed as part of the area wide assessment and adjacent wells investigated as potential sources for the gas infiltration. During maintenance operations at SHU #183, located approximately 575 feet southwest of the Levey Well, the SHU #183 well string was pulled, and pressures measured for proof of casing integrity. During these operations, SHU #183 was found to have a casing leak, which is believed to be the source of the pressure observed at Levey well. In response, OXY plugged the SHU #183 well to surface. No other anomalies were observed in the adjacent area oil and gas wells. After SHU #183 was plugged, OXY drilled a nearby replacement well. This replacement well, designated as SHU #297, is currently operational and shows no concerns of free gas migration.

In February of 2020, permission was obtained from the NMOCD to drill two monitoring wells (MW-1 and MW-2) for analysis and observation purposes. Monitoring well MW-1 was installed in the vicinity of the Levey Well and monitoring well MW-2 was installed in the vicinity of SHU #183.

During initial pre-start up background sampling of the Levey Well, MW-1 and MW-2 on two separate events, May 25th and June 20th of 2020, gas with lower explosive limits (LEL's) at or over 60% were observed in the Levey Well and monitoring well MW-2. This finding was consistent with previous analysis and findings within the Levey Well and not an unexpected result as the previous contributions of gas from the SHU #183 had been sufficient to result in pressure at the surface through the Levey Well.

OXY's groundwater monitoring program included the collection of a groundwater sample from each monitoring well (MW-1 and MW-2). The monitoring wells were gauged and sampled on May 26, June 30, August 20, October 23, November 24, December 18, 2020, and weekly thereafter. The Levey Well has been sampled consistently from December 6, 2019, to November 30, 2022. The groundwater samples collected from the monitoring wells (MW-1 and MW-2) were analyzed for total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) utilizing Environmental Protection Agency (EPA) Method 8015M, volatile organic compounds (VOCs) utilizing EPA Method SW-846 #8260 (full list), carbon dioxide utilizing Standard Method 4500 CO₂ C, dissolved sulfide utilizing EPA Method SW-846 #376.2, chloride using EPA Method SW-846 #300.0 and pH utilizing EPA Method SW-846 #150.1. The groundwater samples collected from the Levey Well were analyzed for VOCs, recoverable metals per ICP by EPA 200.7, inorganic anions by EPA 300/300.1, pH by SM4500-H, total dissolved solids (TDS) by SM2540C, alkalinity by SM2320B and cation-anion balance by SM1030E.

During the November 2022 groundwater sampling event the groundwater samples did not exhibit constituent concentrations above New Mexico Water Quality Control Commission (WQCC) *Groundwater Quality Standards (GQSs)*, with the exception of benzene and TDS. Benzene concentrations ranged from 0.0125 milligrams per liter (mg/L) to 0.0163 mg/L in monitoring well MW-2. TDS analytical results ranged from 1,230 mg/L to 1,450 mg/L in the Levey Well. Although above the GQS, these TDS concentrations are consistent with background levels in the Quaternary Alluvium, Ogallala Formation, and the Dockum Group (i.e., the three groundwater bearing units) in Southern Lea County (Nicholson and Clebsch, 1961). The groundwater analytical summary tables are included in **Appendix B**.

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OXY utilized automated processes to compile and monitor dates related to the SHU localized wells to ensure tracking of production and injection activities as related to the re-start of these area operations. No anomalies were observed in the area oil and gas wells that could contribute free gas into the groundwater-bearing zone.

To mitigate potential exposures, the Levey residence was purchased by OXY and remains unoccupied. A passive vent was installed on the Levey Well to mitigate safety and explosivity concerns for the residential and work area. There has been no detectable build-up of pressure in the Levey Well or monitoring wells MW-1 and MW-2. Hydrogen sulfide (H₂S) has not been detected in any of the three aforementioned wells since July 15, 2020. All detections of H₂S prior to July 15, 2020 were within the well bore. No H₂S above permissible exposure limits was observed outside of the well bores.

OXY installed pressure reading charts at the Levey Well to measure the potential for any returning pressure at the well. These charts measure pressure 24 hours a day and show that no pressure has returned to the Levey Well. Monitoring wells MW-1 and MW-2 were physically monitored for the presence of gas and pressure on several dates from 7/1/2020 to 11/30/2022, with no pressure observed in either monitoring well. The pressure reading charts available for November 2022 are included in **Appendix D**.

The data indicates that pressure sourced from SHU #183 contributed to the infiltration of free gas into the red beds just beneath the groundwater-bearing zone, creating a pressurized pool of gas that traveled to the Levey Well. Once SHU #183 was plugged, the pressure source was removed from the red beds and overlying groundwater-bearing zone and the remaining free gases below remain pooling within the red bed underlying the groundwater-bearing zone. This is supported by the data described above and is consistent with findings reported in two reports, one co-authored and supplied by Lisa Molofsky of GSI Environmental Inc. The first is "Purging and other sampling variables affecting dissolved methane concentration in water supply wells", and the second "Factors affecting the variability of stray gas concentration and composition in groundwater" authored by A.W. Gorody, referenced below. The reports state:

As free-phase gas spreads vertically and/or laterally from a source of release, it can become trapped beneath low permeability sediments (e.g., the "red beds" which separate the overlying Ogallala aquifer from the underlying Santa Rosa). Irregularities in the base topography of these barriers can result in discretized pools of free-phase gas. In many ways, this trapping and accumulation of free-phase gases beneath impermeable units is analogous to the development of structural traps that form in conventional oil and gas reservoirs. This phenomenon can also be viewed as the conceptual inverse of a chlorinated solvent release (a dense NAPL, or "DNAPL") in which the dense liquid can migrate downward through the groundwater via available pathways, until encountering a resistant layer, where the dense liquid pools and accumulates.

In water supply wells, free-phase gas entry is most likely to occur when water levels are lowered in a well by pumping or drought, because this reduces the pressure head resisting gas entry from the formation into the well (Gorody 2012, Molofsky et al. 2018). This may allow free-phase gas to enter the well from one unit (e.g., red bed), while water is primarily originating from another (e.g., the Ogallala aquifer). When the two phases (free-phase gas from the red bed and groundwater from the Ogallala) mix in the water well, there is relatively little time for equilibration under pumping conditions; consequently, dissolved gas concentrations may be very low even though free-phase gas is observed in the well headspace.

These studies and OXY's related findings are that the remaining free gas beneath portions of the Site is pooled within the red beds and the overlying geologic pressure is such that it is confining the free gas. The free gas observed in the Levey Well and monitoring well MW-2 well bores are traveling through these conduits to near surface but lack the pressure to release from the subsurface as the additional pressure from SHU #183 has been eliminated. This coupled with the finding that there is little mixing of constituents of gases into the dissolved phase within the adjacent groundwater supports the understanding that the gases are remaining beneath the water interface and only traveling up to surface when the relative pressure allows it to do so, rather than mixing with the water source.

The data indicates that the current free gas in the subsurface has reached a point of equilibrium and, without influence, is stable. To mobilize the free gas, a pressure change was proposed to release the free gas pool from the subsurface red bed, as described below in Section 1.3.

1.2 Groundwater Recovery – Levey Well

As of July 1, 2021, the Levey Well has run full time and recovered groundwater is transferred via flowline to a nearby tank for proper disposal. The groundwater recovered from the Levey Well during November 1 - 30, 2022 was approximately 702,956 gallons. Due to a severe winter storm on February 2, 2022, the Levey well flowline pump was damaged. Replacement parts were ordered, the pump was repaired and has been active as of March 14, 2022.

1.3 Gas Recovery – Levey Well

OXY conducted one vacuum recovery event during the month of November 2022 with positive results as shown on **Table 4** in **Appendix B**. The purpose of this event was to attach a vacuum pump truck to the Levey Well, creating a vacuum on the wellbore, and displacing the underlying water releasing the overlying pressure restraining the free gas pool, and releasing it to the surface. This process will continue into December 2022 once every two weeks until the sampling results of the air is minimal after displacement of the overlying pressure, or the process proves to become ineffective.

2.0 AIR AND GROUNDWATER MONITORING

2.1 Air Sampling Program

Levey Well

The air sample from November 7, 2022, was taken prior to, during, and subsequent to the vacuum recovery event utilizing Summa[®] canisters. Upon arrival at the Site, the Levey Well is turned off and allowed to stabilize for approximately one hour. An air sample is taken after one hour of the Levey Well stabilization, prior to initiating the vacuum recovery event.

During the November 7, 2022, vacuum recovery event, the vacuum was applied to the Levey Well for a duration of approximately two hours. Approximately one hour and two hours into the event, an air sample was taken. The vacuum was then turned off and an additional air sample from the Levey Well was taken one hour subsequent to the vacuum recovery event. Water was not recovered during the vacuum recovery event.

The Summa[®] canisters were shipped under proper chain-of-custody to Pace Analytical Laboratory in Mount Juliet, TN for analysis of volatile organic compounds (VOCs) by Method TO-15. Laboratory analytical results are summarized in **Table 4** in **Appendix B**. The executed chain-of-custody forms and laboratory data sheets from the October 2022 sampling events are provided in **Appendix C**.

2.2 Groundwater Sampling Program

Groundwater sampling events were conducted each week on the Levey Well and monitoring wells MW-1 and MW-2. The groundwater sampling program followed the requirements from NMOCD and consists of the following:

Levey Well

As of July 1, 2021, the Levey water well ran full time until February 2, 2022. The Levey well recovered groundwater is transferred via flowline to a nearby tank battery for proper disposal. Prior to sample collection, the Levey Well is turned off and allowed to stabilize for approximately one hour prior to sampling. Once the Levey Well is properly purged and readings from the AquaTROLL 500 stabilize, a groundwater sample is collected.

As previously stated, due to a severe winter storm on February 2, 2022, the Levey well flowline pump was damaged. Replacement parts were ordered, the pump was repaired and is now active as of March 14, 2022.

The groundwater samples collected from the Levey Well were analyzed for VOCs, recoverable metals per ICP by EPA 200.7, inorganic anions by EPA 300/300.1, pH by SM4500-H, TDS by SM2540C, alkalinity by SM2320B and cation-anion balance by SM1030E.

Monitoring Wells MW-1 and MW-2

Prior to sample collection, the depth to fluids in each monitoring well (MW-1 and MW-2) are gauged using a water level meter capable of detecting groundwater up to 0.01 feet. Each monitoring well is then sampled utilizing micro-purge low-flow sampling techniques. Subsequent to the completion of the micro-purge process, one groundwater sample is collected from each monitoring well.

The groundwater samples collected from monitoring wells MW-1 and MW-2 were analyzed for TPH GRO, TPH DRO and ORO utilizing EPA Method 8015M, VOCs utilizing EPA Method SW-846 #8260, carbon dioxide utilizing Standard Method 4500, dissolved sulfide utilizing EPA Method SW-846 #376.2, chloride using EPA Method SW-846 300.0 and pH utilizing EPA Method SW-846 #150.1.

Low flow refers to the velocity with which groundwater enters the pump intake and is imparted to the formation water in the immediate vicinity of the well screen. The objective is to pump in a manner that minimizes stress (drawdown) to the system, to the extent practical, taking into account established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 liters per minute (l/min) will be maintained during sampling activities, using dedicated or decontaminated sampling equipment.

The groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements during purging are taken every three to five minutes. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three successive readings.

Groundwater samples were collected in laboratory supplied containers, labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Eurofins Xenco (formerly Xenco) of Midland, Texas under proper chain-of-custody procedures.

Laboratory analytical results are summarized in **Tables 1** through **Table 3** in **Appendix B**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix C**.

3.0 DATA EVALUTATION

3.1 Air Samples

Gas mitigation activities at the Levey Well began on November 8, 2021 and will continue on a bi-weekly basis through December 2022. Based on the concentrations observed in the Levey Well air samples, the vacuum recovery events are drawing the free gas over to the Levey Well. Prior to each vacuum recovery event, an air sample is taken to give a representative snapshot of static conditions of gas in the subsurface. Elevated concentrations of cyclohexane, heptane, n-hexane, 2-Butanone (MEK), 2-propanol, toluene, and/or TPH were observed prior to the initiation of each vacuum recovery event.

Once initiated, an air sample is taken at one hour and two hours into the vacuum recovery event. During each of the vacuum recovery events, cyclohexane, heptane, n-hexane, 2-propanol, 2-Butanone (MEK), toluene, and TPH concentrations significantly decrease throughout the duration of the event.

Approximately one hour after the termination of the vacuum recovery event, a final air sample is collected. Elevated concentrations of acetone, cyclohexane, ethanol, heptane, n-hexane, 2-Butanone (MEK), 2-propanol, toluene, and TPH begin to accumulate inside the Levey water well casing. These results indicate that the vacuum recovery events are successful in drawing the subsurface gas over to the Levey Well.

Air samples are also collected on a bi-weekly basis approximately one week subsequent to the vacuum recovery event. During each of the bi-weekly air sampling events, elevated concentrations of acetone, carbon disulfide, cyclohexane, ethanol, heptane, n-hexane, 2-Butanone (MEK), 2-propanol, Tetrachloroethylene, and/or TPH were observed inside the Levey water well casing. These results again indicate that the vacuum recovery events are successful in drawing the subsurface gas over to the Levey Well.

3.2 Groundwater Samples

Ensolum compared the laboratory analytical results or laboratory practical quantitation limits (PQLs) associated with the November 2022 groundwater samples collected from the Levey Well and monitoring wells MW-1 and MW-2 to the New Mexico WQCC GQSs. The results of the groundwater sample analyses are summarized in **Table 1** through **Table 3** of **Appendix B**. All analytical results were below the WQCC GQSs, with the exception of the analytes, as discussed below.

Levey Well

TDS analytical results ranged from 1,230 mg/L to 1,450 mg/L in the Levey Well. Although above the GQS, these TDS concentrations are consistent with background levels in the Quaternary Alluvium, Ogallala Formation, and the Dockum Group (i.e., the three groundwater bearing units) in Southern Lea County (Nicholson and Clebsch, 1961). Specifically, for the 20 water supply wells sampled by the USGS in Southern Lea County with TDS analyses, the median TDS concentration was 722 mg/L, and the 75th percentile TDS concentration was 1,953 mg/L.

The Levey Well sampling first began on December 6, 2019. Through mitigation activities, including groundwater recovery and vacuum recovery events, the benzene concentration in the Levey Well has significantly decreased over time, with the exception of December 29, 2021, which had a benzene analytical result of 0.00611 mg/L, the January 19, 2022, which had a benzene analytical result of 0.00684 mg/L and the March 9, 2022, which had a benzene analytical result of 0.00552 mg/L, which exceeds the WQCC GQS of 0.005 mg/L. This slight rise in concentration is indicative that the vacuum recovery events are successful in drawing the subsurface gas over to the Levey Well. Benzene concentrations over time are graphed and included in **Appendix A**, showing the significant decrease of benzene in the Levey Well over time.

Monitoring Well MW-1 and MW-2

The groundwater samples collected from monitoring well MW-1 did not exhibit benzene concentrations above the WQCC GQS of 0.005 mg/L. The groundwater samples collected from monitoring well MW-2 exhibited benzene concentrations ranging from 0.0125 mg/L to 0.0163 mg/L, which exceed the WQCC GQS of 0.005 mg/L.

All other VOC concentrations were either below the laboratory reporting limit or below the WQCC GQS protective concentrations. All laboratory reporting limits were below the WQCC GQS protective concentrations, indicating a lack of dissolved phase gas infiltration into the localized groundwater.

4.0 RECOMMENDATIONS

OXY has demonstrated over time that the SHU #290 and the surrounding oil and gas operations were and are not a contributor to the previous related pressure observed in the Levey Well. This has been demonstrated by over four months of readings (**Appendix D**) which show that the pressures and gas readings are very consistent with pre-injection background, including, but not limited to carbon dioxide. The plugging of the SHU #183 well has shown to be effective in discontinuing the source of free gas related to the Levey water well.

Based on verbal communication between OXY and NMOCD, OXY concurs with the following recommendations and/or requests from the NMOCD through the remainder of 2022:

- **Continue to remove free gas accumulations from the underlying red bed and groundwater-bearing zone on a bi-weekly basis to acceptable levels of removal to achieve compliance expectations. The air sampling process performed at the Levey Well will continue to be utilized, as described in Section 2.1;**
- **Continue to monitor the Levey Well and monitoring wells MW-1 and MW-2 utilizing daily pressure checks for significant changes in pressure, which could indicate a secondary source, until compliance of free gas removal is achieved; and**
- **Implement monthly sampling for water and air on the Levey Well and monitoring wells MW-1 and MW-2 beginning in 2023.**

5.0 REFERENCES

GSI Environmental Inc. Preliminary Draft -Results of Water Supply Well Sampling and Investigation. November 2019. Hobbs New Mexico Municipal Code, Title 13.04.017. Accessed Sept. 2020.

New Mexico Environment Department. 2018. 20.6.2 NMAC: Title 20 (Environmental Protection), Chapter 6 (Water Quality), Part 2 (Ground and Surface Water Protection). Amended December 11th, 2019.

Nicholson, Jr. A. and A. Clebsch, Jr. 1961. Geology and Ground-Water Conditions in Southern Lea County, New Mexico. United States Geological Survey Ground-Water Report 6. Prepared in cooperation with the New Mexico Institute of Mining and Technology, State Bureau of Mines and Mineral Resources Division and the New Mexico State Engineer.

Gorody, A.W., 2012. Factors affecting the variability of stray gas concentration and composition in groundwater. Environ. Geosci. 19, 17–31. <https://doi.org/10.1306/eg.12081111013>.

Molofsky, L.J., Richardson, S.D., Gorody, A.W., Baldassare, F., Connor, J.A., McHugh, T.E., Smith, A.P., Wylie, A.S., Wagner, T., 2018. Purging and other sampling variables affecting dissolved methane concentration in water supply wells. Sci. Total Environ. 618, 998-1007. <https://doi.org/10.1016/j.scitotenv.2017.09.077>.



APPENDIX A

Figures and Graphs



LEGEND:
 ● Monitoring Well Location
 ★ Levey-1 Well Location

0 125 250
 Feet

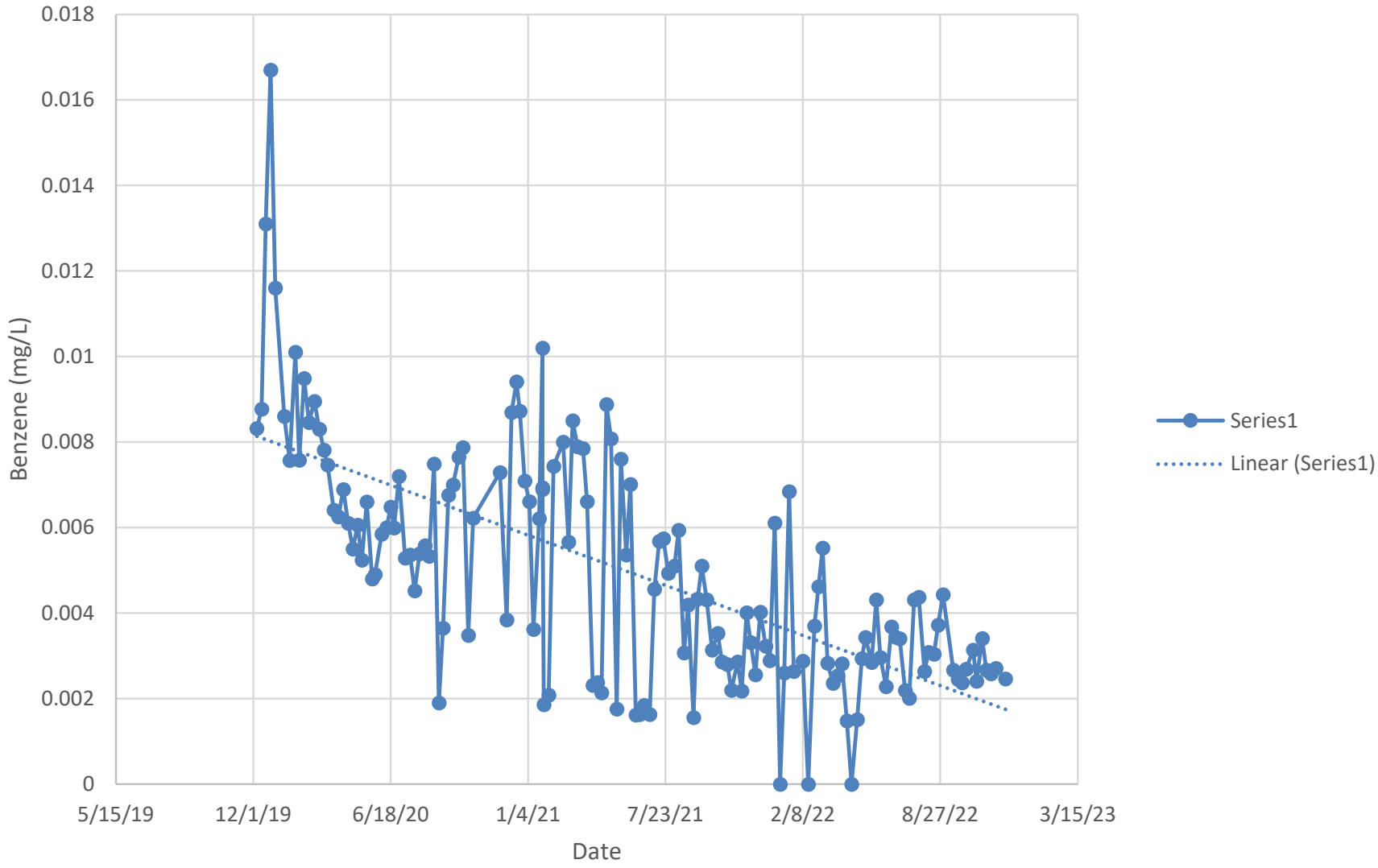
ENSOLUM
 Environmental & Hydrogeologic Consultants

SITE MAP
 PERMIAN EOR, INC
 S HOBBS G/SA UNIT
 SE ¼ of the NW ¼, Sec 5, T29S, R38E, Hobbs, New Mexico
 32.690683° N, 103.173158° W
 PROJECT NUMBER: 03B1417001

FIGURE
1



Levey Well Benzene Over Time





APPENDIX B

Tables

TABLE 1
GROUNDWATER SAMPLING (VOCs) ANALYTICAL DATA SUMMARY
Levey Well
Oxy Permian Ltd.
Hobbs, New Mexico
Ensolium Project No. 03B1417001 / 03B1417002

Table with columns: Sample Designation, Date, VOCs (mg/l) including Benzene, Toluene, Ethylbenzene, o-Xylene, m,p-Xylenes, Total Xylenes, Methyl ethyl ketone, n-Butylbenzene, Sec-Butylbenzene, tert-Butylbenzene, Tetrachloroethylene, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, p-Cymene, 1,2-Dichloroethane, 1,2-Dichloropropane, cis-1,2-Dichloroethylene, 1,4-Dichlorobenzene, 1,1-Dichloroethene, Isopropylbenzene, Naphthalene, n-Propylbenzene, 1,1,2-Trichloroethane, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene. Includes standards for 20 NMAC 6.2 and Levey Well data points.

TABLE 1 GROUNDWATER SAMPLING (VOCs) ANALYTICAL DATA SUMMARY
Levey Well
Oxy Permian Ltd.
Hobbs, New Mexico
Ensolium Project No. 03B1417001 / 03B1417002

Table with columns for Sample Designation, Date, and 28 VOCs (Benzene, Toluene, Ethylbenzene, o-Xylene, m,p-Xylenes, Total Xylenes, Methyl ethyl ketone (2-Butanone), n-Butylbenzene, Sec-Butylbenzene, tert-Butylbenzene, Tetrachloroethylene, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, p-Cymene (p-Isopropyltoluene), 1,2-Dichloroethane, 1,2-Dichloropropane, cis-1,2-Dichloroethylene, 1,4-Dichlorobenzene, 1,1-Dichloroethane, Isopropylbenzene, Naphthalene, n-Propylbenzene, 1,1,2-Trichloroethane, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene). Rows include data for 20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards and MW-1 samples from 5/26/2020 to 12/16/2021.

TABLE 1 GROUNDWATER SAMPLING (VOCs) ANALYTICAL DATA SUMMARY

Levey Well
Oxy Permian Ltd.
Hobbs, New Mexico
Ensolium Project No. 03B1417001 / 03B1417002

Table with columns: Sample Designation, Date, Benzene, Toluene, Ethylbenzene, o-Xylene, m,p-Xylenes, Total Xylenes, Methyl ethyl ketone (2-Butanone), n-Butylbenzene, Sec-Butylbenzene, tert-Butylbenzene, Tetrahydrofuran, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, p-Cymene (p-Isopropyltoluene), 1,2-Dichloroethane, 1,2-Dichloropropane, cis-1,2-Dichloroethylene, 1,4-Dichlorobenzene, 1,1-Dichloroethane, Isopropylbenzene, Naphthalene, n-Propylbenzene, 1,1,2-Trichloroethane, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene. Includes data for MW-1 and a note about weather conditions.

TABLE 1
GROUNDWATER SAMPLING (VOCs) ANALYTICAL DATA SUMMARY
Leyley Well
Oxy Permian Ltd.
Hobbs, New Mexico
Ensolium Project No. 03B1417001 / 03B1417002

Table with 28 columns: Sample Designation, Date, Benzene, Toluene, Ethylbenzene, o-Xylene, m,p-Xylenes, Total Xylenes, Methyl ethyl ketone (2-Butanone), n-Butylbenzene, Sec-Butylbenzene, tert-Butylbenzene, Tetrahydroethylene, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, p-Cymene (p-Isopropyltoluene), 1,2-Dichloroethane, 1,2-Dichloropropane, cis-1,2-Dichloroethylene, 1,4-Dichlorobenzene, 1,1-Dichloropropane, Isopropylbenzene, Naphthalene, n-Propylbenzene, 1,1,2-Trichloroethane, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene. Includes data for 20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards and MW-2 samples.

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TABLE 2
GROUNDWATER SAMPLING (General Water Chemistry) ANALYTICAL DATA SUMMARY

Levey Well
Oxy Permian Ltd.
Hobbs, New Mexico
Ensolum Project No. 03B1417001 / 03B1417002

Sample Designation	Date	(mg/l)														pH		
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Carbonate (as CaCO3)	Cation-Anion Balance			
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		NE	250.0	1.6	10.0	1.0	NE	NE	NE	NE	NE	1,000.0	NE	NE	NE	6-9		
MW-1	5/26/2020	NA	363	0.913	0.998	1.03	283	NA										7.21
	6/30/2020	0.591	342	<0.500	0.145	<0.100	88.8	401	84.7	6.41	191	1,890	1,290	<4.00	NA	6.75		
	8/20/2020	0.634	339	<0.500	<0.100	<0.100	68.3	401	90.3	5.38	147	1,760	1,210	<4.00	NA	6.30		
	10/23/2020	NA	353	NA														
	11/24/2020	0.629	345	0.309 J	0.161	2.00	73.2	412	82.8	5.61	124	1,630	1,200	<4.00	0.400	6.45		
	12/18/2020	NA	375	NA														
	12/23/2020	0.627	339	0.316 J	0.117	<0.0293	73.2	408	82.5	6.58	119	1,600	1,130	<4.00	2.10	6.56		
	12/30/2020	NA	347	NA														
	1/6/2021	NA	325	NA														
	1/12/2021	NA	359	NA														
	1/20/2021	NA	353	NA														
	1/27/2021	NA	334	NA														
	2/3/2021	NA	368	NA														
	2/10/2021	NA	339	NA														
	2/24/2021	NA	343	NA														
	3/4/2021	NA	339	NA														
	3/10/2021	NA	324	NA														
	3/17/2021	NA	330	NA														
	3/25/2021	NA	312	0.367 J	0.129	<0.100	77.5	NA										6.9
	3/31/2021	NA	309	0.387 J	0.175	<0.0293	81.3	NA										6.7
	4/8/2021	NA	290	0.515	0.0994 J	<0.0293	58.1	NA										6.5
	4/15/2021	NA	272	0.583	0.107	<0.0293	54.0	NA										6.6
	4/21/2021	NA	299	0.369 J	0.135	<0.0293	52.7	NA										6.5
	4/28/2021	NA	315	0.315 J	0.119	<0.0293	57.8	NA										6.5
	5/5/2021	NA	317	0.358 J	0.135	<0.0293	68.5	NA										6.5
	5/13/2021	NA	270	0.492 J	0.125	0.729 J	55.6	NA										6.8
	5/19/2021	NA	324	0.335 J	<0.0391	2.58	65.0	NA										6.5
	5/27/2021	NA	325	0.380 J	0.128	0.148	70.3	NA										6.3
	6/2/2021	NA	315	0.305 J	0.146	<0.0293	72.8	NA										6.5
	6/10/2021	NA	295	0.561	0.130	1.44	64.7	NA										6.6
	6/16/2021	NA	320	0.478 J	0.127	0.243	59.1	NA										6.7
	6/22/2021	NA	311	0.478 J	0.119	1.65	56.9	NA										6.8
	6/30/2021	NA	308	0.561	0.145	0.168	64.2	NA										6.7
	7/1/2021	Levey Well Now Running Full Time																
	7/7/2021	NA	325	0.547	0.127	<0.0293	75.9	NA										6.8
	7/14/2021	NA	360	0.418 J	0.134	0.0880 J	112	NA										6.8
	7/20/2021	NA	324	0.138 J	0.0457 J	<0.0293	81.5	NA										6.7
	7/27/2021	NA	352	0.340 J	0.148	1.22	82.8	NA										6.7
	8/5/2021	NA	336	0.426 J	0.117	<0.0293	79.0	NA										6.9
	8/11/2021	NA	326	0.342 J	0.153	1.48	85.5	NA										6.6
	8/19/2021	NA	334	0.227 J	0.149	1.36	81.9	NA										6.8
	8/25/2021	NA	328	0.395 J	0.132	0.947 J	76.5	NA										6.8
	9/2/2021	NA	325	0.311 J	0.105	<0.0293	74.7	NA										6.8
	9/8/2021	NA	272	0.442 J	0.103	0.782 J	64.5	NA										6.9
	9/14/2021	NA	332	0.276 J	0.103	0.776 J	98.4	NA										7.0
	9/21/2021	NA	203	0.896	0.186	<0.0293	32.4	NA										6.9
	9/29/2021	NA	232	0.659	0.168	0.0819 J	40.1	NA										6.9
	10/7/2021	NA	253	0.626	0.186	<0.0293	58.2	NA										6.9
	10/13/2021	NA	268	0.659	0.178	<0.0293	62.9	NA										8.1
	10/21/2021	NA	293	0.409 J	0.144	<0.0293	81.1	NA										7.1
11/5/2021	NA	282	0.631	0.191	<0.0293	77.1	NA										7.0	
11/11/2021	NA	311	0.309 J	0.258	<0.0293	89.9	NA										7.1	
11/18/2021	NA	172	0.741	0.151	<0.0293	23.1	NA										7.4	
11/24/2021	NA	267	0.429 J	0.220	0.549	81.4	NA										6.8	
12/1/2021	NA	222	0.596	0.141	<0.0293	61.0	NA										7.3	
12/8/2021	NA	226	0.358 J	0.162	<0.0293	66.0	NA										6.9	
12/16/2021	NA	174	0.504	0.143	<0.0293	49.9	NA										6.9	
12/22/2021	NA	163	0.517	0.240	<0.0293	40.2	NA										7.1	
12/29/2021	NA	142	0.591	0.205	0.295	42.2	NA										7.3	
1/6/2022	NA	138	0.471 J	0.180	<0.0293	43.2	NA										7.0	
1/12/2022	NA	149	0.491 J	0.154	0.0428 J	42.1	NA										6.7	
1/19/2022	NA	141	0.532	0.145	0.227	45.1	NA										7.0	
1/26/2022	NA	142	0.548	0.177	0.150	44.7	NA										7.1	
2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.																	
2/8/2022	NA	189	0.631	0.0688 J	0.358	49.6	NA										6.9	
2/16/2022	NA	151	0.712	0.0561 J	0.344	41.5	NA										7.1	
2/25/2022	NA	171	0.739	0.125	0.156	50.3	NA										7.1	
3/3/2022	NA	158	0.531	0.198	0.181	45.9	NA										6.9	
3/9/2022	NA	148	0.454 J	0.170	<0.0293	45.4	NA										7.2	
3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.																	
3/16/2022	NA	145	0.546	0.147	<0.0293	38.1	NA										7.0	



TABLE 2
GROUNDWATER SAMPLING (General Water Chemistry) ANALYTICAL DATA SUMMARY
 Levey Well
 Oxy Permian Ltd.
 Hobbs, New Mexico
 Ensolum Project No. 03B1417001 / 03B1417002

Sample Designation	Date	(mg/l)														%	SU
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Carbonate (as CaCO3)	Cation-Anion Balance		
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		NE	250.0	1.6	10.0	1.0	NE	NE	NE	NE	NE	NE	1,000.0	NE	NE	NE	6-9
MW-1	3/24/2022	NA	147	0.610	<0.0391	<0.0293	42.9			NA				297	<4.00	NA	7.2
	3/31/2022	NA	143	0.568	0.164	<0.0293	40.4			NA				275	<4.00	NA	7.1
	4/6/2022	NA	133	0.677	0.186	<0.0293	39.7			NA				262	<4.00	NA	7.1
	4/13/2022	NA	129	0.767	<0.0391	<0.0293	40.9			NA				259	<4.00	NA	7.6
	4/20/2022	NA	173	0.574	0.152	0.176	42.4			NA				362	<4.00	NA	7.0
	4/28/2022	NA	136	0.608	0.0700 J	0.0717 J	41.7			NA				300	<4.00	NA	7.5
	5/5/2022	NA	118	0.746	<0.0391	1.75	41.1			NA				253	<4.00	NA	7.2
	5/10/2022	NA	116	0.709	0.0815 J	<0.0293	43.9			NA				250	<4.00	NA	7.2
	5/19/2022	NA	106	0.643	0.0743 J	0.199	41.0			NA				262	<4.00	NA	7.1
	5/26/2022	NA	98.7	0.720	0.0777 J	0.809	44.7			NA				256	<4.00	NA	7.2
	6/1/2022	NA	100	0.690	0.0629 J	<0.0293	46.4			NA				240	<4.00	NA	7.4
	6/9/2022	NA	99.9	0.743	<0.0391	<0.0293	46.6			NA				246	<4.00	NA	7.1
	6/17/2022	NA	83.5	0.710	0.146	0.275	47.9			NA				253	<4.00	NA	7.3
	6/23/2022	NA	83.9	0.616	0.238	<0.0293	47.7			NA				258	<4.00	NA	7.2
	6/29/2022	NA	84.8	0.644	0.199	0.556	48.0			NA				264	<4.00	NA	7.2
	7/7/2022	NA	83.7	0.660	0.0413 J	0.0458 J	47.7			NA				238	<4.00	NA	7.4
	7/13/2022	NA	91.3	0.778	0.102	<0.0293	49.2			NA				253	<4.00	NA	7.2
	7/20/2022	NA	81.5	0.766	<0.0391	<0.0293	48.5			NA				249	<4.00	NA	7.2
	7/27/2022	NA	85.8	0.766	0.0482 J	<0.0293	47.2			NA				268	<4.00	NA	7.7
	8/4/2022	NA	77.5	0.633	0.126	0.118	43.1			NA				253	<4.00	NA	7.2
	8/10/2022	NA	68.3	0.737	<0.0391	0.212	40.9			NA				278	<4.00	NA	7.2
	8/18/2022	NA	77.7	0.752	0.0696 J	0.154	39.4			NA				262	<4.00	NA	7.0
	8/24/2022	NA	92.0	0.739	<0.100	<0.100	40.8			NA				273	<4.00	NA	7.2
	8/31/2022	NA	85.9	0.628	<0.0391	<0.0293	36.7			NA				277	<4.00	NA	7.4
	9/15/2022	NA	86.4	1.03	0.0909 J	0.206	33.4			NA				277	<4.00	NA	7.0
	9/22/2022	NA	95.8	0.585	0.518	<0.0293	38.4			NA				280	<4.00	NA	7.3
	9/28/2022	NA	91.2	0.702	<0.0391	<0.0293	32.8			NA				285	<4.00	NA	7.3
	10/4/2022	NA	75.6	0.803	0.376	0.201	33.7			NA				272	<4.00	NA	7.2
	10/14/2022	NA	81.0	0.807	0.360	0.195	33.1			NA				266	<4.00	NA	7.3
	10/19/2022	NA	136	<0.100	<0.0391	<0.0293	19.2			NA				283	<4.00	NA	7.4
10/27/2022	NA	80.4	0.750	0.0601 J	0.423	29.8			NA				277	<4.00	NA	7.4	
11/2/2022	NA	80.0	0.681	0.120	0.154	29.8			NA				252	<4.00	NA	7.2	
11/9/2022	NA	81.1	0.746	0.141	0.117	32.5			NA				294	<4.00	NA	7.4	
11/16/2022	NA	82.2	0.738	0.120	0.384	30.9			NA				282	<4.00	NA	7.3	
11/30/2022	NA	88.1	0.602	0.140	0.141	45.4			NA				300	<4.00	NA	7.3	



TABLE 2
GROUNDWATER SAMPLING (General Water Chemistry) ANALYTICAL DATA SUMMARY
 Levey Well
 Oxy Permian Ltd.
 Hobbs, New Mexico
 Ensolum Project No. 03B1417001 / 03B1417002

Sample Designation	Date	(mg/l)													%	SU	
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Carbonate (as CaCO3)			Cation-Anion Balance
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		NE	250.0	1.6	10.0	1.0	NE	NE	NE	NE	NE	NE	1,000.0	NE	NE	NE	6-9
MW-2	3/31/2022	NA	150	<0.100	<0.0391	1.65	106				NA			1,340	<4.00	NA	6.3
	4/6/2022	NA	130	0.175 J	0.619	1.60	111				NA			1,360	<4.00	NA	6.2
	4/13/2022	NA	135	0.271 J	0.589	1.67	108				NA			1,380	<4.00	NA	6.5
	4/20/2022	NA	198	0.174 J	0.966	0.722	121				NA			1,330	<4.00	NA	6.4
	4/28/2022	NA	156	0.172 J	0.711	0.434	118				NA			1,380	<4.00	NA	6.4
	5/5/2022	NA	116	0.229 J	0.586	11.5	112				NA			1,330	<4.00	NA	6.3
	5/10/2022	NA	134	0.230 J	0.548	1.83	120				NA			1,320	<4.00	NA	6.3
	5/19/2022	NA	133	0.116 J	<0.0391	0.373	118				NA			1,380	<4.00	NA	6.2
	5/26/2022	NA	107	0.196 J	0.392	1.14	104				NA			1,320	<4.00	NA	6.0
	6/1/2022	NA	130	0.107 J	0.481	1.47	116				NA			1,340	<4.00	NA	6.3
	6/9/2022	NA	103	<0.100	0.330	0.236	103				NA			1,320	<4.00	NA	6.2
	6/17/2022	NA	99.0	0.213 J	0.395	0.702	102				NA			1,290	<4.00	NA	6.4
	6/23/2022	NA	109	<0.100	0.494	5.21	107				NA			1,270	<4.00	NA	6.3
	6/29/2022	NA	82.6	0.111 J	0.351	0.827	89.7				NA			1,330	<4.00	NA	6.2
	7/7/2022	NA	107	0.141 J	0.399	0.440	98.3				NA			1,300	<4.00	NA	6.4
	7/13/2022	NA	95.3	0.262 J	0.306	1.23	100				NA			1,280	<4.00	NA	6.2
	7/20/2022	NA	134	<0.100	0.485	1.46	122				NA			1,360	<4.00	NA	6.3
	7/27/2022	NA	101	<0.100	0.403	3.86	105				NA			1,340	<4.00	NA	6.4
	8/4/2022	NA	107	0.112 J	0.451	0.477	99.9				NA			1,250	<4.00	NA	6.2
	8/10/2022	NA	89.4	0.189 J	0.189	0.210	97.2				NA			1,260	<4.00	NA	6.3
	8/18/2022	NA	99.1	0.122 J	0.333	0.303	100				NA			1,280	<4.00	NA	6.3
	8/24/2022	NA	110	0.172 J	0.282	0.427	103				NA			1,290	<4.00	NA	6.3
	8/31/2022	NA	94.8	<0.100	0.175	0.238	94.4				NA			1,280	<4.00	NA	6.3
	9/15/2022	NA	94.4	0.538	0.232	2.31	98.7				NA			1,320	<4.00	NA	6.3
	9/22/2022	NA	94.4	0.260 J	0.650	0.481	105				NA			1,320	<4.00	NA	6.3
	9/28/2022	NA	91.2	0.498 J	0.261	<0.0293	92.5				NA			1,280	<4.00	NA	6.3
	10/4/2022	NA	88.9	0.143 J	0.497	0.189	97.0				NA			1,320	<4.00	NA	6.2
	10/14/2022	NA	82.6	0.101 J	<0.0391	0.0760 J	84.6				NA			1,320	<4.00	NA	6.2
10/19/2022	NA	51.2	<0.100	0.101	<0.0293	48.5				NA			1,290	<4.00	NA	6.5	
10/27/2022	NA	124	0.165 J	0.319	0.871	104				NA			1,340	<4.00	NA	6.3	
11/2/2022	NA	91.1	0.148 J	0.221	0.947	92.9				NA			1,330	<4.00	NA	6.2	
11/9/2022	NA	97.8	0.161 J	0.273	0.366	101				NA			1,430	<4.00	NA	6.4	
11/16/2022	NA	86	0.180 J	0.206	0.579	91.4				NA			1,300	<4.00	NA	6.6	
11/30/2022	NA	90.4	0.133 J	0.264	0.168	91.1				NA			1,300	<4.00	NA	6.4	

NOTES:
 SU - standard units
 mg/l - milligrams per liter
 NE - not established
 NA - not analyzed
 J - The target analyte was positively identified below the quantitation limit and above the detection limit.
 Concentrations highlighted in yellow exceed the NMAC Human Health Standards



APPENDIX C

Laboratory Data Sheets and Chain-of-Custody Documentation



Environment Testing

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-21080-1
Laboratory Sample Delivery Group: Hobbs NM
Client Project/Site: Levey Well Hobbs, NM - 03B1417001

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Beaux Jennings

Authorized for release by:
11/5/2022 9:19:00 AM
Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Laboratory Job ID: 880-21080-1
SDG: Hobbs NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
- 2
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Case Narrative

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Job ID: 880-21080-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-21080-1

Comments

No additional comments.

Receipt

The sample was received on 11/2/2022 3:45 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.3° C.

GC/MS VOA

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-75997 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 200.7 Rev 4.4: Due to the high concentration of Sodium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 860-76271 and analytical batch 860-76364 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-76106 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike (MS) recoveries for analytical batch 860-76110 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-76111 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21080-1

Date Collected: 11/02/22 11:40

Matrix: Water

Date Received: 11/02/22 15:45

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00267		0.00100	0.000533 mg/L			11/03/22 19:19	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			11/03/22 19:19	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			11/03/22 19:19	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			11/03/22 19:19	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			11/03/22 19:19	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			11/03/22 19:19	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			11/03/22 19:19	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			11/03/22 19:19	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			11/03/22 19:19	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			11/03/22 19:19	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			11/03/22 19:19	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			11/03/22 19:19	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			11/03/22 19:19	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			11/03/22 19:19	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			11/03/22 19:19	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			11/03/22 19:19	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			11/03/22 19:19	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			11/03/22 19:19	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			11/03/22 19:19	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			11/03/22 19:19	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/03/22 19:19	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/03/22 19:19	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			11/03/22 19:19	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			11/03/22 19:19	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			11/03/22 19:19	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			11/03/22 19:19	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			11/03/22 19:19	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			11/03/22 19:19	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			11/03/22 19:19	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			11/03/22 19:19	1
Ethylbenzene	0.00893		0.00100	0.000411 mg/L			11/03/22 19:19	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			11/03/22 19:19	1
Isopropylbenzene	0.00447		0.00100	0.000613 mg/L			11/03/22 19:19	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			11/03/22 19:19	1
m,p-Xylenes	0.0364		0.0100	0.00124 mg/L			11/03/22 19:19	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			11/03/22 19:19	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			11/03/22 19:19	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			11/03/22 19:19	1
N-Propylbenzene	0.00204		0.00100	0.000498 mg/L			11/03/22 19:19	1
o-Xylene	0.00571		0.00100	0.000551 mg/L			11/03/22 19:19	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			11/03/22 19:19	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			11/03/22 19:19	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			11/03/22 19:19	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			11/03/22 19:19	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			11/03/22 19:19	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			11/03/22 19:19	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			11/03/22 19:19	1
Toluene	0.0199		0.00100	0.000475 mg/L			11/03/22 19:19	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/03/22 19:19	1

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Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21080-1

Date Collected: 11/02/22 11:40

Matrix: Water

Date Received: 11/02/22 15:45

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/03/22 19:19	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/03/22 19:19	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/03/22 19:19	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/03/22 19:19	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/03/22 19:19	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/03/22 19:19	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/03/22 19:19	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/03/22 19:19	1
1,2,4-Trimethylbenzene	0.00812		0.00100	0.000417 mg/L			11/03/22 19:19	1
1,3,5-Trimethylbenzene	0.00266		0.00100	0.000456 mg/L			11/03/22 19:19	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/03/22 19:19	1
Xylenes, Total	0.0421		0.0100	0.00124 mg/L			11/03/22 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		74 - 124		11/03/22 19:19	1
Dibromofluoromethane (Surr)	98		75 - 131		11/03/22 19:19	1
1,2-Dichloroethane-d4 (Surr)	100		63 - 144		11/03/22 19:19	1
Toluene-d8 (Surr)	102		80 - 117		11/03/22 19:19	1

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.473	J F1	0.500	0.0711 mg/L			11/03/22 16:59	1
Nitrate as N	0.165		0.100	0.0391 mg/L			11/03/22 16:59	1
Chloride	216		0.500	0.200 mg/L			11/03/22 16:59	1
Nitrite as N	<0.0293	U F1	0.100	0.0293 mg/L			11/03/22 16:59	1
Fluoride	0.509		0.500	0.100 mg/L			11/04/22 17:44	1
Sulfate	46.1		0.500	0.109 mg/L			11/03/22 16:59	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	247		10.0	5.76 mg/L		11/04/22 11:30	11/04/22 16:33	50
Magnesium	49.2		0.200	0.0428 mg/L		11/04/22 11:30	11/04/22 16:30	1
Potassium	4.26		0.500	0.0914 mg/L		11/04/22 11:30	11/04/22 16:30	1
Sodium	76.4		0.500	0.152 mg/L		11/04/22 11:30	11/04/22 16:30	1
SiO2	60.8		1.07	0.471 mg/L		11/04/22 11:30	11/04/22 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	-6.86			%			11/04/22 17:25	1
Alkalinity (SM 2320B)	681		4.00	4.00 mg/L			11/04/22 14:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	681		4.00	4.00 mg/L			11/04/22 14:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/04/22 14:24	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/04/22 14:24	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/04/22 14:24	1
Total Dissolved Solids (SM 2540C)	1230		10.0	10.0 mg/L			11/03/22 17:47	1
pH (SM 4500 H+ B)	6.3	HF		SU			11/04/22 13:32	1
Temperature (SM 4500 H+ B)	25.0	HF		Degrees C			11/04/22 13:32	1

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Surrogate Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (74-124)	DBFM (75-131)	DCA (63-144)	TOL (80-117)
860-36196-F-4 MS	Matrix Spike	100	101	101	99
880-21080-1	Levey Well	100	98	100	102
LCS 860-75997/3	Lab Control Sample	100	100	99	99
LCSD 860-75997/4	Lab Control Sample Dup	101	101	99	97
MB 860-75997/9	Method Blank	101	99	100	102

Surrogate Legend

- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- DCA = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-75997/9

Matrix: Water

Analysis Batch: 75997

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.000533	U	0.00100	0.000533	mg/L		11/03/22 11:06	1
Bromobenzene	<0.000665	U	0.00100	0.000665	mg/L		11/03/22 11:06	1
Bromochloromethane	<0.000657	U	0.00100	0.000657	mg/L		11/03/22 11:06	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L		11/03/22 11:06	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L		11/03/22 11:06	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L		11/03/22 11:06	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L		11/03/22 11:06	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L		11/03/22 11:06	1
Chlorobenzene	<0.000530	U	0.00100	0.000530	mg/L		11/03/22 11:06	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L		11/03/22 11:06	1
Chloroform	<0.000643	U	0.00100	0.000643	mg/L		11/03/22 11:06	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L		11/03/22 11:06	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118	mg/L		11/03/22 11:06	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472	mg/L		11/03/22 11:06	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714	mg/L		11/03/22 11:06	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L		11/03/22 11:06	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L		11/03/22 11:06	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127	mg/L		11/03/22 11:06	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L		11/03/22 11:06	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509	mg/L		11/03/22 11:06	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		11/03/22 11:06	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		11/03/22 11:06	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919	mg/L		11/03/22 11:06	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L		11/03/22 11:06	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590	mg/L		11/03/22 11:06	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L		11/03/22 11:06	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667	mg/L		11/03/22 11:06	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L		11/03/22 11:06	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780	mg/L		11/03/22 11:06	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160	mg/L		11/03/22 11:06	1
Ethylbenzene	<0.000411	U	0.00100	0.000411	mg/L		11/03/22 11:06	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126	mg/L		11/03/22 11:06	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613	mg/L		11/03/22 11:06	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L		11/03/22 11:06	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L		11/03/22 11:06	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L		11/03/22 11:06	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L		11/03/22 11:06	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644	mg/L		11/03/22 11:06	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498	mg/L		11/03/22 11:06	1
o-Xylene	<0.000551	U	0.00100	0.000551	mg/L		11/03/22 11:06	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919	mg/L		11/03/22 11:06	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L		11/03/22 11:06	1
Styrene	<0.000655	U	0.00100	0.000655	mg/L		11/03/22 11:06	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L		11/03/22 11:06	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L		11/03/22 11:06	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L		11/03/22 11:06	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801	mg/L		11/03/22 11:06	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L		11/03/22 11:06	1

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-75997/9

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 75997

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/03/22 11:06	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/03/22 11:06	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/03/22 11:06	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/03/22 11:06	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/03/22 11:06	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/03/22 11:06	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/03/22 11:06	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/03/22 11:06	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/03/22 11:06	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			11/03/22 11:06	1
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			11/03/22 11:06	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/03/22 11:06	1
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			11/03/22 11:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		74 - 124		11/03/22 11:06	1
Dibromofluoromethane (Surr)	99		75 - 131		11/03/22 11:06	1
1,2-Dichloroethane-d4 (Surr)	100		63 - 144		11/03/22 11:06	1
Toluene-d8 (Surr)	102		80 - 117		11/03/22 11:06	1

Lab Sample ID: LCS 860-75997/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 75997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.05323		mg/L		106	75 - 125
Bromobenzene	0.0500	0.05401		mg/L		108	75 - 125
Bromochloromethane	0.0500	0.05614		mg/L		112	60 - 140
Bromodichloromethane	0.0500	0.05320		mg/L		106	75 - 125
Bromoform	0.0500	0.05350		mg/L		107	70 - 130
Bromomethane	0.0500	0.05190		mg/L		104	60 - 140
2-Butanone	0.250	0.2580		mg/L		103	60 - 140
Carbon tetrachloride	0.0500	0.05325		mg/L		106	70 - 130
Chlorobenzene	0.0500	0.05267		mg/L		105	65 - 135
Chloroethane	0.0500	0.05264		mg/L		105	60 - 140
Chloroform	0.0500	0.05382		mg/L		108	70 - 121
Chloromethane	0.0500	0.05214		mg/L		104	60 - 140
2-Chlorotoluene	0.0500	0.05342		mg/L		107	73 - 125
4-Chlorotoluene	0.0500	0.05446		mg/L		109	74 - 125
cis-1,2-Dichloroethene	0.0500	0.05385		mg/L		108	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05666		mg/L		113	74 - 125
Dibromochloromethane	0.0500	0.05321		mg/L		106	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.05574		mg/L		111	59 - 125
1,2-Dibromoethane	0.0500	0.05620		mg/L		112	73 - 125
1,2-Dichlorobenzene	0.0500	0.05353		mg/L		107	75 - 125
1,3-Dichlorobenzene	0.0500	0.05439		mg/L		109	75 - 125
1,4-Dichlorobenzene	0.0500	0.05245		mg/L		105	75 - 125
Dichlorodifluoromethane	0.0500	0.04860		mg/L		97	70 - 130

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-75997/3
 Matrix: Water
 Analysis Batch: 75997

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	0.0500	0.05324		mg/L		106	70 - 130
1,2-Dichloroethane	0.0500	0.05456		mg/L		109	72 - 130
1,1-Dichloroethene	0.0500	0.05553		mg/L		111	50 - 150
1,2-Dichloropropane	0.0500	0.05605		mg/L		112	74 - 125
1,3-Dichloropropane	0.0500	0.05602		mg/L		112	75 - 125
2,2-Dichloropropane	0.0500	0.05519		mg/L		110	75 - 125
1,1-Dichloropropene	0.0500	0.05619		mg/L		112	75 - 125
Ethylbenzene	0.0500	0.05499		mg/L		110	75 - 125
Hexachlorobutadiene	0.0500	0.05422		mg/L		108	75 - 125
Isopropylbenzene	0.0500	0.05688		mg/L		114	75 - 125
Methylene Chloride	0.0500	0.05102		mg/L		102	75 - 125
m,p-Xylenes	0.0500	0.05535		mg/L		111	75 - 125
MTBE	0.0500	0.05351		mg/L		107	65 - 135
Naphthalene	0.0500	0.06457		mg/L		129	70 - 130
n-Butylbenzene	0.0500	0.05653		mg/L		113	75 - 125
N-Propylbenzene	0.0500	0.05527		mg/L		111	75 - 125
o-Xylene	0.0500	0.05590		mg/L		112	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05595		mg/L		112	75 - 125
sec-Butylbenzene	0.0500	0.05561		mg/L		111	75 - 125
Styrene	0.0500	0.05770		mg/L		115	75 - 125
tert-Butylbenzene	0.0500	0.05570		mg/L		111	75 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.05208		mg/L		104	72 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.05486		mg/L		110	74 - 125
Tetrachloroethene	0.0500	0.05485		mg/L		110	71 - 125
Toluene	0.0500	0.05360		mg/L		107	70 - 130
trans-1,2-Dichloroethene	0.0500	0.05270		mg/L		105	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05463		mg/L		109	66 - 125
1,2,3-Trichlorobenzene	0.0500	0.05927		mg/L		119	75 - 137
1,2,4-Trichlorobenzene	0.0500	0.06115		mg/L		122	75 - 135
1,1,1-Trichloroethane	0.0500	0.05276		mg/L		106	70 - 130
1,1,2-Trichloroethane	0.0500	0.05440		mg/L		109	70 - 130
Trichloroethene	0.0500	0.04971		mg/L		99	75 - 135
Trichlorofluoromethane	0.0500	0.05547		mg/L		111	60 - 140
1,2,3-Trichloropropane	0.0500	0.05486		mg/L		110	75 - 125
1,2,4-Trimethylbenzene	0.0500	0.05540		mg/L		111	75 - 125
1,3,5-Trimethylbenzene	0.0500	0.05451		mg/L		109	60 - 140
Vinyl chloride	0.0500	0.05594		mg/L		112	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
Toluene-d8 (Surr)	99		80 - 117

QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-75997/4

Matrix: Water

Analysis Batch: 75997

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD
									Limit
Benzene	0.0500	0.05316		mg/L		106	75 - 125	0	25
Bromobenzene	0.0500	0.05355		mg/L		107	75 - 125	1	25
Bromochloromethane	0.0500	0.05583		mg/L		112	60 - 140	1	25
Bromodichloromethane	0.0500	0.05392		mg/L		108	75 - 125	1	25
Bromoform	0.0500	0.05254		mg/L		105	70 - 130	2	25
Bromomethane	0.0500	0.05244		mg/L		105	60 - 140	1	25
2-Butanone	0.250	0.2562		mg/L		102	60 - 140	1	25
Carbon tetrachloride	0.0500	0.05473		mg/L		109	70 - 130	3	25
Chlorobenzene	0.0500	0.05134		mg/L		103	65 - 135	3	25
Chloroethane	0.0500	0.05283		mg/L		106	60 - 140	0	25
Chloroform	0.0500	0.05346		mg/L		107	70 - 121	1	25
Chloromethane	0.0500	0.05408		mg/L		108	60 - 140	4	25
2-Chlorotoluene	0.0500	0.05523		mg/L		110	73 - 125	3	25
4-Chlorotoluene	0.0500	0.05487		mg/L		110	74 - 125	1	25
cis-1,2-Dichloroethene	0.0500	0.05400		mg/L		108	75 - 125	0	25
cis-1,3-Dichloropropene	0.0500	0.05470		mg/L		109	74 - 125	4	25
Dibromochloromethane	0.0500	0.05164		mg/L		103	73 - 125	3	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05587		mg/L		112	59 - 125	0	25
1,2-Dibromoethane	0.0500	0.05355		mg/L		107	73 - 125	5	25
1,2-Dichlorobenzene	0.0500	0.05449		mg/L		109	75 - 125	2	25
1,3-Dichlorobenzene	0.0500	0.05544		mg/L		111	75 - 125	2	25
1,4-Dichlorobenzene	0.0500	0.05287		mg/L		106	75 - 125	1	25
Dichlorodifluoromethane	0.0500	0.05237		mg/L		105	70 - 130	7	25
1,1-Dichloroethane	0.0500	0.05481		mg/L		110	70 - 130	3	25
1,2-Dichloroethane	0.0500	0.05380		mg/L		108	72 - 130	1	25
1,1-Dichloroethene	0.0500	0.05558		mg/L		111	50 - 150	0	25
1,2-Dichloropropane	0.0500	0.05598		mg/L		112	74 - 125	0	25
1,3-Dichloropropane	0.0500	0.05387		mg/L		108	75 - 125	4	25
2,2-Dichloropropane	0.0500	0.05580		mg/L		112	75 - 125	1	25
1,1-Dichloropropene	0.0500	0.05761		mg/L		115	75 - 125	3	25
Ethylbenzene	0.0500	0.05445		mg/L		109	75 - 125	1	25
Hexachlorobutadiene	0.0500	0.05934		mg/L		119	75 - 125	9	25
Isopropylbenzene	0.0500	0.05701		mg/L		114	75 - 125	0	25
Methylene Chloride	0.0500	0.05156		mg/L		103	75 - 125	1	25
m,p-Xylenes	0.0500	0.05583		mg/L		112	75 - 125	1	25
MTBE	0.0500	0.05352		mg/L		107	65 - 135	0	25
Naphthalene	0.0500	0.06438		mg/L		129	70 - 130	0	25
n-Butylbenzene	0.0500	0.05922		mg/L		118	75 - 125	5	25
N-Propylbenzene	0.0500	0.05698		mg/L		114	75 - 125	3	25
o-Xylene	0.0500	0.05485		mg/L		110	75 - 125	2	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05937		mg/L		119	75 - 125	6	25
sec-Butylbenzene	0.0500	0.05914		mg/L		118	75 - 125	6	25
Styrene	0.0500	0.05526		mg/L		111	75 - 125	4	25
tert-Butylbenzene	0.0500	0.05829		mg/L		117	75 - 125	5	25
1,1,1,2-Tetrachloroethane	0.0500	0.05256		mg/L		105	72 - 125	1	25
1,1,1,2,2-Tetrachloroethane	0.0500	0.05193		mg/L		104	74 - 125	5	25
Tetrachloroethene	0.0500	0.05574		mg/L		111	71 - 125	2	25
Toluene	0.0500	0.05348		mg/L		107	70 - 130	0	25

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-75997/4
 Matrix: Water
 Analysis Batch: 75997

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	0.0500	0.05463		mg/L		109	75 - 125	4	25
trans-1,3-Dichloropropene	0.0500	0.05313		mg/L		106	66 - 125	3	25
1,2,3-Trichlorobenzene	0.0500	0.06103		mg/L		122	75 - 137	3	25
1,2,4-Trichlorobenzene	0.0500	0.06203		mg/L		124	75 - 135	1	25
1,1,1-Trichloroethane	0.0500	0.05518		mg/L		110	70 - 130	4	25
1,1,2-Trichloroethane	0.0500	0.05313		mg/L		106	70 - 130	2	25
Trichloroethene	0.0500	0.05255		mg/L		105	75 - 135	6	25
Trichlorofluoromethane	0.0500	0.05679		mg/L		114	60 - 140	2	25
1,2,3-Trichloropropane	0.0500	0.04919		mg/L		98	75 - 125	11	25
1,2,4-Trimethylbenzene	0.0500	0.05765		mg/L		115	75 - 125	4	25
1,3,5-Trimethylbenzene	0.0500	0.05619		mg/L		112	60 - 140	3	25
Vinyl chloride	0.0500	0.05733		mg/L		115	60 - 140	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	101		75 - 131
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
Toluene-d8 (Surr)	97		80 - 117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-76106/3
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/03/22 14:50	1
Chloride	<0.200	U	0.500	0.200 mg/L			11/03/22 14:50	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/03/22 14:50	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/03/22 14:50	1

Lab Sample ID: MB 860-76106/45
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/04/22 01:34	1
Chloride	<0.200	U	0.500	0.200 mg/L			11/04/22 01:34	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/04/22 01:34	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/04/22 01:34	1

Lab Sample ID: LCS 860-76106/46
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.804		mg/L		98	90 - 110
Chloride	10.0	9.845		mg/L		98	90 - 110
Fluoride	10.0	10.39		mg/L		104	90 - 110

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-76106/46
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.836		mg/L		98	90 - 110

Lab Sample ID: LCSD 860-76106/47
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.837		mg/L		98	90 - 110	0	20
Chloride	10.0	9.881		mg/L		99	90 - 110	0	20
Fluoride	10.0	10.44		mg/L		104	90 - 110	0	20
Sulfate	10.0	9.877		mg/L		99	90 - 110	0	20

Lab Sample ID: LLCS 860-76106/7
 Matrix: Water
 Analysis Batch: 76106

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	5.245		mg/L		105	50 - 150
Chloride	5.00	5.364		mg/L		107	50 - 150
Fluoride	5.00	4.692	J	mg/L		94	50 - 150
Sulfate	5.00	5.167		mg/L		103	50 - 150

Lab Sample ID: MB 860-76110/3
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L		11/03/22 14:43	1
Chloride	<0.200	U	0.500	0.200	mg/L		11/03/22 14:43	1
Fluoride	<0.100	U	0.500	0.100	mg/L		11/03/22 14:43	1
Sulfate	<0.109	U	0.500	0.109	mg/L		11/03/22 14:43	1

Lab Sample ID: LCS 860-76110/4
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.897		mg/L		99	90 - 110
Chloride	10.0	10.24		mg/L		102	90 - 110
Fluoride	10.0	10.99		mg/L		110	90 - 110
Sulfate	10.0	10.11		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-76110/5
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.927		mg/L		99	90 - 110	0	20
Chloride	10.0	10.29		mg/L		103	90 - 110	0	20
Sulfate	10.0	10.18		mg/L		102	90 - 110	1	20

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LLCS 860-76110/7
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Bromide	0.500	0.3818	J	mg/L		76	50 - 150
Chloride	0.500	0.3342	J	mg/L		67	50 - 150
Fluoride	0.500	0.3576	J	mg/L		72	50 - 150
Sulfate	0.500	0.5178		mg/L		104	50 - 150

Lab Sample ID: 880-21080-1 MS
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Bromide	0.473	J F1	10.0	9.344	F1	mg/L		89	90 - 110
Chloride	216		10.0	202.4	4	mg/L		-139	90 - 110
Fluoride	0.536	*+	10.0	10.24		mg/L		97	90 - 110
Sulfate	46.1		10.0	51.05	4	mg/L		49	90 - 110

Lab Sample ID: 880-21080-1 MSD
 Matrix: Water
 Analysis Batch: 76110

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
				Result	Qualifier						
Bromide	0.473	J F1	10.0	9.446		mg/L		90	90 - 110	1	20
Chloride	216		10.0	204.2	4	mg/L		-121	90 - 110	1	20
Fluoride	0.536	*+	10.0	10.36		mg/L		98	90 - 110	1	20
Sulfate	46.1		10.0	51.54	4	mg/L		54	90 - 110	1	20

Lab Sample ID: MB 860-76111/3
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L		11/03/22 14:43	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L		11/03/22 14:43	1

Lab Sample ID: LCS 860-76111/4
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Nitrate as N	10.0	10.08		mg/L		101	80 - 120
Nitrite as N	5.00	5.143		mg/L		103	80 - 120

Lab Sample ID: LCSD 860-76111/5
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
Nitrate as N	10.0	10.11		mg/L		101	80 - 120	0	20
Nitrite as N	5.00	5.156		mg/L		103	80 - 120	0	20

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 860-76111/6
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.07517	J	mg/L		75	50 - 150
Nitrite as N	0.100	0.07749	J	mg/L		77	50 - 150

Lab Sample ID: 880-21080-1 MS
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.165		10.0	9.095		mg/L		89	80 - 120
Nitrite as N	<0.0293	U F1	2.50	1.684	F1	mg/L		67	80 - 120

Lab Sample ID: 880-21080-1 MSD
 Matrix: Water
 Analysis Batch: 76111

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.165		10.0	9.201		mg/L		90	80 - 120	1	15
Nitrite as N	<0.0293	U F1	2.50	1.713	F1	mg/L		69	80 - 120	2	15

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-76271/1-A
 Matrix: Water
 Analysis Batch: 76364

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 76271

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.115	U	0.200	0.115 mg/L		11/04/22 11:30	11/04/22 15:49	1
Magnesium	<0.0428	U	0.200	0.0428 mg/L		11/04/22 11:30	11/04/22 15:49	1
Potassium	<0.0914	U	0.500	0.0914 mg/L		11/04/22 11:30	11/04/22 15:49	1
Sodium	<0.152	U	0.500	0.152 mg/L		11/04/22 11:30	11/04/22 15:49	1
SiO2	<0.471	U	1.07	0.471 mg/L		11/04/22 11:30	11/04/22 15:49	1

Lab Sample ID: LCS 860-76271/2-A
 Matrix: Water
 Analysis Batch: 76364

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 76271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25.0	24.20		mg/L		97	85 - 115
Magnesium	25.0	24.40		mg/L		98	85 - 115
Potassium	10.0	9.610		mg/L		96	85 - 115
Sodium	25.0	24.30		mg/L		97	85 - 115
SiO2	21.4	20.29		mg/L		95	85 - 115

Lab Sample ID: LCSD 860-76271/3-A
 Matrix: Water
 Analysis Batch: 76364

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 76271

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	25.0	24.30		mg/L		97	85 - 115	0	20
Magnesium	25.0	24.40		mg/L		98	85 - 115	0	20

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 860-76271/3-A
 Matrix: Water
 Analysis Batch: 76364

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 76271

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
		Result	Qualifier				Limits		
Potassium	10.0	9.680		mg/L		97	85 - 115	1	20
Sodium	25.0	24.40		mg/L		98	85 - 115	0	20
SiO2	21.4	20.35		mg/L		95	85 - 115	0	20

Lab Sample ID: LLCS 860-76271/4-A
 Matrix: Water
 Analysis Batch: 76364

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 76271

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	%Rec	RPD	RPD Limit
		Result	Qualifier				Limits		
Calcium	0.200	0.2110		mg/L		106	50 - 150		
Magnesium	0.200	0.2290		mg/L		115	50 - 150		
Potassium	0.500	0.4900	J	mg/L		98	50 - 150		
Sodium	0.500	0.5160		mg/L		103	50 - 150		
SiO2	1.07	1.010	J	mg/L		94	50 - 150		

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-76355/4
 Matrix: Water
 Analysis Batch: 76355

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity	<4.00	U	4.00	4.00 mg/L			11/04/22 11:44	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/04/22 11:44	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/04/22 11:44	1
Hydroxide Alkalinity	<4.00	U	4.00	4.00 mg/L			11/04/22 11:44	1
Phenolphthalein Alkalinity	<4.00	U	4.00	4.00 mg/L			11/04/22 11:44	1

Lab Sample ID: LCS 860-76355/5
 Matrix: Water
 Analysis Batch: 76355

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	RPD	RPD Limit
		Result	Qualifier				Limits		
Alkalinity	250	253.5		mg/L		101	85 - 115		

Lab Sample ID: LCSD 860-76355/6
 Matrix: Water
 Analysis Batch: 76355

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
		Result	Qualifier				Limits		
Alkalinity	250	242.4		mg/L		97	85 - 115	4	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-76176/1
 Matrix: Water
 Analysis Batch: 76176

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	<5.00	U	5.00	5.00 mg/L			11/03/22 17:47	1

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 860-76176/2
 Matrix: Water
 Analysis Batch: 76176

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1008		mg/L		101	80 - 120

Lab Sample ID: LCSD 860-76176/3
 Matrix: Water
 Analysis Batch: 76176

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	974.0		mg/L		97	80 - 120	3	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 880-21080-1 DU
 Matrix: Water
 Analysis Batch: 76309

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.3	HF	6.3		SU		0.2	20
Temperature	25.0	HF	25.0		Degrees C		0	20

QC Association Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

GC/MS VOA

Analysis Batch: 75997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	8260C	
MB 860-75997/9	Method Blank	Total/NA	Water	8260C	
LCS 860-75997/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-75997/4	Lab Control Sample Dup	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 76106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	300.0	
MB 860-76106/3	Method Blank	Total/NA	Water	300.0	
MB 860-76106/45	Method Blank	Total/NA	Water	300.0	
LCS 860-76106/46	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-76106/47	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-76106/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 76110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	300.0	
MB 860-76110/3	Method Blank	Total/NA	Water	300.0	
LCS 860-76110/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-76110/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-76110/7	Lab Control Sample	Total/NA	Water	300.0	
880-21080-1 MS	Levey Well	Total/NA	Water	300.0	
880-21080-1 MSD	Levey Well	Total/NA	Water	300.0	

Analysis Batch: 76111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	300.0	
MB 860-76111/3	Method Blank	Total/NA	Water	300.0	
LCS 860-76111/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-76111/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-76111/6	Lab Control Sample	Total/NA	Water	300.0	
880-21080-1 MS	Levey Well	Total/NA	Water	300.0	
880-21080-1 MSD	Levey Well	Total/NA	Water	300.0	

Metals

Prep Batch: 76271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-76271/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-76271/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-76271/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-76271/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 76364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	76271
880-21080-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	76271
MB 860-76271/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	76271
LCS 860-76271/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	76271

Eurofins Midland

QC Association Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Metals (Continued)

Analysis Batch: 76364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-76271/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	76271
LLCS 860-76271/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	76271

General Chemistry

Analysis Batch: 76176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-76176/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-76176/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-76176/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 76309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	SM 4500 H+ B	
880-21080-1 DU	Levey Well	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 76355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-76355/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-76355/5	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-76355/6	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 76370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21080-1	Levey Well	Total/NA	Water	SM 1030E	

Lab Chronicle

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21080-1

Date Collected: 11/02/22 11:40

Matrix: Water

Date Received: 11/02/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	75997	NA	EET HOU	11/03/22 19:19
Total/NA	Analysis	300.0		1	76106	RBNS	EET HOU	11/04/22 17:44
Total/NA	Analysis	300.0		1	76110	A1S	EET HOU	11/03/22 16:59
Total/NA	Analysis	300.0		1	76111	A1S	EET HOU	11/03/22 16:59
Total Recoverable	Prep	200.7			76271	MD	EET HOU	11/04/22 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	76364	JDM	EET HOU	11/04/22 16:30
Total Recoverable	Prep	200.7			76271	MD	EET HOU	11/04/22 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		50	76364	JDM	EET HOU	11/04/22 16:33
Total/NA	Analysis	SM 1030E		1	76370	AA	EET HOU	11/04/22 17:25
Total/NA	Analysis	SM 2320B		1	76355	TL	EET HOU	11/04/22 14:24
Total/NA	Analysis	SM 2540C		1	76176	BSR	EET HOU	11/03/22 17:47
Total/NA	Analysis	SM 4500 H+ B		1	76309	TL	EET HOU	11/04/22 13:32

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	SiO2
SM 1030E		Water	Anion/Cation Balance
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Hydroxide Alkalinity
SM 2320B		Water	Phenolphthalein Alkalinity
SM 4500 H+ B		Water	Temperature

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Method Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
 SDG: Hobbs NM

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
300.0	Anions, Ion Chromatography	MCAWW	EET HOU
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
SM 1030E	Cation Anion Balance	SM	EET HOU
SM 2320B	Alkalinity	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
5030C	Purge and Trap	SW846	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200



Sample Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21080-1
SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-21080-1	Levey Well	Water	11/02/22 11:40	11/02/22 15:45

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Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 21080

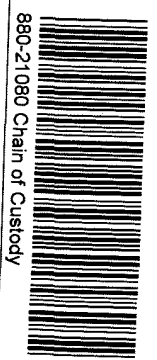
Project Manager:	Beaux Jennings	Bill to, (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	601 Marrenfield #400	Address:	
City, State ZIP:	Midland TX 79701	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other <input type="checkbox"/>

Project Name:	Leyev Well	Hobbs NM	Turn Around	
Project Number:	03B1417001		Routine <input type="checkbox"/>	
P.O. Number:	03B1417001		Rush 24 Hr	
Sampler's Name:	Shane Diller		Due Date	

SAMPLE RECEIPT	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Temperature (°C):	40.43	Thermometer ID		
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Total Containers:		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	VOCs	Anions: F, Cl, SO4, B	Cations: Ca, K, Mg, Na, Si	pH	Alkalinity	TDS	Work Order Notes
Leyev Well	GW	11-2-22	11:40		7	X	X	X	X	X	X	24 Hr



Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/2/22			2
		15:45			4
					6

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21080-1

SDG Number: Hobbs NM

Login Number: 21080

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21080-1

SDG Number: Hobbs NM

Login Number: 21080

List Number: 2

Creator: Marin, Juan

List Source: Eurofins Houston

List Creation: 11/03/22 12:39 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/18/2022 6:26:25 PM

JOB DESCRIPTION

Levey Well Hobbs, NM - 03B1417001
SDG NUMBER Hobbs NM

JOB NUMBER

880-21389-1

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Laboratory Job ID: 880-21389-1
SDG: Hobbs NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

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Case Narrative

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Job ID: 880-21389-1

Laboratory: Eurofins Midland**Narrative****Job Narrative
880-21389-1****Receipt**

The sample was received on 11/9/2022 3:13 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC/MS VOA

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-77039 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 860-77154 were outside control limits: (880-21389-C-1 MS) and (880-21389-C-1 MSD). The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 300_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-77155 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method SM4500_H+: The following sample was analyzed outside of analytical holding time due to <getting through the backlog >: Levey Well (880-21389-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21389-1

Date Collected: 11/09/22 11:30

Matrix: Water

Date Received: 11/09/22 15:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00258		0.00100	0.000533 mg/L			11/10/22 17:53	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			11/10/22 17:53	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			11/10/22 17:53	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			11/10/22 17:53	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			11/10/22 17:53	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			11/10/22 17:53	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			11/10/22 17:53	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			11/10/22 17:53	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			11/10/22 17:53	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			11/10/22 17:53	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			11/10/22 17:53	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			11/10/22 17:53	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			11/10/22 17:53	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			11/10/22 17:53	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			11/10/22 17:53	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			11/10/22 17:53	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			11/10/22 17:53	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			11/10/22 17:53	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			11/10/22 17:53	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			11/10/22 17:53	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/10/22 17:53	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/10/22 17:53	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			11/10/22 17:53	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			11/10/22 17:53	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			11/10/22 17:53	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			11/10/22 17:53	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			11/10/22 17:53	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			11/10/22 17:53	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			11/10/22 17:53	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			11/10/22 17:53	1
Ethylbenzene	0.00876		0.00100	0.000411 mg/L			11/10/22 17:53	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			11/10/22 17:53	1
Isopropylbenzene	0.00417		0.00100	0.000613 mg/L			11/10/22 17:53	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			11/10/22 17:53	1
m,p-Xylenes	0.0351		0.0100	0.00124 mg/L			11/10/22 17:53	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			11/10/22 17:53	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			11/10/22 17:53	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			11/10/22 17:53	1
N-Propylbenzene	0.00193		0.00100	0.000498 mg/L			11/10/22 17:53	1
o-Xylene	0.00552		0.00100	0.000551 mg/L			11/10/22 17:53	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			11/10/22 17:53	1
sec-Butylbenzene	0.000814	J	0.00100	0.000468 mg/L			11/10/22 17:53	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			11/10/22 17:53	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			11/10/22 17:53	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			11/10/22 17:53	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			11/10/22 17:53	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			11/10/22 17:53	1
Toluene	0.0191		0.00100	0.000475 mg/L			11/10/22 17:53	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/10/22 17:53	1

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Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21389-1

Date Collected: 11/09/22 11:30

Matrix: Water

Date Received: 11/09/22 15:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/10/22 17:53	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/10/22 17:53	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/10/22 17:53	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/10/22 17:53	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/10/22 17:53	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/10/22 17:53	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/10/22 17:53	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/10/22 17:53	1
1,2,4-Trimethylbenzene	0.00784		0.00100	0.000417 mg/L			11/10/22 17:53	1
1,3,5-Trimethylbenzene	0.00264		0.00100	0.000456 mg/L			11/10/22 17:53	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/10/22 17:53	1
Xylenes, Total	0.0406		0.0100	0.00124 mg/L			11/10/22 17:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		74 - 124				11/10/22 17:53	1
Dibromofluoromethane (Surr)	100		75 - 131				11/10/22 17:53	1
1,2-Dichloroethane-d4 (Surr)	95		63 - 144				11/10/22 17:53	1
Toluene-d8 (Surr)	101		80 - 117				11/10/22 17:53	1

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.461	J	0.500	0.0711 mg/L			11/10/22 18:44	1
Nitrate as N	0.0934	J	0.100	0.0391 mg/L			11/10/22 18:44	1
Chloride	218		0.500	0.200 mg/L			11/10/22 18:44	1
Nitrite as N	<0.0293	U F1	0.100	0.0293 mg/L			11/10/22 18:44	1
Fluoride	0.683		0.500	0.100 mg/L			11/10/22 18:44	1
Sulfate	46.5		0.500	0.109 mg/L			11/10/22 18:44	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	238		10.0	5.76 mg/L		11/11/22 11:30	11/17/22 19:17	50
Magnesium	44.2		0.200	0.0428 mg/L		11/11/22 11:30	11/17/22 19:14	1
Potassium	3.36		0.500	0.0914 mg/L		11/11/22 11:30	11/17/22 19:14	1
Sodium	73.3		0.500	0.152 mg/L		11/11/22 11:30	11/17/22 19:14	1
SiO2	64.4		1.07	0.471 mg/L		11/11/22 11:30	11/17/22 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	-11.0			%			11/11/22 08:17	1
Alkalinity (SM 2320B)	708		4.00	4.00 mg/L			11/10/22 15:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	708		4.00	4.00 mg/L			11/10/22 15:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/10/22 15:30	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/10/22 15:30	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/10/22 15:30	1
Total Dissolved Solids (SM 2540C)	1450		10.0	10.0 mg/L			11/13/22 16:48	1
pH (SM 4500 H+ B)	6.5	HF		SU			11/11/22 16:32	1
Temperature (SM 4500 H+ B)	21.2	HF		Celsius			11/11/22 16:32	1

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Surrogate Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (74-124)	DBFM (75-131)	DCA (63-144)	TOL (80-117)
860-36600-B-1 MS	Matrix Spike	101	101	94	101
880-21389-1	Levey Well	99	100	95	101
LCS 860-77039/3	Lab Control Sample	98	102	94	99
LCSD 860-77039/4	Lab Control Sample Dup	100	102	92	99
MB 860-77039/9	Method Blank	102	102	95	102

Surrogate Legend

- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- DCA = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)



QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-77039/9
 Matrix: Water
 Analysis Batch: 77039

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533 mg/L			11/10/22 12:45	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			11/10/22 12:45	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			11/10/22 12:45	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			11/10/22 12:45	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			11/10/22 12:45	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			11/10/22 12:45	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			11/10/22 12:45	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			11/10/22 12:45	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			11/10/22 12:45	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			11/10/22 12:45	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			11/10/22 12:45	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			11/10/22 12:45	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			11/10/22 12:45	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			11/10/22 12:45	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			11/10/22 12:45	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			11/10/22 12:45	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			11/10/22 12:45	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			11/10/22 12:45	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			11/10/22 12:45	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			11/10/22 12:45	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/10/22 12:45	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/10/22 12:45	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			11/10/22 12:45	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			11/10/22 12:45	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			11/10/22 12:45	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			11/10/22 12:45	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			11/10/22 12:45	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			11/10/22 12:45	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			11/10/22 12:45	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			11/10/22 12:45	1
Ethylbenzene	<0.000411	U	0.00100	0.000411 mg/L			11/10/22 12:45	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			11/10/22 12:45	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613 mg/L			11/10/22 12:45	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			11/10/22 12:45	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124 mg/L			11/10/22 12:45	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			11/10/22 12:45	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			11/10/22 12:45	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			11/10/22 12:45	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498 mg/L			11/10/22 12:45	1
o-Xylene	<0.000551	U	0.00100	0.000551 mg/L			11/10/22 12:45	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			11/10/22 12:45	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			11/10/22 12:45	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			11/10/22 12:45	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			11/10/22 12:45	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			11/10/22 12:45	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			11/10/22 12:45	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			11/10/22 12:45	1
Toluene	<0.000475	U	0.00100	0.000475 mg/L			11/10/22 12:45	1

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-77039/9
 Matrix: Water
 Analysis Batch: 77039

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/10/22 12:45	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/10/22 12:45	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/10/22 12:45	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/10/22 12:45	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/10/22 12:45	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/10/22 12:45	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/10/22 12:45	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/10/22 12:45	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/10/22 12:45	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			11/10/22 12:45	1
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			11/10/22 12:45	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/10/22 12:45	1
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			11/10/22 12:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		74 - 124		11/10/22 12:45	1
Dibromofluoromethane (Surr)	102		75 - 131		11/10/22 12:45	1
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		11/10/22 12:45	1
Toluene-d8 (Surr)	102		80 - 117		11/10/22 12:45	1

Lab Sample ID: LCS 860-77039/3
 Matrix: Water
 Analysis Batch: 77039

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.04598		mg/L		92	75 - 125
Bromobenzene	0.0500	0.04509		mg/L		90	75 - 125
Bromochloromethane	0.0500	0.04828		mg/L		97	60 - 140
Bromodichloromethane	0.0500	0.04569		mg/L		91	75 - 125
Bromoform	0.0500	0.04605		mg/L		92	70 - 130
Bromomethane	0.0500	0.05472		mg/L		109	60 - 140
2-Butanone	0.250	0.2280		mg/L		91	60 - 140
Carbon tetrachloride	0.0500	0.04426		mg/L		89	70 - 130
Chlorobenzene	0.0500	0.04436		mg/L		89	65 - 135
Chloroethane	0.0500	0.06048		mg/L		121	60 - 140
Chloroform	0.0500	0.04607		mg/L		92	70 - 121
Chloromethane	0.0500	0.04393		mg/L		88	60 - 140
2-Chlorotoluene	0.0500	0.04564		mg/L		91	73 - 125
4-Chlorotoluene	0.0500	0.04589		mg/L		92	74 - 125
cis-1,2-Dichloroethene	0.0500	0.04636		mg/L		93	75 - 125
cis-1,3-Dichloropropene	0.0500	0.04724		mg/L		94	74 - 125
Dibromochloromethane	0.0500	0.04497		mg/L		90	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.04960		mg/L		99	59 - 125
1,2-Dibromoethane	0.0500	0.04645		mg/L		93	73 - 125
1,2-Dichlorobenzene	0.0500	0.04541		mg/L		91	75 - 125
1,3-Dichlorobenzene	0.0500	0.04682		mg/L		94	75 - 125
1,4-Dichlorobenzene	0.0500	0.04456		mg/L		89	75 - 125
Dichlorodifluoromethane	0.0500	0.03913		mg/L		78	70 - 130

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-77039/3
 Matrix: Water
 Analysis Batch: 77039

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	0.0500	0.05372		mg/L		107	70 - 130
1,2-Dichloroethane	0.0500	0.04356		mg/L		87	72 - 130
1,1-Dichloroethene	0.0500	0.06160		mg/L		123	50 - 150
1,2-Dichloropropane	0.0500	0.04900		mg/L		98	74 - 125
1,3-Dichloropropane	0.0500	0.04601		mg/L		92	75 - 125
2,2-Dichloropropane	0.0500	0.04562		mg/L		91	75 - 125
1,1-Dichloropropene	0.0500	0.04837		mg/L		97	75 - 125
Ethylbenzene	0.0500	0.04651		mg/L		93	75 - 125
Hexachlorobutadiene	0.0500	0.04574		mg/L		91	75 - 125
Isopropylbenzene	0.0500	0.04734		mg/L		95	75 - 125
Methylene Chloride	0.0500	0.05473		mg/L		109	75 - 125
m,p-Xylenes	0.0500	0.04657		mg/L		93	75 - 125
MTBE	0.0500	0.05006		mg/L		100	65 - 135
Naphthalene	0.0500	0.05508		mg/L		110	70 - 130
n-Butylbenzene	0.0500	0.04862		mg/L		97	75 - 125
N-Propylbenzene	0.0500	0.04756		mg/L		95	75 - 125
o-Xylene	0.0500	0.04667		mg/L		93	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.04752		mg/L		95	75 - 125
sec-Butylbenzene	0.0500	0.04797		mg/L		96	75 - 125
Styrene	0.0500	0.04776		mg/L		96	75 - 125
tert-Butylbenzene	0.0500	0.04695		mg/L		94	75 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.04494		mg/L		90	72 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.04687		mg/L		94	74 - 125
Tetrachloroethene	0.0500	0.04613		mg/L		92	71 - 125
Toluene	0.0500	0.04580		mg/L		92	70 - 130
trans-1,2-Dichloroethene	0.0500	0.05064		mg/L		101	75 - 125
trans-1,3-Dichloropropene	0.0500	0.04416		mg/L		88	66 - 125
1,2,3-Trichlorobenzene	0.0500	0.05071		mg/L		101	75 - 137
1,2,4-Trichlorobenzene	0.0500	0.05099		mg/L		102	75 - 135
1,1,1-Trichloroethane	0.0500	0.04373		mg/L		87	70 - 130
1,1,2-Trichloroethane	0.0500	0.04634		mg/L		93	70 - 130
Trichloroethene	0.0500	0.04268		mg/L		85	75 - 135
Trichlorofluoromethane	0.0500	0.04692		mg/L		94	60 - 140
1,2,3-Trichloropropane	0.0500	0.04393		mg/L		88	75 - 125
1,2,4-Trimethylbenzene	0.0500	0.04719		mg/L		94	75 - 125
1,3,5-Trimethylbenzene	0.0500	0.04662		mg/L		93	60 - 140
Vinyl chloride	0.0500	0.04888		mg/L		98	60 - 140

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	102		75 - 131
1,2-Dichloroethane-d4 (Surr)	94		63 - 144
Toluene-d8 (Surr)	99		80 - 117

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-77039/4

Matrix: Water

Analysis Batch: 77039

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
	Added	Result	Qualifier				Limits		
Benzene	0.0500	0.04585		mg/L		92	75 - 125	0	25
Bromobenzene	0.0500	0.04610		mg/L		92	75 - 125	2	25
Bromochloromethane	0.0500	0.04823		mg/L		96	60 - 140	0	25
Bromodichloromethane	0.0500	0.04424		mg/L		88	75 - 125	3	25
Bromoform	0.0500	0.04527		mg/L		91	70 - 130	2	25
Bromomethane	0.0500	0.05372		mg/L		107	60 - 140	2	25
2-Butanone	0.250	0.2281		mg/L		91	60 - 140	0	25
Carbon tetrachloride	0.0500	0.04536		mg/L		91	70 - 130	2	25
Chlorobenzene	0.0500	0.04389		mg/L		88	65 - 135	1	25
Chloroethane	0.0500	0.06121		mg/L		122	60 - 140	1	25
Chloroform	0.0500	0.04626		mg/L		93	70 - 121	0	25
Chloromethane	0.0500	0.04591		mg/L		92	60 - 140	4	25
2-Chlorotoluene	0.0500	0.04713		mg/L		94	73 - 125	3	25
4-Chlorotoluene	0.0500	0.04686		mg/L		94	74 - 125	2	25
cis-1,2-Dichloroethene	0.0500	0.04734		mg/L		95	75 - 125	2	25
cis-1,3-Dichloropropene	0.0500	0.04626		mg/L		93	74 - 125	2	25
Dibromochloromethane	0.0500	0.04441		mg/L		89	73 - 125	1	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05087		mg/L		102	59 - 125	3	25
1,2-Dibromoethane	0.0500	0.04586		mg/L		92	73 - 125	1	25
1,2-Dichlorobenzene	0.0500	0.04569		mg/L		91	75 - 125	1	25
1,3-Dichlorobenzene	0.0500	0.04735		mg/L		95	75 - 125	1	25
1,4-Dichlorobenzene	0.0500	0.04537		mg/L		91	75 - 125	2	25
Dichlorodifluoromethane	0.0500	0.04067		mg/L		81	70 - 130	4	25
1,1-Dichloroethane	0.0500	0.05929		mg/L		119	70 - 130	10	25
1,2-Dichloroethane	0.0500	0.04213		mg/L		84	72 - 130	3	25
1,1-Dichloroethene	0.0500	0.06215		mg/L		124	50 - 150	1	25
1,2-Dichloropropane	0.0500	0.04823		mg/L		96	74 - 125	2	25
1,3-Dichloropropane	0.0500	0.04544		mg/L		91	75 - 125	1	25
2,2-Dichloropropane	0.0500	0.04641		mg/L		93	75 - 125	2	25
1,1-Dichloropropene	0.0500	0.05069		mg/L		101	75 - 125	5	25
Ethylbenzene	0.0500	0.04785		mg/L		96	75 - 125	3	25
Hexachlorobutadiene	0.0500	0.04664		mg/L		93	75 - 125	2	25
Isopropylbenzene	0.0500	0.04870		mg/L		97	75 - 125	3	25
Methylene Chloride	0.0500	0.06068		mg/L		121	75 - 125	10	25
m,p-Xylenes	0.0500	0.04694		mg/L		94	75 - 125	1	25
MTBE	0.0500	0.05320		mg/L		106	65 - 135	6	25
Naphthalene	0.0500	0.05051		mg/L		101	70 - 130	9	25
n-Butylbenzene	0.0500	0.05123		mg/L		102	75 - 125	5	25
N-Propylbenzene	0.0500	0.04979		mg/L		100	75 - 125	5	25
o-Xylene	0.0500	0.04696		mg/L		94	75 - 125	1	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05093		mg/L		102	75 - 125	7	25
sec-Butylbenzene	0.0500	0.05149		mg/L		103	75 - 125	7	25
Styrene	0.0500	0.04811		mg/L		96	75 - 125	1	25
tert-Butylbenzene	0.0500	0.04993		mg/L		100	75 - 125	6	25
1,1,1,2-Tetrachloroethane	0.0500	0.04359		mg/L		87	72 - 125	3	25
1,1,1,2,2-Tetrachloroethane	0.0500	0.04922		mg/L		98	74 - 125	5	25
Tetrachloroethene	0.0500	0.04699		mg/L		94	71 - 125	2	25
Toluene	0.0500	0.04670		mg/L		93	70 - 130	2	25

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-77039/4
 Matrix: Water
 Analysis Batch: 77039

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		
trans-1,2-Dichloroethene	0.0500	0.06056		mg/L		121	75 - 125	18	25
trans-1,3-Dichloropropene	0.0500	0.04443		mg/L		89	66 - 125	1	25
1,2,3-Trichlorobenzene	0.0500	0.04667		mg/L		93	75 - 137	8	25
1,2,4-Trichlorobenzene	0.0500	0.04976		mg/L		100	75 - 135	2	25
1,1,1-Trichloroethane	0.0500	0.04598		mg/L		92	70 - 130	5	25
1,1,2-Trichloroethane	0.0500	0.04592		mg/L		92	70 - 130	1	25
Trichloroethene	0.0500	0.04376		mg/L		88	75 - 135	2	25
Trichlorofluoromethane	0.0500	0.04952		mg/L		99	60 - 140	5	25
1,2,3-Trichloropropane	0.0500	0.04612		mg/L		92	75 - 125	5	25
1,2,4-Trimethylbenzene	0.0500	0.04851		mg/L		97	75 - 125	3	25
1,3,5-Trimethylbenzene	0.0500	0.04861		mg/L		97	60 - 140	4	25
Vinyl chloride	0.0500	0.05967		mg/L		119	60 - 140	20	25

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	102		75 - 131
1,2-Dichloroethane-d4 (Surr)	92		63 - 144
Toluene-d8 (Surr)	99		80 - 117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-77154/3
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/10/22 14:28	1
Chloride	<0.200	U	0.500	0.200 mg/L			11/10/22 14:28	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/10/22 14:28	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/10/22 14:28	1

Lab Sample ID: LCS 860-77154/4
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Bromide	10.0	9.710		mg/L		97	90 - 110
Chloride	10.0	10.09		mg/L		101	90 - 110
Fluoride	10.0	10.95		mg/L		110	90 - 110
Sulfate	10.0	9.934		mg/L		99	90 - 110

Lab Sample ID: LCSD 860-77154/5
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		
Bromide	10.0	9.918		mg/L		99	90 - 110	2	20
Chloride	10.0	10.27		mg/L		103	90 - 110	2	20
Fluoride	10.0	10.92		mg/L		109	90 - 110	0	20

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-77154/5
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	10.0	10.14		mg/L		101	90 - 110	2	20

Lab Sample ID: LLCS 860-77154/7
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4457	J	mg/L		89	50 - 150
Chloride	0.500	0.3764	J	mg/L		75	50 - 150
Fluoride	0.500	0.3742	J	mg/L		75	50 - 150
Sulfate	0.500	0.5894		mg/L		118	50 - 150

Lab Sample ID: 880-21389-1 MS
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.461	J	10.0	10.38		mg/L		99	90 - 110
Chloride	218		10.0	225.3	4	mg/L		77	90 - 110
Fluoride	0.683		10.0	11.21		mg/L		105	90 - 110
Sulfate	46.5		10.0	57.24	4	mg/L		108	90 - 110

Lab Sample ID: 880-21389-1 MSD
 Matrix: Water
 Analysis Batch: 77154

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	0.461	J	10.0	10.42		mg/L		100	90 - 110	0	20
Chloride	218		10.0	226.1	4	mg/L		85	90 - 110	0	20
Fluoride	0.683		10.0	11.29		mg/L		106	90 - 110	1	20
Sulfate	46.5		10.0	57.34	4	mg/L		109	90 - 110	0	20

Lab Sample ID: MB 860-77155/3
 Matrix: Water
 Analysis Batch: 77155

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391 mg/L			11/10/22 14:28	1
Nitrite as N	<0.0293	U	0.100	0.0293 mg/L			11/10/22 14:28	1

Lab Sample ID: LCS 860-77155/4
 Matrix: Water
 Analysis Batch: 77155

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	9.948		mg/L		99	80 - 120
Nitrite as N	5.00	5.005		mg/L		100	80 - 120

QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-77155/5
Matrix: Water
Analysis Batch: 77155

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	10.12		mg/L		101	80 - 120	2	20
Nitrite as N	5.00	5.077		mg/L		102	80 - 120	1	20

Lab Sample ID: LLCS 860-77155/6
Matrix: Water
Analysis Batch: 77155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.07123	J	mg/L		71	50 - 150
Nitrite as N	0.100	0.06978	J	mg/L		70	50 - 150

Lab Sample ID: 880-21389-1 MS
Matrix: Water
Analysis Batch: 77155

Client Sample ID: Levey Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.0934	J	10.0	10.16		mg/L		101	80 - 120
Nitrite as N	<0.0293	U F1	2.50	1.718	F1	mg/L		69	80 - 120

Lab Sample ID: 880-21389-1 MSD
Matrix: Water
Analysis Batch: 77155

Client Sample ID: Levey Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.0934	J	10.0	10.17		mg/L		101	80 - 120	0	15
Nitrite as N	<0.0293	U F1	2.50	1.719	F1	mg/L		69	80 - 120	0	15

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-77307/1-A
Matrix: Water
Analysis Batch: 77609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 77307

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Calcium	<0.115	U	0.200	0.115 mg/L		11/11/22 11:30	11/11/22 20:31	1
Magnesium	<0.0428	U	0.200	0.0428 mg/L		11/11/22 11:30	11/11/22 20:31	1
Potassium	<0.0914	U	0.500	0.0914 mg/L		11/11/22 11:30	11/11/22 20:31	1
Sodium	<0.152	U	0.500	0.152 mg/L		11/11/22 11:30	11/11/22 20:31	1
SiO2	<0.471	U	1.07	0.471 mg/L		11/11/22 11:30	11/11/22 20:31	1

Lab Sample ID: LCS 860-77307/2-A
Matrix: Water
Analysis Batch: 77609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 77307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25.0	24.70		mg/L		99	85 - 115
Magnesium	25.0	24.60		mg/L		98	85 - 115
Potassium	10.0	9.990		mg/L		100	85 - 115
Sodium	25.0	24.50		mg/L		98	85 - 115
SiO2	21.4	21.29		mg/L		100	85 - 115

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCSD 860-77307/3-A
 Matrix: Water
 Analysis Batch: 77609

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 77307

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
							RPD	Limit		
Calcium	25.0	24.70		mg/L		99	85 - 115	0	20	
Magnesium	25.0	24.60		mg/L		98	85 - 115	0	20	
Potassium	10.0	9.980		mg/L		100	85 - 115	0	20	
Sodium	25.0	24.50		mg/L		98	85 - 115	0	20	
SiO2	21.4	21.21		mg/L		99	85 - 115	0	20	

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-77180/4
 Matrix: Water
 Analysis Batch: 77180

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity	<4.00	U	4.00	4.00 mg/L			11/10/22 14:26	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/10/22 14:26	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/10/22 14:26	1
Hydroxide Alkalinity	<4.00	U	4.00	4.00 mg/L			11/10/22 14:26	1
Phenolphthalein Alkalinity	<4.00	U	4.00	4.00 mg/L			11/10/22 14:26	1

Lab Sample ID: LCS 860-77180/5
 Matrix: Water
 Analysis Batch: 77180

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							RPD	Limit
Alkalinity	250	251.7		mg/L		101	85 - 115	

Lab Sample ID: LCSD 860-77180/6
 Matrix: Water
 Analysis Batch: 77180

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
							RPD	Limit		
Alkalinity	250	250.6		mg/L		100	85 - 115	0	20	

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-77493/1
 Matrix: Water
 Analysis Batch: 77493

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	<5.00	U	5.00	5.00 mg/L			11/13/22 16:48	1

Lab Sample ID: LCS 860-77493/2
 Matrix: Water
 Analysis Batch: 77493

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							RPD	Limit
Total Dissolved Solids	1000	940.0		mg/L		94	80 - 120	

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 860-77493/3
Matrix: Water
Analysis Batch: 77493

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	978.0		mg/L		98	80 - 120	4	10

Lab Sample ID: LLCS 860-77493/4
Matrix: Water
Analysis Batch: 77493

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	5.00	<5.00	U	mg/L		90	50 - 150		

Lab Sample ID: 880-21389-1 DU
Matrix: Water
Analysis Batch: 77493

Client Sample ID: Levey Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1450		1311		mg/L		10	10

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QC Association Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

GC/MS VOA

Analysis Batch: 77039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	8260C	
MB 860-77039/9	Method Blank	Total/NA	Water	8260C	
LCS 860-77039/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-77039/4	Lab Control Sample Dup	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 77154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	300.0	
MB 860-77154/3	Method Blank	Total/NA	Water	300.0	
LCS 860-77154/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-77154/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-77154/7	Lab Control Sample	Total/NA	Water	300.0	
880-21389-1 MS	Levey Well	Total/NA	Water	300.0	
880-21389-1 MSD	Levey Well	Total/NA	Water	300.0	

Analysis Batch: 77155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	300.0	
MB 860-77155/3	Method Blank	Total/NA	Water	300.0	
LCS 860-77155/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-77155/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-77155/6	Lab Control Sample	Total/NA	Water	300.0	
880-21389-1 MS	Levey Well	Total/NA	Water	300.0	
880-21389-1 MSD	Levey Well	Total/NA	Water	300.0	

Metals

Prep Batch: 77307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-77307/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-77307/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-77307/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Analysis Batch: 77609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-77307/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	77307
LCS 860-77307/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	77307
LCSD 860-77307/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	77307

Analysis Batch: 78363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	77307
880-21389-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	77307

General Chemistry

Analysis Batch: 77180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	SM 2320B	

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QC Association Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

General Chemistry (Continued)

Analysis Batch: 77180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-77180/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-77180/5	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-77180/6	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 77241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	SM 1030E	

Analysis Batch: 77390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 77493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21389-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-77493/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-77493/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-77493/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-77493/4	Lab Control Sample	Total/NA	Water	SM 2540C	
880-21389-1 DU	Levey Well	Total/NA	Water	SM 2540C	

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Lab Chronicle

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21389-1

Date Collected: 11/09/22 11:30

Matrix: Water

Date Received: 11/09/22 15:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	77039	NA	EET HOU	11/10/22 17:53
Total/NA	Analysis	300.0		1	77154	WP	EET HOU	11/10/22 18:44
Total/NA	Analysis	300.0		1	77155	WP	EET HOU	11/10/22 18:44
Total Recoverable	Prep	200.7			77307	MD	EET HOU	11/11/22 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	78363	JDM	EET HOU	11/17/22 19:14
Total Recoverable	Prep	200.7			77307	MD	EET HOU	11/11/22 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		50	78363	JDM	EET HOU	11/17/22 19:17
Total/NA	Analysis	SM 1030E		1	77241	SC	EET HOU	11/11/22 08:17
Total/NA	Analysis	SM 2320B		1	77180	AA	EET HOU	11/10/22 15:30
Total/NA	Analysis	SM 2540C		1	77493	ADL	EET HOU	11/13/22 16:48
Total/NA	Analysis	SM 4500 H+ B		1	77390	ALL	EET HOU	11/11/22 16:32

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	SiO2
SM 1030E		Water	Anion/Cation Balance
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Hydroxide Alkalinity
SM 2320B		Water	Phenolphthalein Alkalinity
SM 4500 H+ B		Water	Temperature

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Method Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
 SDG: Hobbs NM

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
300.0	Anions, Ion Chromatography	MCAWW	EET HOU
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
SM 1030E	Cation Anion Balance	SM	EET HOU
SM 2320B	Alkalinity	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
5030C	Purge and Trap	SW846	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200



Sample Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21389-1
SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-21389-1	Levey Well	Water	11/09/22 11:30	11/09/22 15:13

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Chain of Custody

Houston TX (281) 240-4200 Dallas, TX (214) 902-...
Midland, TX (432-704-5440) El Paso, TX (9...
Hobbs NM (575-392-7550) Phoenix, AZ (480-355-0900)

TX (210) 509-3334
TX (806) 794-1296
Tampa FL (813-620-2000)

Work Order No: 21389

Page 1 of 1

Project Manager: Beaux Jennings
 Company Name: Ensolum LLC
 Address: 601 Marrenfeld #400
 City, State ZIP: Midland TX 79701
 Phone: 432-230-3344
 Email: bjennings@ensolum.com

Bill to (if different):
 Company Name:
 Address:
 City, State ZIP:

Program: UST/PST PRP Brownfields RRC Superfund
 State of Project:
 Reporting Level: Level II Level III PST/UST TRRP Level IV
 Deliverables: EDD ADAPT Other

Project Name: Levey Well Hobbs NM
 Project Number: 03B1417001
 P.O. Number: 03B1417001
 Sampler's Name: Shane Diller
 Turn Around: Routine Rush 24 Hr
 Due Date:

SAMPLE RECEIPT
 Temperature (°C): 39.3.6
 Received Intact: (Yes) No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Thermometer ID: TPO-30
 Correction Factor:
 Total Containers:

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
Levey Well	GW	11-9-22	1130	-

Number of Containers	VOCs	Anions: F, Cl, SO4, B	Cations: Ca, K, Mg, Na, Si	pH	Alkalinity	TDS
7	X	X	X	X	X	X

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	VOCs	Anions: F, Cl, SO4, B	Cations: Ca, K, Mg, Na, Si	pH	Alkalinity	TDS
Levey Well	GW	11-9-22	1130	-	7	X	X	X	X	X	X



880-21389 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by:	Date/Time
[Signature]	[Signature]	11/9/22	[Signature]		2
[Signature]	[Signature]	1813	[Signature]		4
					6

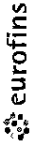
1000030



Sr. TI Sn U V Zn
 245.1 / 7470 17471 Hg

Eurofins Midland
1211 W Florida Ave
Midland TX 79701
Phone: 432-704-5440

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)
 Client Contact: **Kramer Jessica**
 Shipping/Receiving: **Jessica Kramer@et.eurofins.com**
 Company: **NELAP Texas**
 Address: **4145 Greenbriar Dr**
 City: **Stafford**
 State, Zip: **TX, 77477**
 Phone: **281-240-4200(Tel)**
 Email:
 Project Name: **Levey Well Hobbs, NM 03B1417001**
 Site:

Sampler
 Lab PM: **Kramer Jessica**
 Phone:
 E-Mail: **Jessica Kramer@et.eurofins.com**
 State of Origin: **New Mexico**
 Camer Tracking No(s):
 COC No: **880-5681 1**
 Page: **Page 1 of 1**
 Job #: **880-21389-1**

Due Date Requested: 11/11/2022
TAT Requested (days):
PO #:
WO #:
Project #: 88000024
SSOW#:

Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Snow, Ice, Soil, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/6030C (MOD) Full List VOCs	200.7/200.7_P_TR (MOD) Custom List	300_ORGFM_20D/Br Cl, F, S04	300_ORGMS/NO2, NO3	SM4500_Hr/pH	2540C_Calcid/TDS	2320B/Alkalinity	Cellon_Antoni (MOD) Copy Analytes	Total Number of Containers	Special Instructions/Note
Levey Well (880-21389-1)		11/9/22	11 30 Mountain		Water	X	X	X	X	X	X	X	X	X	X	7	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/ess/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I II III IV Other (specify) **Primary Deliverable Rank: 2**

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: *[Signature]* Date: _____
Relinquished by: **FedEx** Date/Time: _____ Company: _____
Relinquished by: **FedEx** Date/Time: _____ Company: _____
Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No **Custody Seal No.**
Temp: **2.1** IRID-HOU-343
C/F +0.3
Corrected Temp: **2.4**

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Ver 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21389-1

SDG Number: Hobbs NM

Login Number: 21389

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21389-1

SDG Number: Hobbs NM

Login Number: 21389

List Number: 2

Creator: Palmar, Pedro

List Source: Eurofins Houston

List Creation: 11/10/22 11:28 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

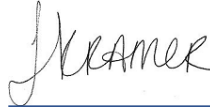
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Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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11/18/2022 6:26:25 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
 Ensolum
 705 W. Wadley
 Suite 210
 Midland, Texas 79701

Generated 12/1/2022 11:31:44 AM

JOB DESCRIPTION

Levey Well Hobbs, NM - 03B1417001
 SDG NUMBER Hobbs NM

JOB NUMBER

880-21679-1

Eurofins Midland
 1211 W. Florida Ave
 Midland TX 79701



Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/1/2022 11:31:44 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Laboratory Job ID: 880-21679-1
SDG: Hobbs NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
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Case Narrative

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Job ID: 880-21679-1**Laboratory: Eurofins Midland****Narrative**

Job Narrative
880-21679-1

Receipt

The sample was received on 11/16/2022 3:48 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

GC/MS VOA

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-78335 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS/LCSD) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_ORGFM_28D: The following sample was diluted to bring the concentration of Chloride, Fluoride and Sulfate within the calibration range: Levey Well (880-21679-1). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The following sample(s) was diluted due to the nature of the sample matrix: high conductivity and chloride concentration. Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-79582 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300_ORGFMS: The following sample was diluted due to the nature of the sample matrix: Levey Well (880-21679-1). Elevated reporting limits (RLs) are provided.

Method 300_ORGFMS: The following sample was analyzed outside of analytical holding time due to analyzed out of hold : Levey Well (880-21679-1).

Method 300_ORGFMS: The following sample(s) was diluted due to the nature of the sample matrix: high conductivity and chloride concentration. Elevated reporting limits (RLs) are provided.

Method 300_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-79709 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.7: Due to the high concentration of Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 860-78550 and analytical batch 860-78740 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 200.7: The following sample was diluted to bring the concentration of target analytes within the calibration range: Levey Well (880-21679-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Case Narrative

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Job ID: 880-21679-1 (Continued)

Laboratory: Eurofins Midland (Continued)

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Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21679-1

Date Collected: 11/16/22 11:35

Matrix: Water

Date Received: 11/16/22 15:48

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00271		0.00100	0.000533 mg/L			11/18/22 17:56	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			11/18/22 17:56	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			11/18/22 17:56	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			11/18/22 17:56	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			11/18/22 17:56	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			11/18/22 17:56	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			11/18/22 17:56	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			11/18/22 17:56	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			11/18/22 17:56	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			11/18/22 17:56	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			11/18/22 17:56	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			11/18/22 17:56	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			11/18/22 17:56	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			11/18/22 17:56	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			11/18/22 17:56	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			11/18/22 17:56	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			11/18/22 17:56	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			11/18/22 17:56	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			11/18/22 17:56	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			11/18/22 17:56	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/18/22 17:56	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/18/22 17:56	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			11/18/22 17:56	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			11/18/22 17:56	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			11/18/22 17:56	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			11/18/22 17:56	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			11/18/22 17:56	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			11/18/22 17:56	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			11/18/22 17:56	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			11/18/22 17:56	1
Ethylbenzene	0.00980		0.00100	0.000411 mg/L			11/18/22 17:56	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			11/18/22 17:56	1
Isopropylbenzene	0.00470		0.00100	0.000613 mg/L			11/18/22 17:56	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			11/18/22 17:56	1
m,p-Xylenes	0.0391		0.0100	0.00124 mg/L			11/18/22 17:56	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			11/18/22 17:56	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			11/18/22 17:56	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			11/18/22 17:56	1
N-Propylbenzene	0.00223		0.00100	0.000498 mg/L			11/18/22 17:56	1
o-Xylene	0.00594		0.00100	0.000551 mg/L			11/18/22 17:56	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			11/18/22 17:56	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			11/18/22 17:56	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			11/18/22 17:56	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			11/18/22 17:56	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			11/18/22 17:56	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			11/18/22 17:56	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			11/18/22 17:56	1
Toluene	0.0204		0.00100	0.000475 mg/L			11/18/22 17:56	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/18/22 17:56	1

Eurofins Midland

Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21679-1

Date Collected: 11/16/22 11:35

Matrix: Water

Date Received: 11/16/22 15:48

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/18/22 17:56	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/18/22 17:56	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/18/22 17:56	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/18/22 17:56	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/18/22 17:56	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/18/22 17:56	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/18/22 17:56	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/18/22 17:56	1
1,2,4-Trimethylbenzene	0.00910		0.00100	0.000417 mg/L			11/18/22 17:56	1
1,3,5-Trimethylbenzene	0.00291		0.00100	0.000456 mg/L			11/18/22 17:56	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/18/22 17:56	1
Xylenes, Total	0.0450		0.0100	0.00124 mg/L			11/18/22 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		74 - 124		11/18/22 17:56	1
Dibromofluoromethane (Surr)	100		75 - 131		11/18/22 17:56	1
1,2-Dichloroethane-d4 (Surr)	94		63 - 144		11/18/22 17:56	1
Toluene-d8 (Surr)	101		80 - 117		11/18/22 17:56	1

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.480	J	0.500	0.0711 mg/L			11/30/22 20:02	1
Nitrate as N	0.154	H	0.100	0.0391 mg/L			11/30/22 20:02	1
Chloride	219		0.500	0.200 mg/L			11/30/22 20:02	1
Nitrite as N	<0.0293	U H	0.100	0.0293 mg/L			11/30/22 20:02	1
Fluoride	0.493	J	0.500	0.100 mg/L			11/30/22 20:02	1
Sulfate	47.5		0.500	0.109 mg/L			11/30/22 20:02	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250		10.0	5.76 mg/L		11/19/22 13:30	11/21/22 11:39	50
Magnesium	50.0		0.200	0.0428 mg/L		11/19/22 13:30	11/21/22 11:22	1
Potassium	4.20		0.500	0.0914 mg/L		11/19/22 13:30	11/21/22 11:22	1
Sodium	78.0		0.500	0.152 mg/L		11/19/22 13:30	11/21/22 11:22	1
SiO2	63.3		1.07	0.471 mg/L		11/19/22 13:30	11/21/22 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	-3.43			%			11/29/22 17:58	1
Alkalinity (SM 2320B)	611		4.00	4.00 mg/L			11/18/22 15:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	611		4.00	4.00 mg/L			11/18/22 15:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/18/22 15:38	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/18/22 15:38	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			11/18/22 15:38	1
Total Dissolved Solids (SM 2540C)	1340		20.0	20.0 mg/L			11/20/22 13:27	1
pH (SM 4500 H+ B)	6.8	HF		SU			11/18/22 15:22	1
Temperature (SM 4500 H+ B)	18.0	HF		Celsius			11/18/22 15:22	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (74-124)	DBFM (75-131)	DCA (63-144)	TOL (80-117)
860-37163-C-1 MS	Matrix Spike	101	102	94	100
880-21679-1	Levey Well	101	100	94	101
LCS 860-78335/3	Lab Control Sample	100	101	95	100
LCSD 860-78335/4	Lab Control Sample Dup	101	102	93	100
MB 860-78335/10	Method Blank	101	102	95	101

Surrogate Legend

- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- DCA = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)



QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-78335/10
 Matrix: Water
 Analysis Batch: 78335

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533 mg/L			11/18/22 12:28	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			11/18/22 12:28	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			11/18/22 12:28	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			11/18/22 12:28	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			11/18/22 12:28	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			11/18/22 12:28	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			11/18/22 12:28	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			11/18/22 12:28	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			11/18/22 12:28	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			11/18/22 12:28	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			11/18/22 12:28	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			11/18/22 12:28	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			11/18/22 12:28	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			11/18/22 12:28	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			11/18/22 12:28	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			11/18/22 12:28	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			11/18/22 12:28	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			11/18/22 12:28	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			11/18/22 12:28	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			11/18/22 12:28	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/18/22 12:28	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			11/18/22 12:28	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			11/18/22 12:28	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			11/18/22 12:28	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			11/18/22 12:28	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			11/18/22 12:28	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			11/18/22 12:28	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			11/18/22 12:28	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			11/18/22 12:28	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			11/18/22 12:28	1
Ethylbenzene	<0.000411	U	0.00100	0.000411 mg/L			11/18/22 12:28	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			11/18/22 12:28	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613 mg/L			11/18/22 12:28	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			11/18/22 12:28	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124 mg/L			11/18/22 12:28	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			11/18/22 12:28	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			11/18/22 12:28	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			11/18/22 12:28	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498 mg/L			11/18/22 12:28	1
o-Xylene	<0.000551	U	0.00100	0.000551 mg/L			11/18/22 12:28	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			11/18/22 12:28	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			11/18/22 12:28	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			11/18/22 12:28	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			11/18/22 12:28	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			11/18/22 12:28	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			11/18/22 12:28	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			11/18/22 12:28	1
Toluene	<0.000475	U	0.00100	0.000475 mg/L			11/18/22 12:28	1

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-78335/10

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 78335

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			11/18/22 12:28	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			11/18/22 12:28	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			11/18/22 12:28	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			11/18/22 12:28	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			11/18/22 12:28	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			11/18/22 12:28	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			11/18/22 12:28	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			11/18/22 12:28	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			11/18/22 12:28	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			11/18/22 12:28	1
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			11/18/22 12:28	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			11/18/22 12:28	1
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			11/18/22 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		74 - 124		11/18/22 12:28	1
Dibromofluoromethane (Surr)	102		75 - 131		11/18/22 12:28	1
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		11/18/22 12:28	1
Toluene-d8 (Surr)	101		80 - 117		11/18/22 12:28	1

Lab Sample ID: LCS 860-78335/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 78335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05316		mg/L		106	75 - 125
Bromobenzene	0.0500	0.05398		mg/L		108	75 - 125
Bromochloromethane	0.0500	0.05213		mg/L		104	60 - 140
Bromodichloromethane	0.0500	0.05343		mg/L		107	75 - 125
Bromoform	0.0500	0.05130		mg/L		103	70 - 130
Bromomethane	0.0500	0.04037		mg/L		81	60 - 140
2-Butanone	0.250	0.2450		mg/L		98	60 - 140
Carbon tetrachloride	0.0500	0.05500		mg/L		110	70 - 130
Chlorobenzene	0.0500	0.05371		mg/L		107	65 - 135
Chloroethane	0.0500	0.04495		mg/L		90	60 - 140
Chloroform	0.0500	0.05555		mg/L		111	70 - 121
Chloromethane	0.0500	0.05191		mg/L		104	60 - 140
2-Chlorotoluene	0.0500	0.05694		mg/L		114	73 - 125
4-Chlorotoluene	0.0500	0.05618		mg/L		112	74 - 125
cis-1,2-Dichloroethene	0.0500	0.05390		mg/L		108	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05438		mg/L		109	74 - 125
Dibromochloromethane	0.0500	0.05226		mg/L		105	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.04632		mg/L		93	59 - 125
1,2-Dibromoethane	0.0500	0.05150		mg/L		103	73 - 125
1,2-Dichlorobenzene	0.0500	0.05390		mg/L		108	75 - 125
1,3-Dichlorobenzene	0.0500	0.05518		mg/L		110	75 - 125
1,4-Dichlorobenzene	0.0500	0.05434		mg/L		109	75 - 125
Dichlorodifluoromethane	0.0500	0.06082		mg/L		122	70 - 130

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-78335/3
 Matrix: Water
 Analysis Batch: 78335

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	0.0500	0.04992		mg/L		100	70 - 130
1,2-Dichloroethane	0.0500	0.04893		mg/L		98	72 - 130
1,1-Dichloroethene	0.0500	0.04516		mg/L		90	50 - 150
1,2-Dichloropropane	0.0500	0.05503		mg/L		110	74 - 125
1,3-Dichloropropane	0.0500	0.05281		mg/L		106	75 - 125
2,2-Dichloropropane	0.0500	0.06093		mg/L		122	75 - 125
1,1-Dichloropropene	0.0500	0.05509		mg/L		110	75 - 125
Ethylbenzene	0.0500	0.05575		mg/L		112	75 - 125
Hexachlorobutadiene	0.0500	0.05209		mg/L		104	75 - 125
Isopropylbenzene	0.0500	0.05761		mg/L		115	75 - 125
Methylene Chloride	0.0500	0.04509		mg/L		90	75 - 125
m,p-Xylenes	0.0500	0.05544		mg/L		111	75 - 125
MTBE	0.0500	0.04758		mg/L		95	65 - 135
Naphthalene	0.0500	0.04544		mg/L		91	70 - 130
n-Butylbenzene	0.0500	0.05733		mg/L		115	75 - 125
N-Propylbenzene	0.0500	0.05813		mg/L		116	75 - 125
o-Xylene	0.0500	0.05443		mg/L		109	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05785		mg/L		116	75 - 125
sec-Butylbenzene	0.0500	0.05781		mg/L		116	75 - 125
Styrene	0.0500	0.05593		mg/L		112	75 - 125
tert-Butylbenzene	0.0500	0.05727		mg/L		115	75 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.05556		mg/L		111	72 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.05329		mg/L		107	74 - 125
Tetrachloroethene	0.0500	0.05406		mg/L		108	71 - 125
Toluene	0.0500	0.05354		mg/L		107	70 - 130
trans-1,2-Dichloroethene	0.0500	0.04520		mg/L		90	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05420		mg/L		108	66 - 125
1,2,3-Trichlorobenzene	0.0500	0.05031		mg/L		101	75 - 137
1,2,4-Trichlorobenzene	0.0500	0.05072		mg/L		101	75 - 135
1,1,1-Trichloroethane	0.0500	0.05657		mg/L		113	70 - 130
1,1,2-Trichloroethane	0.0500	0.05263		mg/L		105	70 - 130
Trichloroethene	0.0500	0.05397		mg/L		108	75 - 135
Trichlorofluoromethane	0.0500	0.05453		mg/L		109	60 - 140
1,2,3-Trichloropropane	0.0500	0.05076		mg/L		102	75 - 125
1,2,4-Trimethylbenzene	0.0500	0.05663		mg/L		113	75 - 125
1,3,5-Trimethylbenzene	0.0500	0.05640		mg/L		113	60 - 140
Vinyl chloride	0.0500	0.05488		mg/L		110	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	101		75 - 131
1,2-Dichloroethane-d4 (Surr)	95		63 - 144
Toluene-d8 (Surr)	100		80 - 117

QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-78335/4

Matrix: Water

Analysis Batch: 78335

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD
									Limit
Benzene	0.0500	0.05259		mg/L		105	75 - 125	1	25
Bromobenzene	0.0500	0.05217		mg/L		104	75 - 125	3	25
Bromochloromethane	0.0500	0.05196		mg/L		104	60 - 140	0	25
Bromodichloromethane	0.0500	0.05261		mg/L		105	75 - 125	2	25
Bromoform	0.0500	0.04864		mg/L		97	70 - 130	5	25
Bromomethane	0.0500	0.04060		mg/L		81	60 - 140	1	25
2-Butanone	0.250	0.2359		mg/L		94	60 - 140	4	25
Carbon tetrachloride	0.0500	0.05576		mg/L		112	70 - 130	1	25
Chlorobenzene	0.0500	0.05238		mg/L		105	65 - 135	3	25
Chloroethane	0.0500	0.04686		mg/L		94	60 - 140	4	25
Chloroform	0.0500	0.05461		mg/L		109	70 - 121	2	25
Chloromethane	0.0500	0.05220		mg/L		104	60 - 140	1	25
2-Chlorotoluene	0.0500	0.05492		mg/L		110	73 - 125	4	25
4-Chlorotoluene	0.0500	0.05462		mg/L		109	74 - 125	3	25
cis-1,2-Dichloroethene	0.0500	0.05306		mg/L		106	75 - 125	2	25
cis-1,3-Dichloropropene	0.0500	0.05469		mg/L		109	74 - 125	1	25
Dibromochloromethane	0.0500	0.05277		mg/L		106	73 - 125	1	25
1,2-Dibromo-3-Chloropropane	0.0500	0.04369		mg/L		87	59 - 125	6	25
1,2-Dibromoethane	0.0500	0.05015		mg/L		100	73 - 125	3	25
1,2-Dichlorobenzene	0.0500	0.05218		mg/L		104	75 - 125	3	25
1,3-Dichlorobenzene	0.0500	0.05366		mg/L		107	75 - 125	3	25
1,4-Dichlorobenzene	0.0500	0.05207		mg/L		104	75 - 125	4	25
Dichlorodifluoromethane	0.0500	0.06157		mg/L		123	70 - 130	1	25
1,1-Dichloroethane	0.0500	0.04892		mg/L		98	70 - 130	2	25
1,2-Dichloroethane	0.0500	0.04795		mg/L		96	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.04546		mg/L		91	50 - 150	1	25
1,2-Dichloropropane	0.0500	0.05539		mg/L		111	74 - 125	1	25
1,3-Dichloropropane	0.0500	0.05192		mg/L		104	75 - 125	2	25
2,2-Dichloropropane	0.0500	0.05958		mg/L		119	75 - 125	2	25
1,1-Dichloropropene	0.0500	0.05370		mg/L		107	75 - 125	3	25
Ethylbenzene	0.0500	0.05444		mg/L		109	75 - 125	2	25
Hexachlorobutadiene	0.0500	0.05007		mg/L		100	75 - 125	4	25
Isopropylbenzene	0.0500	0.05669		mg/L		113	75 - 125	2	25
Methylene Chloride	0.0500	0.04483		mg/L		90	75 - 125	1	25
m,p-Xylenes	0.0500	0.05448		mg/L		109	75 - 125	2	25
MTBE	0.0500	0.04707		mg/L		94	65 - 135	1	25
Naphthalene	0.0500	0.04388		mg/L		88	70 - 130	3	25
n-Butylbenzene	0.0500	0.05656		mg/L		113	75 - 125	1	25
N-Propylbenzene	0.0500	0.05730		mg/L		115	75 - 125	1	25
o-Xylene	0.0500	0.05384		mg/L		108	75 - 125	1	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05666		mg/L		113	75 - 125	2	25
sec-Butylbenzene	0.0500	0.05780		mg/L		116	75 - 125	0	25
Styrene	0.0500	0.05477		mg/L		110	75 - 125	2	25
tert-Butylbenzene	0.0500	0.05726		mg/L		115	75 - 125	0	25
1,1,1,2-Tetrachloroethane	0.0500	0.05463		mg/L		109	72 - 125	2	25
1,1,1,2,2-Tetrachloroethane	0.0500	0.04962		mg/L		99	74 - 125	7	25
Tetrachloroethene	0.0500	0.05411		mg/L		108	71 - 125	0	25
Toluene	0.0500	0.05295		mg/L		106	70 - 130	1	25

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-78335/4
 Matrix: Water
 Analysis Batch: 78335

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	0.0500	0.04404		mg/L		88	75 - 125	3	25
trans-1,3-Dichloropropene	0.0500	0.05404		mg/L		108	66 - 125	0	25
1,2,3-Trichlorobenzene	0.0500	0.04768		mg/L		95	75 - 137	5	25
1,2,4-Trichlorobenzene	0.0500	0.04869		mg/L		97	75 - 135	4	25
1,1,1-Trichloroethane	0.0500	0.05587		mg/L		112	70 - 130	1	25
1,1,2-Trichloroethane	0.0500	0.05163		mg/L		103	70 - 130	2	25
Trichloroethene	0.0500	0.05412		mg/L		108	75 - 135	0	25
Trichlorofluoromethane	0.0500	0.05547		mg/L		111	60 - 140	2	25
1,2,3-Trichloropropane	0.0500	0.05106		mg/L		102	75 - 125	1	25
1,2,4-Trimethylbenzene	0.0500	0.05555		mg/L		111	75 - 125	2	25
1,3,5-Trimethylbenzene	0.0500	0.05516		mg/L		110	60 - 140	2	25
Vinyl chloride	0.0500	0.05579		mg/L		112	60 - 140	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	102		75 - 131
1,2-Dichloroethane-d4 (Surr)	93		63 - 144
Toluene-d8 (Surr)	100		80 - 117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-78457/3
 Matrix: Water
 Analysis Batch: 78457

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/18/22 15:31	1
Chloride	<0.200	U	0.500	0.200 mg/L			11/18/22 15:31	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/18/22 15:31	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/18/22 15:31	1

Lab Sample ID: LCS 860-78457/4
 Matrix: Water
 Analysis Batch: 78457

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.577		mg/L		96	90 - 110
Chloride	10.0	9.949		mg/L		99	90 - 110
Fluoride	10.0	10.87		mg/L		109	90 - 110
Sulfate	10.0	10.00		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-78457/5
 Matrix: Water
 Analysis Batch: 78457

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.376		mg/L		94	90 - 110	2	20
Chloride	10.0	9.754		mg/L		98	90 - 110	2	20
Fluoride	10.0	10.69		mg/L		107	90 - 110	2	20

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-78457/5
 Matrix: Water
 Analysis Batch: 78457

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	10.0	9.787		mg/L		98	90 - 110	2	20

Lab Sample ID: LLCS 860-78457/7
 Matrix: Water
 Analysis Batch: 78457

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.3923	J	mg/L		78	50 - 150
Chloride	0.500	0.3310	J	mg/L		66	50 - 150
Fluoride	0.500	0.3386	J	mg/L		68	50 - 150
Sulfate	0.500	0.5238		mg/L		105	50 - 150

Lab Sample ID: MB 860-78458/3
 Matrix: Water
 Analysis Batch: 78458

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391 mg/L			11/18/22 15:31	1
Nitrite as N	<0.0293	U	0.100	0.0293 mg/L			11/18/22 15:31	1

Lab Sample ID: LCS 860-78458/4
 Matrix: Water
 Analysis Batch: 78458

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	9.885		mg/L		99	80 - 120
Nitrite as N	5.00	4.987		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-78458/5
 Matrix: Water
 Analysis Batch: 78458

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	9.670		mg/L		97	80 - 120	2	20
Nitrite as N	5.00	4.953		mg/L		99	80 - 120	1	20

Lab Sample ID: LLCS 860-78458/6
 Matrix: Water
 Analysis Batch: 78458

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.07134	J	mg/L		71	50 - 150
Nitrite as N	0.100	0.07483	J	mg/L		75	50 - 150

Lab Sample ID: MB 860-79582/13
 Matrix: Water
 Analysis Batch: 79582

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/30/22 02:05	1

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 860-79582/13
 Matrix: Water
 Analysis Batch: 79582

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<0.200	U	0.500	0.200 mg/L			11/30/22 02:05	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/30/22 02:05	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/30/22 02:05	1

Lab Sample ID: LCS 860-79582/14
 Matrix: Water
 Analysis Batch: 79582

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.797		mg/L		98	90 - 110
Fluoride	10.0	10.52		mg/L		105	90 - 110
Sulfate	10.0	9.709		mg/L		97	90 - 110

Lab Sample ID: LCSD 860-79582/15
 Matrix: Water
 Analysis Batch: 79582

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.737		mg/L		97	90 - 110	1	20
Fluoride	10.0	10.46		mg/L		105	90 - 110	1	20
Sulfate	10.0	9.636		mg/L		96	90 - 110	1	20

Lab Sample ID: LLCS 860-79582/17
 Matrix: Water
 Analysis Batch: 79582

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5202		mg/L		104	50 - 150
Fluoride	0.500	0.4890	J	mg/L		98	50 - 150
Sulfate	0.500	0.3021	J	mg/L		60	50 - 150

Lab Sample ID: MB 860-79583/13
 Matrix: Water
 Analysis Batch: 79583

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Nitrate as N	0.06018	J	0.100	0.0391 mg/L			11/30/22 02:05	1
Nitrite as N	0.03189	J	0.100	0.0293 mg/L			11/30/22 02:05	1

Lab Sample ID: LCS 860-79583/14
 Matrix: Water
 Analysis Batch: 79583

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	5.00	4.938		mg/L		99	80 - 120

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-79583/15
 Matrix: Water
 Analysis Batch: 79583

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
		Result	Qualifier				Limits		
Nitrate as N	10.0	9.828		mg/L		98	80 - 120	1	20
Nitrite as N	5.00	4.950		mg/L		99	80 - 120	0	20

Lab Sample ID: LLCS 860-79583/16
 Matrix: Water
 Analysis Batch: 79583

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Nitrate as N	0.100	0.1073		mg/L		107	50 - 150
Nitrite as N	0.100	0.1047		mg/L		105	50 - 150

Lab Sample ID: MB 860-79708/3
 Matrix: Water
 Analysis Batch: 79708

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711 mg/L			11/30/22 13:05	1
Chloride	<0.200	U	0.500	0.200 mg/L			11/30/22 13:05	1
Fluoride	<0.100	U	0.500	0.100 mg/L			11/30/22 13:05	1
Sulfate	<0.109	U	0.500	0.109 mg/L			11/30/22 13:05	1

Lab Sample ID: LCS 860-79708/4
 Matrix: Water
 Analysis Batch: 79708

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Bromide	10.0	10.06		mg/L		101	90 - 110
Chloride	10.0	10.08		mg/L		101	90 - 110
Fluoride	10.0	10.70		mg/L		107	90 - 110
Sulfate	10.0	10.03		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-79708/5
 Matrix: Water
 Analysis Batch: 79708

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
		Result	Qualifier				Limits		
Bromide	10.0	9.960		mg/L		100	90 - 110	1	20
Chloride	10.0	9.964		mg/L		100	90 - 110	1	20
Fluoride	10.0	10.59		mg/L		106	90 - 110	1	20
Sulfate	10.0	9.919		mg/L		99	90 - 110	1	20

Lab Sample ID: LLCS 860-79708/7
 Matrix: Water
 Analysis Batch: 79708

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Bromide	0.500	0.5539		mg/L		111	50 - 150
Chloride	0.500	0.5601		mg/L		112	50 - 150
Fluoride	0.500	0.5191		mg/L		104	50 - 150
Sulfate	0.500	0.5497		mg/L		110	50 - 150

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-79709/3
 Matrix: Water
 Analysis Batch: 79709

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391 mg/L			11/30/22 13:05	1
Nitrite as N	<0.0293	U	0.100	0.0293 mg/L			11/30/22 13:05	1

Lab Sample ID: LCS 860-79709/4
 Matrix: Water
 Analysis Batch: 79709

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	10.25		mg/L		102	80 - 120
Nitrite as N	5.00	5.273		mg/L		105	80 - 120

Lab Sample ID: LCSD 860-79709/5
 Matrix: Water
 Analysis Batch: 79709

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	10.14		mg/L		101	80 - 120	1	20
Nitrite as N	5.00	5.237		mg/L		105	80 - 120	1	20

Lab Sample ID: LLCS 860-79709/6
 Matrix: Water
 Analysis Batch: 79709

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.1268		mg/L		127	50 - 150
Nitrite as N	0.100	0.09439	J	mg/L		94	50 - 150

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-78550/1-A
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.115	U	0.200	0.115 mg/L		11/19/22 13:30	11/21/22 11:11	1
Magnesium	<0.0428	U	0.200	0.0428 mg/L		11/19/22 13:30	11/21/22 11:11	1
Potassium	<0.0914	U	0.500	0.0914 mg/L		11/19/22 13:30	11/21/22 11:11	1
Sodium	<0.152	U	0.500	0.152 mg/L		11/19/22 13:30	11/21/22 11:11	1
SiO2	<0.471	U	1.07	0.471 mg/L		11/19/22 13:30	11/21/22 11:11	1

Lab Sample ID: LCS 860-78550/2-A
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25.0	24.70		mg/L		99	85 - 115
Magnesium	25.0	24.90		mg/L		100	85 - 115
Potassium	10.0	10.20		mg/L		102	85 - 115
Sodium	25.0	24.40		mg/L		98	85 - 115
SiO2	21.4	21.06		mg/L		98	85 - 115

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCSD 860-78550/3-A
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Calcium	25.0	24.60		mg/L		98	85 - 115	0	20	
Magnesium	25.0	24.80		mg/L		99	85 - 115	0	20	
Potassium	10.0	10.20		mg/L		102	85 - 115	0	20	
Sodium	25.0	24.40		mg/L		98	85 - 115	0	20	
SiO2	21.4	21.04		mg/L		98	85 - 115	0	20	

Lab Sample ID: LLCS 860-78550/4-A
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	Spike Added	LLCS		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Calcium	0.200	0.2130		mg/L		107	50 - 150			
Magnesium	0.200	0.2320		mg/L		116	50 - 150			
Potassium	0.500	0.5920		mg/L		118	50 - 150			
Sodium	0.500	0.5190		mg/L		104	50 - 150			
SiO2	1.07	1.201		mg/L		112	50 - 150			

Lab Sample ID: 880-21679-1 MS
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Levey Well
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Calcium	246	E	25.0	253.0	E 4	mg/L		28	70 - 130			
Magnesium	50.0		25.0	70.40		mg/L		82	70 - 130			
Potassium	4.20		10.0	14.10		mg/L		99	70 - 130			
Sodium	78.0		25.0	96.40		mg/L		74	70 - 130			
SiO2	63.3		21.4	79.39		mg/L		75	70 - 130			

Lab Sample ID: 880-21679-1 MSD
 Matrix: Water
 Analysis Batch: 78740

Client Sample ID: Levey Well
 Prep Type: Total Recoverable
 Prep Batch: 78550

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Calcium	246	E	25.0	254.0	E 4	mg/L		32	70 - 130	0	20	
Magnesium	50.0		25.0	70.60		mg/L		82	70 - 130	0	20	
Potassium	4.20		10.0	14.20		mg/L		100	70 - 130	1	20	
Sodium	78.0		25.0	96.70		mg/L		75	70 - 130	0	20	
SiO2	63.3		21.4	79.18		mg/L		74	70 - 130	0	20	

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-78491/4
 Matrix: Water
 Analysis Batch: 78491

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity	<4.00	U	4.00	4.00 mg/L			11/18/22 11:39	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/18/22 11:39	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			11/18/22 11:39	1
Hydroxide Alkalinity	<4.00	U	4.00	4.00 mg/L			11/18/22 11:39	1

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 860-78491/4
 Matrix: Water
 Analysis Batch: 78491

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolphthalein Alkalinity	<4.00	U	4.00	4.00 mg/L			11/18/22 11:39	1

Lab Sample ID: LCS 860-78491/5
 Matrix: Water
 Analysis Batch: 78491

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	250	243.8		mg/L		98	85 - 115

Lab Sample ID: LCSD 860-78491/6
 Matrix: Water
 Analysis Batch: 78491

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	250	244.9		mg/L		98	85 - 115	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-78577/1
 Matrix: Water
 Analysis Batch: 78577

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00 mg/L			11/20/22 13:27	1

Lab Sample ID: LCS 860-78577/2
 Matrix: Water
 Analysis Batch: 78577

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1021		mg/L		102	80 - 120

Lab Sample ID: LCSD 860-78577/3
 Matrix: Water
 Analysis Batch: 78577

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1002		mg/L		100	80 - 120	2	10

Lab Sample ID: LLCS 860-78577/4
 Matrix: Water
 Analysis Batch: 78577

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	5.500		mg/L		110	50 - 150

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

GC/MS VOA

Analysis Batch: 78335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	8260C	
MB 860-78335/10	Method Blank	Total/NA	Water	8260C	
LCS 860-78335/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-78335/4	Lab Control Sample Dup	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 78457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-78457/3	Method Blank	Total/NA	Water	300.0	
LCS 860-78457/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-78457/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-78457/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 78458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-78458/3	Method Blank	Total/NA	Water	300.0	
LCS 860-78458/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-78458/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-78458/6	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 79582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-79582/13	Method Blank	Total/NA	Water	300.0	
LCS 860-79582/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79582/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79582/17	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 79583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-79583/13	Method Blank	Total/NA	Water	300.0	
LCS 860-79583/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79583/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79583/16	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 79708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	300.0	
MB 860-79708/3	Method Blank	Total/NA	Water	300.0	
LCS 860-79708/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79708/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79708/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 79709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	300.0	
MB 860-79709/3	Method Blank	Total/NA	Water	300.0	
LCS 860-79709/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79709/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79709/6	Lab Control Sample	Total/NA	Water	300.0	

Eurofins Midland

QC Association Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Metals

Prep Batch: 78550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-78550/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-78550/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-78550/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-78550/4-A	Lab Control Sample	Total Recoverable	Water	200.7	
880-21679-1 MS	Levey Well	Total Recoverable	Water	200.7	
880-21679-1 MSD	Levey Well	Total Recoverable	Water	200.7	

Analysis Batch: 78740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	78550
880-21679-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	78550
MB 860-78550/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	78550
LCS 860-78550/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	78550
LCSD 860-78550/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	78550
LLCS 860-78550/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	78550
880-21679-1 MS	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	78550
880-21679-1 MSD	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	78550

General Chemistry

Analysis Batch: 78440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 78491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-78491/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-78491/5	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-78491/6	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 78577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-78577/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-78577/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-78577/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-78577/4	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 79568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21679-1	Levey Well	Total/NA	Water	SM 1030E	

Lab Chronicle

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-21679-1

Date Collected: 11/16/22 11:35

Matrix: Water

Date Received: 11/16/22 15:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	78335	AN	EET HOU	11/18/22 17:56
Total/NA	Analysis	300.0		1	79708	WP	EET HOU	11/30/22 20:02
Total/NA	Analysis	300.0		1	79709	WP	EET HOU	11/30/22 20:02
Total Recoverable	Prep	200.7			78550	MD	EET HOU	11/19/22 13:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	78740	JDM	EET HOU	11/21/22 11:22
Total Recoverable	Prep	200.7			78550	MD	EET HOU	11/19/22 13:30
Total Recoverable	Analysis	200.7 Rev 4.4		50	78740	JDM	EET HOU	11/21/22 11:39
Total/NA	Analysis	SM 1030E		1	79568	AA	EET HOU	11/29/22 17:58
Total/NA	Analysis	SM 2320B		1	78491	TL	EET HOU	11/18/22 15:38
Total/NA	Analysis	SM 2540C		1	78577	ADL	EET HOU	11/20/22 13:27
Total/NA	Analysis	SM 4500 H+ B		1	78440	TL	EET HOU	11/18/22 15:22

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	SiO2
SM 1030E		Water	Anion/Cation Balance
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Hydroxide Alkalinity
SM 2320B		Water	Phenolphthalein Alkalinity
SM 4500 H+ B		Water	Temperature

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Method Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
 SDG: Hobbs NM

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
300.0	Anions, Ion Chromatography	MCAWW	EET HOU
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
SM 1030E	Cation Anion Balance	SM	EET HOU
SM 2320B	Alkalinity	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
5030C	Purge and Trap	SW846	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200



Sample Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-21679-1
SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-21679-1	Levey Well	Water	11/16/22 11:35	11/16/22 15:48

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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Hobbs NM (575-382-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: 21079

Project Manager: Beaux Jennings
Company Name: Ensolum LLC
Address: 601 Marientfeld #400
City, State ZIP: Midland TX 79701
Phone: 432-230-3344
Email: bjennings@ensolum.com

Work Order Comments
Program: UST/PST PRP Brownfields RRC Superfund
State of Project:
Reporting Level II Level III PST/UST TRRP Level IV
Deliverables EDD ADAPT Other

Project Name: Levey Well Hobbs NM Turn Around
Project Number: 03B1417001 Routine
P.O. Number: 03B1417001 Rush 24 Hr
Sampler's Name: Shane Diller Due Date

SAMPLE RECEIPT
Temp Blank: Yes No Wet Ice: Yes No
Temperature (°C): 5.8 5.2 Thermometer ID: 1135
Received Intact: Yes No Correction Factor: 1.00
Cooler Custody Seals: Yes No M/A? Total Containers: 7
Sample Custody Seals: Yes No N/A

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	VOCs	Anions: F, Cl, SO4, B	Cations: Ca, K, Mg, Na, Si	pH	Alkalinity	TDS	Sample Comments
Levey Well	GW	11-16-22	1135		7	X	X	X	X	X	X	24 Hr



Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U 1631 / 245.1 / 7470 / 7471 Hg

Relinquished by: (Signature) Received by: (Signature) Date/Time
Relinquished by: (Signature) Received by: (Signature) Date/Time

Eurofins Midland
1211 W Florida Ave
Midland TX 79701
Phone: 432-704-5440

Chain of Custody Record



Environmental Testing



Client Information (Sub Contract Lab)		Lab P/M		Carrier Tracking No(s)		ICC No:		
1211 W Florida Ave Midland TX 79701 Phone: 432-704-5440		Kramer Jessica		Kramer Jessica		880-57311		
Shipping/Receiving		E-Mail:		State of Origin:		Page:		
Eurofins Environment Testing South Cent		Jessica.Kramer@et.eurofins.com		New Mexico		Page 1 of 1		
Company:		Accreditations Required (See note):		Job #:		Preservation Codes:		
NELAP Texas		NELAP Texas		880-21679-1		A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other		
Due Date Requested:		TAT Requested (days):		Analysis Requested				Total Number of Containers
11/18/2022		7		300_ORGFM/NO2, NO3 300_ORGFM_2BD/Br Cl F SO4 200_7200_P_TR (MOD) Custom List 826C/6030C (MOD) Full List VOCs Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>				
PO #:	WO #:	Project #:	SSOW#:	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Invector, Swab, On-surface, Aqueous)	Special Instructions/Note:
281-240-4200(Tel)		88000024		11/16/22	11:35 Mountain		Water	
				Levey Well (880-21679-1)				
				Temp: 26 °C CIF +1.2 Corrected Temp: 3.8				

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 2
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: *[Signature]* Date: _____
 Relinquished by: *[Signature]* Date/Time: _____ Company: _____
 Relinquished by: *[Signature]* Date/Time: _____ Company: _____
 Relinquished by: *[Signature]* Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Δ No Δ No Δ No
 Cooler Temperature(s) °C and Other Remarks:



Ver 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21679-1

SDG Number: Hobbs NM

Login Number: 21679

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-21679-1

SDG Number: Hobbs NM

Login Number: 21679

List Number: 2

Creator: Marin, Juan

List Source: Eurofins Houston

List Creation: 11/18/22 01:47 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 12/5/2022 2:57:34 PM

JOB DESCRIPTION

Levey Well Hobbs, NM - 03B1417001
 SDG NUMBER Hobbs NM

JOB NUMBER

880-22081-1

Eurofins Midland
 1211 W. Florida Ave
 Midland TX 79701

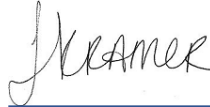


Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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12/5/2022 2:57:34 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Laboratory Job ID: 880-22081-1
SDG: Hobbs NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Definitions/Glossary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
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Case Narrative

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

Job ID: 880-22081-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-22081-1

Receipt

The sample was received on 11/30/2022 3:10 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C

GC/MS VOA

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-79805 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-22081-1

Date Collected: 11/30/22 11:25

Matrix: Water

Date Received: 11/30/22 15:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00246		0.00100	0.000533 mg/L			12/01/22 15:02	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			12/01/22 15:02	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			12/01/22 15:02	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			12/01/22 15:02	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			12/01/22 15:02	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			12/01/22 15:02	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			12/01/22 15:02	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			12/01/22 15:02	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			12/01/22 15:02	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			12/01/22 15:02	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			12/01/22 15:02	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			12/01/22 15:02	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			12/01/22 15:02	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			12/01/22 15:02	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			12/01/22 15:02	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			12/01/22 15:02	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			12/01/22 15:02	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			12/01/22 15:02	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			12/01/22 15:02	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			12/01/22 15:02	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			12/01/22 15:02	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			12/01/22 15:02	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			12/01/22 15:02	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			12/01/22 15:02	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			12/01/22 15:02	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			12/01/22 15:02	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			12/01/22 15:02	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			12/01/22 15:02	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			12/01/22 15:02	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			12/01/22 15:02	1
Ethylbenzene	0.00900		0.00100	0.000411 mg/L			12/01/22 15:02	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			12/01/22 15:02	1
Isopropylbenzene	0.00436		0.00100	0.000613 mg/L			12/01/22 15:02	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			12/01/22 15:02	1
m,p-Xylenes	0.0354		0.0100	0.00124 mg/L			12/01/22 15:02	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			12/01/22 15:02	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			12/01/22 15:02	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			12/01/22 15:02	1
N-Propylbenzene	0.00204		0.00100	0.000498 mg/L			12/01/22 15:02	1
o-Xylene	0.00573		0.00100	0.000551 mg/L			12/01/22 15:02	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			12/01/22 15:02	1
sec-Butylbenzene	0.000875	J	0.00100	0.000468 mg/L			12/01/22 15:02	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			12/01/22 15:02	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			12/01/22 15:02	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			12/01/22 15:02	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			12/01/22 15:02	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			12/01/22 15:02	1
Toluene	0.0178		0.00100	0.000475 mg/L			12/01/22 15:02	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			12/01/22 15:02	1

Eurofins Midland

Client Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-22081-1

Date Collected: 11/30/22 11:25

Matrix: Water

Date Received: 11/30/22 15:10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			12/01/22 15:02	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			12/01/22 15:02	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			12/01/22 15:02	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			12/01/22 15:02	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			12/01/22 15:02	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			12/01/22 15:02	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			12/01/22 15:02	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			12/01/22 15:02	1
1,2,4-Trimethylbenzene	0.00919		0.00100	0.000417 mg/L			12/01/22 15:02	1
1,3,5-Trimethylbenzene	0.00268		0.00100	0.000456 mg/L			12/01/22 15:02	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			12/01/22 15:02	1
Xylenes, Total	0.0411		0.0100	0.00124 mg/L			12/01/22 15:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		74 - 124				12/01/22 15:02	1
Dibromofluoromethane (Surr)	95		75 - 131				12/01/22 15:02	1
1,2-Dichloroethane-d4 (Surr)	103		63 - 144				12/01/22 15:02	1
Toluene-d8 (Surr)	106		80 - 117				12/01/22 15:02	1

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.487	J	0.500	0.0711 mg/L			12/01/22 15:46	1
Nitrate as N	0.0811	J	0.100	0.0391 mg/L			12/01/22 15:46	1
Chloride	218		0.500	0.200 mg/L			12/01/22 15:46	1
Nitrite as N	<0.0293	U	0.100	0.0293 mg/L			12/01/22 15:46	1
Fluoride	0.710		0.500	0.100 mg/L			12/01/22 15:46	1
Sulfate	44.9		0.500	0.109 mg/L			12/01/22 15:46	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	208		10.0	5.76 mg/L		12/01/22 13:00	12/02/22 11:18	50
Magnesium	43.2		0.200	0.0428 mg/L		12/01/22 13:00	12/02/22 10:53	1
Potassium	3.12		0.500	0.0914 mg/L		12/01/22 13:00	12/02/22 10:53	1
Sodium	70.9		0.500	0.152 mg/L		12/01/22 13:00	12/02/22 10:53	1
SiO2	64.8		1.07	0.471 mg/L		12/01/22 13:00	12/02/22 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	-11.7			%			12/05/22 13:20	1
Alkalinity (SM 2320B)	618		4.00	4.00 mg/L			12/02/22 14:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	618		4.00	4.00 mg/L			12/02/22 14:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00 mg/L			12/02/22 14:55	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			12/02/22 14:55	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00 mg/L			12/02/22 14:55	1
Total Dissolved Solids (SM 2540C)	1270		10.0	10.0 mg/L			12/01/22 19:09	1
pH (SM 4500 H+ B)	6.7	HF		SU			12/02/22 12:05	1
Temperature (SM 4500 H+ B)	18.6	HF		Degrees C			12/02/22 12:05	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (74-124)	DBFM (75-131)	DCA (63-144)	TOL (80-117)
670-10058-D-13 MS	Matrix Spike	90	93	96	97
880-22081-1	Levey Well	102	95	103	106
LCS 860-79805/3	Lab Control Sample	91	96	99	100
LCSD 860-79805/4	Lab Control Sample Dup	89	95	97	98
MB 860-79805/9	Method Blank	98	97	98	100

Surrogate Legend

- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- DCA = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)



QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-79805/9
 Matrix: Water
 Analysis Batch: 79805

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533 mg/L			12/01/22 09:58	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			12/01/22 09:58	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			12/01/22 09:58	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			12/01/22 09:58	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			12/01/22 09:58	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			12/01/22 09:58	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			12/01/22 09:58	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			12/01/22 09:58	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			12/01/22 09:58	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			12/01/22 09:58	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			12/01/22 09:58	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			12/01/22 09:58	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			12/01/22 09:58	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			12/01/22 09:58	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			12/01/22 09:58	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			12/01/22 09:58	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			12/01/22 09:58	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			12/01/22 09:58	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			12/01/22 09:58	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			12/01/22 09:58	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			12/01/22 09:58	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			12/01/22 09:58	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			12/01/22 09:58	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			12/01/22 09:58	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			12/01/22 09:58	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			12/01/22 09:58	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			12/01/22 09:58	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			12/01/22 09:58	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			12/01/22 09:58	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			12/01/22 09:58	1
Ethylbenzene	<0.000411	U	0.00100	0.000411 mg/L			12/01/22 09:58	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			12/01/22 09:58	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613 mg/L			12/01/22 09:58	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			12/01/22 09:58	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124 mg/L			12/01/22 09:58	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			12/01/22 09:58	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			12/01/22 09:58	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			12/01/22 09:58	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498 mg/L			12/01/22 09:58	1
o-Xylene	<0.000551	U	0.00100	0.000551 mg/L			12/01/22 09:58	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			12/01/22 09:58	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			12/01/22 09:58	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			12/01/22 09:58	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			12/01/22 09:58	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			12/01/22 09:58	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			12/01/22 09:58	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			12/01/22 09:58	1
Toluene	<0.000475	U	0.00100	0.000475 mg/L			12/01/22 09:58	1

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-79805/9

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 79805

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			12/01/22 09:58	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			12/01/22 09:58	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			12/01/22 09:58	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			12/01/22 09:58	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			12/01/22 09:58	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			12/01/22 09:58	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			12/01/22 09:58	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			12/01/22 09:58	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			12/01/22 09:58	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			12/01/22 09:58	1
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			12/01/22 09:58	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			12/01/22 09:58	1
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			12/01/22 09:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		74 - 124		12/01/22 09:58	1
Dibromofluoromethane (Surr)	97		75 - 131		12/01/22 09:58	1
1,2-Dichloroethane-d4 (Surr)	98		63 - 144		12/01/22 09:58	1
Toluene-d8 (Surr)	100		80 - 117		12/01/22 09:58	1

Lab Sample ID: LCS 860-79805/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 79805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.04726		mg/L		95	75 - 125
Bromobenzene	0.0500	0.05177		mg/L		104	75 - 125
Bromochloromethane	0.0500	0.04576		mg/L		92	60 - 140
Bromodichloromethane	0.0500	0.04681		mg/L		94	75 - 125
Bromoform	0.0500	0.05202		mg/L		104	70 - 130
Bromomethane	0.0500	0.05348		mg/L		107	60 - 140
2-Butanone	0.250	0.2145		mg/L		86	60 - 140
Carbon tetrachloride	0.0500	0.04917		mg/L		98	70 - 130
Chlorobenzene	0.0500	0.04843		mg/L		97	65 - 135
Chloroethane	0.0500	0.04583		mg/L		92	60 - 140
Chloroform	0.0500	0.04462		mg/L		89	70 - 121
Chloromethane	0.0500	0.04033		mg/L		81	60 - 140
2-Chlorotoluene	0.0500	0.04801		mg/L		96	73 - 125
4-Chlorotoluene	0.0500	0.04826		mg/L		97	74 - 125
cis-1,2-Dichloroethene	0.0500	0.04547		mg/L		91	75 - 125
cis-1,3-Dichloropropene	0.0500	0.04659		mg/L		93	74 - 125
Dibromochloromethane	0.0500	0.04737		mg/L		95	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.04753		mg/L		95	59 - 125
1,2-Dibromoethane	0.0500	0.04738		mg/L		95	73 - 125
1,2-Dichlorobenzene	0.0500	0.05281		mg/L		106	75 - 125
1,3-Dichlorobenzene	0.0500	0.05242		mg/L		105	75 - 125
1,4-Dichlorobenzene	0.0500	0.05114		mg/L		102	75 - 125
Dichlorodifluoromethane	0.0500	0.04256		mg/L		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

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

Lab Sample ID: LCS 860-79805/3

Matrix: Water

Analysis Batch: 79805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
1,1-Dichloroethane	0.0500	0.04573		mg/L		91	70 - 130
1,2-Dichloroethane	0.0500	0.04589		mg/L		92	72 - 130
1,1-Dichloroethene	0.0500	0.05201		mg/L		104	50 - 150
1,2-Dichloropropane	0.0500	0.04539		mg/L		91	74 - 125
1,3-Dichloropropane	0.0500	0.04621		mg/L		92	75 - 125
2,2-Dichloropropane	0.0500	0.04937		mg/L		99	75 - 125
1,1-Dichloropropene	0.0500	0.04589		mg/L		92	75 - 125
Ethylbenzene	0.0500	0.04821		mg/L		96	75 - 125
Hexachlorobutadiene	0.0500	0.06022		mg/L		120	75 - 125
Isopropylbenzene	0.0500	0.04964		mg/L		99	75 - 125
Methylene Chloride	0.0500	0.04718		mg/L		94	75 - 125
m,p-Xylenes	0.0500	0.04839		mg/L		97	75 - 125
MTBE	0.0500	0.04498		mg/L		90	65 - 135
Naphthalene	0.0500	0.05101		mg/L		102	70 - 130
n-Butylbenzene	0.0500	0.04975		mg/L		100	75 - 125
N-Propylbenzene	0.0500	0.04849		mg/L		97	75 - 125
o-Xylene	0.0500	0.04855		mg/L		97	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05154		mg/L		103	75 - 125
sec-Butylbenzene	0.0500	0.05048		mg/L		101	75 - 125
Styrene	0.0500	0.04837		mg/L		97	75 - 125
tert-Butylbenzene	0.0500	0.04985		mg/L		100	75 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.04905		mg/L		98	72 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.04402		mg/L		88	74 - 125
Tetrachloroethene	0.0500	0.05414		mg/L		108	71 - 125
Toluene	0.0500	0.04790		mg/L		96	70 - 130
trans-1,2-Dichloroethene	0.0500	0.04756		mg/L		95	75 - 125
trans-1,3-Dichloropropene	0.0500	0.04644		mg/L		93	66 - 125
1,2,3-Trichlorobenzene	0.0500	0.05528		mg/L		111	75 - 137
1,2,4-Trichlorobenzene	0.0500	0.05526		mg/L		111	75 - 135
1,1,1-Trichloroethane	0.0500	0.04769		mg/L		95	70 - 130
1,1,2-Trichloroethane	0.0500	0.04444		mg/L		89	70 - 130
Trichloroethene	0.0500	0.04991		mg/L		100	75 - 135
Trichlorofluoromethane	0.0500	0.05021		mg/L		100	60 - 140
1,2,3-Trichloropropane	0.0500	0.04422		mg/L		88	75 - 125
1,2,4-Trimethylbenzene	0.0500	0.04940		mg/L		99	75 - 125
1,3,5-Trimethylbenzene	0.0500	0.04901		mg/L		98	60 - 140
Vinyl chloride	0.0500	0.04401		mg/L		88	60 - 140

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	91		74 - 124
Dibromofluoromethane (Surr)	96		75 - 131
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
Toluene-d8 (Surr)	100		80 - 117

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QC Sample Results

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-79805/4

Matrix: Water

Analysis Batch: 79805

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.04690		mg/L		94	75 - 125	1	25
Bromobenzene	0.0500	0.04742		mg/L		95	75 - 125	9	25
Bromochloromethane	0.0500	0.04606		mg/L		92	60 - 140	1	25
Bromodichloromethane	0.0500	0.04674		mg/L		93	75 - 125	0	25
Bromoform	0.0500	0.05230		mg/L		105	70 - 130	1	25
Bromomethane	0.0500	0.05638		mg/L		113	60 - 140	5	25
2-Butanone	0.250	0.2325		mg/L		93	60 - 140	8	25
Carbon tetrachloride	0.0500	0.05105		mg/L		102	70 - 130	4	25
Chlorobenzene	0.0500	0.04744		mg/L		95	65 - 135	2	25
Chloroethane	0.0500	0.04559		mg/L		91	60 - 140	1	25
Chloroform	0.0500	0.04535		mg/L		91	70 - 121	2	25
Chloromethane	0.0500	0.04276		mg/L		86	60 - 140	6	25
2-Chlorotoluene	0.0500	0.04431		mg/L		89	73 - 125	8	25
4-Chlorotoluene	0.0500	0.04412		mg/L		88	74 - 125	9	25
cis-1,2-Dichloroethene	0.0500	0.04662		mg/L		93	75 - 125	2	25
cis-1,3-Dichloropropene	0.0500	0.04550		mg/L		91	74 - 125	2	25
Dibromochloromethane	0.0500	0.04736		mg/L		95	73 - 125	0	25
1,2-Dibromo-3-Chloropropane	0.0500	0.04689		mg/L		94	59 - 125	1	25
1,2-Dibromoethane	0.0500	0.04630		mg/L		93	73 - 125	2	25
1,2-Dichlorobenzene	0.0500	0.04803		mg/L		96	75 - 125	9	25
1,3-Dichlorobenzene	0.0500	0.04851		mg/L		97	75 - 125	8	25
1,4-Dichlorobenzene	0.0500	0.04726		mg/L		95	75 - 125	8	25
Dichlorodifluoromethane	0.0500	0.04484		mg/L		90	70 - 130	5	25
1,1-Dichloroethane	0.0500	0.04605		mg/L		92	70 - 130	1	25
1,2-Dichloroethane	0.0500	0.04660		mg/L		93	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.05271		mg/L		105	50 - 150	1	25
1,2-Dichloropropane	0.0500	0.04584		mg/L		92	74 - 125	1	25
1,3-Dichloropropane	0.0500	0.04559		mg/L		91	75 - 125	1	25
2,2-Dichloropropane	0.0500	0.04953		mg/L		99	75 - 125	0	25
1,1-Dichloropropene	0.0500	0.04700		mg/L		94	75 - 125	2	25
Ethylbenzene	0.0500	0.04854		mg/L		97	75 - 125	1	25
Hexachlorobutadiene	0.0500	0.05499		mg/L		110	75 - 125	9	25
Isopropylbenzene	0.0500	0.04953		mg/L		99	75 - 125	0	25
Methylene Chloride	0.0500	0.04782		mg/L		96	75 - 125	1	25
m,p-Xylenes	0.0500	0.04847		mg/L		97	75 - 125	0	25
MTBE	0.0500	0.04618		mg/L		92	65 - 135	3	25
Naphthalene	0.0500	0.04616		mg/L		92	70 - 130	10	25
n-Butylbenzene	0.0500	0.04723		mg/L		94	75 - 125	5	25
N-Propylbenzene	0.0500	0.04558		mg/L		91	75 - 125	6	25
o-Xylene	0.0500	0.04821		mg/L		96	75 - 125	1	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.04847		mg/L		97	75 - 125	6	25
sec-Butylbenzene	0.0500	0.04750		mg/L		95	75 - 125	6	25
Styrene	0.0500	0.04760		mg/L		95	75 - 125	2	25
tert-Butylbenzene	0.0500	0.04745		mg/L		95	75 - 125	5	25
1,1,1,2-Tetrachloroethane	0.0500	0.04866		mg/L		97	72 - 125	1	25
1,1,1,2,2-Tetrachloroethane	0.0500	0.04105		mg/L		82	74 - 125	7	25
Tetrachloroethene	0.0500	0.05418		mg/L		108	71 - 125	0	25
Toluene	0.0500	0.04683		mg/L		94	70 - 130	2	25

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-79805/4
 Matrix: Water
 Analysis Batch: 79805

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	0.0500	0.04866		mg/L		97	75 - 125	2	25
trans-1,3-Dichloropropene	0.0500	0.04598		mg/L		92	66 - 125	1	25
1,2,3-Trichlorobenzene	0.0500	0.04920		mg/L		98	75 - 137	12	25
1,2,4-Trichlorobenzene	0.0500	0.05143		mg/L		103	75 - 135	7	25
1,1,1-Trichloroethane	0.0500	0.04876		mg/L		98	70 - 130	2	25
1,1,2-Trichloroethane	0.0500	0.04413		mg/L		88	70 - 130	1	25
Trichloroethene	0.0500	0.04913		mg/L		98	75 - 135	2	25
Trichlorofluoromethane	0.0500	0.05517		mg/L		110	60 - 140	9	25
1,2,3-Trichloropropane	0.0500	0.04131		mg/L		83	75 - 125	7	25
1,2,4-Trimethylbenzene	0.0500	0.04618		mg/L		92	75 - 125	7	25
1,3,5-Trimethylbenzene	0.0500	0.04588		mg/L		92	60 - 140	7	25
Vinyl chloride	0.0500	0.04536		mg/L		91	60 - 140	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	89		74 - 124
Dibromofluoromethane (Surr)	95		75 - 131
1,2-Dichloroethane-d4 (Surr)	97		63 - 144
Toluene-d8 (Surr)	98		80 - 117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-79927/3
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711 mg/L			12/01/22 13:42	1
Chloride	<0.200	U	0.500	0.200 mg/L			12/01/22 13:42	1
Fluoride	<0.100	U	0.500	0.100 mg/L			12/01/22 13:42	1
Sulfate	<0.109	U	0.500	0.109 mg/L			12/01/22 13:42	1

Lab Sample ID: LCS 860-79927/4
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	10.09		mg/L		101	90 - 110
Chloride	10.0	10.07		mg/L		101	90 - 110
Fluoride	10.0	10.66		mg/L		107	90 - 110
Sulfate	10.0	10.06		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-79927/5
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	10.02		mg/L		100	90 - 110	1	20
Chloride	10.0	9.995		mg/L		100	90 - 110	1	20
Fluoride	10.0	10.61		mg/L		106	90 - 110	0	20

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-79927/5
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	10.0	9.997		mg/L		100	90 - 110	1	20

Lab Sample ID: LLCS 860-79927/7
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.5551		mg/L		111	50 - 150
Chloride	0.500	0.5627		mg/L		113	50 - 150
Fluoride	0.500	0.5262		mg/L		105	50 - 150
Sulfate	0.500	0.5537		mg/L		111	50 - 150

Lab Sample ID: 880-22081-1 MS
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.487	J	10.0	10.25		mg/L		98	90 - 110
Chloride	218		10.0	219.6	4	mg/L		16	90 - 110
Fluoride	0.710		10.0	10.83		mg/L		101	90 - 110
Sulfate	44.9		10.0	54.74	4	mg/L		99	90 - 110

Lab Sample ID: 880-22081-1 MSD
 Matrix: Water
 Analysis Batch: 79927

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	0.487	J	10.0	10.29		mg/L		98	90 - 110	0	20
Chloride	218		10.0	220.7	4	mg/L		27	90 - 110	0	20
Fluoride	0.710		10.0	10.86		mg/L		102	90 - 110	0	20
Sulfate	44.9		10.0	54.96	4	mg/L		101	90 - 110	0	20

Lab Sample ID: MB 860-79928/3
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391 mg/L			12/01/22 13:42	1
Nitrite as N	<0.0293	U	0.100	0.0293 mg/L			12/01/22 13:42	1

Lab Sample ID: LCS 860-79928/4
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	10.24		mg/L		102	80 - 120
Nitrite as N	5.00	5.259		mg/L		105	80 - 120

Eurofins Midland

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-79928/5
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Nitrate as N	10.0	10.17		mg/L		102	80 - 120	1	20	
Nitrite as N	5.00	5.242		mg/L		105	80 - 120	0	20	

Lab Sample ID: LLCS 860-79928/6
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Nitrate as N	0.100	0.1272		mg/L		127	50 - 150			
Nitrite as N	0.100	0.09591	J	mg/L		96	50 - 150			

Lab Sample ID: 880-22081-1 MS
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Nitrate as N	0.0811	J	10.0	10.05		mg/L		100	80 - 120			
Nitrite as N	<0.0293	U	2.50	2.274		mg/L		91	80 - 120			

Lab Sample ID: 880-22081-1 MSD
 Matrix: Water
 Analysis Batch: 79928

Client Sample ID: Levey Well
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Nitrate as N	0.0811	J	10.0	10.10		mg/L		100	80 - 120	0	15	
Nitrite as N	<0.0293	U	2.50	2.290		mg/L		92	80 - 120	1	15	

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-79905/1-A
 Matrix: Water
 Analysis Batch: 80108

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 79905

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Calcium	<0.115	U	0.200	0.115 mg/L		12/01/22 13:00	12/02/22 10:14	1
Magnesium	<0.0428	U	0.200	0.0428 mg/L		12/01/22 13:00	12/02/22 10:14	1
Potassium	<0.0914	U	0.500	0.0914 mg/L		12/01/22 13:00	12/02/22 10:14	1
Sodium	<0.152	U	0.500	0.152 mg/L		12/01/22 13:00	12/02/22 10:14	1
SiO2	<0.471	U	1.07	0.471 mg/L		12/01/22 13:00	12/02/22 10:14	1

Lab Sample ID: LCS 860-79905/2-A
 Matrix: Water
 Analysis Batch: 80108

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 79905

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Calcium	25.0	24.30		mg/L		97	85 - 115			
Magnesium	25.0	24.40		mg/L		98	85 - 115			
Potassium	10.0	9.630		mg/L		96	85 - 115			
Sodium	25.0	23.70		mg/L		95	85 - 115			
SiO2	21.4	20.97		mg/L		98	85 - 115			

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QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCSD 860-79905/3-A
 Matrix: Water
 Analysis Batch: 80108

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 79905

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	RPD	Limit
Calcium	25.0	24.80		mg/L		99	85 - 115	2	20	
Magnesium	25.0	24.90		mg/L		100	85 - 115	2	20	
Potassium	10.0	9.760		mg/L		98	85 - 115	1	20	
Sodium	25.0	24.10		mg/L		96	85 - 115	2	20	
SiO2	21.4	21.34		mg/L		100	85 - 115	2	20	

Lab Sample ID: LLCS 860-79905/4-A
 Matrix: Water
 Analysis Batch: 80108

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 79905

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	RPD	Limit
Calcium	0.200	0.1980	J	mg/L		99	50 - 150			
Magnesium	0.200	0.2340		mg/L		117	50 - 150			
Potassium	0.500	0.5750		mg/L		115	50 - 150			
Sodium	0.500	0.5030		mg/L		101	50 - 150			
SiO2	1.07	1.205		mg/L		113	50 - 150			

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-80157/3
 Matrix: Water
 Analysis Batch: 80157

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity	<4.00	U	4.00	4.00 mg/L			12/02/22 11:18	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			12/02/22 11:18	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			12/02/22 11:18	1
Hydroxide Alkalinity	<4.00	U	4.00	4.00 mg/L			12/02/22 11:18	1
Phenolphthalein Alkalinity	<4.00	U	4.00	4.00 mg/L			12/02/22 11:18	1

Lab Sample ID: LCS 860-80157/4
 Matrix: Water
 Analysis Batch: 80157

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	RPD	Limit
Alkalinity	250	252.1		mg/L		101	85 - 115			

Lab Sample ID: LCSD 860-80157/5
 Matrix: Water
 Analysis Batch: 80157

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	RPD	Limit
Alkalinity	250	251.2		mg/L		100	85 - 115	0	20	

QC Sample Results

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-79980/1
 Matrix: Water
 Analysis Batch: 79980

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00 mg/L			12/01/22 19:09	1

Lab Sample ID: LCS 860-79980/2
 Matrix: Water
 Analysis Batch: 79980

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1030		mg/L		103	80 - 120

Lab Sample ID: LCSD 860-79980/3
 Matrix: Water
 Analysis Batch: 79980

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1023		mg/L		102	80 - 120	1	10

Lab Sample ID: LLCS 860-79980/4
 Matrix: Water
 Analysis Batch: 79980

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	<5.00	U	mg/L		80	50 - 150

QC Association Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

GC/MS VOA

Analysis Batch: 79805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	8260C	
MB 860-79805/9	Method Blank	Total/NA	Water	8260C	
LCS 860-79805/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-79805/4	Lab Control Sample Dup	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 79927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	300.0	
MB 860-79927/3	Method Blank	Total/NA	Water	300.0	
LCS 860-79927/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79927/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79927/7	Lab Control Sample	Total/NA	Water	300.0	
880-22081-1 MS	Levey Well	Total/NA	Water	300.0	
880-22081-1 MSD	Levey Well	Total/NA	Water	300.0	

Analysis Batch: 79928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	300.0	
MB 860-79928/3	Method Blank	Total/NA	Water	300.0	
LCS 860-79928/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-79928/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-79928/6	Lab Control Sample	Total/NA	Water	300.0	
880-22081-1 MS	Levey Well	Total/NA	Water	300.0	
880-22081-1 MSD	Levey Well	Total/NA	Water	300.0	

Metals

Prep Batch: 79905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-79905/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-79905/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-79905/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-79905/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 80108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	79905
880-22081-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	79905
MB 860-79905/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	79905
LCS 860-79905/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	79905
LCSD 860-79905/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	79905
LLCS 860-79905/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	79905

General Chemistry

Analysis Batch: 79980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-79980/1	Method Blank	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

General Chemistry (Continued)

Analysis Batch: 79980 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-79980/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-79980/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-79980/4	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 80093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 80157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-80157/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-80157/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-80157/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 80354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22081-1	Levey Well	Total/NA	Water	SM 1030E	

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Lab Chronicle

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Client Sample ID: Levey Well

Lab Sample ID: 880-22081-1

Date Collected: 11/30/22 11:25

Matrix: Water

Date Received: 11/30/22 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	79805	NA	EET HOU	12/01/22 15:02
Total/NA	Analysis	300.0		1	79927	RBNS	EET HOU	12/01/22 15:46
Total/NA	Analysis	300.0		1	79928	RBNS	EET HOU	12/01/22 15:46
Total Recoverable	Prep	200.7			79905	MD	EET HOU	12/01/22 13:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	80108	JDM	EET HOU	12/02/22 10:53
Total Recoverable	Prep	200.7			79905	MD	EET HOU	12/01/22 13:00
Total Recoverable	Analysis	200.7 Rev 4.4		50	80108	JDM	EET HOU	12/02/22 11:18
Total/NA	Analysis	SM 1030E		1	80354	SC	EET HOU	12/05/22 13:20
Total/NA	Analysis	SM 2320B		1	80157	TL	EET HOU	12/02/22 14:55
Total/NA	Analysis	SM 2540C		1	79980	YGG	EET HOU	12/01/22 19:09
Total/NA	Analysis	SM 4500 H+ B		1	80093	TL	EET HOU	12/02/22 12:05

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	SiO2
SM 1030E		Water	Anion/Cation Balance
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 2320B		Water	Hydroxide Alkalinity
SM 2320B		Water	Phenolphthalein Alkalinity
SM 4500 H+ B		Water	Temperature

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Method Summary

Client: Ensolum
 Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
 SDG: Hobbs NM

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
300.0	Anions, Ion Chromatography	MCAWW	EET HOU
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
SM 1030E	Cation Anion Balance	SM	EET HOU
SM 2320B	Alkalinity	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
5030C	Purge and Trap	SW846	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200



Sample Summary

Client: Ensolum
Project/Site: Levey Well Hobbs, NM - 03B1417001

Job ID: 880-22081-1
SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-22081-1	Levey Well	Water	11/30/22 11:25	11/30/22 15:10

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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-820-2000)

Chain of Custody

Work Order No: 22081


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Project Manager:	Beaux Jennings	Bill to: (if different)
Company Name:	Ensolum LLC	Company Name:
Address:	601 Merientfield #400	Address:
City/State ZIP:	Midland TX 79701	City/State ZIP:
Phone:	432-230-3344	Email:
		jennings@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other <input type="checkbox"/>	

Project Name:	Lavey Well	Hobbs NM	Turn Around	
Project Number:	03B1417001		Routine <input type="checkbox"/>	
P.O. Number:	03B1417001		Rush 24 hr	
Sampler's Name:	Shane Diller		Due Date	

SAMPLE RECEIPT		Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Temperature (°C):	26.23	Thermometer ID			
Received Intact:	(Yes) No	Correction Factor:			
Cooler Custody Seals:	Yes No N/A	Total Containers:			
Sample Custody Seals:	Yes No N/A				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	VOCs	Anions: F, Cl, SO4, B	Cations: Ca, K, Mg, Na, Si	pH	Alkalinity	TDS	Work Order Notes
Lavey Well	GW	11-30-22	1125		7	X	X	X	X	X	X	
 880-22081 Chain of Custody												
												TAT starts the day received by the lab, if received by 4:30pm
												Sample Comments
												24hr

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U 1631 / 245.1 / 7470 / 7471 Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/30/22			
		1515			

Eurofins Midland
1211 W Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM: Kramer Jessica		Carrier Tracking No(s): 880-5815.1	
Client Contact: Shipping/Receiving		E-Mail: Jessica.Kramer@et.eurofins.com		Page: Page 1 of 1	
Company: Eurofins Environment Testing South Cent		Accreditations Required (See note): NELAP Texas		Job #: 880-22081 1	
Address: 4145 Greenbriar Dr		State of Origin: New Mexico		Preservation Codes:	
City: Stafford		Due Date Requested: 12/2/2022		M Hexane	
State, Zip: TX, 77477		TAT Requested (days):		N None	
Phone: 281-240-4200(Tel)		PO #:		O AsNaO2	
Email:		WO #:		P Na2O4S	
Project Name: Levey Well Hobbs NIM 03B1417001		Project #: 88000024		Q Na2SO3	
Site:		SSOW#:		R NaHSO4	
Sample Identification Client ID (Lab ID)		Sample Date		S H2SO4	
Levey Well (880-22081 1)		11/30/22		T TSP Dodecahydrate	
Sample Time		Sample Time		U Acetone	
11:25 Mountain		11:25 Mountain		V MCAA	
Sample Type (C=Comp, G=Grab)		Sample Type		W pH 4.5	
G-Grab		G-Grab		Y Trizma	
Matrix (Water, Swell, On-water, On-trials, Analy)		Matrix		Z other (specify)	
Water		Water			
Preservation Code		Preservation Code		Special Instructions/Note:	
Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)			
Perform MS/MSD (Yes or No)		Perform MS/MSD (Yes or No)			
850C/6030C (MOD) Full List VOCs		850C/6030C (MOD) Full List VOCs			
X		X			
200.7/200.7_P TR (MOD) Custom List		200.7/200.7_P TR (MOD) Custom List			
X		X			
300_ORGFMSI/NO2, NO3		300_ORGFMSI/NO2, NO3			
X		X			
300_ORGFMSI/NO2, NO3		300_ORGFMSI/NO2, NO3			
X		X			
SM4500_H+/PH		SM4500_H+/PH			
X		X			
240C_Calcd/TDS		240C_Calcd/TDS			
X		X			
2320B/Alkalinity		2320B/Alkalinity			
X		X			
Cation Anion (MOD) Copy Analytes		Cation Anion (MOD) Copy Analytes			
X		X			
Total Number of Containers		Total Number of Containers			
7		7			

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Relinquished by: Date: _____ Company: _____

Relinquished by: **FedEx** Date/Time: _____ Company: _____

Relinquished by: **FedEx** Date/Time: 12/11/2022 10:48 Company: EX

Custody Seals Intact: Yes No Delta No

Cooler Temp: Temp: 28 IR ID: HOU-344

C/F: +1.2 Corrected Temp: 4.0

Ver: 06/08/2021



Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22081-1

SDG Number: Hobbs NM

Login Number: 22081

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22081-1

SDG Number: Hobbs NM

Login Number: 22081

List Number: 2

Creator: Palmar, Pedro

List Source: Eurofins Houston

List Creation: 12/01/22 11:49 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

November 08, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

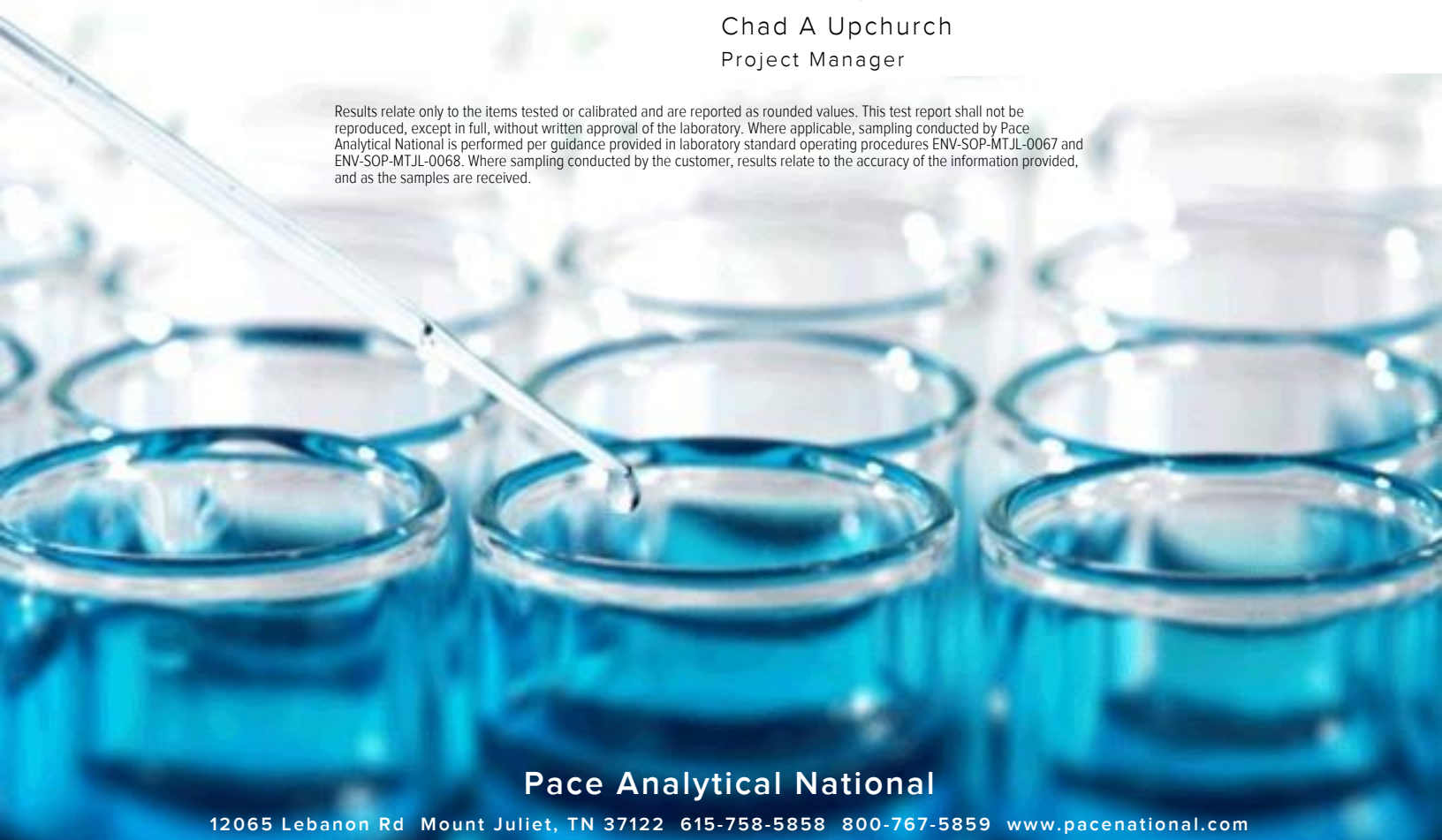
Ensolum, LLC

Sample Delivery Group: L1554007
 Samples Received: 11/04/2022
 Project Number: 03B1417001
 Description: Levey Well
 Site: 03B1417001
 Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:











Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Tr: TRRP Summary	5	
TRRP form R	6	
TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	
LEVEY WELL L1554007-01	9	
Qc: Quality Control Summary	11	
Volatile Organic Compounds (MS) by Method TO-15	11	
Gl: Glossary of Terms	15	
Al: Accreditations & Locations	16	
Sc: Sample Chain of Custody	17	
		

SAMPLE SUMMARY

LEVEY WELL L1554007-01 Air

Collected by	Collected date/time	Received date/time
Shane Diller	11/02/22 13:39	11/04/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1955489	2000	11/07/22 23:31	11/07/22 23:31	CEP	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Tr
- ⁶ Sr
- ⁷ Qc
- ⁸ Gl
- ⁹ Al
- ¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National			LRC Date: 11/08/2022 16:51				
Project Name: Levey Well			Laboratory Job Number: L1554007-01				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1955489				
# 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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 11/08/2022 16:51					
Project Name: Levey Well		Laboratory Job Number: L1554007-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1955489					
# 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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
1. 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. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = 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: Pace Analytical National	LRC Date: 11/08/2022 16:51
Project Name: Levey Well	Laboratory Job Number: L1554007-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1955489

ER # ¹	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.
	<ol style="list-style-type: none">1. 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.2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);3. NA = Not applicable;4. NR = Not reviewed;5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Collected date/time: 11/02/22 13:39

L1554007

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2500	5940	ND	ND		2000	WG1955489
Allyl chloride	107-05-1	76.53	400	1250	ND	ND		2000	WG1955489
Benzene	71-43-2	78.10	400	1280	ND	ND		2000	WG1955489
Benzyl Chloride	100-44-7	127	400	2080	ND	ND		2000	WG1955489
Bromodichloromethane	75-27-4	164	400	2680	ND	ND		2000	WG1955489
Bromoform	75-25-2	253	1200	12400	ND	ND		2000	WG1955489
Bromomethane	74-83-9	94.90	400	1550	ND	ND		2000	WG1955489
1,3-Butadiene	106-99-0	54.10	4000	8850	ND	ND		2000	WG1955489
Carbon disulfide	75-15-0	76.10	400	1240	ND	ND		2000	WG1955489
Carbon tetrachloride	56-23-5	154	400	2520	ND	ND		2000	WG1955489
Chlorobenzene	108-90-7	113	400	1850	ND	ND		2000	WG1955489
Chloroethane	75-00-3	64.50	400	1060	ND	ND		2000	WG1955489
Chloroform	67-66-3	119	400	1950	ND	ND		2000	WG1955489
Chloromethane	74-87-3	50.50	400	826	ND	ND		2000	WG1955489
2-Chlorotoluene	95-49-8	126	400	2060	ND	ND		2000	WG1955489
Cyclohexane	110-82-7	84.20	400	1380	18700	64400		2000	WG1955489
Dibromochloromethane	124-48-1	208	400	3400	ND	ND		2000	WG1955489
1,2-Dibromoethane	106-93-4	188	400	3080	ND	ND		2000	WG1955489
1,2-Dichlorobenzene	95-50-1	147	400	2400	ND	ND		2000	WG1955489
1,3-Dichlorobenzene	541-73-1	147	400	2400	ND	ND		2000	WG1955489
1,4-Dichlorobenzene	106-46-7	147	400	2400	ND	ND		2000	WG1955489
1,2-Dichloroethane	107-06-2	99	400	1620	ND	ND		2000	WG1955489
1,1-Dichloroethane	75-34-3	98	400	1600	ND	ND		2000	WG1955489
1,1-Dichloroethene	75-35-4	96.90	400	1590	ND	ND		2000	WG1955489
cis-1,2-Dichloroethene	156-59-2	96.90	400	1590	ND	ND		2000	WG1955489
trans-1,2-Dichloroethene	156-60-5	96.90	400	1590	ND	ND		2000	WG1955489
1,2-Dichloropropane	78-87-5	113	400	1850	ND	ND		2000	WG1955489
cis-1,3-Dichloropropene	10061-01-5	111	400	1820	ND	ND		2000	WG1955489
trans-1,3-Dichloropropene	10061-02-6	111	400	1820	ND	ND		2000	WG1955489
1,4-Dioxane	123-91-1	88.10	400	1440	ND	ND		2000	WG1955489
Ethanol	64-17-5	46.10	2500	4710	3360	6340	B	2000	WG1955489
Ethylbenzene	100-41-4	106	400	1730	ND	ND		2000	WG1955489
4-Ethyltoluene	622-96-8	120	400	1960	ND	ND		2000	WG1955489
Trichlorofluoromethane	75-69-4	137.40	400	2250	ND	ND		2000	WG1955489
Dichlorodifluoromethane	75-71-8	120.92	400	1980	ND	ND		2000	WG1955489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	400	3070	ND	ND		2000	WG1955489
1,2-Dichlorotetrafluoroethane	76-14-2	171	400	2800	ND	ND		2000	WG1955489
Heptane	142-82-5	100	400	1640	31900	130000		2000	WG1955489
Hexachloro-1,3-butadiene	87-68-3	261	1260	13500	ND	ND		2000	WG1955489
n-Hexane	110-54-3	86.20	1260	4440	199000	702000		2000	WG1955489
Isopropylbenzene	98-82-8	120.20	400	1970	ND	ND		2000	WG1955489
Methylene Chloride	75-09-2	84.90	400	1390	ND	ND		2000	WG1955489
Methyl Butyl Ketone	591-78-6	100	2500	10200	ND	ND		2000	WG1955489
2-Butanone (MEK)	78-93-3	72.10	2500	7370	3900	11500		2000	WG1955489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2500	10200	ND	ND		2000	WG1955489
Methyl methacrylate	80-62-6	100.12	400	1640	ND	ND		2000	WG1955489
MTBE	1634-04-4	88.10	400	1440	ND	ND		2000	WG1955489
Naphthalene	91-20-3	128	1260	6600	ND	ND		2000	WG1955489
2-Propanol	67-63-0	60.10	2500	6150	12200	30000		2000	WG1955489
Propene	115-07-1	42.10	2500	4300	ND	ND		2000	WG1955489
Styrene	100-42-5	104	400	1700	ND	ND		2000	WG1955489
1,1,2,2-Tetrachloroethane	79-34-5	168	400	2750	ND	ND		2000	WG1955489
Tetrachloroethylene	127-18-4	166	400	2720	ND	ND		2000	WG1955489
Tetrahydrofuran	109-99-9	72.10	400	1180	ND	ND		2000	WG1955489
Toluene	108-88-3	92.10	1000	3770	ND	ND		2000	WG1955489
1,2,4-Trichlorobenzene	120-82-1	181	1260	9330	ND	ND		2000	WG1955489

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Collected date/time: 11/02/22 13:39

L1554007

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	400	2180	ND	ND		2000	WG1955489
1,1,2-Trichloroethane	79-00-5	133	400	2180	ND	ND		2000	WG1955489
Trichloroethylene	79-01-6	131	400	2140	ND	ND		2000	WG1955489
1,2,4-Trimethylbenzene	95-63-6	120	400	1960	ND	ND		2000	WG1955489
1,3,5-Trimethylbenzene	108-67-8	120	400	1960	ND	ND		2000	WG1955489
2,2,4-Trimethylpentane	540-84-1	114.22	400	1870	ND	ND		2000	WG1955489
Vinyl chloride	75-01-4	62.50	400	1020	ND	ND		2000	WG1955489
Vinyl Bromide	593-60-2	106.95	400	1750	ND	ND		2000	WG1955489
Vinyl acetate	108-05-4	86.10	400	1410	ND	ND		2000	WG1955489
m&p-Xylene	1330-20-7	106	800	3470	ND	ND		2000	WG1955489
o-Xylene	95-47-6	106	400	1730	ND	ND		2000	WG1955489
TPH (GC/MS) Low Fraction	8006-61-9	101	400000	1650000	979000	4040000	B	2000	WG1955489
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.6				WG1955489

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1554007-01](#)

Method Blank (MB)

(MB) R3858192-3 11/07/22 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	0.553	U	0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1554007-01](#)

Method Blank (MB)

(MB) R3858192-3 11/07/22 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.194	U	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	59.6	U	39.7	200
(S) 1,4-Bromofluorobenzene	99.2			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

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

(LCS) R3858192-1 11/07/22 09:07 • (LCSD) R3858192-2 11/07/22 09:40

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	3.54	4.02	94.4	107	70.0-130			12.7	25
Allyl Chloride	3.75	3.69	3.77	98.4	101	70.0-130			2.14	25
Benzene	3.75	3.82	3.82	102	102	70.0-130			0.000	25
Benzyl Chloride	3.75	4.10	4.06	109	108	70.0-152			0.980	25

Volatile Organic Compounds (MS) by Method TO-15

L1554007-01

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

(LCS) R3858192-1 11/07/22 09:07 • (LCSD) R3858192-2 11/07/22 09:40

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.98	3.91	106	104	70.0-130			1.77	25
Bromoform	3.75	4.10	4.11	109	110	70.0-130			0.244	25
Bromomethane	3.75	3.71	3.83	98.9	102	70.0-130			3.18	25
1,3-Butadiene	3.75	3.68	3.76	98.1	100	70.0-130			2.15	25
Carbon disulfide	3.75	3.94	3.93	105	105	70.0-130			0.254	25
Carbon tetrachloride	3.75	3.88	3.93	103	105	70.0-130			1.28	25
Chlorobenzene	3.75	3.84	3.88	102	103	70.0-130			1.04	25
Chloroethane	3.75	3.69	3.90	98.4	104	70.0-130			5.53	25
Chloroform	3.75	3.86	3.90	103	104	70.0-130			1.03	25
Chloromethane	3.75	3.72	3.86	99.2	103	70.0-130			3.69	25
2-Chlorotoluene	3.75	3.75	3.72	100	99.2	70.0-130			0.803	25
Cyclohexane	3.75	3.69	3.69	98.4	98.4	70.0-130			0.000	25
Dibromochloromethane	3.75	4.04	4.01	108	107	70.0-130			0.745	25
1,2-Dibromoethane	3.75	3.94	3.91	105	104	70.0-130			0.764	25
1,2-Dichlorobenzene	3.75	3.85	3.86	103	103	70.0-130			0.259	25
1,3-Dichlorobenzene	3.75	3.97	3.94	106	105	70.0-130			0.759	25
1,4-Dichlorobenzene	3.75	3.88	3.95	103	105	70.0-130			1.79	25
1,2-Dichloroethane	3.75	3.92	3.88	105	103	70.0-130			1.03	25
1,1-Dichloroethane	3.75	3.75	3.75	100	100	70.0-130			0.000	25
1,1-Dichloroethene	3.75	3.84	3.88	102	103	70.0-130			1.04	25
cis-1,2-Dichloroethene	3.75	3.76	3.80	100	101	70.0-130			1.06	25
trans-1,2-Dichloroethene	3.75	3.82	3.82	102	102	70.0-130			0.000	25
1,2-Dichloropropane	3.75	3.85	3.81	103	102	70.0-130			1.04	25
cis-1,3-Dichloropropene	3.75	3.75	3.76	100	100	70.0-130			0.266	25
trans-1,3-Dichloropropene	3.75	3.85	3.88	103	103	70.0-130			0.776	25
1,4-Dioxane	3.75	4.27	4.35	114	116	70.0-140			1.86	25
Ethanol	3.75	3.83	3.97	102	106	55.0-148			3.59	25
Ethylbenzene	3.75	3.64	3.68	97.1	98.1	70.0-130			1.09	25
4-Ethyltoluene	3.75	3.76	3.80	100	101	70.0-130			1.06	25
Trichlorofluoromethane	3.75	3.86	3.95	103	105	70.0-130			2.30	25
Dichlorodifluoromethane	3.75	3.87	3.84	103	102	64.0-139			0.778	25
1,1,2-Trichlorotrifluoroethane	3.75	3.85	3.88	103	103	70.0-130			0.776	25
1,2-Dichlorotetrafluoroethane	3.75	3.73	3.81	99.5	102	70.0-130			2.12	25
Heptane	3.75	3.90	3.93	104	105	70.0-130			0.766	25
Hexachloro-1,3-butadiene	3.75	3.74	3.69	99.7	98.4	70.0-151			1.35	25
n-Hexane	3.75	3.81	3.86	102	103	70.0-130			1.30	25
Isopropylbenzene	3.75	3.71	3.76	98.9	100	70.0-130			1.34	25
Methylene Chloride	3.75	3.64	3.76	97.1	100	70.0-130			3.24	25
Methyl Butyl Ketone	3.75	4.39	4.39	117	117	70.0-149			0.000	25
Methyl Ethyl Ketone	3.75	3.95	3.96	105	106	70.0-130			0.253	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1554007-01

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

(LCS) R3858192-1 11/07/22 09:07 • (LCSD) R3858192-2 11/07/22 09:40

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.25	4.28	113	114	70.0-139			0.703	25
Methyl Methacrylate	3.75	3.84	3.86	102	103	70.0-130			0.519	25
MTBE	3.75	3.77	3.76	101	100	70.0-130			0.266	25
Naphthalene	3.75	3.97	4.00	106	107	70.0-159			0.753	25
2-Propanol	3.75	4.11	4.11	110	110	70.0-139			0.000	25
Propene	3.75	3.69	3.71	98.4	98.9	64.0-144			0.541	25
Styrene	3.75	3.73	3.72	99.5	99.2	70.0-130			0.268	25
1,1,2,2-Tetrachloroethane	3.75	3.86	3.90	103	104	70.0-130			1.03	25
Tetrachloroethylene	3.75	3.91	3.88	104	103	70.0-130			0.770	25
Tetrahydrofuran	3.75	3.82	3.83	102	102	70.0-137			0.261	25
Toluene	3.75	3.84	3.85	102	103	70.0-130			0.260	25
1,2,4-Trichlorobenzene	3.75	3.84	3.84	102	102	70.0-160			0.000	25
1,1,1-Trichloroethane	3.75	3.80	3.79	101	101	70.0-130			0.264	25
1,1,2-Trichloroethane	3.75	3.94	3.92	105	105	70.0-130			0.509	25
Trichloroethylene	3.75	3.96	4.01	106	107	70.0-130			1.25	25
1,2,4-Trimethylbenzene	3.75	3.86	3.90	103	104	70.0-130			1.03	25
1,3,5-Trimethylbenzene	3.75	3.85	3.78	103	101	70.0-130			1.83	25
2,2,4-Trimethylpentane	3.75	3.76	3.81	100	102	70.0-130			1.32	25
Vinyl chloride	3.75	3.73	3.80	99.5	101	70.0-130			1.86	25
Vinyl Bromide	3.75	3.86	3.91	103	104	70.0-130			1.29	25
Vinyl acetate	3.75	3.62	3.58	96.5	95.5	70.0-130			1.11	25
m&p-Xylene	7.50	7.69	7.67	103	102	70.0-130			0.260	25
o-Xylene	3.75	3.76	3.83	100	102	70.0-130			1.84	25
TPH (GC/MS) Low Fraction	203	237	238	117	117	70.0-130			0.421	25
(S) 1,4-Bromofluorobenzene				103	104	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122




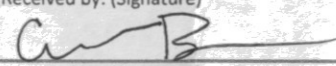

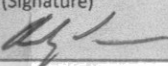
Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Ensolum, LLC 601 Marienfeld #400 Midland, TX 79701		Billing Information: Accounts Payable 2351 W Northwest Hwy. Ste. 1203 Dallas, TX 75220		Pres Chk	Analysis / Container / Preservative						Chain of Custody Page ___ of ___  12065 Lebanon Road Mt Juliet, TN 37122 Phone: 615-758-5858 Alt: 800-767-5859 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf		
Report to: Beaux Jennings		Email To: bjennings@ensolum.com		TO-15 Summa						SDG # L 1554007 <div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block; font-weight: bold; font-size: 1.2em;">L-086</div>			
Project Description: Levey Well		City/State Collected: Hobbs NM								Please Circle: PT MT CT ET		Acctnum: ENSOLUMMTX Template: T180734 Prelogin: P827709 PM: 134 - Mark W. Beasley PB:	
Phone: 210-219-8858		Client Project # 03B1417001								Lab Project # ENSOLUMMTX-SUMMA		Shipped Via:	
Collected by (print): Shane Diller		Site/Facility ID # 03B1417001								P.O. # 03B1417001		Remarks Sample # (lab only)	
Collected by (signature): Immediately Packed on Ice N <input type="checkbox"/> X <input type="checkbox"/> Y <input type="checkbox"/>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input checked="" type="checkbox"/> Three Day		Quote # Date Results Needed		No. of Cntrs							
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs							
Levey Well	G	Air	-	11-2-22	1339	1	X		-01				
 <i>NOTE 11-2-22</i>  													
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____		Remarks: Samples returned via: ___ UPS ___ FedEx ___ Courier _____						Tracking # _____		pH _____ Temp _____ Flow _____ Other _____			
Relinquished by: (Signature) 		Date: 11/3/22		Time: 13:17		Received by: (Signature) 		Trip Blank Received: Yes / No HCL / MeoH TBR		Sample Receipt Checklist COC Seal Present/Intact: ___ NP <input checked="" type="checkbox"/> Y ___ N COC Signed/Accurate: ___ Y ___ N Bottles arrive intact: ___ Y ___ N Correct bottles used: ___ Y ___ N Sufficient volume sent: ___ Y ___ N If Applicable VOA Zero Headspace: ___ Y ___ N Preservation Correct/Checked: ___ Y ___ N RAD Screen <0.5 mR/hr: ___ Y ___ N			
Relinquished by: (Signature) 		Date: 11/3/22		Time: 17:00		Received by: (Signature) FedEx		Temp: _____ °C Bottles Received: _____		If preservation required by Login: Date/Time			
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: 11/4/22 Time: 0900		Hold: _____ Condition: NCF / OK			



ANALYTICAL REPORT

November 15, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

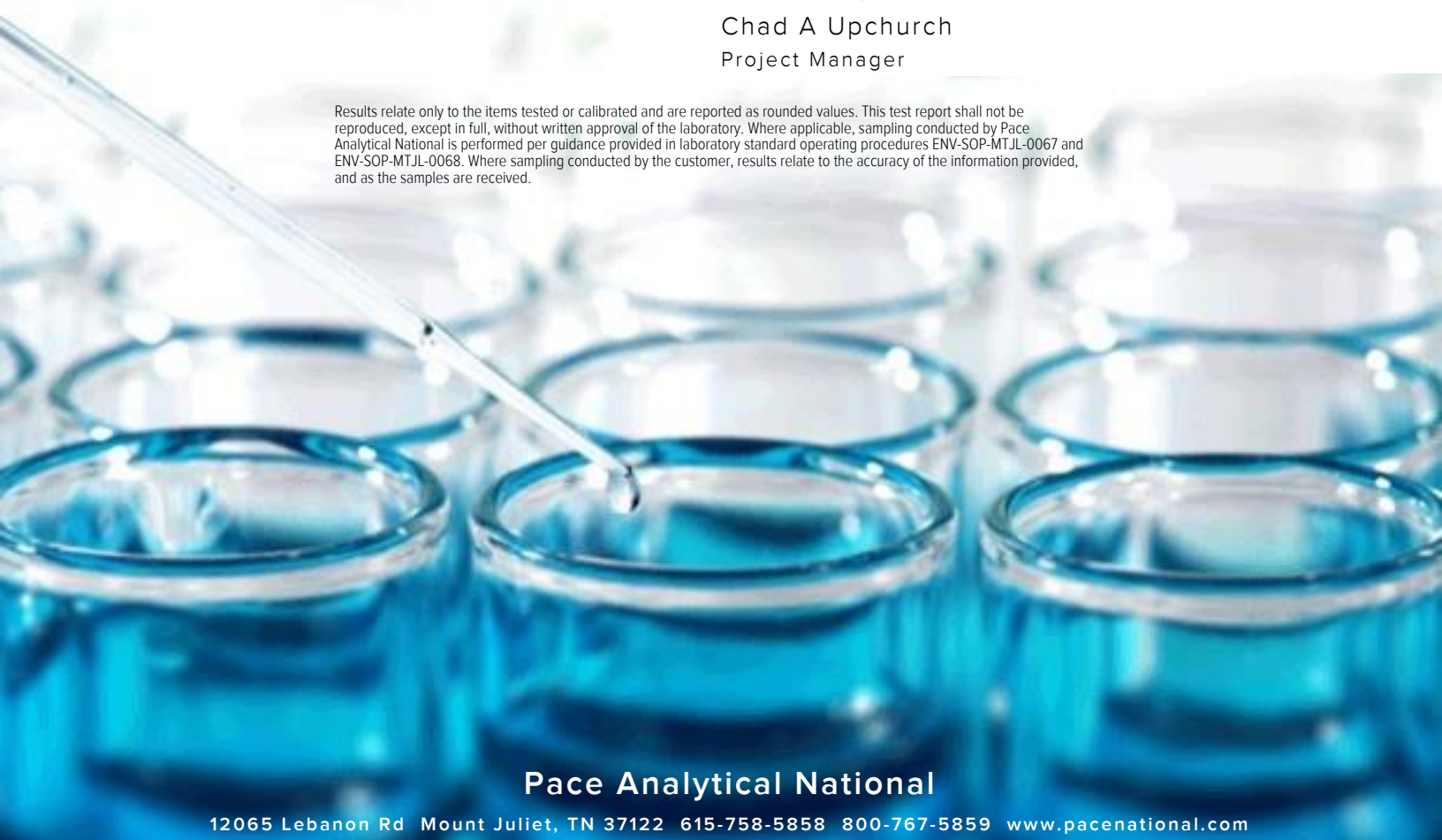
Ensolum, LLC

Sample Delivery Group: L1556204
 Samples Received: 11/10/2022
 Project Number: 03B1417001
 Description: Levey Well
 Site: L1551011
 Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:





Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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LEVEY WELL L1556204-01 Air

Collected by Shane Diller
 Collected date/time 11/07/22 11:15
 Received date/time 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1958143	100	11/12/22 01:34	11/12/22 01:34	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1958681	4000	11/12/22 18:30	11/12/22 18:30	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1959272	40000	11/14/22 13:09	11/14/22 13:09	SDS	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

LEVEY WELL L1556204-02 Air

Collected by Shane Diller
 Collected date/time 11/07/22 13:10
 Received date/time 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1958143	20	11/12/22 00:09	11/12/22 00:09	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1958681	200	11/12/22 18:57	11/12/22 18:57	DBB	Mt. Juliet, TN

LEVEY WELL L1556204-03 Air

Collected by Shane Diller
 Collected date/time 11/07/22 14:15
 Received date/time 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1958143	5	11/12/22 00:51	11/12/22 00:51	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1958681	20	11/12/22 19:47	11/12/22 19:47	DBB	Mt. Juliet, TN

LEVEY WELL L1556204-04 Air

Collected by Shane Diller
 Collected date/time 11/07/22 15:15
 Received date/time 11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1958143	100	11/12/22 02:18	11/12/22 02:18	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1958681	2000	11/12/22 19:22	11/12/22 19:22	DBB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National		LRC Date: 11/15/2022 10:31					
Project Name: Levey Well		Laboratory Job Number: L1556204-01, 02, 03 and 04					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1958143, WG1958681 and WG1959272					
#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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 11/15/2022 10:31					
Project Name: Levey Well		Laboratory Job Number: L1556204-01, 02, 03 and 04					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1958143, WG1958681 and WG1959272					
#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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
<p>1. 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.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/15/2022 10:31
Project Name: Levey Well	Laboratory Job Number: L1556204-01, 02, 03 and 04
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1958143, WG1958681 and WG1959272

ER # ¹	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.
	1. 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. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Collected date/time: 11/07/22 11:15

L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1958143
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1958143
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1958143
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1958143
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1958143
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1958143
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1958143
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1958143
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1958143
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1958143
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1958143
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1958143
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1958143
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1958143
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1958143
Cyclohexane	110-82-7	84.20	800	2760	60600	209000		4000	WG1958681
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1958143
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1958143
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1958143
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1958143
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1958143
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1958143
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1958143
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1958143
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1958143
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1958143
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1958143
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1958143
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1958143
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1958143
Ethanol	64-17-5	46.10	125	236	ND	ND		100	WG1958143
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1958143
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1958143
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1958143
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1958143
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1958143
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1958143
Heptane	142-82-5	100	800	3270	73200	299000		4000	WG1958681
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1958143
n-Hexane	110-54-3	86.20	25200	88800	234000	825000		40000	WG1959272
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1958143
Methylene Chloride	75-09-2	84.90	20.0	69.4	ND	ND		100	WG1958143
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1958143
2-Butanone (MEK)	78-93-3	72.10	125	369	4270	12600		100	WG1958143
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1958143
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1958143
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1958143
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1958143
2-Propanol	67-63-0	60.10	125	307	9930	24400		100	WG1958143
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1958143
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1958143
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1958143
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1958143
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1958143
Toluene	108-88-3	92.10	50.0	188	64.0	241		100	WG1958143
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1958143

1 Cp

2 Tc

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8 Gl

9 Al

10 Sc

Collected date/time: 11/07/22 11:15

L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	WG1958143
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	WG1958143
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	WG1958143
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	WG1958143
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	WG1958143
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	WG1958143
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	WG1958143
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	WG1958143
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	WG1958143
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	WG1958143
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	WG1958143
TPH (GC/MS) Low Fraction	8006-61-9	101	800000	3300000	3030000	12500000		4000	WG1958681
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		82.3				WG1958681
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		72.8				WG1959272

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
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- 9 Al
- 10 Sc

Collected date/time: 11/07/22 13:10

L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	326	775		20	WG1958143
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG1958143
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG1958143
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG1958143
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG1958143
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG1958143
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG1958143
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG1958143
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG1958143
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG1958143
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG1958143
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG1958143
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG1958143
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG1958143
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG1958143
Cyclohexane	110-82-7	84.20	4.00	13.8	413	1420		20	WG1958143
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG1958143
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG1958143
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG1958143
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG1958143
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG1958143
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG1958143
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG1958143
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG1958143
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG1958143
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG1958143
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG1958143
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG1958143
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG1958143
1,4-Dioxane	123-91-1	88.10	4.00	14.4	ND	ND		20	WG1958143
Ethanol	64-17-5	46.10	25.0	47.1	41.4	78.1		20	WG1958143
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG1958143
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG1958143
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG1958143
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG1958143
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG1958143
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG1958143
Heptane	142-82-5	100	4.00	16.4	984	4020		20	WG1958143
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG1958143
n-Hexane	110-54-3	86.20	126	444	3030	10700		200	WG1958681
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG1958143
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG1958143
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG1958143
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	92.5	273		20	WG1958143
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG1958143
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG1958143
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG1958143
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG1958143
2-Propanol	67-63-0	60.10	25.0	61.5	ND	ND		20	WG1958143
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG1958143
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG1958143
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG1958143
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG1958143
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG1958143
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG1958143
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG1958143

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
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- 6 Sr
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- 9 Al
- 10 Sc

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L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG1958143
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG1958143
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG1958143
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG1958143
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG1958143
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	ND	ND		20	WG1958143
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG1958143
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG1958143
Vinyl acetate	108-05-4	86.10	4.00	14.1	ND	ND		20	WG1958143
m&p-Xylene	1330-20-7	106	8.00	34.7	ND	ND		20	WG1958143
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG1958143
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	20400	84300		20	WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.0				WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		78.7				WG1958681

- 1 Cp
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L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	6.25	14.9	136	323		5	WG1958143
Allyl chloride	107-05-1	76.53	1.00	3.13	ND	ND		5	WG1958143
Benzene	71-43-2	78.10	1.00	3.19	ND	ND		5	WG1958143
Benzyl Chloride	100-44-7	127	1.00	5.19	ND	ND		5	WG1958143
Bromodichloromethane	75-27-4	164	1.00	6.71	ND	ND		5	WG1958143
Bromoform	75-25-2	253	3.00	31.0	ND	ND		5	WG1958143
Bromomethane	74-83-9	94.90	1.00	3.88	ND	ND		5	WG1958143
1,3-Butadiene	106-99-0	54.10	10.0	22.1	ND	ND		5	WG1958143
Carbon disulfide	75-15-0	76.10	1.00	3.11	ND	ND		5	WG1958143
Carbon tetrachloride	56-23-5	154	1.00	6.30	ND	ND		5	WG1958143
Chlorobenzene	108-90-7	113	1.00	4.62	ND	ND		5	WG1958143
Chloroethane	75-00-3	64.50	1.00	2.64	ND	ND		5	WG1958143
Chloroform	67-66-3	119	1.00	4.87	ND	ND		5	WG1958143
Chloromethane	74-87-3	50.50	1.00	2.07	ND	ND		5	WG1958143
2-Chlorotoluene	95-49-8	126	1.00	5.15	ND	ND		5	WG1958143
Cyclohexane	110-82-7	84.20	1.00	3.44	93.7	323		5	WG1958143
Dibromochloromethane	124-48-1	208	1.00	8.51	ND	ND		5	WG1958143
1,2-Dibromoethane	106-93-4	188	1.00	7.69	ND	ND		5	WG1958143
1,2-Dichlorobenzene	95-50-1	147	1.00	6.01	ND	ND		5	WG1958143
1,3-Dichlorobenzene	541-73-1	147	1.00	6.01	ND	ND		5	WG1958143
1,4-Dichlorobenzene	106-46-7	147	1.00	6.01	ND	ND		5	WG1958143
1,2-Dichloroethane	107-06-2	99	1.00	4.05	ND	ND		5	WG1958143
1,1-Dichloroethane	75-34-3	98	1.00	4.01	ND	ND		5	WG1958143
1,1-Dichloroethene	75-35-4	96.90	1.00	3.96	ND	ND		5	WG1958143
cis-1,2-Dichloroethene	156-59-2	96.90	1.00	3.96	ND	ND		5	WG1958143
trans-1,2-Dichloroethene	156-60-5	96.90	1.00	3.96	ND	ND		5	WG1958143
1,2-Dichloropropane	78-87-5	113	1.00	4.62	ND	ND		5	WG1958143
cis-1,3-Dichloropropene	10061-01-5	111	1.00	4.54	ND	ND		5	WG1958143
trans-1,3-Dichloropropene	10061-02-6	111	1.00	4.54	ND	ND		5	WG1958143
1,4-Dioxane	123-91-1	88.10	1.00	3.60	ND	ND		5	WG1958143
Ethanol	64-17-5	46.10	6.25	11.8	14.3	27.0		5	WG1958143
Ethylbenzene	100-41-4	106	1.00	4.34	ND	ND		5	WG1958143
4-Ethyltoluene	622-96-8	120	1.00	4.91	ND	ND		5	WG1958143
Trichlorofluoromethane	75-69-4	137.40	1.00	5.62	ND	ND		5	WG1958143
Dichlorodifluoromethane	75-71-8	120.92	1.00	4.95	ND	ND		5	WG1958143
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	1.00	7.66	ND	ND		5	WG1958143
1,2-Dichlorotetrafluoroethane	76-14-2	171	1.00	6.99	ND	ND		5	WG1958143
Heptane	142-82-5	100	1.00	4.09	210	859		5	WG1958143
Hexachloro-1,3-butadiene	87-68-3	261	3.15	33.6	ND	ND		5	WG1958143
n-Hexane	110-54-3	86.20	12.6	44.4	637	2250		20	WG1958681
Isopropylbenzene	98-82-8	120.20	1.00	4.92	ND	ND		5	WG1958143
Methylene Chloride	75-09-2	84.90	1.00	3.47	ND	ND		5	WG1958143
Methyl Butyl Ketone	591-78-6	100	6.25	25.6	ND	ND		5	WG1958143
2-Butanone (MEK)	78-93-3	72.10	6.25	18.4	21.9	64.6		5	WG1958143
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	6.25	25.6	ND	ND		5	WG1958143
Methyl methacrylate	80-62-6	100.12	1.00	4.09	ND	ND		5	WG1958143
MTBE	1634-04-4	88.10	1.00	3.60	ND	ND		5	WG1958143
Naphthalene	91-20-3	128	3.15	16.5	ND	ND		5	WG1958143
2-Propanol	67-63-0	60.10	6.25	15.4	6.35	15.6		5	WG1958143
Propene	115-07-1	42.10	6.25	10.8	ND	ND		5	WG1958143
Styrene	100-42-5	104	1.00	4.25	ND	ND		5	WG1958143
1,1,2,2-Tetrachloroethane	79-34-5	168	1.00	6.87	ND	ND		5	WG1958143
Tetrachloroethylene	127-18-4	166	1.00	6.79	ND	ND		5	WG1958143
Tetrahydrofuran	109-99-9	72.10	1.00	2.95	ND	ND		5	WG1958143
Toluene	108-88-3	92.10	2.50	9.42	ND	ND		5	WG1958143
1,2,4-Trichlorobenzene	120-82-1	181	3.15	23.3	ND	ND		5	WG1958143

- 1 Cp
- 2 Tc
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- 4 Cn
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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	1.00	5.44	ND	ND		5	WG1958143
1,1,2-Trichloroethane	79-00-5	133	1.00	5.44	ND	ND		5	WG1958143
Trichloroethylene	79-01-6	131	1.00	5.36	ND	ND		5	WG1958143
1,2,4-Trimethylbenzene	95-63-6	120	1.00	4.91	ND	ND		5	WG1958143
1,3,5-Trimethylbenzene	108-67-8	120	1.00	4.91	ND	ND		5	WG1958143
2,2,4-Trimethylpentane	540-84-1	114.22	1.00	4.67	ND	ND		5	WG1958143
Vinyl chloride	75-01-4	62.50	1.00	2.56	ND	ND		5	WG1958143
Vinyl Bromide	593-60-2	106.95	1.00	4.37	ND	ND		5	WG1958143
Vinyl acetate	108-05-4	86.10	1.00	3.52	ND	ND		5	WG1958143
m&p-Xylene	1330-20-7	106	2.00	8.67	ND	ND		5	WG1958143
o-Xylene	95-47-6	106	1.00	4.34	ND	ND		5	WG1958143
TPH (GC/MS) Low Fraction	8006-61-9	101	1000	4130	5390	22300		5	WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		79.4				WG1958681

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	5510	13100		100	WG1958143
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1958143
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1958143
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1958143
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1958143
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1958143
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1958143
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1958143
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1958143
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1958143
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1958143
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1958143
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1958143
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1958143
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1958143
Cyclohexane	110-82-7	84.20	20.0	68.9	2660	9160		100	WG1958143
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1958143
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1958143
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1958143
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1958143
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1958143
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1958143
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1958143
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1958143
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1958143
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1958143
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1958143
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1958143
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1958143
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1958143
Ethanol	64-17-5	46.10	125	236	5480	10300		100	WG1958143
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1958143
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1958143
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1958143
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1958143
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1958143
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1958143
Heptane	142-82-5	100	20.0	81.8	5500	22500		100	WG1958143
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1958143
n-Hexane	110-54-3	86.20	1260	4440	20800	73300		2000	WG1958681
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1958143
Methylene Chloride	75-09-2	84.90	20.0	69.4	141	490		100	WG1958143
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1958143
2-Butanone (MEK)	78-93-3	72.10	125	369	905	2670		100	WG1958143
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1958143
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1958143
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1958143
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1958143
2-Propanol	67-63-0	60.10	125	307	7470	18400		100	WG1958143
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1958143
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1958143
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1958143
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1958143
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1958143
Toluene	108-88-3	92.10	50.0	188	51.7	195		100	WG1958143
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1958143

1 Cp
2 Tc
3 Ss
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L1556204

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	WG1958143
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	WG1958143
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	WG1958143
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	WG1958143
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	WG1958143
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	WG1958143
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	WG1958143
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	WG1958143
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	WG1958143
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	WG1958143
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	WG1958143
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	117000	483000		100	WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1958143
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		74.7				WG1958681

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1556204-01,02,03,04](#)

Method Blank (MB)

(MB) R3860283-3 11/11/22 10:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	U		0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200

1 Cp
 2 Tc
 3 Ss
 4 Cn
 5 Tr
 6 Sr
 7 Qc
 8 Gl
 9 Al
 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1556204-01,02,03,04](#)

Method Blank (MB)

(MB) R3860283-3 11/11/22 10:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.197	U	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	93.8			60.0-140

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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

(LCS) R3860283-1 11/11/22 09:17 • (LCSD) R3860283-2 11/11/22 10:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	4.19	4.12	112	110	70.0-130			1.68	25
Allyl Chloride	3.75	3.94	3.83	105	102	70.0-130			2.83	25
Benzene	3.75	3.93	3.95	105	105	70.0-130			0.508	25
Benzyl Chloride	3.75	4.28	4.23	114	113	70.0-152			1.18	25
Bromodichloromethane	3.75	3.99	4.00	106	107	70.0-130			0.250	25

Volatile Organic Compounds (MS) by Method TO-15

L1556204-01,02,03,04

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

(LCS) R3860283-1 11/11/22 09:17 • (LCSD) R3860283-2 11/11/22 10:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	3.75	4.08	4.03	109	107	70.0-130			1.23	25
Bromomethane	3.75	4.01	3.96	107	106	70.0-130			1.25	25
1,3-Butadiene	3.75	4.19	4.15	112	111	70.0-130			0.959	25
Carbon disulfide	3.75	4.18	4.13	111	110	70.0-130			1.20	25
Carbon tetrachloride	3.75	4.03	3.94	107	105	70.0-130			2.26	25
Chlorobenzene	3.75	3.97	3.94	106	105	70.0-130			0.759	25
Chloroethane	3.75	4.29	4.30	114	115	70.0-130			0.233	25
Chloroform	3.75	4.07	4.01	109	107	70.0-130			1.49	25
Chloromethane	3.75	4.14	4.17	110	111	70.0-130			0.722	25
2-Chlorotoluene	3.75	4.07	4.04	109	108	70.0-130			0.740	25
Cyclohexane	3.75	4.08	3.98	109	106	70.0-130			2.48	25
Dibromochloromethane	3.75	3.96	3.89	106	104	70.0-130			1.78	25
1,2-Dibromoethane	3.75	3.94	3.97	105	106	70.0-130			0.759	25
1,2-Dichlorobenzene	3.75	4.07	4.15	109	111	70.0-130			1.95	25
1,3-Dichlorobenzene	3.75	4.05	4.04	108	108	70.0-130			0.247	25
1,4-Dichlorobenzene	3.75	4.08	4.04	109	108	70.0-130			0.985	25
1,2-Dichloroethane	3.75	3.98	4.03	106	107	70.0-130			1.25	25
1,1-Dichloroethane	3.75	4.17	4.15	111	111	70.0-130			0.481	25
1,1-Dichloroethene	3.75	4.26	4.27	114	114	70.0-130			0.234	25
cis-1,2-Dichloroethene	3.75	4.32	4.21	115	112	70.0-130			2.58	25
trans-1,2-Dichloroethene	3.75	4.21	4.17	112	111	70.0-130			0.955	25
1,2-Dichloropropane	3.75	3.98	4.07	106	109	70.0-130			2.24	25
cis-1,3-Dichloropropene	3.75	4.04	4.04	108	108	70.0-130			0.000	25
trans-1,3-Dichloropropene	3.75	4.14	4.10	110	109	70.0-130			0.971	25
1,4-Dioxane	3.75	3.94	3.89	105	104	70.0-140			1.28	25
Ethanol	3.75	4.49	4.27	120	114	55.0-148			5.02	25
Ethylbenzene	3.75	4.06	4.03	108	107	70.0-130			0.742	25
4-Ethyltoluene	3.75	4.11	4.15	110	111	70.0-130			0.969	25
Trichlorofluoromethane	3.75	4.17	4.13	111	110	70.0-130			0.964	25
Dichlorodifluoromethane	3.75	3.74	3.62	99.7	96.5	64.0-139			3.26	25
1,1,2-Trichlorotrifluoroethane	3.75	4.19	4.01	112	107	70.0-130			4.39	25
1,2-Dichlorotetrafluoroethane	3.75	4.29	4.16	114	111	70.0-130			3.08	25
Heptane	3.75	3.97	4.10	106	109	70.0-130			3.22	25
Hexachloro-1,3-butadiene	3.75	4.02	4.06	107	108	70.0-151			0.990	25
Isopropylbenzene	3.75	4.07	4.05	109	108	70.0-130			0.493	25
Methylene Chloride	3.75	4.21	4.11	112	110	70.0-130			2.40	25
Methyl Butyl Ketone	3.75	3.95	3.91	105	104	70.0-149			1.02	25
Methyl Ethyl Ketone	3.75	4.20	4.11	112	110	70.0-130			2.17	25
4-Methyl-2-pentanone (MIBK)	3.75	4.07	4.13	109	110	70.0-139			1.46	25
Methyl Methacrylate	3.75	4.19	3.98	112	106	70.0-130			5.14	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

(LCS) R3860283-1 11/11/22 09:17 • (LCSD) R3860283-2 11/11/22 10:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	4.12	4.00	110	107	70.0-130			2.96	25
Naphthalene	3.75	4.18	4.15	111	111	70.0-159			0.720	25
2-Propanol	3.75	4.34	4.30	116	115	70.0-139			0.926	25
Propene	3.75	4.32	4.25	115	113	64.0-144			1.63	25
Styrene	3.75	4.09	4.14	109	110	70.0-130			1.22	25
1,1,2,2-Tetrachloroethane	3.75	4.05	4.13	108	110	70.0-130			1.96	25
Tetrachloroethylene	3.75	3.86	3.81	103	102	70.0-130			1.30	25
Tetrahydrofuran	3.75	4.28	4.19	114	112	70.0-137			2.13	25
Toluene	3.75	3.93	3.92	105	105	70.0-130			0.255	25
1,2,4-Trichlorobenzene	3.75	4.30	4.36	115	116	70.0-160			1.39	25
1,1,1-Trichloroethane	3.75	4.09	3.98	109	106	70.0-130			2.73	25
1,1,2-Trichloroethane	3.75	3.95	3.93	105	105	70.0-130			0.508	25
Trichloroethylene	3.75	3.92	3.89	105	104	70.0-130			0.768	25
1,2,4-Trimethylbenzene	3.75	4.22	4.18	113	111	70.0-130			0.952	25
1,3,5-Trimethylbenzene	3.75	4.12	4.23	110	113	70.0-130			2.63	25
2,2,4-Trimethylpentane	3.75	4.11	4.08	110	109	70.0-130			0.733	25
Vinyl chloride	3.75	4.34	4.21	116	112	70.0-130			3.04	25
Vinyl Bromide	3.75	4.13	4.09	110	109	70.0-130			0.973	25
Vinyl acetate	3.75	4.23	4.20	113	112	70.0-130			0.712	25
m&p-Xylene	7.50	8.19	8.15	109	109	70.0-130			0.490	25
o-Xylene	3.75	4.09	4.09	109	109	70.0-130			0.000	25
TPH (GC/MS) Low Fraction	203	229	230	113	113	70.0-130			0.436	25
(S) 1,4-Bromofluorobenzene				99.1	99.5	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1556204-01,02,03,04

Method Blank (MB)

(MB) R3860389-3 11/12/22 08:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Cyclohexane	U		0.0753	0.200
Heptane	U		0.104	0.200
n-Hexane	U		0.206	0.630
TPH (GC/MS) Low Fraction	48.9	J	39.7	200
(S) 1,4-Bromofluorobenzene	86.3			60.0-140

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

(LCS) R3860389-1 11/12/22 07:22 • (LCSD) R3860389-2 11/12/22 07:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Cyclohexane	3.75	3.86	3.77	103	101	70.0-130			2.36	25
Heptane	3.75	3.90	3.84	104	102	70.0-130			1.55	25
n-Hexane	3.75	3.77	3.71	101	98.9	70.0-130			1.60	25
TPH (GC/MS) Low Fraction	203	226	222	111	109	70.0-130			1.79	25
(S) 1,4-Bromofluorobenzene				95.2	95.0	60.0-140				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1556204-01](#)

Method Blank (MB)

(MB) R3860982-3 11/14/22 10:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	86.8			60.0-140

1 Cp

2 Tc

3 Ss

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

(LCS) R3860982-1 11/14/22 09:16 • (LCSD) R3860982-2 11/14/22 09:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
n-Hexane	3.75	4.01	3.93	107	105	70.0-130			2.02	25
(S) 1,4-Bromofluorobenzene				95.5	95.4	60.0-140				

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
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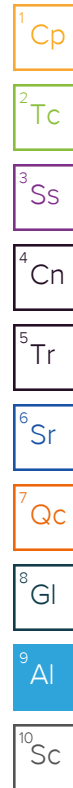
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address:
Ensolum, LLC
601 Marienfeld #400
Midland, TX 79701

Billing Information:
Accounts Payable
2351 W Northwest Hwy. Ste.
1203
Dallas, TX 75220

Pres Chk

Report to:
Beaux Jennings

Email To: bjennings@ensolum.com

Project Description:
Levey Well

City/State Collected:
Hobbs NM

Please Circle:
PT MT CT ET

Phone: 210-219-8858

Client Project #
03B1417001

Lab Project #
ENSOLUMMTX-SUMMA

Collected by (print):
Shane Diller

Site/Facility ID #
03B1417001

P.O. #
03B1417001

Collected by (signature):
Immediately
Packed on Ice N X Y

Rush? (Lab MUST Be Notified)
Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
X Three Day

Quote #
Date Results Needed
No. of Cntrs

Table with columns: Sample ID, Comp/Grab, Matrix, Depth, Date, Time, Cntrs. Includes handwritten entries for Levey Well samples and a large 'NFE' mark.

TO-15 Summa

Analysis / Container / Preservative table with multiple columns for various chemical parameters.

Chain of Custody Page ___ of ___
Pace Analytical
12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

SDG # L1556200
J100
ENSOLUMMTX
Template: T180734
Prelogin: P827709
PM: 134 - Mark W. Beasley
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
pH Temp
Flow Other
Samples returned via:
UPS FedEx Courier
Tracking # 9296 5245 4877

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: X N

Relinquished by: (Signature)
Date: 11/9/22
Time: 1045

Received by: (Signature)
Date: 11/9/22
Time: 1700

Trip Blank Received: Yes (No)
HCL/MeOH
TBR
Temp: °C Bottles Received: 4

If preservation required by Login: Date/Time
Hold:
Condition: NCF OK



ANALYTICAL REPORT

November 16, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

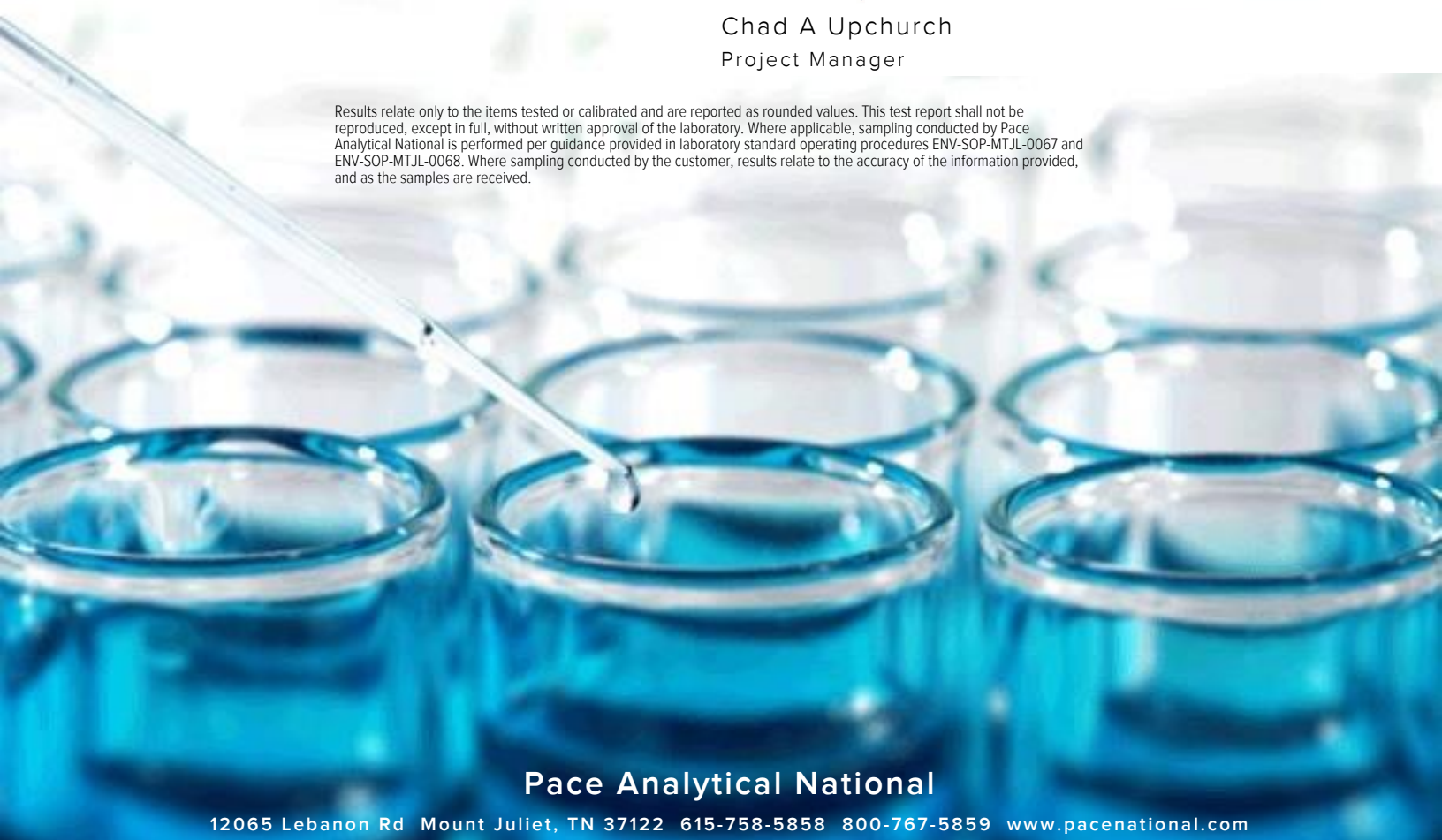
Ensolum, LLC

Sample Delivery Group: L1557157
 Samples Received: 11/12/2022
 Project Number: 03B1417001
 Description: Levey Well
 Site: 03B1417001
 Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:











Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Tc: Table of Contents	2	
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Cn: Case Narrative	4	
Tr: TRRP Summary	5	
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TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	
LEVEY WELL L1557157-01	9	
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SAMPLE SUMMARY

LEVEY WELL L1557157-01 Air

Collected by	Collected date/time	Received date/time
Shane Diller	11/09/22 13:18	11/12/22 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1959233	100	11/15/22 01:46	11/15/22 01:46	FKG	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1959894	1000	11/15/22 19:28	11/15/22 19:28	MBF	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Tr
- ⁶ Sr
- ⁷ Qc
- ⁸ Gl
- ⁹ Al
- ¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National		LRC Date: 11/16/2022 16:22					
Project Name: Levey Well		Laboratory Job Number: L1557157-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1959233 and WG1959894					
# 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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 11/16/2022 16:22					
Project Name: Levey Well		Laboratory Job Number: L1557157-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1959233 and WG1959894					
# 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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
<p>1. 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.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/16/2022 16:22
Project Name: Levey Well	Laboratory Job Number: L1557157-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1959233 and WG1959894

ER # ¹	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.
	<ol style="list-style-type: none">1. 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.2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);3. NA = Not applicable;4. NR = Not reviewed;5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Collected date/time: 11/09/22 13:18

L1557157

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	4670	11100		100	WG1959233
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1959233
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1959233
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1959233
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1959233
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1959233
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1959233
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1959233
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1959233
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1959233
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1959233
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1959233
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1959233
Chloromethane	74-87-3	50.50	20.0	41.3	60.1	124		100	WG1959233
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1959233
Cyclohexane	110-82-7	84.20	20.0	68.9	4810	16600		100	WG1959233
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1959233
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1959233
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1959233
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1959233
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1959233
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1959233
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1959233
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1959233
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1959233
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1959233
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1959233
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1959233
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1959233
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1959233
Ethanol	64-17-5	46.10	1250	2360	2500	4710	B	1000	WG1959894
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1959233
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1959233
Trichlorofluoromethane	75-69-4	137.40	20.0	112	21.8	123		100	WG1959233
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	35.0	173		100	WG1959233
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1959233
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1959233
Heptane	142-82-5	100	200	818	13900	56900		1000	WG1959894
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1959233
n-Hexane	110-54-3	86.20	630	2220	51800	183000		1000	WG1959894
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1959233
Methylene Chloride	75-09-2	84.90	20.0	69.4	334	1160		100	WG1959233
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1959233
2-Butanone (MEK)	78-93-3	72.10	125	369	1060	3130		100	WG1959233
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1959233
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1959233
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1959233
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1959233
2-Propanol	67-63-0	60.10	125	307	7700	18900		100	WG1959233
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1959233
Styrene	100-42-5	104	20.0	85.1	20.7	88.0		100	WG1959233
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1959233
Tetrachloroethylene	127-18-4	166	20.0	136	113	767		100	WG1959233
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1959233
Toluene	108-88-3	92.10	50.0	188	224	844		100	WG1959233
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1959233

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Collected date/time: 11/09/22 13:18

L1557157

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	WG1959233
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	WG1959233
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	WG1959233
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	WG1959233
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	WG1959233
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	WG1959233
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	WG1959233
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	WG1959233
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	WG1959233
m&p-Xylene	1330-20-7	106	40.0	173	62.6	271		100	WG1959233
o-Xylene	95-47-6	106	20.0	86.7	20.2	87.6		100	WG1959233
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	253000	1050000		100	WG1959233
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.5				WG1959233
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		79.7				WG1959894

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1557157-01](#)

Method Blank (MB)

(MB) R3860963-3 11/14/22 10:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1557157-01](#)

Method Blank (MB)

(MB) R3860963-3 11/14/22 10:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.207	U	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	92.3			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

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

(LCS) R3860963-1 11/14/22 09:28 • (LCSD) R3860963-2 11/14/22 10:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	4.46	4.42	119	118	70.0-130			0.901	25
Allyl Chloride	3.75	4.88	4.68	130	125	70.0-130			4.18	25
Benzene	3.75	4.22	4.20	113	112	70.0-130			0.475	25
Benzyl Chloride	3.75	4.24	4.26	113	114	70.0-152			0.471	25
Bromodichloromethane	3.75	4.27	4.30	114	115	70.0-130			0.700	25
Bromoform	3.75	4.22	4.22	113	113	70.0-130			0.000	25
Bromomethane	3.75	4.12	4.29	110	114	70.0-130			4.04	25

Volatile Organic Compounds (MS) by Method TO-15

L1557157-01

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

(LCS) R3860963-1 11/14/22 09:28 • (LCSD) R3860963-2 11/14/22 10:13

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,3-Butadiene	3.75	4.63	4.65	123	124	70.0-130			0.431	25
Carbon disulfide	3.75	4.32	4.37	115	117	70.0-130			1.15	25
Carbon tetrachloride	3.75	4.19	4.27	112	114	70.0-130			1.89	25
Chlorobenzene	3.75	4.24	4.22	113	113	70.0-130			0.473	25
Chloroethane	3.75	4.53	4.59	121	122	70.0-130			1.32	25
Chloroform	3.75	4.26	4.23	114	113	70.0-130			0.707	25
Chloromethane	3.75	4.70	4.70	125	125	70.0-130			0.000	25
2-Chlorotoluene	3.75	4.13	4.12	110	110	70.0-130			0.242	25
Cyclohexane	3.75	4.30	4.26	115	114	70.0-130			0.935	25
Dibromochloromethane	3.75	4.25	4.27	113	114	70.0-130			0.469	25
1,2-Dibromoethane	3.75	4.24	4.29	113	114	70.0-130			1.17	25
1,2-Dichlorobenzene	3.75	4.18	4.22	111	113	70.0-130			0.952	25
1,3-Dichlorobenzene	3.75	4.15	4.18	111	111	70.0-130			0.720	25
1,4-Dichlorobenzene	3.75	4.18	4.11	111	110	70.0-130			1.69	25
1,2-Dichloroethane	3.75	4.35	4.31	116	115	70.0-130			0.924	25
1,1-Dichloroethane	3.75	4.45	4.42	119	118	70.0-130			0.676	25
1,1-Dichloroethene	3.75	4.38	4.45	117	119	70.0-130			1.59	25
cis-1,2-Dichloroethene	3.75	4.48	4.44	119	118	70.0-130			0.897	25
trans-1,2-Dichloroethene	3.75	4.41	4.48	118	119	70.0-130			1.57	25
1,2-Dichloropropane	3.75	4.38	4.49	117	120	70.0-130			2.48	25
cis-1,3-Dichloropropene	3.75	4.33	4.34	115	116	70.0-130			0.231	25
trans-1,3-Dichloropropene	3.75	4.28	4.47	114	119	70.0-130			4.34	25
1,4-Dioxane	3.75	4.07	4.26	109	114	70.0-140			4.56	25
Ethylbenzene	3.75	4.26	4.22	114	113	70.0-130			0.943	25
4-Ethyltoluene	3.75	4.15	4.12	111	110	70.0-130			0.726	25
Trichlorofluoromethane	3.75	4.27	4.35	114	116	70.0-130			1.86	25
Dichlorodifluoromethane	3.75	3.69	3.68	98.4	98.1	64.0-139			0.271	25
1,1,2-Trichlorotrifluoroethane	3.75	4.23	4.26	113	114	70.0-130			0.707	25
1,2-Dichlorotetrafluoroethane	3.75	4.32	4.38	115	117	70.0-130			1.38	25
Hexachloro-1,3-butadiene	3.75	4.14	4.18	110	111	70.0-151			0.962	25
Isopropylbenzene	3.75	4.18	4.16	111	111	70.0-130			0.480	25
Methylene Chloride	3.75	4.46	4.52	119	121	70.0-130			1.34	25
Methyl Butyl Ketone	3.75	4.33	4.39	115	117	70.0-149			1.38	25
Methyl Ethyl Ketone	3.75	4.27	4.43	114	118	70.0-130			3.68	25
4-Methyl-2-pentanone (MIBK)	3.75	4.62	4.70	123	125	70.0-139			1.72	25
Methyl Methacrylate	3.75	4.31	4.45	115	119	70.0-130			3.20	25
MTBE	3.75	4.20	4.32	112	115	70.0-130			2.82	25
Naphthalene	3.75	4.39	4.39	117	117	70.0-159			0.000	25
2-Propanol	3.75	4.57	4.61	122	123	70.0-139			0.871	25
Propene	3.75	4.70	4.82	125	129	64.0-144			2.52	25

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1557157-01

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

(LCS) R3860963-1 11/14/22 09:28 • (LCSD) R3860963-2 11/14/22 10:13

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Styrene	3.75	4.29	4.31	114	115	70.0-130			0.465	25
1,1,2,2-Tetrachloroethane	3.75	4.30	4.16	115	111	70.0-130			3.31	25
Tetrachloroethylene	3.75	4.12	4.12	110	110	70.0-130			0.000	25
Tetrahydrofuran	3.75	4.61	4.70	123	125	70.0-137			1.93	25
Toluene	3.75	4.18	4.24	111	113	70.0-130			1.43	25
1,2,4-Trichlorobenzene	3.75	4.44	4.51	118	120	70.0-160			1.56	25
1,1,1-Trichloroethane	3.75	4.22	4.29	113	114	70.0-130			1.65	25
1,1,2-Trichloroethane	3.75	4.15	4.29	111	114	70.0-130			3.32	25
Trichloroethylene	3.75	4.16	4.20	111	112	70.0-130			0.957	25
1,2,4-Trimethylbenzene	3.75	4.25	4.25	113	113	70.0-130			0.000	25
1,3,5-Trimethylbenzene	3.75	4.36	4.33	116	115	70.0-130			0.690	25
2,2,4-Trimethylpentane	3.75	4.45	4.46	119	119	70.0-130			0.224	25
Vinyl chloride	3.75	4.53	4.65	121	124	70.0-130			2.61	25
Vinyl Bromide	3.75	4.28	4.32	114	115	70.0-130			0.930	25
Vinyl acetate	3.75	4.63	4.76	123	127	70.0-130			2.77	25
m&p-Xylene	7.50	8.48	8.49	113	113	70.0-130			0.118	25
o-Xylene	3.75	4.27	4.29	114	114	70.0-130			0.467	25
TPH (GC/MS) Low Fraction	203	245	243	121	120	70.0-130			0.820	25
(S) 1,4-Bromofluorobenzene				95.8	95.4	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1557157-01](#)

Method Blank (MB)

(MB) R3861382-3 11/15/22 09:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethanol	0.635	U	0.265	1.25
Heptane	U		0.104	0.200
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	86.0			60.0-140

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

(LCS) R3861382-1 11/15/22 08:58 • (LCSD) R3861382-2 11/15/22 09:29

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	4.63	4.54	123	121	55.0-148			1.96	25
Heptane	3.75	3.94	3.90	105	104	70.0-130			1.02	25
n-Hexane	3.75	3.80	3.73	101	99.5	70.0-130			1.86	25
(S) 1,4-Bromofluorobenzene				95.7	95.2	60.0-140				

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Ensolum, LLC 601 Marienfeld #400 Midland, TX 79701		Billing Information: Accounts Payable 2351 W Northwest Hwy. Ste. 1203 Dallas, TX 75220		Pres Chk
------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------	--	-------------

Report to: Beaux Jennings	Email To: bjennings@ensolum.com
-------------------------------------	----------------------------------------

Project Description: Levey Well	City/State Collected: Hobbs NM	Please Circle: PT MT CT ET
------------------------------------	-----------------------------------	-------------------------------

Phone: 210-219-8858	Client Project # 03B1417001	Lab Project # ENSOLUMTX-SUMMA
----------------------------	--------------------------------	-----------------------------------------

Collected by (print): Shane Diller	Site/Facility ID # 03B1417001	P.O. # 03B1417001
---------------------------------------	----------------------------------	----------------------

Collected by (signature): Immediately Packed on Ice <input type="checkbox"/> N <input checked="" type="checkbox"/> X <input type="checkbox"/> Y	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input checked="" type="checkbox"/> X Three Day	Quote # Date Results Needed	No. of Cntrs
-----------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------	-----------------

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
Levey Well	G	Air	✓	11-9-22	1318	1

Analysis / Container / Preservative										
TO-15 Summa										

Chain of Custody Page ___ of ___



12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **U557157**

J176

Acctnum: **ENS**

Template: **T180734**

Prelogin: **P827709**

PM: **134 - Mark W. Beasley**

PB:

Shipped Via:

Remarks | Sample # (lab only)

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **3095 3806 2550**

Relinquished by: (Signature) <i>Shane Diller</i>	Date: 11/11/22	Time: 1:45pm	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes/No <input checked="" type="checkbox"/> No HCL/MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C <i>Amh</i>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>11/12/22</i> Time: <i>9:00</i>

Sample Receipt Checklist

COC Seal Present/Intact: Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N

RAD Screen <0.5 mR/hr: Y N

If preservation required by Login: Date/Time

Hold:

Condition:
NCF / OK



ANALYTICAL REPORT

November 28, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Ensolum, LLC

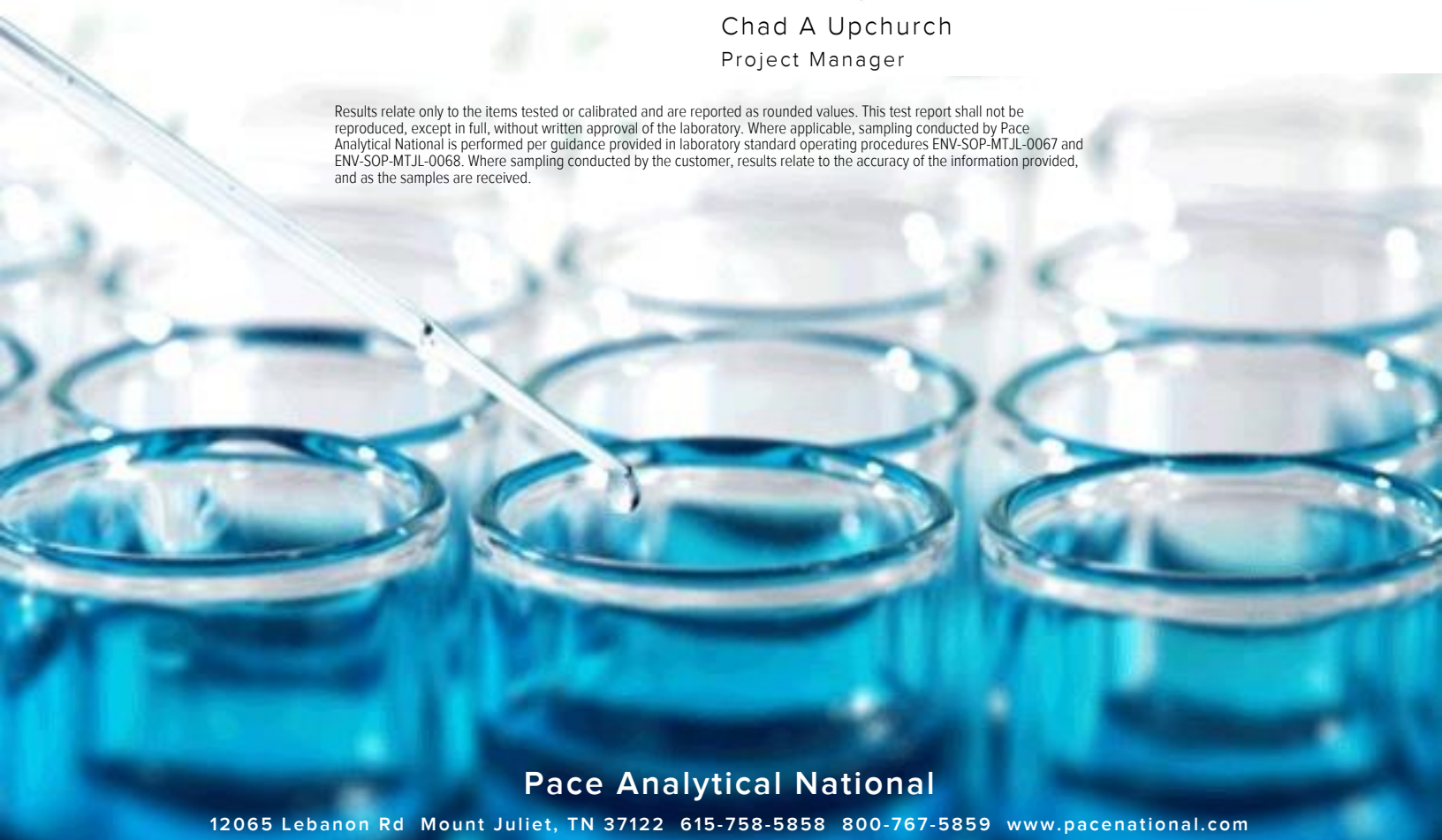
Sample Delivery Group: L1560563
 Samples Received: 11/22/2022
 Project Number: 03B1417001
 Description: Levey Well

Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:











Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Tc: Table of Contents	2	
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SAMPLE SUMMARY

LEVEY WELL L1560563-01 Air

Collected by	Collected date/time	Received date/time
Shane Diller	11/16/22 13:35	11/22/22 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1965306	1000	11/26/22 21:32	11/26/22 21:32	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1965877	20000	11/28/22 13:55	11/28/22 13:55	MBF	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Tr
- ⁶ Sr
- ⁷ Qc
- ⁸ Gl
- ⁹ Al
- ¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National		LRC Date: 11/28/2022 16:22					
Project Name: Levey Well		Laboratory Job Number: L1560563-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1965306 and WG1965877					
# 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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 11/28/2022 16:22					
Project Name: Levey Well		Laboratory Job Number: L1560563-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1965306 and WG1965877					
# 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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
<p>1. 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.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/28/2022 16:22
Project Name: Levey Well	Laboratory Job Number: L1560563-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1965306 and WG1965877

ER # ¹	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.
	<ol style="list-style-type: none">1. 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.2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);3. NA = Not applicable;4. NR = Not reviewed;5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Collected date/time: 11/16/22 13:35

L1560563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1250	2970	14700	34900		1000	WG1965306
Allyl chloride	107-05-1	76.53	200	626	ND	ND		1000	WG1965306
Benzene	71-43-2	78.10	200	639	ND	ND		1000	WG1965306
Benzyl Chloride	100-44-7	127	200	1040	ND	ND		1000	WG1965306
Bromodichloromethane	75-27-4	164	200	1340	ND	ND		1000	WG1965306
Bromoform	75-25-2	253	600	6210	ND	ND		1000	WG1965306
Bromomethane	74-83-9	94.90	200	776	ND	ND		1000	WG1965306
1,3-Butadiene	106-99-0	54.10	2000	4430	ND	ND		1000	WG1965306
Carbon disulfide	75-15-0	76.10	200	622	ND	ND		1000	WG1965306
Carbon tetrachloride	56-23-5	154	200	1260	ND	ND		1000	WG1965306
Chlorobenzene	108-90-7	113	200	924	ND	ND		1000	WG1965306
Chloroethane	75-00-3	64.50	200	528	ND	ND		1000	WG1965306
Chloroform	67-66-3	119	200	973	ND	ND		1000	WG1965306
Chloromethane	74-87-3	50.50	200	413	ND	ND		1000	WG1965306
2-Chlorotoluene	95-49-8	126	200	1030	ND	ND		1000	WG1965306
Cyclohexane	110-82-7	84.20	200	689	ND	ND		1000	WG1965306
Dibromochloromethane	124-48-1	208	200	1700	ND	ND		1000	WG1965306
1,2-Dibromoethane	106-93-4	188	200	1540	ND	ND		1000	WG1965306
1,2-Dichlorobenzene	95-50-1	147	200	1200	ND	ND		1000	WG1965306
1,3-Dichlorobenzene	541-73-1	147	200	1200	ND	ND		1000	WG1965306
1,4-Dichlorobenzene	106-46-7	147	200	1200	ND	ND		1000	WG1965306
1,2-Dichloroethane	107-06-2	99	200	810	ND	ND		1000	WG1965306
1,1-Dichloroethane	75-34-3	98	200	802	ND	ND		1000	WG1965306
1,1-Dichloroethene	75-35-4	96.90	200	793	ND	ND		1000	WG1965306
cis-1,2-Dichloroethene	156-59-2	96.90	200	793	ND	ND		1000	WG1965306
trans-1,2-Dichloroethene	156-60-5	96.90	200	793	ND	ND		1000	WG1965306
1,2-Dichloropropane	78-87-5	113	200	924	ND	ND		1000	WG1965306
cis-1,3-Dichloropropene	10061-01-5	111	200	908	ND	ND		1000	WG1965306
trans-1,3-Dichloropropene	10061-02-6	111	200	908	ND	ND		1000	WG1965306
1,4-Dioxane	123-91-1	88.10	200	721	ND	ND		1000	WG1965306
Ethanol	64-17-5	46.10	1250	2360	18900	35600		1000	WG1965306
Ethylbenzene	100-41-4	106	200	867	ND	ND		1000	WG1965306
4-Ethyltoluene	622-96-8	120	200	982	ND	ND		1000	WG1965306
Trichlorofluoromethane	75-69-4	137.40	200	1120	ND	ND		1000	WG1965306
Dichlorodifluoromethane	75-71-8	120.92	200	989	ND	ND		1000	WG1965306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	200	1530	ND	ND		1000	WG1965306
1,2-Dichlorotetrafluoroethane	76-14-2	171	200	1400	ND	ND		1000	WG1965306
Heptane	142-82-5	100	200	818	65200	267000		1000	WG1965306
Hexachloro-1,3-butadiene	87-68-3	261	630	6730	ND	ND		1000	WG1965306
n-Hexane	110-54-3	86.20	12600	44400	1090000	3840000		20000	WG1965877
Isopropylbenzene	98-82-8	120.20	200	983	ND	ND		1000	WG1965306
Methylene Chloride	75-09-2	84.90	200	694	ND	ND		1000	WG1965306
Methyl Butyl Ketone	591-78-6	100	1250	5110	ND	ND		1000	WG1965306
2-Butanone (MEK)	78-93-3	72.10	1250	3690	6610	19500		1000	WG1965306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1250	5120	ND	ND		1000	WG1965306
Methyl methacrylate	80-62-6	100.12	200	819	ND	ND		1000	WG1965306
MTBE	1634-04-4	88.10	200	721	ND	ND		1000	WG1965306
Naphthalene	91-20-3	128	630	3300	ND	ND		1000	WG1965306
2-Propanol	67-63-0	60.10	1250	3070	14300	35200		1000	WG1965306
Propene	115-07-1	42.10	1250	2150	ND	ND		1000	WG1965306
Styrene	100-42-5	104	200	851	ND	ND		1000	WG1965306
1,1,2,2-Tetrachloroethane	79-34-5	168	200	1370	ND	ND		1000	WG1965306
Tetrachloroethylene	127-18-4	166	200	1360	ND	ND		1000	WG1965306
Tetrahydrofuran	109-99-9	72.10	200	590	ND	ND		1000	WG1965306
Toluene	108-88-3	92.10	500	1880	ND	ND		1000	WG1965306
1,2,4-Trichlorobenzene	120-82-1	181	630	4660	ND	ND		1000	WG1965306

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Collected date/time: 11/16/22 13:35

L1560563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	200	1090	ND	ND		1000	WG1965306
1,1,2-Trichloroethane	79-00-5	133	200	1090	ND	ND		1000	WG1965306
Trichloroethylene	79-01-6	131	200	1070	ND	ND		1000	WG1965306
1,2,4-Trimethylbenzene	95-63-6	120	200	982	ND	ND		1000	WG1965306
1,3,5-Trimethylbenzene	108-67-8	120	200	982	ND	ND		1000	WG1965306
2,2,4-Trimethylpentane	540-84-1	114.22	200	934	ND	ND		1000	WG1965306
Vinyl chloride	75-01-4	62.50	200	511	ND	ND		1000	WG1965306
Vinyl Bromide	593-60-2	106.95	200	875	ND	ND		1000	WG1965306
Vinyl acetate	108-05-4	86.10	200	704	ND	ND		1000	WG1965306
m&p-Xylene	1330-20-7	106	400	1730	ND	ND		1000	WG1965306
o-Xylene	95-47-6	106	200	867	ND	ND		1000	WG1965306
TPH (GC/MS) Low Fraction	8006-61-9	101	200000	826000	3090000	12800000		1000	WG1965306
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.7				WG1965306
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.0				WG1965877

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560563-01](#)

Method Blank (MB)

(MB) R3865502-2 11/26/22 08:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	U		0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560563-01](#)

Method Blank (MB)

(MB) R3865502-2 11/26/22 08:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.220	U	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	95.3			60.0-140

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	4.19	4.30	112	115	70.0-130			2.59	25
Allyl Chloride	3.75	4.08	4.03	109	107	70.0-130			1.23	25
Benzene	3.75	4.05	4.08	108	109	70.0-130			0.738	25
Benzyl Chloride	3.75	4.02	3.97	107	106	70.0-152			1.25	25
Bromodichloromethane	3.75	4.07	4.07	109	109	70.0-130			0.000	25

Volatile Organic Compounds (MS) by Method TO-15

L1560563-01

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	3.75	3.94	3.95	105	105	70.0-130			0.253	25
Bromomethane	3.75	3.57	3.67	95.2	97.9	70.0-130			2.76	25
1,3-Butadiene	3.75	3.62	3.91	96.5	104	70.0-130			7.70	25
Carbon disulfide	3.75	4.20	4.12	112	110	70.0-130			1.92	25
Carbon tetrachloride	3.75	4.04	3.96	108	106	70.0-130			2.00	25
Chlorobenzene	3.75	4.06	4.05	108	108	70.0-130			0.247	25
Chloroethane	3.75	3.56	3.71	94.9	98.9	70.0-130			4.13	25
Chloroform	3.75	4.06	4.06	108	108	70.0-130			0.000	25
Chloromethane	3.75	4.27	4.22	114	113	70.0-130			1.18	25
2-Chlorotoluene	3.75	4.07	4.05	109	108	70.0-130			0.493	25
Cyclohexane	3.75	3.95	3.88	105	103	70.0-130			1.79	25
Dibromochloromethane	3.75	4.10	4.03	109	107	70.0-130			1.72	25
1,2-Dibromoethane	3.75	4.04	4.04	108	108	70.0-130			0.000	25
1,2-Dichlorobenzene	3.75	4.05	3.98	108	106	70.0-130			1.74	25
1,3-Dichlorobenzene	3.75	4.11	4.13	110	110	70.0-130			0.485	25
1,4-Dichlorobenzene	3.75	4.23	4.23	113	113	70.0-130			0.000	25
1,2-Dichloroethane	3.75	4.08	4.22	109	113	70.0-130			3.37	25
1,1-Dichloroethane	3.75	4.05	4.04	108	108	70.0-130			0.247	25
1,1-Dichloroethene	3.75	4.18	4.07	111	109	70.0-130			2.67	25
cis-1,2-Dichloroethene	3.75	3.69	3.68	98.4	98.1	70.0-130			0.271	25
trans-1,2-Dichloroethene	3.75	4.12	4.05	110	108	70.0-130			1.71	25
1,2-Dichloropropane	3.75	4.07	4.14	109	110	70.0-130			1.71	25
cis-1,3-Dichloropropene	3.75	3.84	3.95	102	105	70.0-130			2.82	25
trans-1,3-Dichloropropene	3.75	4.00	3.97	107	106	70.0-130			0.753	25
1,4-Dioxane	3.75	3.94	3.90	105	104	70.0-140			1.02	25
Ethanol	3.75	3.03	3.64	80.8	97.1	55.0-148			18.3	25
Ethylbenzene	3.75	3.97	3.97	106	106	70.0-130			0.000	25
4-Ethyltoluene	3.75	4.02	4.00	107	107	70.0-130			0.499	25
Trichlorofluoromethane	3.75	3.84	3.97	102	106	70.0-130			3.33	25
Dichlorodifluoromethane	3.75	4.27	4.15	114	111	64.0-139			2.85	25
1,1,2-Trichlorotrifluoroethane	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2-Dichlorotetrafluoroethane	3.75	4.23	4.14	113	110	70.0-130			2.15	25
Heptane	3.75	4.15	4.19	111	112	70.0-130			0.959	25
Hexachloro-1,3-butadiene	3.75	4.32	4.05	115	108	70.0-151			6.45	25
Isopropylbenzene	3.75	3.93	3.90	105	104	70.0-130			0.766	25
Methylene Chloride	3.75	4.12	4.07	110	109	70.0-130			1.22	25
Methyl Butyl Ketone	3.75	4.18	4.27	111	114	70.0-149			2.13	25
Methyl Ethyl Ketone	3.75	3.94	3.93	105	105	70.0-130			0.254	25
4-Methyl-2-pentanone (MIBK)	3.75	4.11	4.17	110	111	70.0-139			1.45	25
Methyl Methacrylate	3.75	4.01	3.98	107	106	70.0-130			0.751	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1560563-01

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.83	3.83	102	102	70.0-130			0.000	25
Naphthalene	3.75	4.24	3.96	113	106	70.0-159			6.83	25
2-Propanol	3.75	4.29	4.33	114	115	70.0-139			0.928	25
Propene	3.75	4.24	4.22	113	113	64.0-144			0.473	25
Styrene	3.75	4.04	4.04	108	108	70.0-130			0.000	25
1,1,2,2-Tetrachloroethane	3.75	4.01	4.01	107	107	70.0-130			0.000	25
Tetrachloroethylene	3.75	3.98	4.03	106	107	70.0-130			1.25	25
Tetrahydrofuran	3.75	3.90	3.95	104	105	70.0-137			1.27	25
Toluene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,2,4-Trichlorobenzene	3.75	4.26	4.01	114	107	70.0-160			6.05	25
1,1,1-Trichloroethane	3.75	3.98	3.93	106	105	70.0-130			1.26	25
1,1,2-Trichloroethane	3.75	3.99	3.96	106	106	70.0-130			0.755	25
Trichloroethylene	3.75	3.98	4.02	106	107	70.0-130			1.00	25
1,2,4-Trimethylbenzene	3.75	4.04	3.98	108	106	70.0-130			1.50	25
1,3,5-Trimethylbenzene	3.75	4.04	4.04	108	108	70.0-130			0.000	25
2,2,4-Trimethylpentane	3.75	3.94	4.01	105	107	70.0-130			1.76	25
Vinyl chloride	3.75	4.03	4.16	107	111	70.0-130			3.17	25
Vinyl Bromide	3.75	3.60	3.81	96.0	102	70.0-130			5.67	25
Vinyl acetate	3.75	3.89	3.95	104	105	70.0-130			1.53	25
m&p-Xylene	7.50	7.95	7.94	106	106	70.0-130			0.126	25
o-Xylene	3.75	3.87	3.88	103	103	70.0-130			0.258	25
TPH (GC/MS) Low Fraction	203	238	228	117	112	70.0-130			4.29	25
(S) 1,4-Bromofluorobenzene				98.3	96.9	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1560563-01

Method Blank (MB)

(MB) R3865653-3 11/28/22 10:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	94.8			60.0-140

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

(LCS) R3865653-1 11/28/22 09:21 • (LCSD) R3865653-2 11/28/22 09:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
n-Hexane	3.75	4.20	4.19	112	112	70.0-130			0.238	25
(S) 1,4-Bromofluorobenzene				99.1	97.8	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	-------------------------------------------------------------------------------------

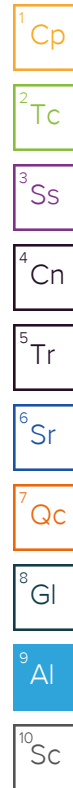
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address:
Ensolum, LLC
 705 W. Wadley Ave, Ste 210
 Midland, TX 79705

Billing Information:
Accounts Payable
 2351 W Northwest Hwy. Ste.
 1203
 Dallas, TX 75220

Report to:
Beaux Jennings

Project Description:
Lovey We 11

City/State Collected: *Hobbs NM*

Please Circle:
 PT MT CT ET

Phone: **210-219-8858**

Client Project #
03B1417001

Lab Project #
ENSOLUMMTX-SUMMA

Collected by (print):
Shane D. Nov

Site/Facility ID #

P.O. #
03B1417001

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

Immediately Packed on Ice N Y

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pres Chk

TO-15 Summa

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
<i>Lovey Well</i>	<i>G</i>	<i>Air</i>	<i>-</i>	<i>11-16-22</i>	<i>1335</i>	<i>1</i>	<i>X</i>
N/E 11-16-22							

Pace Analytical
 National Center for Testing & Innovation

12065 Lebanon Road Mt Juliet, TN 37122
 Phone: 615-758-5858 Alt: 800-767-5859
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # *41500563*

Table: **L-165**

Acctnum: **ENSOLUMMTX**

Template: **T180734**

Prelogin: **P827709**

PM: **134 - Mark W. Beasley**

PB:

Shipped Via:

Remarks: Sample # (lab only)

-a1

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N

RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)
[Signature]

Date: *11/21/22*

Time: *1045*

Relinquished by: (Signature)
[Signature]

Date: *11/21/22*

Time: *1700*

Relinquished by: (Signature)

Received by: (Signature)
[Signature]

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Received by: (Signature)
[Signature]

Received for lab by: (Signature)
[Signature]

Temp: *5°C* Bottles Received: *1*

If preservation required by Login: Date/Time

Date: *11/22/22* Time: *0830*

Hold:

Condition: **NCF / OK**



ANALYTICAL REPORT

November 28, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

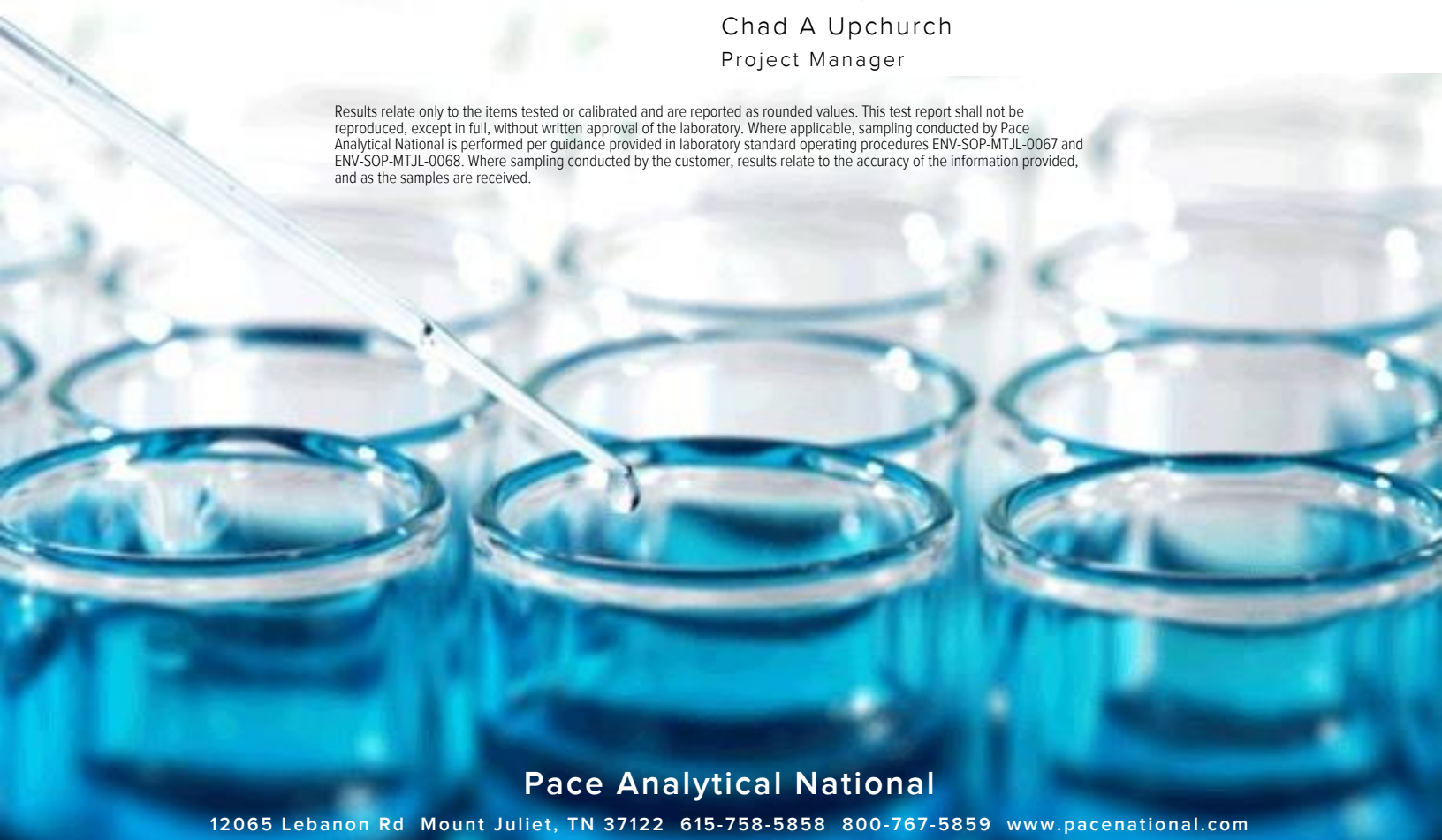
Ensolum, LLC

Sample Delivery Group: L1560574
 Samples Received: 11/22/2022
 Project Number: 03B1417001
 Description: Levey Well
 Site: 03B1417001
 Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:











Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Tr: TRRP Summary	5	
TRRP form R	6	
TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	
LEVEY WELL L1560574-01	9	
Qc: Quality Control Summary	11	
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Gl: Glossary of Terms	17	
Al: Accreditations & Locations	18	
Sc: Sample Chain of Custody	19	
		

SAMPLE SUMMARY

LEVEY WELL L1560574-01 Air

Collected by: Shane Diller
Collected date/time: 11/21/22 11:15
Received date/time: 11/22/22 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1965306	1000	11/26/22 22:09	11/26/22 22:09	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1965877	20000	11/28/22 14:31	11/28/22 14:31	CEP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1966007	100000	11/28/22 15:14	11/28/22 15:14	CEP	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Tr
- ⁶ Sr
- ⁷ Qc
- ⁸ Gl
- ⁹ Al
- ¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National		LRC Date: 11/28/2022 16:23					
Project Name: Levey Well		Laboratory Job Number: L1560574-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1965306, WG1965877 and WG1966007					
# 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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 11/28/2022 16:23					
Project Name: Levey Well		Laboratory Job Number: L1560574-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1965306, WG1965877 and WG1966007					
# 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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
1. 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. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = 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: Pace Analytical National		LRC Date: 11/28/2022 16:23	
Project Name: Levey Well		Laboratory Job Number: L1560574-01	
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1965306, WG1965877 and WG1966007	
ER #¹	Description		
The Exception Report intentionally left blank, there are no exceptions applied to this SDG.			
1. 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. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			

Collected date/time: 11/21/22 11:15

L1560574

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1250	2970	27700	65800		1000	WG1965306
Allyl chloride	107-05-1	76.53	200	626	ND	ND		1000	WG1965306
Benzene	71-43-2	78.10	200	639	ND	ND		1000	WG1965306
Benzyl Chloride	100-44-7	127	200	1040	ND	ND		1000	WG1965306
Bromodichloromethane	75-27-4	164	200	1340	ND	ND		1000	WG1965306
Bromoform	75-25-2	253	600	6210	ND	ND		1000	WG1965306
Bromomethane	74-83-9	94.90	200	776	ND	ND		1000	WG1965306
1,3-Butadiene	106-99-0	54.10	2000	4430	ND	ND		1000	WG1965306
Carbon disulfide	75-15-0	76.10	200	622	ND	ND		1000	WG1965306
Carbon tetrachloride	56-23-5	154	200	1260	ND	ND		1000	WG1965306
Chlorobenzene	108-90-7	113	200	924	ND	ND		1000	WG1965306
Chloroethane	75-00-3	64.50	200	528	ND	ND		1000	WG1965306
Chloroform	67-66-3	119	200	973	ND	ND		1000	WG1965306
Chloromethane	74-87-3	50.50	200	413	ND	ND		1000	WG1965306
2-Chlorotoluene	95-49-8	126	200	1030	ND	ND		1000	WG1965306
Cyclohexane	110-82-7	84.20	200	689	ND	ND		1000	WG1965306
Dibromochloromethane	124-48-1	208	200	1700	ND	ND		1000	WG1965306
1,2-Dibromoethane	106-93-4	188	200	1540	ND	ND		1000	WG1965306
1,2-Dichlorobenzene	95-50-1	147	200	1200	ND	ND		1000	WG1965306
1,3-Dichlorobenzene	541-73-1	147	200	1200	ND	ND		1000	WG1965306
1,4-Dichlorobenzene	106-46-7	147	200	1200	ND	ND		1000	WG1965306
1,2-Dichloroethane	107-06-2	99	200	810	ND	ND		1000	WG1965306
1,1-Dichloroethane	75-34-3	98	200	802	ND	ND		1000	WG1965306
1,1-Dichloroethene	75-35-4	96.90	200	793	ND	ND		1000	WG1965306
cis-1,2-Dichloroethene	156-59-2	96.90	200	793	ND	ND		1000	WG1965306
trans-1,2-Dichloroethene	156-60-5	96.90	200	793	ND	ND		1000	WG1965306
1,2-Dichloropropane	78-87-5	113	200	924	ND	ND		1000	WG1965306
cis-1,3-Dichloropropene	10061-01-5	111	200	908	ND	ND		1000	WG1965306
trans-1,3-Dichloropropene	10061-02-6	111	200	908	ND	ND		1000	WG1965306
1,4-Dioxane	123-91-1	88.10	200	721	ND	ND		1000	WG1965306
Ethanol	64-17-5	46.10	1250	2360	8970	16900		1000	WG1965306
Ethylbenzene	100-41-4	106	200	867	ND	ND		1000	WG1965306
4-Ethyltoluene	622-96-8	120	200	982	ND	ND		1000	WG1965306
Trichlorofluoromethane	75-69-4	137.40	200	1120	ND	ND		1000	WG1965306
Dichlorodifluoromethane	75-71-8	120.92	200	989	ND	ND		1000	WG1965306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	200	1530	ND	ND		1000	WG1965306
1,2-Dichlorotetrafluoroethane	76-14-2	171	200	1400	ND	ND		1000	WG1965306
Heptane	142-82-5	100	4000	16400	157000	642000		20000	WG1965877
Hexachloro-1,3-butadiene	87-68-3	261	630	6730	ND	ND		1000	WG1965306
n-Hexane	110-54-3	86.20	63000	222000	3080000	10900000		1000000	WG1966007
Isopropylbenzene	98-82-8	120.20	200	983	ND	ND		1000	WG1965306
Methylene Chloride	75-09-2	84.90	200	694	ND	ND		1000	WG1965306
Methyl Butyl Ketone	591-78-6	100	1250	5110	ND	ND		1000	WG1965306
2-Butanone (MEK)	78-93-3	72.10	1250	3690	11200	33000		1000	WG1965306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1250	5120	ND	ND		1000	WG1965306
Methyl methacrylate	80-62-6	100.12	200	819	ND	ND		1000	WG1965306
MTBE	1634-04-4	88.10	200	721	ND	ND		1000	WG1965306
Naphthalene	91-20-3	128	630	3300	ND	ND		1000	WG1965306
2-Propanol	67-63-0	60.10	1250	3070	14400	35400		1000	WG1965306
Propene	115-07-1	42.10	1250	2150	ND	ND		1000	WG1965306
Styrene	100-42-5	104	200	851	ND	ND		1000	WG1965306
1,1,2,2-Tetrachloroethane	79-34-5	168	200	1370	ND	ND		1000	WG1965306
Tetrachloroethylene	127-18-4	166	200	1360	238	1620		1000	WG1965306
Tetrahydrofuran	109-99-9	72.10	200	590	ND	ND		1000	WG1965306
Toluene	108-88-3	92.10	500	1880	ND	ND		1000	WG1965306
1,2,4-Trichlorobenzene	120-82-1	181	630	4660	ND	ND		1000	WG1965306

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Collected date/time: 11/21/22 11:15

L1560574

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	200	1090	ND	ND		1000	WG1965306
1,1,2-Trichloroethane	79-00-5	133	200	1090	ND	ND		1000	WG1965306
Trichloroethylene	79-01-6	131	200	1070	ND	ND		1000	WG1965306
1,2,4-Trimethylbenzene	95-63-6	120	200	982	ND	ND		1000	WG1965306
1,3,5-Trimethylbenzene	108-67-8	120	200	982	ND	ND		1000	WG1965306
2,2,4-Trimethylpentane	540-84-1	114.22	200	934	ND	ND		1000	WG1965306
Vinyl chloride	75-01-4	62.50	200	511	ND	ND		1000	WG1965306
Vinyl Bromide	593-60-2	106.95	200	875	ND	ND		1000	WG1965306
Vinyl acetate	108-05-4	86.10	200	704	ND	ND		1000	WG1965306
m&p-Xylene	1330-20-7	106	400	1730	ND	ND		1000	WG1965306
o-Xylene	95-47-6	106	200	867	ND	ND		1000	WG1965306
TPH (GC/MS) Low Fraction	8006-61-9	101	4000000	16500000	9420000	38900000		20000	WG1965877
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.3				WG1965306
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.0				WG1965877
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.6				WG1966007

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560574-01](#)

Method Blank (MB)

(MB) R3865502-2 11/26/22 08:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	U		0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560574-01](#)

Method Blank (MB)

(MB) R3865502-2 11/26/22 08:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.220	U	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	95.3			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	4.19	4.30	112	115	70.0-130			2.59	25
Allyl Chloride	3.75	4.08	4.03	109	107	70.0-130			1.23	25
Benzene	3.75	4.05	4.08	108	109	70.0-130			0.738	25
Benzyl Chloride	3.75	4.02	3.97	107	106	70.0-152			1.25	25
Bromodichloromethane	3.75	4.07	4.07	109	109	70.0-130			0.000	25
Bromoform	3.75	3.94	3.95	105	105	70.0-130			0.253	25
Bromomethane	3.75	3.57	3.67	95.2	97.9	70.0-130			2.76	25

Volatile Organic Compounds (MS) by Method TO-15

L1560574-01

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,3-Butadiene	3.75	3.62	3.91	96.5	104	70.0-130			7.70	25
Carbon disulfide	3.75	4.20	4.12	112	110	70.0-130			1.92	25
Carbon tetrachloride	3.75	4.04	3.96	108	106	70.0-130			2.00	25
Chlorobenzene	3.75	4.06	4.05	108	108	70.0-130			0.247	25
Chloroethane	3.75	3.56	3.71	94.9	98.9	70.0-130			4.13	25
Chloroform	3.75	4.06	4.06	108	108	70.0-130			0.000	25
Chloromethane	3.75	4.27	4.22	114	113	70.0-130			1.18	25
2-Chlorotoluene	3.75	4.07	4.05	109	108	70.0-130			0.493	25
Cyclohexane	3.75	3.95	3.88	105	103	70.0-130			1.79	25
Dibromochloromethane	3.75	4.10	4.03	109	107	70.0-130			1.72	25
1,2-Dibromoethane	3.75	4.04	4.04	108	108	70.0-130			0.000	25
1,2-Dichlorobenzene	3.75	4.05	3.98	108	106	70.0-130			1.74	25
1,3-Dichlorobenzene	3.75	4.11	4.13	110	110	70.0-130			0.485	25
1,4-Dichlorobenzene	3.75	4.23	4.23	113	113	70.0-130			0.000	25
1,2-Dichloroethane	3.75	4.08	4.22	109	113	70.0-130			3.37	25
1,1-Dichloroethane	3.75	4.05	4.04	108	108	70.0-130			0.247	25
1,1-Dichloroethene	3.75	4.18	4.07	111	109	70.0-130			2.67	25
cis-1,2-Dichloroethene	3.75	3.69	3.68	98.4	98.1	70.0-130			0.271	25
trans-1,2-Dichloroethene	3.75	4.12	4.05	110	108	70.0-130			1.71	25
1,2-Dichloropropane	3.75	4.07	4.14	109	110	70.0-130			1.71	25
cis-1,3-Dichloropropene	3.75	3.84	3.95	102	105	70.0-130			2.82	25
trans-1,3-Dichloropropene	3.75	4.00	3.97	107	106	70.0-130			0.753	25
1,4-Dioxane	3.75	3.94	3.90	105	104	70.0-140			1.02	25
Ethanol	3.75	3.03	3.64	80.8	97.1	55.0-148			18.3	25
Ethylbenzene	3.75	3.97	3.97	106	106	70.0-130			0.000	25
4-Ethyltoluene	3.75	4.02	4.00	107	107	70.0-130			0.499	25
Trichlorofluoromethane	3.75	3.84	3.97	102	106	70.0-130			3.33	25
Dichlorodifluoromethane	3.75	4.27	4.15	114	111	64.0-139			2.85	25
1,1,2-Trichlorotrifluoroethane	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2-Dichlorotetrafluoroethane	3.75	4.23	4.14	113	110	70.0-130			2.15	25
Hexachloro-1,3-butadiene	3.75	4.32	4.05	115	108	70.0-151			6.45	25
Isopropylbenzene	3.75	3.93	3.90	105	104	70.0-130			0.766	25
Methylene Chloride	3.75	4.12	4.07	110	109	70.0-130			1.22	25
Methyl Butyl Ketone	3.75	4.18	4.27	111	114	70.0-149			2.13	25
Methyl Ethyl Ketone	3.75	3.94	3.93	105	105	70.0-130			0.254	25
4-Methyl-2-pentanone (MIBK)	3.75	4.11	4.17	110	111	70.0-139			1.45	25
Methyl Methacrylate	3.75	4.01	3.98	107	106	70.0-130			0.751	25
MTBE	3.75	3.83	3.83	102	102	70.0-130			0.000	25
Naphthalene	3.75	4.24	3.96	113	106	70.0-159			6.83	25
2-Propanol	3.75	4.29	4.33	114	115	70.0-139			0.928	25

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1560574-01

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

(LCS) R3865502-1 11/26/22 08:11 • (LCSD) R3865502-3 11/26/22 09:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	4.24	4.22	113	113	64.0-144			0.473	25
Styrene	3.75	4.04	4.04	108	108	70.0-130			0.000	25
1,1,2-Tetrachloroethane	3.75	4.01	4.01	107	107	70.0-130			0.000	25
Tetrachloroethylene	3.75	3.98	4.03	106	107	70.0-130			1.25	25
Tetrahydrofuran	3.75	3.90	3.95	104	105	70.0-137			1.27	25
Toluene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,2,4-Trichlorobenzene	3.75	4.26	4.01	114	107	70.0-160			6.05	25
1,1,1-Trichloroethane	3.75	3.98	3.93	106	105	70.0-130			1.26	25
1,1,2-Trichloroethane	3.75	3.99	3.96	106	106	70.0-130			0.755	25
Trichloroethylene	3.75	3.98	4.02	106	107	70.0-130			1.00	25
1,2,4-Trimethylbenzene	3.75	4.04	3.98	108	106	70.0-130			1.50	25
1,3,5-Trimethylbenzene	3.75	4.04	4.04	108	108	70.0-130			0.000	25
2,2,4-Trimethylpentane	3.75	3.94	4.01	105	107	70.0-130			1.76	25
Vinyl chloride	3.75	4.03	4.16	107	111	70.0-130			3.17	25
Vinyl Bromide	3.75	3.60	3.81	96.0	102	70.0-130			5.67	25
Vinyl acetate	3.75	3.89	3.95	104	105	70.0-130			1.53	25
m&p-Xylene	7.50	7.95	7.94	106	106	70.0-130			0.126	25
o-Xylene	3.75	3.87	3.88	103	103	70.0-130			0.258	25
(S) 1,4-Bromofluorobenzene				98.3	96.9	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560574-01](#)

Method Blank (MB)

(MB) R3865653-3 11/28/22 10:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Heptane	U		0.104	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	94.8			60.0-140

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

(LCS) R3865653-1 11/28/22 09:21 • (LCSD) R3865653-2 11/28/22 09:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Heptane	3.75	4.33	4.36	115	116	70.0-130			0.690	25
TPH (GC/MS) Low Fraction	203	247	248	122	122	70.0-130			0.404	25
(S) 1,4-Bromofluorobenzene				99.1	97.8	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1560574-01](#)

Method Blank (MB)

(MB) R3865715-3 11/28/22 10:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	94.8			60.0-140

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

(LCS) R3865715-1 11/28/22 09:21 • (LCSD) R3865715-2 11/28/22 09:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
n-Hexane	3.75	4.20	4.19	112	112	70.0-130			0.238	25
(S) 1,4-Bromofluorobenzene				99.1	97.8	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

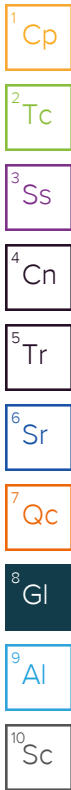
Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.



Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	-------------------------------------------------------------------------------------

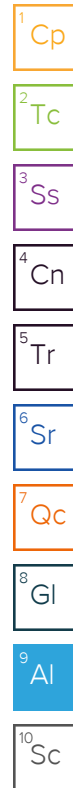
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Ensolum, LLC 601 Marienfeld #400 Midland, TX 79701		Billing Information: Accounts Payable 2351 W Northwest Hwy. Ste. 1203 Dallas, TX 75220 Email To: bjennings@ensolum.com		Pres Chk	Analysis / Container / Preservative							Chain of Custody Page <u> </u> of <u> </u>		
Report to: Beaux Jennings		City/State Collected: Hobbs NM		Please Circle: PT MT CT ET		TO-15 Summa							SDG # L1560574 L-170 Table # Acctnum: ENSOLUMMTX Template: T180734 Prelogin: P827709 PM: 134 - Mark W. Beasley PB: Shipped Via:	
Project Description: Levey Well		Client Project # 03B1417001		Lab Project # ENSOLUMTX-SUMMA										
Phone: 210-219-8858		Site/Facility ID # 03B1417001		P.O. # 03B1417001										
Collected by (print): Shane Diller		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input checked="" type="checkbox"/> Three Day		Quote # Date Results Needed										
Collected by (signature): Immediately Packed on Ice N <u> </u> X <u> </u> Y <u> </u>														

12065 Lebanon Road Mt Juliet, TN 37122
 Phone: 615-758-5858 Alt: 800-767-5859
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

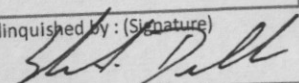
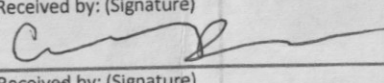
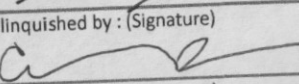
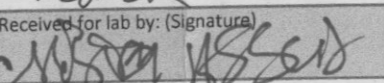
SDG # **L1560574**
L-170

Table #

 Acctnum: **ENSOLUMMTX**
 Template: **T180734**
 Prelogin: **P827709**
 PM: **134 - Mark W. Beasley**
 PB:

Shipped Via:
 Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs													
Levey Well	G	Air	—	11-21	1115	1	X												
 11-21-22 5/ 																			

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			
Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking #		Trip Blank Received: Yes / No HCL / MeOH TBR		Temp: _____ °C Bottles Received: _____ If preservation required by Login: Date/Time			
Relinquished by: (Signature) 		Date: 11/21/22 Time: 1430		Received by: (Signature) 		Date: _____ Time: _____ Hold: _____ Condition: NCF / OK			
Relinquished by: (Signature) 		Date: 11/21/22 Time: 1700		Received by: (Signature) FedEx		Date: _____ Time: _____ Hold: _____ Condition: NCF / OK			
Relinquished by: (Signature)		Date: _____ Time: _____		Received for lab by: (Signature) 		Date: 11/21/22 Time: 06:30			



ANALYTICAL REPORT

December 06, 2022

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

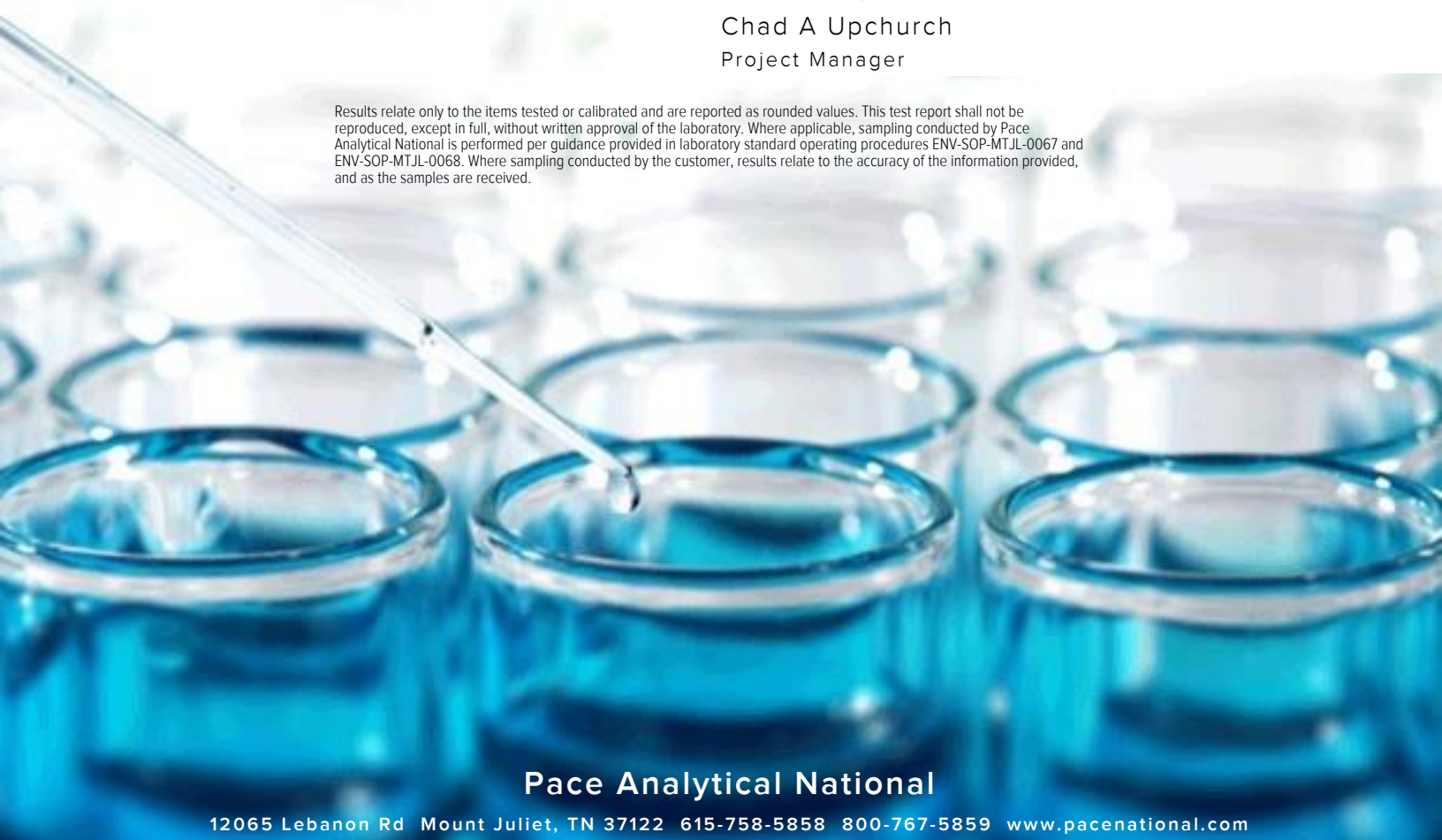
Ensolum, LLC

Sample Delivery Group: L1563306
 Samples Received: 12/02/2022
 Project Number: 03B1417001
 Description: Level Well
 Site: 03B1417001
 Report To: Beaux Jennings
 601 N Marienfeld Street, Ste. 400
 Midland, TX 79701

Entire Report Reviewed By:











Chad A Upchurch
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Tr: TRRP Summary	5	
TRRP form R	6	
TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	
LEVEY WELL L1563306-01	9	
Qc: Quality Control Summary	11	
Volatile Organic Compounds (MS) by Method TO-15	11	
Gl: Glossary of Terms	16	
Al: Accreditations & Locations	17	
Sc: Sample Chain of Custody	18	
		

SAMPLE SUMMARY

LEVEY WELL L1563306-01 Air

Collected by: Shane Diller
Collected date/time: 11/30/22 13:16
Received date/time: 12/02/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1968756	100	12/03/22 22:02	12/03/22 22:02	CEP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1969376	20000	12/05/22 16:24	12/05/22 16:24	CEP	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Tr
- ⁶Sr
- ⁷Qc
- ⁸Gl
- ⁹Al
- ¹⁰Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chad A Upchurch
Project Manager

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chad A Upchurch
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National		LRC Date: 12/06/2022 07:35					
Project Name: Level Well		Laboratory Job Number: L1563306-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1968756 and WG1969376					
#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 SW846 Method 5035?			X		
		If required for the project, are 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 check sample 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		
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				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. 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.
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;
 4. NR = Not reviewed;
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 12/06/2022 07:35					
Project Name: Level Well		Laboratory Job Number: L1563306-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1968756 and WG1969376					
# 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 5.5.10)					
		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 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 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				
1. 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. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = 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: Pace Analytical National		LRC Date: 12/06/2022 07:35	
Project Name: Level Well		Laboratory Job Number: L1563306-01	
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1968756 and WG1969376	
ER # ¹	Description		
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.		
<p>1. 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.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>			

Collected date/time: 11/30/22 13:16

L1563306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1968756
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1968756
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1968756
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1968756
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1968756
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1968756
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1968756
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1968756
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1968756
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1968756
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1968756
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1968756
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1968756
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1968756
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1968756
Cyclohexane	110-82-7	84.20	4000	13800	133000	458000		20000	WG1969376
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1968756
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1968756
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1968756
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1968756
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1968756
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1968756
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1968756
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1968756
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1968756
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1968756
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1968756
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1968756
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1968756
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1968756
Ethanol	64-17-5	46.10	125	236	ND	ND		100	WG1968756
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1968756
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1968756
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1968756
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1968756
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1968756
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1968756
Heptane	142-82-5	100	4000	16400	185000	757000		20000	WG1969376
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1968756
n-Hexane	110-54-3	86.20	12600	44400	1760000	6200000		20000	WG1969376
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1968756
Methylene Chloride	75-09-2	84.90	20.0	69.4	ND	ND		100	WG1968756
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1968756
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1968756
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1968756
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1968756
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1968756
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1968756
2-Propanol	67-63-0	60.10	125	307	ND	ND		100	WG1968756
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1968756
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1968756
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1968756
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1968756
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1968756
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1968756
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1968756

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Collected date/time: 11/30/22 13:16

L1563306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	WG1968756
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	WG1968756
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	WG1968756
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	WG1968756
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	WG1968756
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	WG1968756
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	WG1968756
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	WG1968756
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	WG1968756
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	WG1968756
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	WG1968756
TPH (GC/MS) Low Fraction	8006-61-9	101	4000000	16500000	6580000	27200000		20000	WG1969376
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1968756
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				WG1969376

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1563306-01](#)

Method Blank (MB)

(MB) R3868086-3 12/03/22 09:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	0.734	U	0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1563306-01](#)

Method Blank (MB)

(MB) R3868086-3 12/03/22 09:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	97.4			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

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

(LCS) R3868086-1 12/03/22 07:54 • (LCSD) R3868086-2 12/03/22 08:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	3.91	4.40	104	117	70.0-130			11.8	25
Allyl Chloride	3.75	4.06	4.24	108	113	70.0-130			4.34	25
Benzene	3.75	4.16	4.27	111	114	70.0-130			2.61	25
Benzyl Chloride	3.75	4.61	4.59	123	122	70.0-152			0.435	25
Bromodichloromethane	3.75	4.28	4.37	114	117	70.0-130			2.08	25
Bromoform	3.75	4.42	4.40	118	117	70.0-130			0.454	25
Bromomethane	3.75	4.20	4.25	112	113	70.0-130			1.18	25
1,3-Butadiene	3.75	4.09	4.17	109	111	70.0-130			1.94	25

Volatile Organic Compounds (MS) by Method TO-15

L1563306-01

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

(LCS) R3868086-1 12/03/22 07:54 • (LCSD) R3868086-2 12/03/22 08:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	3.75	4.12	4.14	110	110	70.0-130			0.484	25
Carbon tetrachloride	3.75	4.36	4.45	116	119	70.0-130			2.04	25
Chlorobenzene	3.75	4.24	4.35	113	116	70.0-130			2.56	25
Chloroethane	3.75	4.12	4.19	110	112	70.0-130			1.68	25
Chloroform	3.75	4.19	4.26	112	114	70.0-130			1.66	25
Chloromethane	3.75	4.29	4.33	114	115	70.0-130			0.928	25
2-Chlorotoluene	3.75	4.39	4.44	117	118	70.0-130			1.13	25
Dibromochloromethane	3.75	4.40	4.47	117	119	70.0-130			1.58	25
1,2-Dibromoethane	3.75	4.30	4.38	115	117	70.0-130			1.84	25
1,2-Dichlorobenzene	3.75	4.45	4.48	119	119	70.0-130			0.672	25
1,3-Dichlorobenzene	3.75	4.52	4.57	121	122	70.0-130			1.10	25
1,4-Dichlorobenzene	3.75	4.58	4.66	122	124	70.0-130			1.73	25
1,2-Dichloroethane	3.75	4.26	4.38	114	117	70.0-130			2.78	25
1,1-Dichloroethane	3.75	4.25	4.35	113	116	70.0-130			2.33	25
1,1-Dichloroethene	3.75	4.12	4.17	110	111	70.0-130			1.21	25
cis-1,2-Dichloroethene	3.75	4.16	4.27	111	114	70.0-130			2.61	25
trans-1,2-Dichloroethene	3.75	4.08	4.16	109	111	70.0-130			1.94	25
1,2-Dichloropropane	3.75	4.24	4.32	113	115	70.0-130			1.87	25
cis-1,3-Dichloropropene	3.75	4.28	4.40	114	117	70.0-130			2.76	25
trans-1,3-Dichloropropene	3.75	4.27	4.38	114	117	70.0-130			2.54	25
1,4-Dioxane	3.75	3.88	3.90	103	104	70.0-140			0.514	25
Ethanol	3.75	4.75	4.67	127	125	55.0-148			1.70	25
Ethylbenzene	3.75	4.25	4.29	113	114	70.0-130			0.937	25
4-Ethyltoluene	3.75	4.45	4.51	119	120	70.0-130			1.34	25
Trichlorofluoromethane	3.75	4.17	4.22	111	113	70.0-130			1.19	25
Dichlorodifluoromethane	3.75	3.99	4.06	106	108	64.0-139			1.74	25
1,1,2-Trichlorotrifluoroethane	3.75	4.12	4.19	110	112	70.0-130			1.68	25
1,2-Dichlorotetrafluoroethane	3.75	4.29	4.34	114	116	70.0-130			1.16	25
Hexachloro-1,3-butadiene	3.75	4.21	4.30	112	115	70.0-151			2.12	25
Isopropylbenzene	3.75	4.30	4.35	115	116	70.0-130			1.16	25
Methylene Chloride	3.75	3.95	4.08	105	109	70.0-130			3.24	25
Methyl Butyl Ketone	3.75	3.86	3.91	103	104	70.0-149			1.29	25
Methyl Ethyl Ketone	3.75	4.30	4.31	115	115	70.0-130			0.232	25
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.25	112	113	70.0-139			0.946	25
Methyl Methacrylate	3.75	4.39	4.45	117	119	70.0-130			1.36	25
MTBE	3.75	4.17	4.23	111	113	70.0-130			1.43	25
Naphthalene	3.75	4.46	4.42	119	118	70.0-159			0.901	25
2-Propanol	3.75	3.89	3.95	104	105	70.0-139			1.53	25
Propene	3.75	3.91	3.95	104	105	64.0-144			1.02	25
Styrene	3.75	4.32	4.47	115	119	70.0-130			3.41	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

L1563306-01

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

(LCS) R3868086-1 12/03/22 07:54 • (LCSD) R3868086-2 12/03/22 08:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,2,2-Tetrachloroethane	3.75	4.40	4.54	117	121	70.0-130			3.13	25
Tetrachloroethylene	3.75	4.29	4.32	114	115	70.0-130			0.697	25
Tetrahydrofuran	3.75	4.09	4.22	109	113	70.0-137			3.13	25
Toluene	3.75	4.21	4.29	112	114	70.0-130			1.88	25
1,2,4-Trichlorobenzene	3.75	4.37	4.43	117	118	70.0-160			1.36	25
1,1,1-Trichloroethane	3.75	4.30	4.35	115	116	70.0-130			1.16	25
1,1,2-Trichloroethane	3.75	4.35	4.47	116	119	70.0-130			2.72	25
Trichloroethylene	3.75	4.26	4.33	114	115	70.0-130			1.63	25
1,2,4-Trimethylbenzene	3.75	4.52	4.59	121	122	70.0-130			1.54	25
1,3,5-Trimethylbenzene	3.75	4.50	4.55	120	121	70.0-130			1.10	25
2,2,4-Trimethylpentane	3.75	4.17	4.24	111	113	70.0-130			1.66	25
Vinyl chloride	3.75	4.21	4.24	112	113	70.0-130			0.710	25
Vinyl Bromide	3.75	4.21	4.26	112	114	70.0-130			1.18	25
Vinyl acetate	3.75	4.29	4.32	114	115	70.0-130			0.697	25
m&p-Xylene	7.50	8.92	8.94	119	119	70.0-130			0.224	25
o-Xylene	3.75	4.46	4.48	119	119	70.0-130			0.447	25
(S) 1,4-Bromofluorobenzene				101	102	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (MS) by Method TO-15

[L1563306-01](#)

Method Blank (MB)

(MB) R3868380-3 12/05/22 10:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Cyclohexane	U		0.0753	0.200
Heptane	U		0.104	0.200
n-Hexane	U		0.206	0.630
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	90.9			60.0-140

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

(LCS) R3868380-1 12/05/22 08:56 • (LCSD) R3868380-2 12/05/22 09:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Cyclohexane	3.75	3.87	3.84	103	102	70.0-130			0.778	25
Heptane	3.75	3.72	3.80	99.2	101	70.0-130			2.13	25
n-Hexane	3.75	3.84	3.85	102	103	70.0-130			0.260	25
TPH (GC/MS) Low Fraction	203	222	226	109	111	70.0-130			1.79	25
(S) 1,4-Bromofluorobenzene				96.5	97.6	60.0-140				

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
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Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address:
Ensolium, LLC
601 Marienfeld #400
Midland, TX 79701

Billing Information:
Accounts Payable
2351 W Northwest Hwy. Ste.
1203
Dallas, TX 75220

Report to:
Beaux Jennings

Project Description:
Levey Well

City/State Collected: Hobbs NM

Please Circle:
PT MT CT ET

Phone: 210-219-8858

Client Project # 03B1417001

Lab Project # ENSOLUMMX-SUMMA

Collected by (print): Shane Diller

Site/Facility ID # 03B1417001

P.O. # 03B1417001

Collected by (signature): *Shane Diller*

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N Y

Analysis / Container / Preservative	Pres Chk
TO-15 Summa	X

Chain of Custody Page 1 of 1

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **L1563306**

Tat **L-209**

Acctnum: ENSOLUMMX

Template: T180734

Prelogin: P827709

PM: 134 - Mark W. Beasley

PB:

Shipped Via:

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
Levey Well	G	Air	—	11-30-22	1316	1

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable

COC Signed/Accurate: Y N VOA Zero Headspace: Y N

Bottles arrive intact: Y N Pres. Correct/Check: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

RAD Screen <0.5 mR/hr: Y N

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via: UPS FedEx Courier

Tracking #

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N

RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature) <i>Shane Diller</i>	Date: 12/01/22	Time: 1030	Received by: (Signature) <i>C. Jones</i>	Trip Blank Received: Yes / <input checked="" type="checkbox"/> No HCL / MeOH TBR
Relinquished by: (Signature) <i>C. Jones</i>	Date: 12/01/22	Time: 1700	Received by: (Signature) <i>FedEx</i>	Temp: Amb. °C Bottles Received: 1
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Jones</i>	Date: 12/2/22 Time: 0900

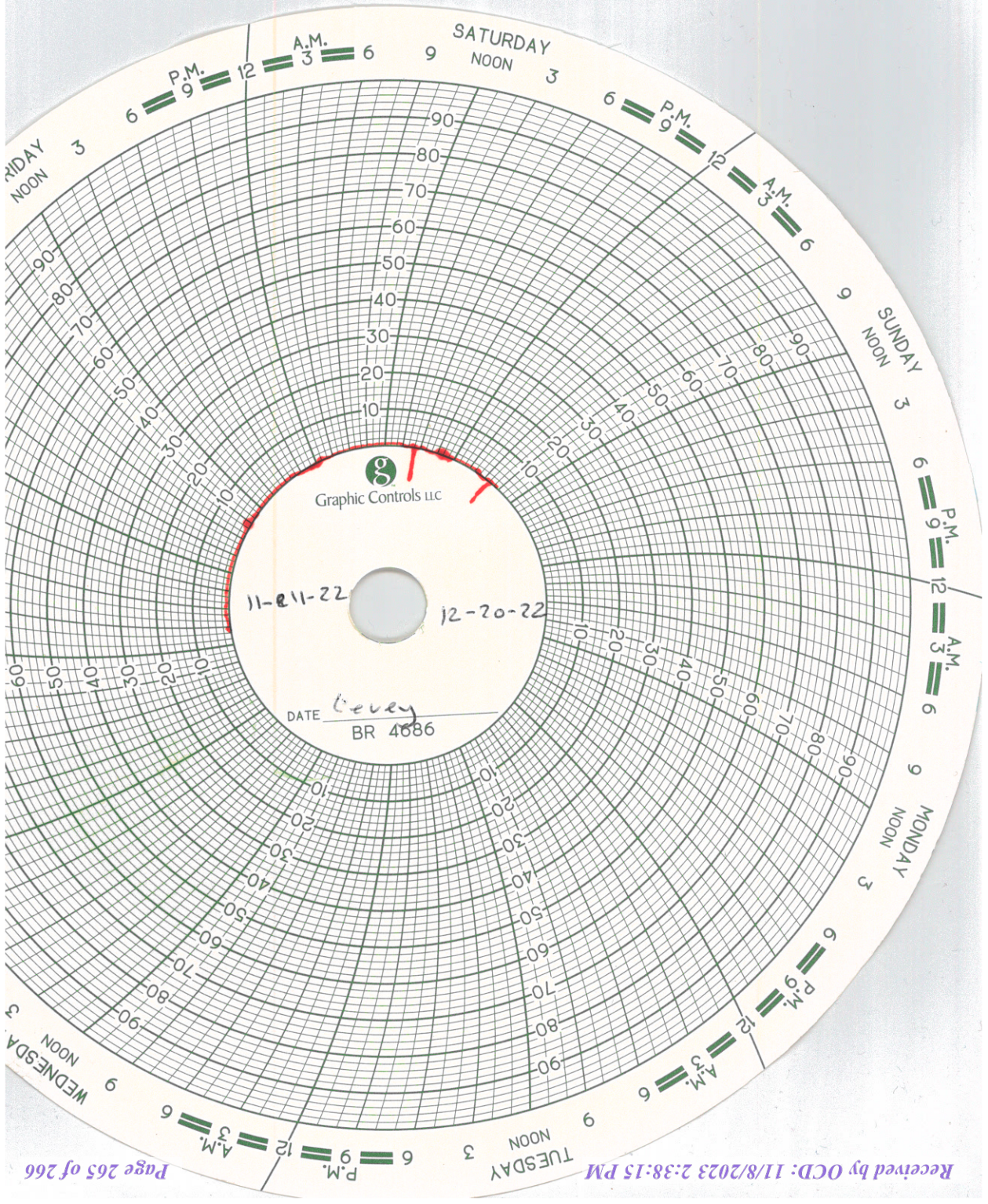
If preservation required by Login: Date/Time

Hold: Condition: NCF / OK



APPENDIX D

Levey Well Integrity Test Documentation



District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 284053

CONDITIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 284053
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Accepted for the record: GAS MITIGATION MONTHLY REPORT - NOVEMBER 2022 Property: South Hobbs G/SA Unit Unit F Order No. R-4934-F, Case No. 14981	3/21/2024