



## GAS MITIGATION MONTHLY REPORT - JANUARY 2023

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**

March 9, 2023

Prepared for:

**Occidental Permian LTD  
6001 Deauville Blvd.  
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Prepared by:



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Elizabeth Scaggs, PG  
Principal



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# ENSOLUM

## GAS MITIGATION MONTHLY REPORT – JANUARY 2023

**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

<b>Operator:</b>	Occidental Permian LTD (OXY)
<b>Site Name:</b>	South Hobbs G/SA Unit Operations (Site)
<b>Location:</b>	Unit F, Section 5, Township 19 South, Range 38 East Latitude 32.690683, Longitude -103.173158 Lea County, New Mexico
<b>Property Owner:</b>	OXY
<b>Regulatory:</b>	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 - January 2023 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, the *Gas Mitigation Monthly Report - October 2022*, dated January 20, 2022, and the *Gas Mitigation Monthly Report - December 2022*, dated March 9, 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**.

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 January 25, 2023. 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 CO<sub>2</sub> 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 January 2023 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, chloride, Nitrite as N and TDS. Benzene concentrations ranged from 0.0108 milligrams per liter (mg/L) to 0.0171 mg/L in monitoring well MW-2 and there was one exceedance of 0.00589 mg/L in the Levey Well. Chloride concentrations ranged from 292 mg/L to 304 mg/L in the Levey Well. A Nitrite as N exceedance of 1.23 mg/L was also observed in monitoring well MW-2. TDS concentrations ranged from 1,730 mg/L to 1,800 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**.

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 ( $H_2S$ ) has not been detected in any of the three aforementioned wells since July 15, 2020. All detections of  $H_2S$  prior to July 15, 2020 were within the well bore. No  $H_2S$  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 1/25/2023, with no pressure observed in either monitoring well. The pressure reading chart available for January 2023 is 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 January 1 - 25, 2023 was approximately 292,655 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 two vacuum recovery events during the month of January 2023 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 February 2023 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 samples from January 9 and 23, 2023, were 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 January 9 and 23, 2023 vacuum recovery events, 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 January 2023 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 has been active since 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 Midland (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 February 2023. 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, ethanol, heptane, n-hexane, 2-propanol, 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, ethanol, heptane, n-hexane, 2-propanol, 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 cyclohexane, ethanol, heptane, n-hexane, 2-propanol, 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, n-hexane, 2-Butanone (MEK), 2-propanol, 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 January 2023 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

The groundwater samples collected from the Levey Well exhibited chloride concentrations ranging from 292 mg/L to 304 mg/L, which are above the WQCC GQS of 250.0 mg/L.

TDS concentrations of 1,730 mg/L to 1,800 mg/L were observed during the January 2023 sampling. 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 75<sup>th</sup> 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, the March 9, 2022, which had a benzene analytical result of 0.00552 mg/L, and the January 25, 2023, which had a benzene analytical result of 0.00589 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 0.0108 mg/L to 0.0171 mg/L, which exceed the WQCC GQS of 0.005 mg/L.

One Nitrite as N exceedance of 1.23 mg/L from monitoring well MW-2 was observed during the January 2023 sampling events, which is above the WQCC GQS of 1.0 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 moving forward in 2023:**

- 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 moving forward 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 11<sup>th</sup>, 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 NewMexico 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 ingroundwater. 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>.

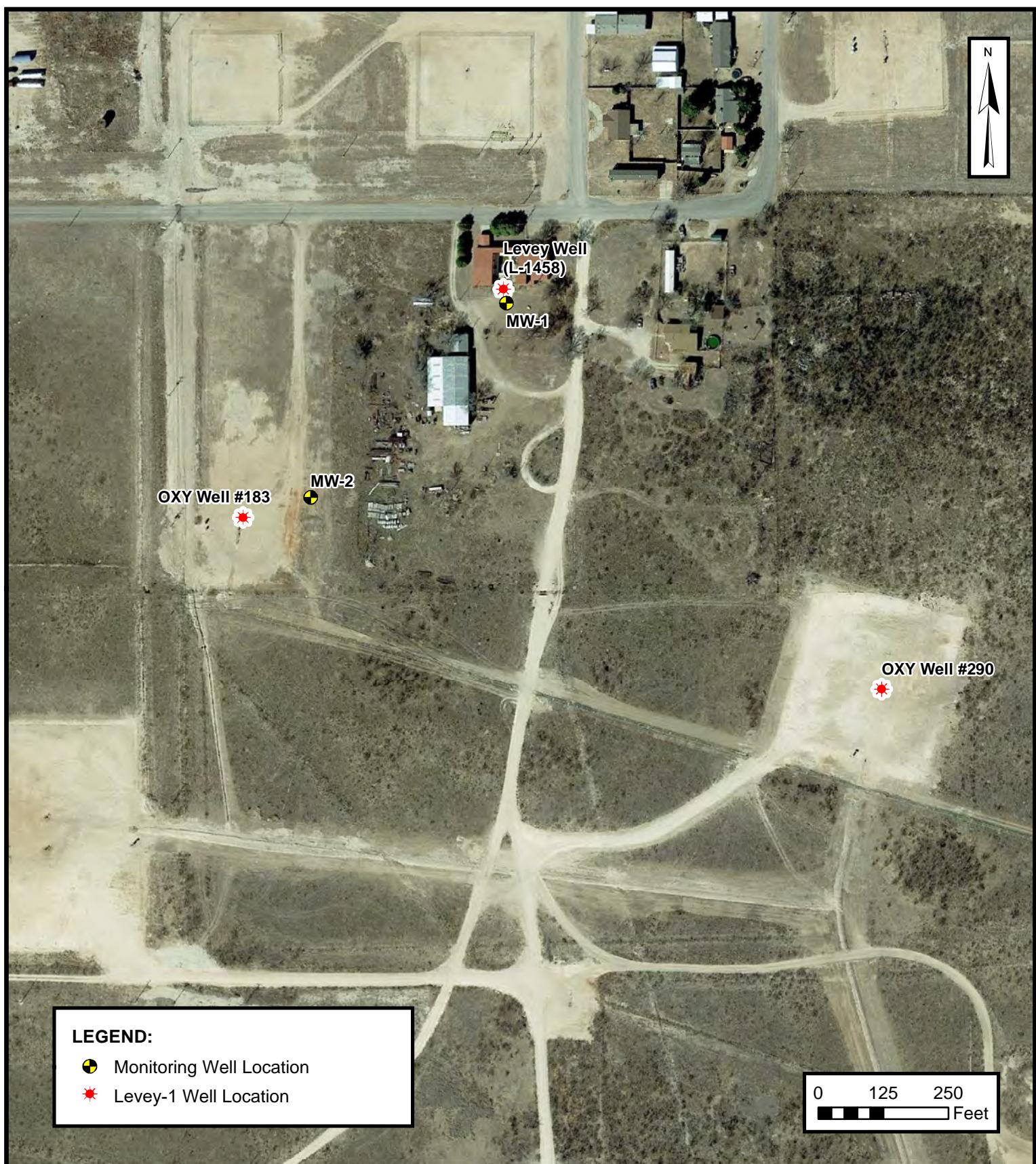


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## APPENDIX A

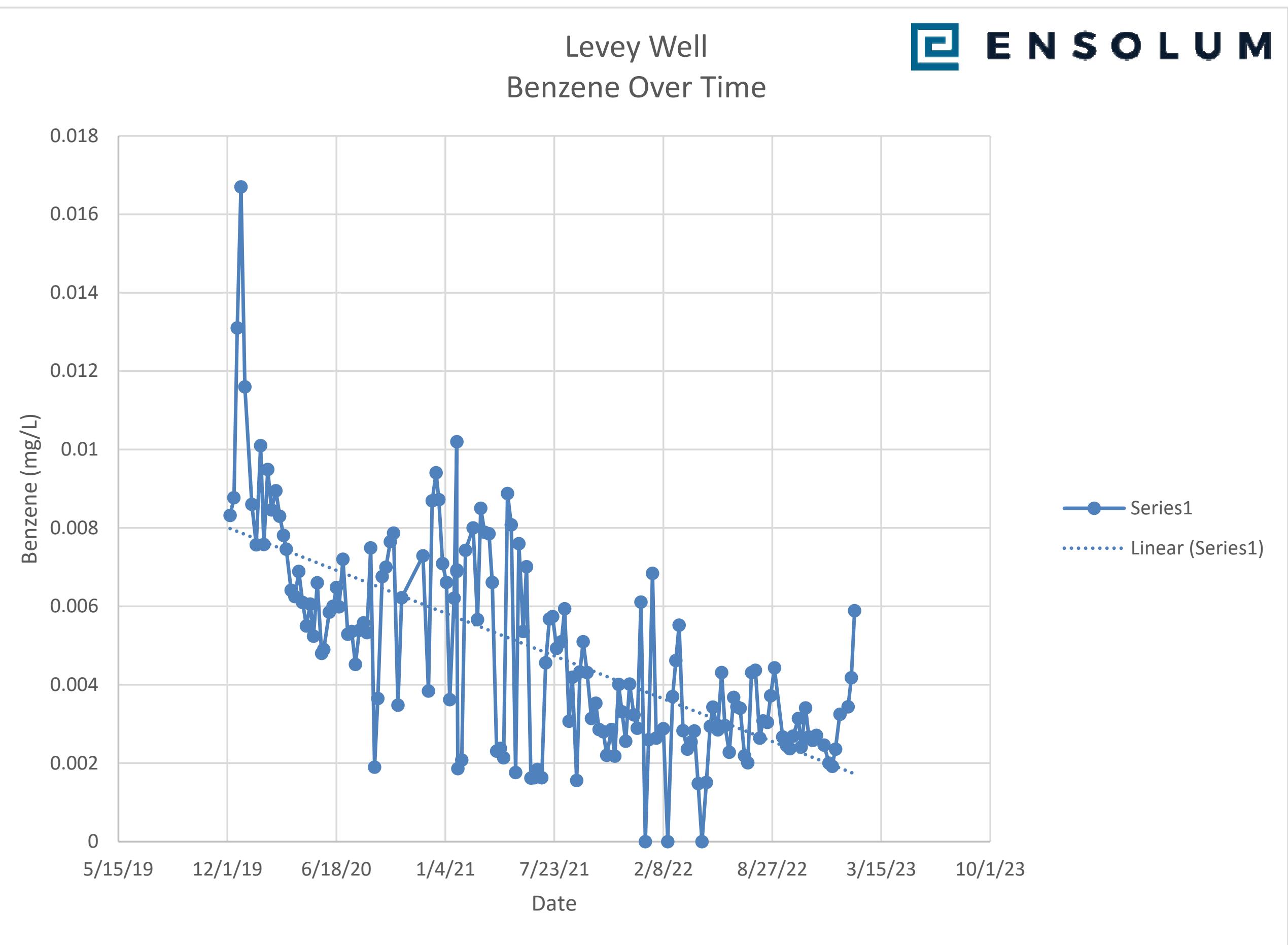
### Figures and Graphs

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**SITE MAP**  
OCCIDENTAL PERMIAN LTD  
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**





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## APPENDIX B

### Tables

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

Sample Designation	Date	VOCs (mg/l)																											
		Benzene	Toluene	Ethylbenzene	<i>o</i> -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-Dichloropropene	Isopropylbenzene	Naphthalene	n-Propylbenzene	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene	1,2,5-Trimethylbenzene	
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	0.005	0.005	NE	0.075	NE	0.03	NE	0.01	0.1	NE	NE			
Levey Well	12/6/2019	0.00832	0.0708	0.0296	0.0242	0.129	0.153	<0.0500	0.00151	0.00206	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00138	<0.00100	<0.00500	<0.00100	<0.00500	0.0126	<0.0100	0.00566	<0.00100	<0.00100	0.0358	0.0106	
	12/13/2019	0.00877	0.0654	0.0271	0.0233	0.121	0.144	<0.0500	0.00118	0.00171	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00112	<0.00100	<0.00500	<0.00100	<0.00500	0.0112	<0.0100	0.00470	<0.00100	<0.00100	0.0315	0.00944	
	12/19/2019	0.0131	0.0861	0.0385	0.0318	0.170	0.202	0.0125 J	0.00187	0.00257	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00173	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0170	<0.0200	0.00747	<0.000228	<0.000162	0.0469	0.0144
	12/26/2019	0.0167	0.112	0.0514	0.0459	0.210	0.256	<0.0500	0.00211	0.00320	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00183	<0.00100	<0.00500	<0.00100	<0.00500	0.0235	<0.0100	0.00934	<0.00100	<0.00100	0.0672	0.0168	
	1/2/2020	0.0116	0.0644	0.0551	0.0805	0.232	0.313	<0.0500	0.00231	0.00164	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00127	<0.00100	<0.00500	<0.00100	<0.00500	0.0107	0.0120	0.00544	<0.00100	0.00243	0.0377	0.0106	
	1/15/2020	0.00860	0.0528	0.0318	0.0219	0.119	0.141	<0.0500	<0.00100	0.00259	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00500	0.0148	<0.0100	0.0104	<0.00100	<0.00100	0.0547	0.0172	
	1/23/2020	0.00757	0.0462	0.0318	0.0224	0.119	0.141	<0.0500	0.00233	0.00295	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00180	<0.00100	<0.00500	<0.00100	<0.00500	0.0158	<0.0100	0.0166	<0.00100	<0.00100	0.103	0.0300	
	1/31/2020	0.0101	0.0567	0.0462	0.0385	0.166	0.205	<0.500	<0.0100	<0.0100	0.0438	<0.00100	<0.00100	NA	0.0343	0.0344	<0.0100	<0.0100	<0.0500	<0.00100	<0.00500	0.0584	0.0262	<0.100	0.0458	<0.0100	0.323	0.0847	
	2/6/2020	0.00758	0.0489	0.0306	0.0242	0.116	0.140	<0.0500	0.00234	0.00299	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00165	<0.00100	<0.00500	<0.00100	<0.00500	0.0174	<0.0100	0.0237	<0.00100	<0.00100	0.285	0.0451	
	2/13/2020	0.00949	0.0498	0.0397	0.0337	0.145	0.179	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00251	<0.00100	<0.00500	<0.00100	<0.00500	0.0251	<0.0100	0.0450	<0.00100	<0.00100	0.349	0.0898	
	2/20/2020	0.00846	0.0326	0.0313	0.0248	0.113	0.138	<0.0500	<0.00100	0.00407	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00229	<0.00100	<0.00500	<0.00100	<0.00500	0.0208	<0.0100	0.0431	<0.00100	<0.00100	0.322	0.0918	
	2/28/2020	0.00895	0.0351	0.0374	0.0251	0.124	0.149	<0.250	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	NA	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0249	<0.0500	0.0488	<0.00500	<0.00500	0.358	0.0989	
	3/6/2020	0.00830	0.0313	0.0346	0.0228	0.114	0.137	<0.0500	0.00374	0.00467	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00254	<0.00100	<0.00500	<0.00100	<0.00500	0.0231	<0.0100	0.0472	<0.00100	<0.00100	0.378	0.0948	
	3/13/2020	0.00781	0.0302	0.0330	0.0203	0.109	0.129	<0.0500	0.00153	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00247	<0.00100	<0.00500	<0.00100	<0.00500	0.0224	<0.0100	0.0428	<0.00100	<0.00100	0.277	0.0875	
	3/18/2020	0.00746	0.0279	0.0304	0.0174	0.0981	0.116	<0.0500	0.00311	0.00400	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00224	<0.00100	<0.00500	<0.00100	<0.00500	0.0199	<0.0100	0.0365	<0.00100	<0.00100	0.275	0.0777	
	3/27/2020	0.00641	0.0151	0.0247	0.0132	0.0737	0.0869	<0.0500	0.00122	0.00345	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00189	<0.00100	<0.00500	<0.00100	<0.00500	0.0166	<0.0100	0.0336	<0.00100	<0.00100	0.261	0.0721	
	4/3/2020	0.00625	0.0129	0.0250	0.0130	0.0745	0.0875	<0.0500	0.00120	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00209	<0.00100	<0.00500	<0.00100	<0.00500	0.0174	<0.0100	0.0363	<0.00100	<0.00100	0.273	0.0756	
	4/10/2020	0.00689	0.0327	0.0277																									

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

Sample Designation	Date	VOCs (mg/l)																				Styrene						
		Benzene	Toluene	Ethylbenzene	<i>o</i> -Xylene	<i>m,p</i> -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-Dichloropropene	Isopropylbenzene	Naphthalene	n-Propylbenzene	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards	0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	NE	0.005	0.005	NE	0.075	NE	0.03	NE	0.01	0.1	NE			
Levey Well	1/6/2021	0.00661	0.0494	0.0239	0.0141	0.0930	0.107	<0.0500	<0.00100	0.00233	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00140	<0.00100	<0.00500	<0.00100	<0.00500	0.0122	<0.0100	0.00710	<0.00100	<0.00100	0.0334	0.0113	
	1/12/2021	0.00362	0.0206	0.0168	0.00849	0.0547	0.0632	<0.0500	0.00159	0.00278	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00157	<0.00100	<0.00500	<0.00100	<0.00500	0.0105	<0.0100	0.00959	<0.00100	<0.00100	0.0540	0.0174	
	1/20/2021	0.00621	0.0383	0.0245	0.0137	0.0884	0.102	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00159	<0.00100	<0.00500	<0.00100	<0.00500	0.0135	<0.0100	0.00920	<0.00100	<0.00100	0.0470	0.0152	
	1/25/2021	0.0102	0.0717	0.0337	0.0195	0.130	0.150	<0.0500	0.00167	0.00287	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00162	<0.00100	<0.00500	<0.00100	<0.00500	0.0162	<0.0100	0.00914	<0.00100	<0.00100	0.0455	0.0149	
	1/25/2021	0.00689	0.0353	0.0243	0.0113	0.0733	0.0846	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00145	<0.00100	<0.00500	<0.00100	<0.00500	0.0127	<0.0100	0.0115	<0.00100	<0.00100	0.0687	0.0205	
	1/25/2021	0.00693	0.0342	0.0251	0.0113	0.0737	0.0850	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00146	<0.00100	<0.00500	<0.00100	<0.00500	0.0133	<0.0100	0.0124	<0.00100	<0.00100	0.0738	0.0218	
	1/27/2021	0.00186	0.00398	0.0101	0.00322	0.0219	0.0251	<0.0500	0.00110	0.00169	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00100	<0.00100	<0.00500	<0.00100	<0.00500	0.00618	<0.0100	0.0125	<0.00100	<0.00100	0.0743	0.0224	
	2/3/2021	0.00208	0.00551	0.0120	0.00438	0.0262	0.0306	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00101	<0.00100	<0.00500	<0.00100	<0.00500	0.00756	<0.0100	0.0156	<0.00100	<0.00100	0.0945	0.0282	
	2/10/2021	0.00743	0.0531	0.0280	0.0157	0.104	0.120	<0.0500	0.00140	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00145	<0.00100	<0.00500	<0.00100	<0.00500	0.0142	<0.0100	0.00876	<0.00100	<0.00100	0.0448	0.0143	
	2/24/2021	0.00800	0.0593	0.0287	0.0177	0.109	0.127	<0.0500	<0.00100	0.0024	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00142	<0.00100	<0.00500	<0.00100	<0.00500	0.0140	<0.0100	0.00808	<0.00100	<0.00100	0.0408	0.0132	
	3/4/2021	0.00566	0.0446	0.0222	0.0133	0.0869	0.100	<0.0500	0.00187	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00110	<0.00100	<0.00500	<0.00100	<0.00500	0.0105	<0.0100	0.00694	<0.00100	<0.00100	0.0390	0.0119	
	3/10/2021	0.00850	0.0668	0.0314	0.0194	0.126	0.145	<0.0500	<0.00100	0.00270	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00176	<0.00100	<0.00500	<0.00100	<0.00500	0.0156	<0.0100	0.00898	<0.00100	<0.00100	0.0466	0.0150	
	3/17/2021	0.00789	0.0563	0.0273	0.0168	0.103	0.120	0.0253 J	0.000840 J	0.00239	<0.000195	<0.00100	<0.00100	NA	<0.000214	<0.000183	0.00139	<0.000285	<0.000500	<0.000174	<0.0002481	0.0129	<0.00200	0.00830	<0.000228	<0.000162	0.0427	0.0135
	3/25/2021	0.00785	0.0585	0.0276	0.0175	0.109	0.127	0.0206 J	0.00129	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00143	<0.00100	<0.00500	<0.00100	<0.00500	0.0141	<0.0100	0.00779	<0.00100	<0.00100	0.0416	<0.00100
	3/31/2021	0.00661	0.0459	0.0243	0.0143	0.0857	0.100	<0.0270	<0.000286	<0.000199	<0.000195	<0.00100	<0.00100	0.00302	<0.000183	0.00144	<0.000244	<0.000500	<0.000174	<0.000200	0.00840	<0.000228	<0.000162	0.0422	0.01370			
	4/8/2021	0.00231	0.00502	0.0106	0.00358	0.0227	0.0263	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00103	<0.00100	<0.00500	<0.00100	<0.00500	0.00689	<0.0100	0.0148	<0.00100	<0.00100	0.0951	0.0639	
	4/15/2021	0.00238	0.00491	0.0109	0.00364	0.0266	0.0302	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	0.00109	<0.00100	<0.00500	<0.00100	<0.00500	0.00733	<0.0100	0.0162	<0.00100	<0.00100	0.111	<0.00100	
	4/21/2021	0.00214	0.00431	0.00957	0.00340	0.0198	0.0232	<0.0270	<0.000286	0.00181	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183												

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

Sample Designation	Date	VOCs (mg/l)																										
		Benzene	Toluene	Ethylbenzene	<i>o</i> -Xylene	<i>m,p</i> -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-Dichloropropane	Isopropylbenzene	Naphthalene	n-Propylbenzene	1,1,2-Trichloroethane	Styrene	1,2,4-Trimethylbenzene
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards	0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	NE	0.005	0.005	NE	0.075	NE	NE	0.03	NE	0.01	0.1	NE		
1/12/2022	0.000940 J	0.00568	0.00394	0.00181	0.0134	0.0152	<0.00270	<0.000286	0.000577 J	<0.000195	0.000654 J	<0.000259	<0.000318	<0.000214	<0.000183	0.000397 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00213	<0.00200	0.00127	<0.000228	<0.000623	0.0168	0.00498
1/19/2022	0.00260	0.0190	0.01020	0.00573	0.0381	0.0438	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000621 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00707	<0.00200	0.00273	<0.000228	<0.000623	0.0197	<0.00279
1/26/2022	0.00684	0.0520	0.0252	0.0158	0.0980	0.114	0.00679 J	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.00123	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0118	<0.00200	0.00592	<0.000228	<0.000623	0.0296	0.00947
2/2/2022	0.00264	0.0206	0.0103	0.00604	0.0392	0.0452	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000568 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00507	<0.00200	0.00258	<0.000228	<0.000623	0.0139	0.00433
Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.																												
2/8/2022	0.00288	0.0228	0.0122	0.00697	0.0458	0.0528	0.0112 J	<0.000286	0.00125	<0.000195	0.00194	<0.000259	<0.000318	<0.000214	<0.000183	0.000813 J	<0.000285	<0.000396	<0.000174	0.000211 J	<0.000481	0.00591	<0.00200	0.00329	<0.000228	<0.000623	0.0228	0.00693
2/16/2022	0.000814 J	0.00676	0.00397	0.00212	0.0142	0.0163	<0.00270	<0.000286	<0.000199	<0.000195	0.00175	<0.000259	<0.000318	<0.000214	<0.000183	0.000336 J	<0.000285	0.000534 J	<0.000174	<0.000199	<0.000481	0.00202	<0.00200	0.00130	<0.000228	<0.000623	0.00924	0.00283
2/25/2022	0.00370	0.0196	0.0133	0.00750	0.0489	0.0564	0.00976 J	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000696 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00626	<0.00200	0.00308	<0.000228	<0.000623	0.0131	0.00450
3/3/2022	0.00462	0.0327	0.0162	0.00973	0.0634	0.0731	0.0180 J	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000710 J	<0.000214	<0.000396	<0.000174	<0.000199	<0.000481	0.00731	<0.00200	0.00342	<0.000228	<0.000623	0.0140	0.00470
3/9/2022	0.00552	0.0388	0.0204	0.0124	0.0768	0.0892	<0.00270	0.00169	0.00180	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.00109	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00966	<0.00200	0.00484	<0.000228	<0.000623	0.0226	0.00720
3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.																											
3/16/2022	0.00283	0.0227	0.0106	0.00619	0.0409	0.0471	<0.00270	<0.000286	0.000916 J	<0.000195	0.00174	<0.000259	<0.000318	<0.000214	<0.000183	0.000550 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00477	<0.00200	0.00238	<0.000228	<0.000623	0.0114	0.00388
3/24/2022	0.00236	0.0178	0.00867	0.00491	0.0341	0.0390	<0.00270	0.000553 J	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000509 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00409	<0.00200	0.00208	<0.000228	<0.000623	0.0101	0.00323
3/31/2022	0.00254	0.0197	0.00985	0.00574	0.0371	0.0428	0.00431 J	<0.000286	0.000932 J	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000605 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00482	<0.00200	0.00233	<0.000228	<0.000623	0.0121	0.00390
4/6/2022	0.00282	0.0215	0.0106	0.00647	0.0405	0.0470	0.00381 J	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000581 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00491	<0.00200	0.00250	<0.000228	<0.000623	0.0125	0.00386
4/13/2022	0.00148	0.0113	0.00559	0.00334	0.0211	0.0244	<0.00270	<0.000286	<0.000199	<0.000195	0.000531 J	<0.000259	<0.000318	<0.000214	<0.000183	0.000351 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00269	<0.00200	0.00153	<0.000228	<0.000623	0.00856	0.00264
4/20/2022	0.000594 J	0.00776	0.00215	0.0158	0.0179	0.0207	<0.000286	0.000408 J	<0.000195	<0.0000500	<0.000259	<0.000318	<0.00															

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

Sample Designation	Date	VOCs (mg/l)																										
		Benzene	Toluene	Ethylbenzene	$\alpha$ -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-Dichloropropene	Isopropylbenzene	Naphthalene	r-Propylbenzene	1,1,2-Trichloroethane	Styrene	1,2,4-Trimethylbenzene
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	0.005	0.005	NE	0.075	NE	NE	0.03	NE	0.01	0.1	NE	NE	
5/26/2020	0.000500 J	<0.000500	<0.000146	<0.000192	0.00215 J	0.00215	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000162	0.00101	0.0005 J
6/30/2020	0.00275	<0.00100	<0.00100	<0.00100	0.0136	0.0136	<0.0500	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	NA	<0.00100	<0.00100	<0.00100	<0.000500	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	0.00665	0.00271	
8/20/2020	0.00222	<0.00100	<0.00100	<0.00100	<0.00100	<0.000100	<0.0500	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	NA	<0.00100	<0.00100	<0.00100	<0.000500	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.00388	0.00175		
10/23/2020	0.00353	<0.000367	<0.000657	<0.000642	0.00246 J	0.00246																						
11/24/2020	0.00241	<0.000500	0.000310 J	<0.000192	0.00133 J	0.001330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000162	0.00151	0.000820 J
12/18/2020	0.00257	<0.000500	0.000580 J	<0.000192	0.00145 J	0.00145	<0.00270	<0.000286	0.000350 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000270 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000320 J	<0.00200	0.00230 J	<0.000228	<0.000162	0.00234	0.00111
12/23/2020	0.00159	<0.000500	0.000380 J	<0.000192	0.000970 J	0.000970 J	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	0.000230 J	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000162	0.000720 J	0.000360 J
12/30/2020	0.00194	<0.000500	0.000470 J	<0.000192	0.00148 J	0.00148	<0.00270	<0.000286	0.000230 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000240 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00154	0.000750 J
1/6/2021	0.00209	<0.000500	0.000330 J	<0.000192	0.00122 J	0.00122	<0.00270	<0.000286	0.000310 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000260 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000190 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00219	0.00103
1/12/2021	0.00211	0.000690 J	0.000540 J	<0.000192	0.00163 J	0.00163	<0.00270	<0.000286	0.000220 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000200 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00143	0.000670 J
1/20/2021	0.00222	<0.000500	0.000430 J	<0.000192	0.00137 J	0.00137	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000210 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00140	0.000720 J
1/27/2021	0.00157	<0.000500	0.000400 J	<0.000192	0.00123 J	0.00123	0.00398 J	<0.000286	0.000270 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000210 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00153	0.000830 J
2/3/2021	0.00203	<0.000500	0.000430 J	<0.000192	0.00100 J	0.00100 J	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000180 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00105	0.000510 J
2/10/2021	0.00196	<0.000500	0.000560 J	<0.000192	0.00143 J	0.00143	<0.00575	<0.000286	0.000240 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000300 J	<0.000200	<0.000179	<0.000228	<0.000162	0.00143	0.000740 J
2/24/2021	0.00158	<0.000500	0.000460 J	<0.000192	0.00110 J	0.0011	<0.00575	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.000210 J	<0.000200	<0.000179	<0.000228	<0.000162	0.000930 J	0.000490 J
3/4/2021	0.00139	<0.000500	0.00102 J	<0.000192	0.00211 J	0.00211	<0.00575	<0.000286	0.000240 J	<0.000195	<0.000500	<0.000259	NA</															

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

Sample Designation	Date	VOCs (mg/l)																											
		Benzene	Toluene	Ethylbenzene	$\alpha$ -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	Isopropylbenzene	Naphthalene	r-Propylbenzene	1,1,2-Trichloroethane	Styrene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	0.005	0.005	NE	0.075	NE	0.03	NE	0.01	0.1	NE	NE			
	12/22/2021	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	12/29/2021	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	1/6/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	1/12/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	1/19/2022	<0.000214	<0.000500	<0.000515	<0.000192	0.000640 J	0.000640 J	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	0.000414 J	<0.000279
	1/26/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.																											
	2/8/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	0.000799 J	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	2/16/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	2/25/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	3/3/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	3/9/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.																											
	3/16/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279
	3/24/2022	<0.000214	<0.000500	<0.000515	<0.000192	<0.000330	<0.000330	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	<0.000233	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	<0.000161	<0.00200	<0.000179	<0.000228	<0.000623	<0.000252	<0.000279

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

Sample Designation	Date	VOCs (mg/l)																										
		Benzene	Toluene	Ethylbenzene	$\alpha$ -Xylene	m,p-Xylenes	Total Xylenes	Methyl ethyl ketone (2-Butanone)	n-Butylbenzene	Sec-Butylbenzene	tert-Butylbenzene	Tetrachloroeth(y)lene	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	(p-Hisopropyltoluene)	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	1,4-Dichloroeth(y)lene	Isopropylbenzene	Naphthalene	n-Propylbenzene	1,1,2-Trichloroethane	Styrene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		0.005	1	0.7	NE	NE	0.62	NE	NE	NE	0.005	0.1	NE	NE	NE	0.005	0.005	NE	0.075	NE	0.03	NE	0.01	0.1	NE	NE		
5/26/2020	0.00901	0.0299	0.0069	0.0186	0.0545	0.0731	<0.00270	<0.000286	0.000270 J	<0.000195	<0.00500	<0.000259	NA	<0.000214	<0.000183	0.000660	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00223	<0.00200	0.000570 J	<0.000228	<0.000162	0.0125	0.00704
6/30/2020	0.0124	0.0193	0.0187	0.0196	0.0903	0.110	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00667	<0.0100	0.00243	<0.00100	<0.00100	0.0231	0.00815
8/20/2020	0.0148	0.0172	0.0182	0.0160	0.0802	0.0962	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	NA	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00640	<0.0100	0.00170	<0.00100	<0.00100	0.0145	0.00421
10/23/2020	0.0250	0.00730	0.0248	0.0186	0.110	0.129	NA																					
11/24/2020	0.0358	0.0613	0.0503	0.0465	0.221	0.2675	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00143	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0189	0.00242 J	<0.000179	<0.000228	<0.000162	0.0590	0.0149
12/18/2020	0.0263	0.0260	0.0369	0.0240	0.165	0.189	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00113	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0148	<0.00200	0.00486	<0.000228	<0.000162	0.0467	0.0121
12/23/2020	0.0299	0.0358	0.0381	0.0266	0.156	0.183	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00101	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0135	<0.00200	0.00408	<0.000228	<0.000162	0.0406	0.0102
12/30/2020	0.0200	0.0242	0.0185	0.0146	0.0592	0.0738	<0.00270	0.000550 J	0.000680 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000540 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00603	<0.00200	0.00170	<0.000228	<0.000162	0.0116	0.00533
1/6/2021	0.0200	0.0169	0.0231	0.0169	0.118	0.135	<0.00270	0.000390 J	0.00117	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00105	0.000500 J	<0.000396	<0.000174	<0.000199	<0.000481	0.00815	<0.00200	0.00267	0.000800 J	<0.000162	0.0339	0.0103
1/12/2021	0.0193	0.0185	0.0198	0.0144	0.0922	0.107	<0.00270	0.000690 J	0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000710 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00756	<0.00200	0.00242	<0.000228	<0.000162	0.0259	0.00698
1/20/2021	0.0229	0.0169	0.0190	0.0136	0.0829	0.0965	0.000394 J	0.000400 J	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000470 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00640	<0.00200	0.00177	<0.000228	<0.000162	0.0202	0.00517
1/27/2021	0.0298	0.0276	0.0282	0.0269	0.155	0.182	0.00504 J	0.00103	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.00116	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0117	<0.00200	0.00343	<0.000228	<0.000162	0.0500	0.0129
2/3/2021	0.0286	0.0392	0.0258	0.0236	0.111	0.135	<0.00270	0.000850 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000590 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00817	<0.00200	0.00240	<0.000228	<0.000162	0.0267	0.00674	
2/10/2021	0.0307	0.0201	0.0329	0.0210	0.159	0.180	<0.00575	0.000870 J	<0.000199	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000940 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0120	<0.00200	0.00331	<0.000228	<0.000162	0.0407	0.00994
2/24/2021	0.0218	0.0122	0.0164	0.0111	0.0749	0.086	<0.00575	0.000370 J	0.000640 J	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000480 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0060	<0.00200	0.00175	<0.000228	<0.000162	0.0191	0.00496
3/4/2021	0.0264	0.0232	0.0320	0.0212	0.142	0.163	<0.00575	0.000430 J	0.00131	<0.000195	<0.000500	<0.000259	NA	<0.000214	<0.000183	0.000930 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0115	<0.00200	0.00390	<0.000228	<0.000162	0.0403	0.0100
3/10/2021	0.0269	0.0234	0.0271	0.0206	0.117	0.138	<0.00575	<0.000286	0.000970 J	<0.000195	<0.000100	<0.000259	NA	<0.000214	<0.000183	0.000720 J	<0.000285	<0.000396	<0.000174	<0.000100	<0.000481	0.00931	<0.00200</					

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

Sample Designation	Date	VOCs (mg/l)																										
		Benzene	Toluene	Ethylbenzene	m,p-Xylenes	m-Xylene	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-Dichloropropene	Isopropylbenzene	Naphthalene	n-Propylbenzene	Styrene	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards	0.005	1	0.7	NE	NE	0.62	NE	NE	NE	NE	0.005	0.1	NE	NE	NE	0.005	0.005	NE	0.075	NE	NE	0.03	NE	0.01	0.1	NE	0.108	0.0273
1/6/2022	0.0360	0.00656	0.0309	0.0229	0.253	0.274	<0.00270	0.00192	0.00273	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.00265	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0208	<0.00200	0.00488	<0.000228	<0.000623	0.108	0.0273
1/12/2022	0.0205	0.00174	0.00106	0.0200	0.0949	0.115	<0.00270	<0.000286	0.00132	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00184	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00521	<0.00200	0.00546 J	<0.000228	<0.000623	0.0619	0.00491
1/19/2022	0.0262	0.00733	0.0305	0.0147	0.229	0.249	<0.00270	0.00104	0.00147	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00116	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0142	<0.00200	0.00403	<0.000228	<0.000623	0.0435	0.0115
1/26/2022	0.0331	0.00488	0.0137	0.00718	0.0755	0.0827	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.000214	<0.000183	0.000314 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00555	<0.00200	0.00112	<0.000228	<0.000623	0.0145	0.00380
2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.																											
2/8/2022	0.0184	0.00572	0.0133	0.00676	0.0653	0.0721	<0.00270	<0.00286	0.000510 J	<0.000195	<0.000500	<0.000259	<0.00165 J	<0.000214	<0.000183	0.000391 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00544	<0.00200	0.00149	<0.000228	<0.000623	0.0150	0.00409
2/16/2022	0.0357	0.0270	0.0391	0.0307	0.205	0.244	<0.00270	<0.00286	0.00119	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.000884 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0127	<0.00200	0.00392	<0.000228	<0.000623	0.0393	0.0103
2/25/2022	0.0341	0.00559	0.0206	0.0111	0.134	0.145	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.000996 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0114	<0.00200	0.00295	<0.000228	<0.000623	0.0386	0.00997
3/3/2022	0.0370	0.00673	0.0378	0.0160	0.225	0.244	<0.00270	<0.000286	0.00153	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00117	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0152	<0.00200	0.00456	<0.000228	<0.000623	0.0496	0.0126
3/9/2022	0.0182	0.00790	0.0186	0.0131	0.0857	0.0988	<0.00270	<0.000286	0.000910 J	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.000683 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00640	<0.00200	0.00211	<0.000228	<0.000623	0.0240	0.00659
3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.																											
3/16/2022	0.0200	0.00793	0.0209	0.0133	0.0947	0.108	<0.00270	<0.000286	0.000759 J	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.000524 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00753	<0.00200	0.00212	<0.000228	<0.000623	0.0216	0.00583
3/24/2022	0.0400	0.0151	0.0490	0.0321	0.252	0.284	<0.00270	0.00104	0.00192	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00135	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.0208	<0.00200	0.00487	<0.000228	<0.000623	0.0679	0.0170
3/31/2022	0.0305	0.0309	0.0274	0.0311	0.267	0.311	<0.00270	0.00102	0.00142	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00138	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00896	<0.00200	0.00203	<0.000228	<0.000623	0.0551	0.0138
4/6/2022	0.0303	0.0170	0.0140	0.0228	0.191	0.218	<0.00270	<0.000286	0.000939 J	<0.000194	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.00128	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00534	<0.00200	0.00110	<0.000228	<0.000623	0.0517	0.0136
4/13/2022	0.0303	0.0271	0.0235	0.0218	0.135	0.157	<0.00270	<0.000286	<0.000199	<0.000195	<0.000500	<0.000259	<0.000318	<0.00214	<0.000183	0.000812 J	<0.000285	<0.000396	<0.000174	<0.000199	<0.000481	0.00770	<0.00200	0.00212	<0.000228	<0.000623	0.0368	0.00937
4/20/2022	0.0246	0.0126	0.0157	0.0171	0.0994	0.117	<0.00270	<0.000286	<0.000199																			



**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)												% Cation-Anion Balance	SU pH	
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )		
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
	12/6/2019	<0.500	253	<0.500	0.594	0.199	61.5	405	65.0	5.27	83.7	1,680	1,260	<4.00	2.70	6.45
	12/13/2019	<0.500	315	<0.500	0.744	0.222	72.9	450	80.1	6.71	110	1,900	1,230	<4.00	2.00	7.02
	12/19/2019	0.414 J	311	0.381 J	0.539	<0.0293	62.9	411	72.2	5.61	101	1,640	1,140	<4.00	0.200	6.57
	12/26/2019	<0.500	257	<0.500	0.617	0.204	61.7	418	68.8	5.82	88.5	1,760	1,280	<4.00	1.30	6.44
	1/2/2020	<0.500	302	<0.500	0.331	<0.100	60.6	375	70.5	5.96	98.8	1,630	1,150	<4.00	2.40	6.83
	1/15/2020	<0.500	190	0.559	0.129	0.930	53.5	401	66.8	4.82	82.9	1,570	1,260	<4.00	0	6.35
	1/23/2020	<0.500	195	0.617	0.126	0.128	46.2	426	76.3	8.84	86.4	1,530	1,230	<4.00	1.60	6.21
	1/31/2020	<0.500	197	0.616	0.129	<0.100	48.5	446	79.1	7.43	89.5	1,440	1,230	<4.00	3.20	6.15
	2/6/2020	<0.500	316	<0.500	0.179	<0.100	64.2	430	76.0	7.60	101	1,100	1,180	<4.00	1.10	6.07
	2/13/2020	<2.50	293	0.623	0.178	<0.500	57.3	409	74.5	6.80	95.7	1,640	1,200	<4.00	0.300	6.04
	2/20/2020	<0.500	272	0.586	0.157	<0.100	49.6	421	71.4	6.38	91.4	1,690	1,220	<4.00	0.300	5.93
	2/28/2020	<0.500	307	<0.500	1.05	1.35	56.6	438	74.0	5.98	97.4	1,620	1,230	<4.00	0.400	6.12
	3/6/2020	<0.500	284	0.621	0.107	1.27	56.2	418	67.9	5.60	92.7	1,880	1,230	<4.00	0.800	6.26
	3/13/2020	<0.500	316	0.629	<0.100	<0.100	59.3	393	63.3	5.32	91.2	1,770	1,200	<4.00	4.30	6.23
	3/18/2020	0.533	332	0.642	0.128	<0.100	63.5	391	67.4	5.56	95.7	1,680	1,180	<4.00	3.80	6.44
	3/27/2020	0.533	324	0.728	<0.100	<0.100	57.6	418	70.3	5.91	105	1,610	1,180	<4.00	0.200	6.57
	4/3/2020	<0.500	304	0.807	0.110	<0.100	57.3	417	69.0	5.91	101	1,960	1,180	<4.00	0.200	6.37
	4/10/2020	0.575	351	0.612	0.172	<0.100	61.8	431	72.3	6.17	104	1,930	1,190	<4.00	0.600	6.73
	4/17/2020	0.590	353	0.691	0.165	<0.100	59.7	406	73.2	5.40	108	1,750	1,180	<4.00	1.70	6.51
	4/24/2020	0.595	370	0.723	0.152	<0.100	61.2	408	75.2	5.55	113	1,810	1,130	<4.00	0.600	6.32
	5/1/2020	0.576	376	0.686	0.140	<0.100	61.8	402	74.6	5.39	106	1,750	1,130	<4.00	1.90	6.37
	5/7/2020	0.517	365	0.675	0.163	<0.100	58.8	425	70.5	5.57	108	1,640	1,140	<4.00	0.00	6.55
	5/14/2020	0.571	409	0.585	0.160	<0.100	56.0	412	76.5	6.23	107	1,900	1,200	<4.00	3.70	6.34
	5/22/2020	0.531	319	0.561	1.550	<0.100	30.1	354	63.7	5.24	97.4	1,360	1,190	<4.00	6.10	6.54
	5/26/2020	0.549	357	0.688	0.153	<0.100	44.5	356	69.6	5.67	102	1,650	1,170	<4.00	6.30	6.42
	6/5/2020	0.640	417	0.535	0.139	<0.100	39.9	379	73.3	5.92	108	1,670	1,160	<4.00	5.90	6.30
	6/12/2020	0.602	359	0.697	0.145	<0.100	43.9	386	72.4	6.70	106	1,670	1,140	<4.00	2.40	6.22
	6/18/2020	0.576	431	<5.00	0.144	<0.100	39.5	418	78.8	6.23	115	1,800	1,180	<4.00	2.40	6.28
	6/23/2020	0.586	398	<5.00	0.136	<0.100	33.3	361	66.3	5.48	98.2	1,920	1,190	<4.00	8.40	6.23
	6/30/2020	0.695	431	<5.00	0.149	<0.100	37.9	437	78.6	6.70	113	1,830	1,170	<4.00	2.60	6.39
	7/9/2020	0.647	413	<5.00	0.147	0.215	40.5	421	78.5	6.58	114	1,790	1,170	<4.00	1.50	6.37
	7/16/2020	0.657	390	<5.00	0.128	<0.100	40.6	402	77.6	7.01	114	1,890	1,170	<4.00	1.90	6.34
	7/23/2020	0.621	396	<5.00	0.175	0.169	36.5	419	74.0	6.58	111	2,000	1,160	<4.00	1.10	6.22
	7/30/2020	0.669	390	0.625	0.181	<0.100	39.3	397	71.4	5.59	103	1,910	1,170	<4.00	3.70	6.18
	8/7/2020	0.631	387	0.526	0.186	1.75	36.1	404	79.5	6.73	111	1,810	1,150	<4.00	0.900	6.12
	8/13/2020	0.713	408	0.505	0.191	1.45	34.9	368	75.1	6.54	115	1,980	1,150	<4.00	5.00	6.26
	8/20/2020	0.690	449	<0.500	0.164	<0.100	38.7	389	69.0	5.99	113	2,000	1,090	<4.00	4.40	6.18
	8/27/2020	0.846	582	<0.500	0.158	1.68	49.4	446	82.6	7.17	161	2,570	973	<4.00	1.50	6.35
	9/2/2020	0.868	635	<0.500	0.159	<0.100	48.1	422	77.9	7.25	168	1,620	1,030	<4.00	3.40	6.30
	9/10/2020	0.714	499	<0.500	<0.100	1.61	41.9	387	79.4	6.53	133	1,980	1,090	<4.00	4.20	6.10



**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)												% Cation-Anion Balance	SU pH
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )	
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
6/2/2021	0.712	488	0.303 J	0.128	<0.0293	23.7	447	82.8	7.43	139	2,140	1,120	<4.00	-4.83	6.3
6/10/2021	0.415 J	247	1.10	0.124	1.38	22.2	273	54.9	4.90	84.8	1,270	669	<4.00	-2.53	6.5
6/16/2021	0.405 J	227	0.946	0.125	<0.0293	11.5	267	56.0	4.64	84.4	1,500	723	<4.00	-3.70	6.7
6/22/2021	0.405 J	230	1.00	0.117	1.67	28.9	298	53.1	4.74	80.7	1,230	657	<4.00	0.795	6.7
6/30/2021	0.398 J	237	1.07	0.140	0.205	23.8	258	51.9	4.32	74.6	1,200	676	<4.00	-5.560	6.9
7/1/2021	Levey Well Now Running Full Time														
7/7/2021	0.469 J	305	0.705	0.128	<0.0293	41.3	337	67.2	5.46	96.3	1,780	764	<4.00	-0.751	6.6
7/14/2021	0.446 J	297	0.753	0.151	0.167	41.6	323	61.9	4.56	87.0	1,200	785	<4.00	-3.73	6.4
7/20/2021	0.180 J	290	0.223 J	0.0457 J	<0.0293	38.2	317	65.9	5.31	96.1	1,620	854	<4.00	-5.11	6.4
7/27/2021	0.437 J	281	0.491 J	0.126	1.42	41.3	338	66.9	5.14	95.9	1,240	790	<4.00	-0.522	6.2
8/5/2021	0.400 J	275	0.565	0.158	<0.0293	43.3	334	68.8	5.00	90.9	1,610	714	<4.00	2.12	6.6
8/11/2021	0.446 J	261	0.512	0.154	1.81	43.2	298	64.8	4.96	89.8	1,470	764	<4.00	-3.46	6.4
8/19/2021	0.583	380	0.357 J	0.177	0.694	39.1	336	68.2	6.69	111	2,030	769	<4.00	-3.85	6.6
8/25/2021	0.483 J	249	0.680	0.125	1.13	41.4	305	59.6	4.65	83.9	1,050	698	<4.00	-0.532	6.6
9/2/2021	0.418 J	233	0.688	0.110	0.147	20.1	287	52.2	3.98	75.2	1,140	588	<4.00	2.27	7.0
9/8/2021	0.357 J	257	0.442 J	0.0997 J	1.20	43.4	300	61.8	4.83	87.3	1,360	703	<4.00	-1.15	6.6
9/14/2021	0.372 J	250	0.511	0.118	1.11	42.3	285	58.7	4.81	81.7	988	730	<4.00	-4.44	6.4
9/21/2021	0.546	227	0.951	0.224	<0.0293	37.4	313	68.2	5.30	97.5	1,080	610	<4.00	7.72	6.6
9/29/2021	0.535	248	0.542	0.186	0.164	41.9	302	59.9	4.60	85.4	1,410	765	<4.00	-2.94	6.6
10/7/2021	0.454 J	235	0.582	1.10	<0.0293	40.5	323	65.5	4.79	88.3	1,310	765	<4.00	0.449	6.6
10/13/2021	0.459 J	238	0.608	0.198	1.10	40.9	252	52.7	3.97	75.6	1,030	765	<4.00	-10.6	6.7
10/21/2021	0.470 J	227	0.557	0.143	<0.0293	36.9	238	51.0	3.54	72.5	1,250	722	<4.00	-10.2	6.5
10/27/2021	0.444 J	238	0.469 J	0.193	0.0910 J	42.5	330	67.2	5.31	94.2	1,290	706	<4.00	3.95	6.7
11/5/2021	0.367 J	231	1.45	0.220	<0.0293	41.7	328	63.6	5.06	90.7	1,050	657	<4.00	5.76	6.9
11/11/2021	0.379 J	229	0.594	0.238	<0.0293	36.9	221	48.1	3.36	71.5	1,140	571	<4.00	-5.92	7.0
11/18/2021	0.560	247	0.397 J	0.176	<0.0293	44.3	276	50.8	4.29	76.4	1,350	698	<4.00	-5.71	6.6
11/24/2021	0.455 J	232	0.646	0.203	0.718	41.9	253	52.5	4.07	76.6	1,240	546	<4.00	-0.200	6.6
12/1/2021	0.497 J	233	0.652	0.144	<0.0293	42.0	284	55.9	4.31	82.4	1,040	644	<4.00	-0.133	6.9
12/8/2021	0.516	230	0.620	0.187	<0.0293	42.5	261	55.8	4.20	82.9	1,200	633	<4.00	-1.56	6.5
12/16/2021	0.490 J	228	0.528	0.251	<0.0293	42.1	282	55.3	4.13	81.9	1,280	649	<4.00	-0.883	6.4
12/22/2021	0.480 J	230	0.294 J	0.223	<0.0293	43.3	304	58.5	4.66	85.8	1,270	619	<4.00	3.67	6.4
12/29/2021	0.476 J	225	0.588	0.224	<0.0293	43.8	300	57.5	4.69	84.9	1,220	657	<4.00	1.62	6.6
1/6/2022	0.386 J	226	0.500	0.182	<0.0293	42.7	278	52.9	4.11	79.0	1,650	711	<4.00	-4.09	6.4
1/12/2022	0.438 J	223	0.561	0.178	<0.0293	42.8	254	49.2	3.60	71.9	1,090	633	<4.00	-4.90	6.1
1/19/2022	0.446 J	223	0.523	0.178	<0.0293	43.6	288	57.2	4.34	80.1	1,780	688	<4.00	-1.41	6.3
1/26/2022	0.440 J	220	0.580	0.181	0.0834 J	41.7	286	56.4	4.50	85.1	1,140	706	<4.00	-1.64	6.4
2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.														
2/8/2022	0.780	329	1.24	<0.0391	0.420	62.0	272	58.5	4.77	97.0	1,410	756	<4.00	-11.40	6.5
2/16/2022	0.488 J	217	0.769	0.0551 J	0.349	27.9	212	46.2	3.76	74.5	1,070	555	<4.00	-6.59	6.6
2/25/2022	0.726	484	0.902	0.141	<0.0293	31.2	429	78.2	6.80	139	1,960	1,210	<4.00	-9.05	6.4
3/3/2022	0.606	380	1.76	0.220	0.175	39.8	410	78.2	7.36	137	2,130	1,190	<4.00	-6.76	6.3
3/9/2022	0.507	355	1.10	0.147	<0.0293	42.6	422	79.4	7.55	129</td					



**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)												% Cation-Anion Balance	SU pH			
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )				
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		
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		414	79.7	5.41	117	1,380	1,160	<4.00	1.30	6.58			
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			6.37			
1/6/2021	NA	325										NA			6.51			
1/12/2021	NA	359										NA	1,160	<4.00	NA	6.42		
1/20/2021	NA	353										NA	1,160	<4.00	NA	6.34		
1/27/2021	NA	334										NA	1,010	<4.00	NA	6.44		
2/3/2021	NA	368										NA	1,130	<4.00	NA	6.38		
2/10/2021	NA	339										NA	1,160	<4.00	NA	6.45		
2/24/2021	NA	343										NA	1,070	<4.00	NA	6.45		
3/4/2021	NA	339										NA	1,070	<4.00	NA	6.38		
3/10/2021	NA	324										NA	1,020	<4.00	NA	6.34		
3/17/2021	NA	330										NA	1,020	<4.00	NA	6.16		
3/25/2021	NA	312	0.367 J	0.129	<0.100	77.5						NA	980	<4.00	NA	6.9		
3/31/2021	NA	309	0.387 J	0.175	<0.0293	81.3						NA	977	<4.00	NA	6.7		
4/8/2021	NA	290	0.515	0.0994 J	<0.0293	58.1						NA	933	<4.00	NA	6.5		
4/15/2021	NA	272	0.583	0.107	<0.0293	54.0						NA	833	<4.00	NA	6.6		
4/21/2021	NA	299	0.369 J	0.135	<0.0293	52.7						NA	927	<4.00	NA	6.5		
4/28/2021	NA	315	0.315 J	0.119	<0.0293	57.8						NA	994	<4.00	NA	6.5		
5/5/2021	NA	317	0.358 J	0.135	<0.0293	68.5						NA	1,020	<4.00	NA	6.5		
5/13/2021	NA	270	0.492 J	0.125	0.729 J	55.6						NA	819	<4.00	NA	6.8		
5/19/2021	NA	324	0.335 J	<0.0391	2.58	65.0						NA	1,070	<4.00	NA	6.5		
5/27/2021	NA	325	0.380 J	0.128	0.148	70.3						NA	971	<4.00	NA	6.3		
6/2/2021	NA	315	0.305 J	0.146	<0.0293	72.8						NA	979	<4.00	NA	6.5		
6/10/2021	NA	295	0.561	0.130	1.44	64.7						NA	768	<4.00	NA	6.6		
6/16/2021	NA	320	0.478 J	0.127	0.243	59.1						NA	811	<4.00	NA	6.7		
6/22/2021	NA	311	0.478 J	0.119	1.65	56.9						NA	790	<4.00	NA	6.8		
6/30/2021	NA	308	0.561	0.145	0.168	64.2						NA	813	<4.00	NA	6.7		
7/1/2021							Levey Well Now Running Full Time											
MW-1	7/7/2021	NA	325	0.547	0.127	<0.0293	75.9					NA	761	<4.00	NA	6.8		
	7/14/2021	NA	360	0.418 J	0.134	0.0880 J	112					NA	931	<4.00	NA	6.8		
	7/20/2021	NA	324	0.138 J	0.0457 J	<0.0293	81.5					NA	750	<4.00	NA	6.7		
	7/27/2021	NA	352	0.340 J	0.148	1.22	82.8					NA	786	<4.00	NA	6.7		
	8/5/2021	NA	336	0.426 J	0.117	<0.0293	79.0					NA	695	<4.00	NA	6.9		
	8/11/2021	NA	326	0.342 J	0.153	1.48	85.5					NA	735	<4.00	NA	6.6		
	8/19/2021	NA	334	0.227 J	0.149	1.36	81.9					NA	810	<4.00	NA	6.8		
	8/25/2021	NA	328	0.395 J	0.132	0.947 J	76.5					NA	809	<4.00	NA	6.8		
	9/2/2021	NA	325	0.311 J	0.105	<0.0293	74.7					NA	755	<4.00	NA	6.8		
	9/8/2021	NA	272	0.442 J	0.103	0.782 J	64.5					NA	584	<4.00	NA	6.9		
	9/14/2021	NA	332	0.276 J	0.103	0.776 J	98.4					NA	660	<4.00	NA	7.0		
	9/21/2021	NA	203	0.896	0.186	<0.0293	32.4					NA	419	<4.00	NA	6.9		
	9/29/2021	NA	232	0.659	0.168	0.0819 J	40.1					NA	505	<4.00	NA	6.9		
	10/7/2021	NA	253	0.626	0.186	<0.0293	58.2					NA	567	<4.00	NA	6.9		
	10/13/2021	NA	268	0.659	0.178	<0.0293	62.9					NA	564	<4.00	NA	8.1		
	10/21/2021	NA	293	0.409 J	0.144	<0.0293	81.1					NA	591	<4.00	NA	7.1		
	11/5/2021	NA	282	0.631	0.191	<0.0293	77.1					NA	571	<4.0				



**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)												% Cation-Anion Balance	SU pH	
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )		
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 (Continued)	3/24/2022	NA	147	0.610	<0.0391	<0.0293	42.9						297	<4.00	NA	7.2
	3/31/2022	NA	143	0.568	0.164	<0.0293	40.4						275	<4.00	NA	7.1
	4/6/2022	NA	133	0.677	0.186	<0.0293	39.7						262	<4.00	NA	7.1
	4/13/2022	NA	129	0.767	<0.0391	<0.0293	40.9						259	<4.00	NA	7.6
	4/20/2022	NA	173	0.574	0.152	0.176	42.4						362	<4.00	NA	7.0
	4/28/2022	NA	136	0.608	0.0700 J	0.0717 J	41.7						300	<4.00	NA	7.5
	5/5/2022	NA	118	0.746	<0.0391	1.75	41.1						253	<4.00	NA	7.2
	5/10/2022	NA	116	0.709	0.0815 J	<0.0293	43.9						250	<4.00	NA	7.2
	5/19/2022	NA	106	0.643	0.0743 J	0.199	41.0						262	<4.00	NA	7.1
	5/26/2022	NA	98.7	0.720	0.0777 J	0.809	44.7						256	<4.00	NA	7.2
	6/1/2022	NA	100	0.690	0.0629 J	<0.0293	46.4						240	<4.00	NA	7.4
	6/9/2022	NA	99.9	0.743	<0.0391	<0.0293	46.6						246	<4.00	NA	7.1
	6/17/2022	NA	83.5	0.710	0.146	0.275	47.9						253	<4.00	NA	7.3
	6/23/2022	NA	83.9	0.616	0.238	<0.0293	47.7						258	<4.00	NA	7.2
	6/29/2022	NA	84.8	0.644	0.199	0.556	48.0						264	<4.00	NA	7.2
	7/7/2022	NA	83.7	0.660	0.0413 J	0.0458 J	47.7						238	<4.00	NA	7.4
	7/13/2022	NA	91.3	0.778	0.102	<0.0293	49.2						253	<4.00	NA	7.2
	7/20/2022	NA	81.5	0.766	<0.0391	<0.0293	48.5						249	<4.00	NA	7.2
	7/27/2022	NA	85.8	0.766	0.0482 J	<0.0293	47.2						268	<4.00	NA	7.7
	8/4/2022	NA	77.5	0.633	0.126	0.118	43.1						253	<4.00	NA	7.2
	8/10/2022	NA	68.3	0.737	<0.0391	0.212	40.9						278	<4.00	NA	7.2
	8/18/2022	NA	77.7	0.752	0.0696 J	0.154	39.4						262	<4.00	NA	7.0
	8/24/2022	NA	92.0	0.739	<0.100	<0.100	40.8						273	<4.00	NA	7.2
	8/31/2022	NA	85.9	0.628	<0.0391	<0.0293	36.7						277	<4.00	NA	7.4
	9/15/2022	NA	86.4	1.03	0.0909 J	0.206	33.4						277	<4.00	NA	7.0
	9/22/2022	NA	95.8	0.585	0.518	<0.0293	38.4						280	<4.00	NA	7.3
	9/28/2022	NA	91.2	0.702	<0.0391	<0.0293	32.8						285	<4.00	NA	7.3
	10/4/2022	NA	75.6	0.803	0.376	0.201	33.7						272	<4.00	NA	7.2
	10/14/2022	NA	81.0	0.807	0.360	0.195	33.1						266	<4.00	NA	7.3
	10/19/2022	NA	136	<0.100	<0.0391	<0.0293	19.2						283	<4.00	NA	7.4
	10/27/2022	NA	80.4	0.750	0.0601 J	0.423	29.8						277	<4.00	NA	7.4
	11/2/2022	NA	80.0	0.681	0.120	0.154	29.8						252	<4.00	NA	7.2
	11/9/2022	NA	81.1	0.746	0.141	0.117	32.5						294	<4.00	NA	7.4
	11/16/2022	NA	82.2	0.738	0.120	0.384	30.9						282	<4.00	NA	7.3
	11/30/2022	NA	88.1	0.602	0.140	0.141	45.4						300	<4.00	NA	7.3
	12/9/2022	NA	83.7	0.809	0.0610 J	0.247	44.2						309	<4.00	NA	7.5
	12/15/2022	NA	82.1	0.786	<0.0391	0.121	44.3						348	<4.00	NA	7.2
	12/21/2022	NA	84.4	0.676	0.0802 J	<0.0293	43.6						377	<4.00	NA	7.3
	12/29/2022	NA	77.3	0.555	0.211	0.310	33.4						409	<4.00	NA	7.1
	1/4/2023	NA	75.9	0.863	0.0857 J	<0.0293	39.7						354	<4.00	NA	7.4
	1/13/2023	NA	76.2	0.600	0.208	0.266	41.1						357	<4.00	NA	7.2
	1/19/2023	NA	82.6	0.624	<0.0391	<0.0293	49.2						340	<4.00	NA	7.1
	1/25/2023	NA	73.7	0.631	0.0564 J	0.149	47.7						363	<4.00	NA	7.4



**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)												% Cation-Anion Balance	SU pH				
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )					
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			
	5/26/2020	NA	106	0.341 J	1.920	0.639	120					NA				6.32			
	6/30/2020	0.535	115	<0.500	1.13	0.656	111	478	59.6	6.66	102	1,320	1,320	<4.00	NA	6.36			
	8/20/2020	0.603	150	<0.500	1.10	0.439	122	559	73.5	7.46	102	1,700	1,350	<4.00	NA	6.01			
	10/23/2020	NA	107									NA							
	11/24/2020	0.565	180	0.172 J	1.08	0.557	136	841	85.5	12.8	116	1,670	1,450	<4.00	15.4	6.30			
	12/18/2020	NA	153		NA			494	64.9	6.63	98.0	1,410	1,380	<4.00	3.20	6.29			
	12/23/2020	0.621	165	0.179 J	1.11	0.639	126	472	65.7	5.96	101	1,810	1,430	<4.00	0.300	6.27			
	12/30/2020	NA	153									NA				6.15			
	1/6/2021	NA	124									NA				6.24			
	1/12/2021	NA	141										1,350	<4.00	NA	6.20			
	1/20/2021	NA	133										1,360	<4.00	NA	6.12			
	1/27/2021	NA	140										1,360	<4.00	NA	6.24			
	2/3/2021	NA	178										1,390	<4.00	NA	6.17			
	2/10/2021	NA	133										1,380	<4.00	NA	6.19			
	2/24/2021	NA	146										1,370	<4.00	NA	6.17			
	3/4/2021	NA	166										1,380	<4.00	NA	6.07			
	3/10/2021	NA	175										1,390	<4.00	NA	6.14			
	3/17/2021	NA	163										1,400	<4.00	NA	5.87			
	3/25/2021	NA	161	0.183 J	0.835	0.425	119						1,420	<4.00	NA	6.5			
	3/31/2021	NA	102	0.299 J	0.714	1.13	99.9						1,330	<4.00	NA	6.4			
	4/8/2021	NA	157	0.223 J	0.784	0.549	122						1,430	<4.00	NA	6.2			
	4/15/2021	NA	136	0.255 J	0.711	0.683	115						1,380	<4.00	NA	6.1			
	4/21/2021	NA	114	0.157 J	0.650	0.856	101						1,340	<4.00	NA	6.1			
	4/28/2021	NA	155	0.178 J	0.692	0.511	118						1,380	<4.00	NA	6.2			
	5/5/2021	NA	122	0.198 J	0.704	0.609	105						1,350	<4.00	NA	6.3			
	5/13/2021	NA	104	0.199 J	0.686	1.02	98.3						1,320	<4.00	NA	6.3			
	5/19/2021	NA	142	0.171 J	0.633	0.435	120						1,370	<4.00	NA	6.2			
	5/27/2021	NA	147	0.206 J	0.689	0.889	120						1,260	<4.00	NA	6.5			
	6/2/2021	NA	119	0.168 J	0.647	0.549	103						1,250	<4.00	NA	6.2			
	6/10/2021	NA	151	0.252 J	0.714	2.77	123						1,260	<4.00	NA	6.1			
	6/16/2021	NA	118	0.205 J	0.613	1.36	104						1,208	<4.00	NA	6.5			
	6/22/2021	NA	122	0.171 J	0.593	0.969	105						1,260	<4.00	NA	6.5			
	6/30/2021	NA	111	0.417 J	0.633	1.37	102						1,230	<4.00	NA	6.4			
	7/1/2021							Levey Well Now Running Full Time											
MW-2	7/7/2021	NA	110	0.257 J	0.543	0.713	98.2						1,120	<4.00	NA	6.4			
	7/14/2021	NA	187	0.233 J	0.752	0.797	124						1,350	<4.00	NA	6.4			
	7/20/2021	NA	123	0.132 J	0.460	0.659	107						1,280	<4.00	NA	6.3			
	7/27/2021	NA	113	0.134 J	0.607	0.516 J	100						1,250	<4.00	NA	6.4			
	8/5/2021	NA	120	0.189 J	0.660	0.552	103						1,200	<4.00	NA	6.5			
	8/11/2021	NA	115	0.181 J	0.624	3.02	101						1,300	<4.00	NA	6.3			
	8/19/2021	NA	122	0.104 J	0.630	1.73	104						1,290	<4.00	NA	6.4			
	8/25/2021	NA	122	0.191 J	0.639	0.603	103						1,270	<4.00	NA	6.5			
	9/2/2021	NA	110	<0.100	0.536	0.595	98.1						1,320	<4.00	NA	6.4			
	9/8/2021	NA	105	<0.100	0.540	0.590	97.3						1,280	<4.00	NA	6.4			
	9/14/2021	NA	124	<0.100	0.542	0.386	107						1,270	<4.00	NA	6.4			
	9/21/2021	NA	90.5	0.426 J	0.638	1.04	89.1						1,250	<4.00	NA	6.3			
	9/29/2021	NA	133	0.245 J	0.631	0.982	117						1,300	<4.00	NA	6.4			
	10/7/2021	NA	108	0.201 J	0.581	0.564	96.6						1,280	<4.00	NA	6.4			
	10/13/2021	NA	178	0.140 J	0.734	0.507	131						1,320	<4.00	NA	6.5			
	10/21/2021	NA	102	0.133 J	0.635	0.787	93.3						1,270	<4.00	NA	6.5			
	11/5/2021	NA	141	0.363 J	<0.0391	0.454	108						1,250	<4.00	NA	6.6			
	11/11/2021	NA	115	<0.100															



**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)												% Cation-Anion Balance	SU pH	
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	Alkalinity, Carbonate (as CaCO <sub>3</sub> )		
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 (Continued)	3/31/2022	NA	150	<0.100	<0.0391	1.65	106						1,340	<4.00	NA	6.3
	4/6/2022	NA	130	0.175 J	0.619	1.60	111						1,360	<4.00	NA	6.2
	4/13/2022	NA	135	0.271 J	0.589	1.67	108						1,380	<4.00	NA	6.5
	4/20/2022	NA	198	0.174 J	0.966	0.722	121						1,330	<4.00	NA	6.4
	4/28/2022	NA	156	0.172 J	0.711	0.434	118						1,380	<4.00	NA	6.4
	5/5/2022	NA	116	0.229 J	0.586	11.5	112						1,330	<4.00	NA	6.3
	5/10/2022	NA	134	0.230 J	0.548	1.83	120						1,320	<4.00	NA	6.3
	5/19/2022	NA	133	0.116 J	<0.0391	0.373	118						1,380	<4.00	NA	6.2
	5/26/2022	NA	107	0.196 J	0.392	1.14	104						1,320	<4.00	NA	6.0
	6/1/2022	NA	130	0.107 J	0.481	1.47	116						1,340	<4.00	NA	6.3
	6/9/2022	NA	103	<0.100	0.330	0.236	103						1,320	<4.00	NA	6.2
	6/17/2022	NA	99.0	0.213 J	0.395	0.702	102						1,290	<4.00	NA	6.4
	6/23/2022	NA	109	<0.100	0.494	5.21	107						1,270	<4.00	NA	6.3
	6/29/2022	NA	82.6	0.111 J	0.351	0.827	89.7						1,330	<4.00	NA	6.2
	7/7/2022	NA	107	0.141 J	0.399	0.440	98.3						1,300	<4.00	NA	6.4
	7/13/2022	NA	95.3	0.262 J	0.306	1.23	100						1,280	<4.00	NA	6.2
	7/20/2022	NA	134	<0.100	0.485	1.46	122						1,360	<4.00	NA	6.3
	7/27/2022	NA	101	<0.100	0.403	3.86	105						1,340	<4.00	NA	6.4
	8/4/2022	NA	107	0.112 J	0.451	0.477	99.9						1,250	<4.00	NA	6.2
	8/10/2022	NA	89.4	0.189 J	0.189	0.210	97.2						1,260	<4.00	NA	6.3
	8/18/2022	NA	99.1	0.122 J	0.333	0.303	100						1,280	<4.00	NA	6.3
	8/24/2022	NA	110	0.172 J	0.282	0.427	103						1,290	<4.00	NA	6.3
	8/31/2022	NA	94.8	<0.100	0.175	0.238	94.4						1,280	<4.00	NA	6.3
	9/15/2022	NA	94.4	0.538	0.232	2.31	98.7						1,320	<4.00	NA	6.3
	9/22/2022	NA	94.4	0.260 J	0.650	0.481	105						1,320	<4.00	NA	6.3
	9/28/2022	NA	91.2	0.498 J	0.261	<0.0293	92.5						1,280	<4.00	NA	6.3
	10/4/2022	NA	88.9	0.143 J	0.497	0.189	97.0						1,320	<4.00	NA	6.2
	10/14/2022	NA	82.6	0.101 J	<0.0391	0.0760 J	84.6						1,320	<4.00	NA	6.2
	10/19/2022	NA	51.2	<0.100	0.101	<0.0293	48.5						1,290	<4.00	NA	6.5
	10/27/2022	NA	124	0.165 J	0.319	0.871	104						1,340	<4.00	NA	6.3
	11/2/2022	NA	91.1	0.148 J	0.221	0.947	92.9						1,330	<4.00	NA	6.2
	11/9/2022	NA	97.8	0.161 J	0.273	0.366	101						1,430	<4.00	NA	6.4
	11/16/2022	NA	86.0	0.180 J	0.206	0.579	91.4						1,300	<4.00	NA	6.6
	11/30/2022	NA	90.4	0.133 J	0.264	0.168	91.1						1,300	<4.00	NA	6.4
	12/9/2022	NA	78.0	0.158 J	0.217	0.785	82.5						1,290	<4.00	NA	6.4
	12/15/2022	NA	100	0.120 J	0.331	1.64	91.2						1,140	<4.00	NA	6.2
	12/21/2022	NA	94.8	0.212 J	0.252	1.16	99.5						1,270	<4.00	NA	6.3
	12/29/2022	NA	124	0.114 J	0.527	0.338	95.6						1,250	<4.00	NA	6.5
	1/4/2023	NA	92.6	0.126 J	0.318	1.23	88.2						1,140	<4.00	NA	6.4
	1/13/2023	NA	72.6	0.112 J	0.227	0.381	81.1						1,210	<4.00	NA	6.4
	1/19/2023	NA	96.5	0.135 J	0.185	0.320	96.7						1,270	<4.00	NA	6.2
	1/25/2023	NA	83.2	0.133 J	0.128	0.416	87.9						1,110	<4.00	NA	6.5

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.



**TABLE 3**  
**GROUNDWATER SAMPLING (Additional Parameters) ANALYTICAL DATA SUMMARY**  
 South Hobbs G/SA Unit  
 Oxy Permian Ltd.  
 Hobbs, New Mexico  
 Ensolum Project No. 03B1417002

Sample Designation	Date	(mg/l)						°C
		Sulfide	Carbon Dioxide (Free)	TPH GRO	TPH DRO	TPH ORO	Total TPH	
<b>20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards</b>		NE	NE	NE	NE	NE	NE	NE
MW-1	5/26/2020	<0.495	<b>163</b>	<0.943	<b>1.48</b>	<0.910	<b>1.48</b>	<b>22.9</b>
	6/30/2020	<5.00	<b>648</b>	<2.34	<2.34	<2.34	<2.34	<b>21.9</b>
	8/20/2020	<5.00	<b>596</b>	<b>2.35</b>	<b>3.18</b>	<2.26	<b>5.53</b>	<b>23.7</b>
	11/24/2020	<0.495	<b>756</b>	<0.907	<0.838	<0.838	<0.8380	<b>19.1</b>
	12/18/2020	<0.495	<b>432</b>	<0.909	<0.840	<0.840	<0.840	<b>15.8</b>
	12/23/2020	<0.495	<b>553</b>	<0.895	<b>1.81 J</b>	<0.827	<b>1.81 J</b>	<b>15.5</b>
	12/30/2020	<0.495	<b>1,170</b>	<0.917	<0.847	<0.847	<0.847	<b>13.1</b>
	1/6/2021	<0.495	<b>585</b>	<0.897	<0.829	<0.829	<0.829	<b>12.7</b>
	1/12/2021	<0.495	<b>731</b>	<0.891	<0.823	<0.823	<0.823	<b>14.6</b>
	1/20/2021	<b>0.600 J</b>	<b>667</b>	<0.889	<0.821	<0.821	<0.821	<b>17.6</b>
	1/27/2021	<b>0.800 J</b>	<b>668</b>	<0.909	<0.840	<0.840	<0.840	<b>18.0</b>
	2/3/2021	<0.495	<b>699</b>	<0.907	<0.838	<0.838	<0.838	<b>20.6</b>
	2/10/2021	<b>1.20 J</b>	<b>423</b>	<b>1.66 J</b>	<0.828	<0.828	<b>1.66 J</b>	<b>14.1</b>
	2/24/2021	<b>0.600 J</b>	<b>448</b>	<0.884	<0.817	<0.817	<0.817	<b>18.0</b>
	3/4/2021	<0.495	<b>515</b>	<b>3.04</b>	<b>1.03 J</b>	<0.846	<b>4.07</b>	<b>18.8</b>
	3/10/2021	<b>1.20 J</b>	<b>499</b>	<0.878	<0.811	<0.811	<0.811	<b>18.6</b>
	3/17/2021	<0.495	<b>378</b>	<0.886	<0.819	<0.819	<0.819	<b>19.1</b>
	3/25/2021	<0.495	<b>333</b>	<b>17.2</b>	<b>1.00 J</b>	<0.867	<b>18.2</b>	<b>20.2</b>
	3/31/2021	<0.495	<b>526</b>	<0.893	<0.825	<0.825	<0.825	<b>18.4</b>
	4/8/2021	<0.495	<b>364</b>	<b>2.57 J</b>	<b>1.55 J</b>	<0.867	<b>4.12 J</b>	<b>18.9</b>
	4/15/2021	<0.495	<b>418</b>	<0.887	<0.887	<b>1.72 J</b>	<b>1.72 J</b>	<b>20.5</b>
	4/21/2021	<0.495	<b>415</b>	<0.898	<b>2.05 J</b>	<0.867	<b>2.05 J</b>	<b>18.8</b>
	4/28/2021	<0.495	<b>689</b>	<0.890	<b>1.19 J</b>	<0.859	<b>1.19 J</b>	<b>18.9</b>
	5/5/2021	<0.495	<b>647</b>	<0.890	<0.890	<0.859	<0.890	<b>18.8</b>
	5/13/2021	<0.495	<b>259</b>	<0.893	<0.893	<0.862	<0.893	<b>19.0</b>
	5/19/2021	<0.495	<b>679</b>	<0.893	<0.893	<0.862	<0.893	<b>21.5</b>
	5/27/2021	<0.495	<b>973</b>	<0.923	<0.923	<0.891	<0.923	<b>20.6</b>
	6/2/2021	<0.495	<b>619</b>	<0.918	<0.918	<0.886	<0.918	<b>18.1</b>
	6/10/2021	<0.495	<b>385</b>	<0.915	<0.915	<0.883	<0.915	<b>22.0</b>
	6/16/2021	<0.495	<b>323</b>	<0.926	<0.926	<0.894	<0.926	<b>18.2</b>
	6/22/2021	<0.495	<b>250</b>	<0.938	<0.938	<0.905	<0.938	<b>22.1</b>
	6/30/2021	<0.495	<b>324</b>	<0.923	<0.923	<0.891	<0.923	<b>21.0</b>
	7/1/2021	Levey Well Now Running Full Time						
	7/7/2021	<0.495	<b>241</b>	<0.901	<0.901	<0.869	<0.901	<b>18.4</b>
	7/14/2021	<0.495	<b>295</b>	<0.991	<0.957	<0.991	<0.991	<b>19.0</b>
	7/20/2021	<0.495	<b>321</b>	<0.938	<0.938	<0.905	<0.938	<b>19.8</b>
	7/27/2021	<0.495	<b>321</b>	<0.906	<0.906	<0.875	<0.906	<b>22.0</b>
	8/5/2021	<0.495	<b>196</b>	<0.950	<0.950	<0.917	<0.950	<b>21.9</b>
	8/11/2021	<0.495	<b>369</b>	<0.932	<0.932	<0.900	<0.932	<b>19.9</b>
	8/19/2021	<0.495	<b>457</b>	<0.950	<0.950	<0.917	<0.950	<b>20.8</b>
	8/25/2021	<0.495	<b>477</b>	<0.918	<0.918	<0.886	<0.918	<b>20.0</b>
	9/2/2021	<0.495	<b>416</b>	<0.935	<0.935	<0.902	<0.935	<b>20.6</b>
	9/8/2021	<0.495	<b>280</b>	<0.953	<0.953	<0.920	<0.953	<b>21.4</b>
	9/14/2021	<0.495	<b>289</b>	<0.932	<b>0.978 J</b>	<0.900	<b>0.978 J</b>	<b>19.3</b>
	9/21/2021	<b>1.00 J</b>	<b>105</b>	<0.918	<0.918	<0.886	<0.918	<b>18.0</b>
	9/29/2021	<0.495	<b>127</b>	<0.998	<0.998	<0.963	<0.998	<b>18.7</b>
	10/7/2021	<0.495	<b>143</b>	<0.923	<0.923	<0.891	<0.923	<b>18.0</b>
	10/13/2021	<0.495	<b>8.85</b>	<0.950	<0.950	<0.917	<0.950	<b>20.7</b>
	10/21/2021	<0.495	<b>434</b>	<0.918	<0.918	<0.886	<0.918	<b>19.9</b>
	11/5/2021	<0.495	<b>114</b>	<1.03	<1.03	<0.993	<1.03	<b>22.9</b>
	11/11/2021	<0.495	<b>563</b>	<0.923	<0.923	<0.891	<0.923	<b>19.3</b>
	11/18/2021	<0.495	<b>24.9</b>	<b>1.05 J</b>	<0.969	<0.935	<b>1.05 J</b>	<b>19.0</b>
	11/24/2021	<5.00	<b>159</b>	<4.70	<4.70	<4.70	<4.70	<b>19.7</b>
	12/1/2021	<0.495	<b>39.0</b>	<0.935	<0.935	<0.902	<0.935	<b>19.4</b>
	12/8/2021	<0.495	<b>122</b>	<0.929	<0.929	<0.897	<0.929	<b>18.1</b>
	12/16/2021	<0.495	<b>69.3</b>	<0.962	<0.962	<0.929	<0.962	<b>18.0</b>
	12/22/2021	<0.495	<b>49.5</b>	<b>1.34 J</b>	<0.941	<0.908	<b>1.34 J</b>	<b>21.5</b>
	12/29/2021	<0.495	<b>50.2</b>	<0.935	<0.935	<0.902	<0.935	<b>18.1</b>



**TABLE 3**  
**GROUNDWATER SAMPLING (Additional Parameters) ANALYTICAL DATA SUMMARY**  
 South Hobbs G/SA Unit  
 Oxy Permian Ltd.  
 Hobbs, New Mexico  
 Ensolum Project No. 03B1417002

Sample Designation	Date	(mg/l)						°C
		Sulfide	Carbon Dioxide (Free)	TPH GRO	TPH DRO	TPH ORO	Total TPH	
<b>20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards</b>		NE	NE	NE	NE	NE	NE	NE
MW-1 (Continued)	1/6/2022	<0.495	<b>67.0</b>	<0.932	<0.932	<0.900	<0.932	<b>18.0</b>
	1/12/2022	<0.495	<b>130</b>	<b>0.960 J</b>	<b>1.06 J</b>	<0.900	<b>2.02 J</b>	<b>21.7</b>
	1/19/2022	<0.495	<b>56.4</b>	<0.912	<0.912	<0.880	<0.912	<b>18.0</b>
	1/26/2022	<0.495	<b>44.7</b>	<0.898	<0.898	<0.867	<0.898	<b>18.8</b>
	2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.						
	2/8/2022	<0.495	<b>95.7</b>	<0.895	<0.895	<0.864	<0.895	<b>20.8</b>
	2/16/2022	<0.495	<b>61.0</b>	<0.877	<0.877	<0.846	<0.877	<b>18.7</b>
	2/25/2022	<0.495	<b>54.2</b>	<0.923	<0.923	<0.891	<0.923	<b>20.0</b>
	3/3/2022	<0.495	<b>90.5</b>	<0.935	<0.935	<0.902	<0.935	<b>18.2</b>
	3/9/2022	<0.495	<b>40.7</b>	<0.874	<0.874	<0.874	<0.874	<b>18.1</b>
	3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.						
	3/16/2022	<0.495	<b>67.6</b>	<0.959	<0.959	<0.959	<0.959	<b>18.1</b>
	3/24/2022	<0.495	<b>37.5</b>	<0.901	<0.901	<0.869	<0.901	<b>18.9</b>
	3/31/2022	<0.495	<b>43.7</b>	<0.926	<0.926	<0.894	<0.926	<b>19.0</b>
	4/6/2022	<0.495	<b>41.6</b>	<0.926	<0.926	<0.894	<0.926	<b>18.1</b>
	4/13/2022	<0.495	<b>13.0</b>	<0.918	<0.918	<0.886	<0.918	<b>19.0</b>
	4/20/2022	<0.495	<b>72.4</b>	<0.904	<0.904	<0.872	<0.904	<b>18.3</b>
	4/28/2022	<0.495	<b>18.9</b>	<0.890	<0.890	<0.859	<0.890	<b>19.9</b>
	5/5/2022	<0.495	<b>31.8</b>	<0.912	<0.912	<0.880	<0.912	<b>19.5</b>
	5/10/2022	<b>1.20 J</b>	<b>31.5</b>	<0.985	<0.985	<0.950	<0.985	<b>16.7</b>
	5/19/2022	<b>0.600 J</b>	<b>41.5</b>	<0.926	<0.926	<0.894	<0.926	<b>20.3</b>
	5/26/2022	<b>1.00 J</b>	<b>32.2</b>	<0.920	<0.920	<0.888	<0.920	<b>18.0</b>
	6/1/2022	<b>0.800 J</b>	<b>19.0</b>	<0.926	<0.926	<0.894	<0.926	<b>20.5</b>
	6/9/2022	<b>0.600 J</b>	<b>24.6</b>	<0.962	<0.962	<0.929	<0.962	<b>20.3</b>
	6/17/2022	<0.495	<b>21.1</b>	<0.918	<0.918	<0.886	<0.918	<b>18.3</b>
	6/23/2022	<b>0.800 J</b>	<b>32.5</b>	<0.932	<0.932	<0.900	<0.932	<b>18.0</b>
	6/29/2022	<b>1.00 J</b>	<b>33.2</b>	<b>0.954 J</b>	<0.923	<0.891	<b>0.954 J</b>	<b>15.8</b>
	7/7/2022	<b>0.600 J</b>	<b>22.2</b>	<0.947	<0.947	<0.914	<0.947	<b>23.1</b>
	7/13/2022	<0.495	<b>31.9</b>	<0.950	<0.950	<0.917	<0.950	<b>20.6</b>
	7/20/2022	<0.495	<b>31.4</b>	<0.959	<0.959	<0.926	<0.959	<b>20.0</b>
	7/27/2022	<0.495	<b>10.6</b>	<0.904	<0.904	<0.872	<0.904	<b>17.6</b>
	8/4/2022	<b>0.800 J</b>	<b>31.9</b>	<0.906	<0.906	<0.875	<0.906	<b>19.2</b>
	8/10/2022	<b>1.00 J</b>	<b>35.0</b>	<0.929	<0.929	<0.897	<0.929	<b>19.8</b>
	8/18/2022	<0.495	<b>52.4</b>	<1.04	<1.04	<1.00	<1.04	<b>20.7</b>
	8/24/2022	<b>1.40 J</b>	<b>34.4</b>	<4.78	<4.78	<4.78	<4.78	<b>18.2</b>
	8/31/2022	<b>1.20 J</b>	<b>22.0</b>	<0.932	<0.932	<0.900	<0.932	<b>19.9</b>
	9/15/2022	<b>0.800 J</b>	<b>55.4</b>	<0.988	<0.988	<0.954	<0.988	<b>18.6</b>
	9/22/2022	<0.495	<b>28.0</b>	<0.944	<0.944	<0.911	<0.944	<b>21.0</b>
	9/28/2022	<b>1.20 J</b>	<b>28.5</b>	<0.956	<0.956	<0.923	<0.956	<b>17.9</b>
	10/4/2022	<b>0.800 J</b>	<b>34.2</b>	<0.895	<0.895	<0.864	<0.895	<b>17.8</b>
	10/14/2022	<b>1.20 J</b>	<b>26.6</b>	<0.935	<0.935	<0.902	<0.935	<b>18.7</b>
	10/19/2022	<0.495	<b>22.4</b>	<0.981	<0.981	<0.947	<0.981	<b>18.4</b>
	10/27/2022	<0.495	<b>22.0</b>	<1.00	<1.00	<0.968	<1.00	<b>25.0</b>
	11/2/2022	<0.495	<b>31.7</b>	<0.972	<0.972	<0.938	<0.972	<b>25.0</b>
	11/9/2022	<0.495	<b>33.0</b>	<0.972	<0.972	<0.938	<0.972	<b>21.4</b>
	11/16/2022	<0.495	<b>28.2</b>	<1.00	<1.00	<0.970	<1.00	<b>18.0</b>
	11/30/2022	<0.495	<b>30.0</b>	<0.915	<0.915	<0.883	<0.915	<b>18.5</b>
	12/9/2022	<0.495	<b>19.5</b>	<1.00	<1.00	<0.970	<1.00	<b>17.1</b>
	12/15/2022	<0.495	<b>43.9</b>	<0.918	<0.918	<0.886	<0.918	<b>15.7</b>
	12/21/2022	<0.495	<b>37.8</b>	<0.890	<0.890	<0.859	<0.890	<b>15.8</b>
	12/29/2022	<0.495	<b>64.9</b>	<0.938	<0.938	<0.905	<0.938	<b>16.7</b>
	1/4/2023	<0.495	<b>28.1</b>	<0.923	<0.923	<0.891	<0.923	<b>15.9</b>
	1/13/2023	<0.495	<b>45.0</b>	<0.935	<0.935	<0.902	<0.935	<b>13.8</b>
	1/19/2023	<b>0.800 J</b>	<b>53.9</b>	<0.918	<0.918	<0.886	<0.918	<b>16.0</b>
	1/25/2023	<0.495	<b>28.9</b>	<1.00	<1.00	<0.966	<1.00	<b>19.5</b>



**TABLE 3**  
**GROUNDWATER SAMPLING (Additional Parameters) ANALYTICAL DATA SUMMARY**  
South Hobbs G/SA Unit  
Oxy Permian Ltd.  
Hobbs, New Mexico  
Ensolum Project No. 03B1417002

Sample Designation	Date	(mg/l)						°C
		Sulfide	Carbon Dioxide (Free)	TPH GRO	TPH DRO	TPH ORO	Total TPH	
<b>20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards</b>		NE	NE	NE	NE	NE	NE	NE
MW-2	5/26/2020	<0.495	923	2.10	1.07 J	<0.900	6.16	23.1
	6/30/2020	<5.00	1,290	<2.32	<2.32	<2.32	<2.32	22.1
	8/20/2020	<5.00	1,150	2.75	3.29	<2.26	6.02	23.0
	11/24/2020	<0.495	1,300	1.73 J	2.17 J	<0.835	3.900	19.1
	12/18/2020	0.600 J	958	1.34 J	0.915 J	<0.824	2.26 J	15.1
	12/23/2020	<0.495	1,090	1.61 J	1.12 J	<0.837	2.73	15.6
	12/30/2020	<0.495	1,090	<0.893	<0.825	<0.825	<0.825	12.1
	1/6/2021	<0.495	1,240	1.99 J	<0.824	<0.824	1.99 J	13.1
	1/12/2021	11.2	1,450	1.64 J	<0.833	<0.833	1.64 J	13.9
	1/20/2021	9.60	1,390	<0.907	<0.838	<0.838	<0.838	18.2
	1/27/2021	15.0	1,600	1.31 J	<0.834	<0.834	1.31 J	13.4
	2/3/2021	<0.495	1,030	0.955 J	1.15 J	<0.813	2.11 J	20.9
	2/10/2021	<0.495	915	2.08	<0.746	<0.746	2.08	11.5
	2/24/2021	<0.495	793	1.01 J	<0.832	<0.832	1.01 J	19.4
	3/4/2021	<0.495	1,030	1.74 J	<0.819	<0.819	1.74 J	18.2
	3/10/2021	<0.495	1,010	<0.893	<0.825	<0.825	<0.825	18.5
	3/17/2021	<0.495	970	2.33	<0.835	<0.835	2.33	19.5
	3/25/2021	<0.495	653	1.50 J	1.16 J	<0.857	2.66 J	20.2
	3/31/2021	<0.495	1,110	<0.941	<0.941	<0.908	<0.941	18.3
	4/8/2021	<0.495	1,010	2.30 J	1.01 J	<0.875	3.31 J	18.9
	4/15/2021	<0.495	2,200	2.49 J	0.999 J	1.70 J	5.19	20.1
	4/21/2021	<0.495	1,230	1.01 J	0.913 J	<0.856	1.92 J	18.9
	4/28/2021	<0.495	1,100	2.54 J	1.19 J	<0.872	3.73 J	19.0
	5/5/2021	<0.495	1,350	2.09 J	<0.890	<0.859	2.09 J	18.8
	5/13/2021	<0.495	1,320	1.18 J	<0.906	<0.875	1.18 J	19.6
	5/19/2021	<0.495	1,730	1.46 J	<0.901	<0.869	1.46 J	19.8
	5/27/2021	<0.495	798	<0.920	<0.920	<0.888	<0.920	20.8
	6/2/2021	<0.495	1,580	2.01 J	<0.895	<0.864	2.01 J	18.1
	6/10/2021	<0.495	2,010	1.46 J	<0.882	<0.851	1.46 J	22.0
	6/16/2021	<0.495	810	0.963 J	<0.826	<0.797	0.963 J	18.0
	6/22/2021	<0.495	795	1.18 J	<0.947	<0.914	1.18 J	22.2
	6/30/2021	<0.495	975	1.21 J	<0.893	<0.862	1.21 J	20.3
	7/1/2021	Levey Well Now Running Full Time						
	7/7/2021	<0.495	889	1.62 J	<0.906	<0.875	1.62 J	18.3
	7/14/2021	<0.495	1,080	<0.965	<0.965	<0.932	<0.965	19.3
	7/20/2021	<0.495	1,170	1.16 J	<0.898	<0.867	1.16 J	19.8
	7/27/2021	<0.495	950	1.03 J	<0.906	<0.875	1.03 J	22.3
	8/5/2021	<0.495	778	<0.909	<0.909	<0.877	<0.909	22.1
	8/11/2021	<0.495	1,040	1.46 J	<0.887	<0.856	1.46 J	19.7
	8/19/2021	<0.495	2,010	1.93 J	<0.959	<0.926	1.93 J	20.7
	8/25/2021	<0.495	1,400	1.01 J	<0.932	<0.900	1.01 J	19.2
	9/2/2021	<0.495	1,830	3.03 J	2.11 J	<0.920	5.14	21.4
	9/8/2021	<0.495	1,570	1.70 J	<0.932	<0.900	1.70 J	20.5
	9/14/2021	<0.495	1,240	1.93 J	1.01 J	<0.917	2.94 J	19.4
	9/21/2021	<0.495	1,260	1.33 J	<0.941	<0.908	1.33 J	18.0
	9/29/2021	<0.495	1,040	1.60 J	<1.19	<1.15	1.60 J	18.5
	10/7/2021	<0.495	1,020	1.45 J	<0.988	<0.954	1.45 J	18.0
	10/13/2021	<0.495	834	1.56 J	<0.935	<0.902	1.56 J	20.6
	10/21/2021	<0.495	2,420	1.64 J	<0.918	<0.886	1.64 J	19.8
	11/5/2021	<0.495	628	1.39 J	<0.965	<0.932	1.39 J	22.8
	11/11/2021	<0.495	4,500	2.27 J	<0.985	<0.950	2.27 J	18.5
	11/18/2021	<0.495	574	2.56 J	<0.923	<0.891	2.56 J	19.5
	11/24/2021	<5.00	1,500	2.34 J	<4.59	<4.59	2.34 J	19.1
	12/1/2021	<0.495	313	1.69 J	<0.912	<0.880	1.69 J	19.2
	12/8/2021	<0.495	1,260	1.86 J	<0.932	<0.900	1.86 J	18.9
	12/16/2021	<0.495	957	1.15 J	<0.947	<0.914	1.15 J	18.0
	12/22/2021	<0.495	1,020	1.95 J	<0.944	<0.911	1.95 J	21.6
	12/29/2021	<0.495	1,250	1.15 J	<0.935	<0.902	1.15 J	18.0



**TABLE 3**  
**GROUNDWATER SAMPLING (Additional Parameters) ANALYTICAL DATA SUMMARY**  
 South Hobbs G/SA Unit  
 Oxy Permian Ltd.  
 Hobbs, New Mexico  
 Ensolum Project No. 03B1417002

Sample Designation	Date	(mg/l)						°C
		Sulfide	Carbon Dioxide (Free)	TPH GRO	TPH DRO	TPH ORO	Total TPH	
<b>20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards</b>		NE	NE	NE	NE	NE	NE	NE
MW-2 (Continued)	1/6/2022	<0.495	<b>1,030</b>	<b>1.31 J</b>	<0.915	<0.883	<b>1.31 J</b>	<b>18.2</b>
	1/12/2022	<0.495	<b>1,450</b>	<b>3.63 J</b>	<b>1.34 J</b>	<1.00	<b>4.97 J</b>	<b>22.0</b>
	1/19/2022	<0.495	<b>1,420</b>	<b>2.83 J</b>	<0.915	<0.883	<b>2.83 J</b>	<b>18.2</b>
	1/26/2022	<0.495	<b>2,020</b>	<0.923	<0.923	<0.891	<0.923	<b>18.8</b>
	2/2/2022	Unable to Sample due to Inclement Weather. Booster Pump for Levey Well Damaged by Freeze.						
	2/8/2022	<0.495	<b>2,050</b>	<b>1.31 J</b>	<0.909	<0.877	<b>1.31 J</b>	<b>20.7</b>
	2/16/2022	<0.495	<b>1,670</b>	<b>0.974 J</b>	<0.864	<0.834	<b>0.974 J</b>	<b>18.3</b>
	2/25/2022	<0.495	<b>1,280</b>	<b>1.43 J</b>	<0.965	<0.932	<b>1.43 J</b>	<b>19.9</b>
	3/3/2022	<0.495	<b>2,160</b>	<b>1.86 J</b>	<0.909	<0.877	<b>1.86 J</b>	<b>18.1</b>
	3/9/2022	<0.495	<b>1,680</b>	<b>1.77 J</b>	<0.947	<0.914	<b>1.77 J</b>	<b>18.4</b>
	3/14/2022	Booster Pump for Levey Well Repaired and Back on Running Full Time.						
	3/16/2022	<0.495	<b>1,700</b>	<b>2.22 J</b>	<0.915	<0.883	<b>2.22 J</b>	<b>18.1</b>
	3/24/2022	<0.495	<b>1,330</b>	<b>1.29 J</b>	<0.909	<0.877	<b>1.29 J</b>	<b>19.1</b>
	3/31/2022	<0.495	<b>1,340</b>	<b>1.28 J</b>	<0.938	<0.905	<b>1.28 J</b>	<b>19.0</b>
	4/6/2022	<0.495	<b>1,720</b>	<b>1.00 J</b>	<0.938	<0.905	<b>1.00 J</b>	<b>18.1</b>
	4/13/2022	<0.495	<b>874</b>	<b>0.915 J</b>	<0.906	<0.875	<b>0.915 J</b>	<b>19.0</b>
	4/20/2022	<0.495	<b>1,060</b>	<b>1.06 J</b>	<0.901	<0.869	<b>1.06 J</b>	<b>18.6</b>
	4/28/2022	<0.495	<b>1,100</b>	<b>1.76 J</b>	<0.915	<0.883	<b>1.76 J</b>	<b>19.8</b>
	5/5/2022	<b>0.600 J</b>	<b>1,330</b>	<b>1.40 J</b>	<0.920	<0.888	<b>1.40 J</b>	<b>19.2</b>
	5/10/2022	<0.495	<b>1,320</b>	<b>1.63 J</b>	<0.965	<0.932	<b>1.63 J</b>	<b>16.8</b>
	5/19/2022	<0.495	<b>1,740</b>	<b>1.80 J</b>	<0.915	<0.883	<b>1.80 J</b>	<b>20.5</b>
	5/26/2022	<0.495	<b>2,650</b>	<b>1.02 J</b>	<0.950	<0.917	<b>1.02 J</b>	<b>18.1</b>
	6/1/2022	<0.495	<b>1,340</b>	<b>1.43 J</b>	<0.909	<0.877	<b>1.43 J</b>	<b>20.5</b>
	6/9/2022	<0.495	<b>1,080</b>	<b>1.23 J</b>	<0.938	<0.905	<b>1.23 J</b>	<b>19.8</b>
	6/17/2022	<0.495	<b>894</b>	<b>1.49 J</b>	<0.895	<0.864	<b>1.49 J</b>	<b>17.8</b>
	6/23/2022	<0.495	<b>1,270</b>	<b>1.25 J</b>	<0.920	<0.888	<b>1.25 J</b>	<b>18.0</b>
	6/29/2022	<0.495	<b>1,680</b>	<0.935	<0.935	<0.902	<0.935	<b>15.9</b>
	7/7/2022	<0.495	<b>1,190</b>	<b>0.912 J</b>	<0.906	<0.875	<b>0.912 J</b>	<b>23.0</b>
	7/13/2022	<0.495	<b>1,610</b>	<b>1.17 J</b>	<0.947	<0.914	<b>1.17 J</b>	<b>20.1</b>
	7/20/2022	<0.495	<b>1,360</b>	<b>1.07 J</b>	<0.981	<0.947	<b>1.07 J</b>	<b>19.8</b>
	7/27/2022	<0.495	<b>1,070</b>	<b>1.49 J</b>	<0.975	<0.941	<b>1.49 J</b>	<b>18.2</b>
	8/4/2022	<0.495	<b>1,570</b>	<b>1.31 J</b>	<0.904	<0.872	<b>1.31 J</b>	<b>19.2</b>
	8/10/2022	<0.495	<b>1,260</b>	<b>1.17 J</b>	<0.932	<0.900	<b>1.17 J</b>	<b>19.3</b>
	8/18/2022	<0.495	<b>1,280</b>	<b>1.43 J</b>	<b>7.62</b>	<0.897	<b>9.05</b>	<b>21.3</b>
	8/24/2022	<5.00	<b>1,300</b>	<b>1.18 J</b>	<4.63	<4.63	<b>1.18 J</b>	<b>18.0</b>
	8/31/2022	<b>1.00 J</b>	<b>1,290</b>	<b>1.08 J</b>	<0.950	<0.917	<b>1.08 J</b>	<b>20.0</b>
	9/15/2022	<0.495	<b>1,320</b>	<b>1.83 J</b>	<1.07	<1.04	<b>1.83 J</b>	<b>18.9</b>
	9/22/2022	<0.495	<b>1,320</b>	<b>1.56 J</b>	<1.05	<1.01	<b>1.56 J</b>	<b>20.9</b>
	9/28/2022	<0.495	<b>1,280</b>	<b>1.06 J</b>	<1.05	<1.01	<b>1.06 J</b>	<b>18.6</b>
	10/4/2022	<0.495	<b>1,670</b>	<b>1.11 J</b>	<0.904	<0.872	<b>1.11 J</b>	<b>17.6</b>
	10/14/2022	<0.989	<b>1,670</b>	<b>1.12 J</b>	<0.915	<0.883	<b>1.12 J</b>	<b>18.1</b>
	10/19/2022	<0.495	<b>814</b>	<b>1.46 J</b>	<0.877	<0.846	<b>1.46 J</b>	<b>18.3</b>
	10/27/2022	<0.495	<b>1,350</b>	<0.988	<0.988	<0.954	<0.988	<b>25.0</b>
	11/2/2022	<0.495	<b>1,680</b>	<b>1.82 J</b>	<0.978	<0.944	<b>1.82 J</b>	<b>25.0</b>
	11/9/2022	<4.95	<b>1,220</b>	<b>1.14 J</b>	<0.978	<0.944	<b>1.14 J</b>	<b>21.2</b>
	11/16/2022	<0.495	<b>653</b>	<b>2.20 J</b>	<0.909	<0.877	<b>2.20 J</b>	<b>18.0</b>
	11/30/2022	<0.495	<b>1,030</b>	<0.959	<0.959	<0.926	<0.959	<b>18.7</b>
	12/9/2022	<0.495	<b>1,030</b>	<b>1.38 J</b>	<0.969	<0.935	<b>1.38 J</b>	<b>17.3</b>
	12/15/2022	<0.495	<b>1,440</b>	<b>1.71 J</b>	<0.988	<0.954	<b>1.71 J</b>	<b>15.3</b>
	12/21/2022	<0.495	<b>1,280</b>	<b>1.11 J</b>	<0.904	<0.872	<b>1.11 J</b>	<b>16.3</b>
	12/29/2022	<0.495	<b>789</b>	<0.923	<0.923	<0.891	<0.923	<b>17.3</b>
	1/4/2023	<0.495	<b>910</b>	<b>1.66 J</b>	<0.988	<0.954	<b>1.66 J</b>	<b>16.8</b>
	1/13/2023	<0.495	<b>966</b>	<b>1.43 J</b>	<0.941	<0.908	<b>1.43 J</b>	<b>13.6</b>
	1/19/2023	<0.495	<b>1,610</b>	<b>1.06 J</b>	<0.929	<0.897	<b>1.06 J</b>	<b>16.3</b>
	1/25/2023	<0.495	<b>704</b>	<0.923	<0.923	<0.891	<0.923	<b>19.3</b>

**NOTES:**

°C - degrees celsius

mg/l - milligrams per liter

NE - not established

J - The target analyte was positively identified below the quantitation limit and above the detection limit.

**TABLE 4**  
**AIR SAMPLING (VOCs) ANALYTICAL DATA SUMMARY**  
**Levey Well**  
**Oxy Permian Ltd.**  
**Hobbs, New Mexico**  
**Ensolum Project No. 03B1417001**

Sample Designation	Date	Time	(ug/m3)																																				
			Acetone	Benzene	Bromomethane	Carbon disulfide	Chloromethane	2-Chlorotoluene	Cyclohexane	1,2-Dichloroethane	cis-1,2-Dichloroethane	Ethanol	Ethybenzene	4-Ethyltoluene	Trichlorofluoromethane	Dichlorodifluoromethane	Heptane	n-Hexane	Isopropylbenzene	Methylene Chloride	Methyl Butyl Ketone	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Methyl methacrylate	Naphthalene	2-Propanol	Syrene	Tetrachloroethylene	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylene	TPH (GCMS) Low Fraction			
	1/25/2021	0823	<b>229</b>	<6.39	<7.76	<b>9.52</b>	<4.13	<10.3	<b>575</b>	<8.10	<7.93	<b>324</b>	<8.67	<9.82	<11.2	<b>299</b>	<b>980</b>	<9.83	<6.94	<51.1	<36.9	<51.2	<8.19	<33.0	<30.7	<8.51	<13.6	<5.90	<18.8	<10.9	<b>22.2</b>	<9.82	<9.82	<7.04	<17.3	<8.67	<b>17,500</b>		
	1/25/2021	1213	<2.97	<0.639	<0.776	<0.622	<0.413	<1.03	<b>2.01</b>	<0.810	<0.793	<b>4.98</b>	<0.867	<0.982	<1.12	<1.70	<b>1.44</b>	<b>3.20</b>	<0.983	<0.694	<5.11	<3.69	<5.12	<0.819	<33.0	<30.7	<0.851	<1.36	<0.590	<1.88	<1.09	<b>1.29</b>	<0.704	<1.73	<0.867	<2.86			
	1/28/2021	1316	<b>14,800</b>	<0.639	<b>2.96</b>	<b>246</b>	<b>22.5</b>	<b>42.5</b>	<b>1,770</b>	<0.810	<0.793	<b>2,410</b>	<b>53.8</b>	<b>298</b>	<1.12	<b>2.03</b>	<b>1,220</b>	<b>2,890</b>	<b>150</b>	<0.694	<b>101</b>	<b>2,340</b>	<b>53.2</b>	<0.819	<33.0	<b>438</b>	<0.851	<b>72.6</b>	<0.590	<b>95.7</b>	<1.09	<1.07	<b>445</b>	<b>375</b>	<0.704	<b>246</b>	<b>147</b>	<b>61,100</b>	
	2/10/2021	1300	<b>1,140</b>	<12.8	<15.5	<b>181</b>	<8.26	<20.6	<b>10,800</b>	<16.2	<15.9	<23.8	<b>44.2</b>	<b>426</b>	<22.5	<19.8	<b>4,040</b>	<b>14,000</b>	<b>92.4</b>	<13.9	<102	<16.4	<66.0	<61.5	<17.0	<27.2	<11.8	<b>66.3</b>	<2.18	<21.4	<b>334</b>	<b>584</b>	<14.1	<b>361</b>	<b>218</b>	<b>315,000</b>			
	2/24/2021	1045	<2.97	<0.639	<0.776	<b>161</b>	<0.413	<1.03	<b>4,510</b>	<0.810	<b>9.83</b>	<1.19	<b>88.4</b>	<b>491</b>	<1.12	<0.989	<b>2,200</b>	<b>5,610</b>	<b>249</b>	<0.694	<5.11	<3.69	<5.12	<0.819	<33.0	<30.7	<0.851	<b>5.47</b>	<0.590	<b>101</b>	<1.09	<b>1.14</b>	<b>218</b>	<b>305</b>	<0.704	<b>633</b>	<b>388</b>	<b>114,000</b>	
	3/4/2021	1402	<b>375</b>	<3.19	<3.88	<b>67.9</b>	<2.07	<5.15	<b>2,620</b>	<4.05	<3.96	<b>88.6</b>	<b>56.4</b>	<4.91	<5.62	<4.95	<b>847</b>	<b>4,690</b>	<b>176</b>	<3.47	<b>72.0</b>	<25.6	<4.09	<b>22.8</b>	<15.4	<4.25	<6.79	<2.95	<b>49.3</b>	<5.44	<5.36	<b>1,460</b>	<b>913</b>	<3.52	<b>533</b>	<b>198</b>	<b>83,400</b>		
	3/10/2021	1050	<2.97	<0.639	<0.776	<b>71.0</b>	<0.413	<1.03	<b>3,300</b>	<0.810	<0.793	<1.19	<b>61.1</b>	<b>1,070</b>	<b>1.26</b>	<0.989	<b>990</b>	<b>4,120</b>	<b>205</b>	<0.694	<b>54.8</b>	<5.12	<0.819	<33.0	<30.7	<0.851	<b>1.36</b>	<0.590	<b>67.4</b>	<1.09	<1.07	<b>424</b>	<b>359</b>	<0.704	<b>516</b>	<b>249</b>	<b>120,000</b>		
	3/17/2021	1135	<b>806</b>	<0.639	<0.776	<b>95.6</b>	<0.413	<1.03	<b>3,160</b>	<0.810	<0.793	<b>50.2</b>	<b>63.3</b>	<b>444</b>	<b>1.38</b>	<0.989	<b>1,240</b>	<b>4,550</b>	<b>128</b>	<0.694	<b>54.1</b>	<5.12	<0.819	<33.0	<30.7	<0.851	<b>1.36</b>	<0.590	<b>101</b>	<1.09	<1.07	<b>332</b>	<b>313</b>	<0.704	<b>432</b>	<b>179</b>	<b>88,800</b>		
	3/25/2021	1111	<2.97	<0.639	<0.776	<0.622	<0.413	<1.03	<b>11,700</b>	<0.810	<0.793	<b>41.3</b>	<b>65.9</b>	<0.982	<1.12	<0.989	<b>2,500</b>	<b>12,800</b>	<b>157</b>	<0.694	<5.11	<3.69	<5.12	<0.819	<33.0	<30.7	<0.851	<b>1.36</b>	<0.590	<b>67.4</b>	<1.09	<1.07	<b>424</b>	<b>359</b>	<0.704	<b>382</b>	<b>205</b>	<b>256,000</b>	
	3/31/2021	1055	<b>1,880</b>	<0.639	<0.776	<0.622	<0.413	<1.03	<b>22,300</b>	<0.810	<0.793	<b>96.3</b>	<b>78.0</b>	<b>185</b>	<1.12	<0.982	<b>4,420</b>	<b>24,000</b>	<b>150</b>	<0.694	<5.11	<b>244</b>	<5.12	<0.819	<33.0	<30.7	<0.851	<b>1.36</b>	<0.590	<b>73.1</b>	<b>9.57</b>	<1.09	<1.07	<b>292</b>	<b>265</b>	<0.704	<b>352</b>	<b>193</b>	<b>305,000</b>
	4/8/2021	1205	<b>2,350</b>	<b>843</b>	<311	<249	<165	<b>30,500</b>	<324	<317	<b>2,830</b>	<347	<b>736</b>	<450	<396	<327	<b>64,500</b>	<393	<278	<2,040	<1,470	<2,050	<328	<1,320	<340	<543	<236	<753	<435	<429	<b>453</b>	<b>420</b>	<282	<b>737</b>	<347	<b>574,000</b>			
	4/15/2021	1228	<b>1,200</b>	<12.8	<15.5	<b>97.7</b>	<8.26	<20.6	<b>41,000</b>	<16.2	<15.9	<b>98.0</b>	<b>91.9</b>	<b>447</b>	<22.5	<19.8	<b>4,950</b>	<b>98,000</b>	<b>134</b>	<13.9	<102	<16.4	<66.0	<61.5	<17.0	<27.2	<11.8	<b>101</b>	<21.8	<21.4	<b>197</b>	<b>198</b>	<14.1	<b>620</b>	<b>190</b>	<b>438,000</b>			
	4/21/2021	1340	<b>639</b>	<0.639	<0.776	<0.622	<0.413	<1.03	<b>2,390</b>	<0.810	<0.793	<b>234</b>	<b>72.4</b>	<b>309</b>	<1.12	<0.989	<b>969</b>	<b>5,710</b>	<b>166</b>	<0.694	<5.11	<b>280</b>	<5.12	<0.819	<33.0	<30.7	<0.851	<1.36	<0.590	<b>48.2</b>	<1.09	<1.07	<b>216</b>	<b>447</b>	<0.704	<b>296</b>	<b>225</b>	<826	
	4/28/2021	1215	<b>1,210</b>	<12.8	<15.5	<b>134</b>	<8.26	<20.6	<b>6,650</b>	<16.2	<15.9	<b>343</b>	<b>129</b>	<b>1,540</b>	<22.5	<19.8	<16.4	<b>13,200</b>	<b>264</b>	<13.9	<102	<b>229</b>	<16.4	<66.0	<b>143</b>	&lt													

TABLE 4  
AIR SAMPLING (VOCs) ANALYTICAL DATA SUMMARY  
Levey Well  
Oxy Permian Ltd.  
Hobbs, New Mexico  
Ensolum Project No. 03B1417001

Sample Designation	Date	Time	(ug/m3)																								TPH (GCMS) Low Fraction											
			Acetone	Benzene	Bromomethane	Carbon disulfide	Chloromethane	2-Chlorotoluene	Cyclohexane	1,2-Dichloroethane	cis-1,2-Dichloroethane	Ethanol	Ethybenzene	4-Ethyltoluene	Trichlorofluoromethane	Dichlorodifluoromethane	Heptane	n-Hexane	Isopropylbenzene	Methylene Chloride	Methyl Butyl Ketone	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Methyl methacrylate	Naphthalene	2-Propanol	Styrene	Tetrachloroethylene	Tetrahydrofuran	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylene		
Initiate Vacuum Recovery Event																															4,020,000							
		0756	<297	<63.9	<77.6	<62.2	<41.3	<103	108,000	<81.0	<79.3	1,200	<86.7	<98.2	<112	<98.9	234,000	606,000	<98.3	<69.4	<511	<369	<512	<81.9	<330	6,610	<85.1	<136	<59.0	<188	<109	<107	<98.2	<98.2	<70.4	<173	<86.7	4,020,000
		0759																																				
		0823	<59.4	<12.8	<15.5	<12.4	407	<20.6	3,960	<16.2	<15.9	<47.1	<17.3	<19.6	<22.5	<19.8	12,800	28,200	<19.7	<13.9	<102	<73.7	<102	<16.4	<66.0	62.9	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<19.6	<19.6	<14.1	<34.7	<17.3	177,000
		0904	<14.9	<3.19	<3.88	<3.11	<2.07	<5.15	2,240	<4.05	<3.96	<11.8	<4.34	<4.91	<5.62	<4.95	6,130	17,800	<4.92	<3.47	<25.6	<18.4	<25.6	<4.09	<16.5	19.3	<4.25	<6.79	<2.95	<9.42	<5.44	<5.36	8.25	5.64	<3.52	<8.67	<4.34	101,000
		0920																																				
		1031	<59.4	<12.8	<15.5	<12.4	<8.26	<20.6	4,580	<16.2	<15.9	<47.1	<17.3	<19.6	<22.5	<19.8	5,690	15,800	<19.7	<13.9	<102	<73.7	<102	<16.4	<66.0	87.5	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<22.7	<19.6	<14.1	<34.7	<17.3	188,000
	1/6/2022	0000	<297	<63.9	<77.6	<62.2	<41.3	<103	10,600	<81.0	<79.3	<236	<86.7	<98.2	<112	<98.9	20,500	130,000	<98.3	110	<511	<369	<512	<81.9	<330	4,230	<85.1	<136	<59.0	<188	<109	<107	<98.2	<98.2	<70.4	<173	<86.7	508,000
	1/12/2022	1352	31,400	<12.8	<15.5	<12.4	<8.26	<20.6	164,000	<16.2	<15.9	<47.1	115	491	<22.5	<19.8	342,000	1,680,000	98.8	<13.9	<102	5,570	<102	<16.4	85.9	81,900	<17.0	<27.2	<11.8	263	<21.8	<21.4	400	433	<14.1	341	156	6,820,000
		0852	14,900	<639	<776	<622	<413	<1,030	119,000	<810	<793	<2,360	<867	<982	<1,120	<989	160,000	1,440,000	<983	<694	<5,110	<3,690	<5,120	<819	<3,300	25,800	<851	<1,360	<590	<1,880	<1,090	<1,070	<982	<982	<704	<1,730	<867	6,110,000
		0853																																				
	1/17/2022	0919	227	<0.639	<0.776	<0.622	<0.413	<1.03	3,650	<0.810	<0.793	19.8	2.15	1.70	1.52	1.84	6,260	19,100	1.22	<0.694	5.11	3.69	<5.12	<0.819	<3.30	202	<0.851	<1.36	<0.590	8.32	<1.09	<1.07	2.84	2.87	<0.704	5.20	2.15	132,000
		1004	90.3	<0.639	<0.776	<0.622	1.30	<1.03	747	<0.810	<0.793	56.2	2.58	4.13	1.40	2.60	1,610	4,300	2.46	<0.694	5.11	16.4	<5.12	<0.819	<3.30	114	<0.851	2.69	<0.590	15.6	<1.09	<1.07	11.5	8.44	<0.704	7.50	3.13	31,600
		1021																																				
		1134	466	<0.639	<0.776	<0.622	1.64	<1.03	2,400	<0.810	<0.793	16.8	5.42	9.67	1.38	2.14	4,620	10,800	5.26	<0.694	5.11	54.3	<5.12	<0.819	3.42	494	<0.851	27.5	<0.590	23.8	<1.09	<1.07	20.8	18.7	<0.704	17.7	7.46	95,400
	1/19/2022	1208	454	<31.9	<38.8	<31.1	<20.7	<51.5	11,300	<40.5	<39.6	149	<43.4	94.2	<56.2	<49.5	28,800	171,000	<49.2	34.7	<256	966	<165	3,740	<42.5	<67.9	<29.5	<94.2	<54.4	<53.6	81.0	221	<35.2	<86.7	<43.4	508,000		
	1/26/2022	1251	<59.4	<12.8	<15.5	<12.4	<8.26	<20.6	28,900	<16.2	<15.9	<47.1	<17.3	<19.6	<22.5	<19.8	22,900	313,000	<22.5	<13.9	<102	<73.7	<102	<16.4	<66.0	248	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<19.6	<19.6	<14.1	<34.7	<17.3	1,180,000
		0921	4,040	5,940	<155	<124	<82.6	<206	229,000	<162	<159	<471	195	<196	<225	<198	217,000	8,710,000	<197	<139	<1020	1,360	<1,020	<164	<660	10,800	<170	<272	<118	1,220	<218	<214	<196	<196	<141	481	<173	3,620,000
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TABLE 4  
AIR SAMPLING (VOCs) ANALYTICAL DATA SUMMARY  
Levey Well  
Oxy Permian Ltd.  
Hobbs, New Mexico  
Ensolum Project No. 03B1417001

Sample Designation	Date	Time	(ug/m3)																																				
			Acetone	Benzene	Bromomethane	Carbon disulfide	Chloromethane	2-Chlorotoluene	Cyclohexane	1,2-Dichloroethane	cis-1,2-Dichloroethane	Ethanol	Ethylibenzene	4-Ethyltoluene	Trichlorofluoromethane	Dichlorodifluoromethane	Heptane	n-Hexane	Isopropylbenzene	Methylene Chloride	Methyl Butyl Ketone	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Methyl methacrylate	Naphthalene	2-Propanol	Syrene	Tetrachloroethylene	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylene	TPH (GCMS) Low Fraction			
Levey Well	5/5/2022	1454	<1,190	<256	<311	<249	<165	<412	30,500	<324	<317	<943	<347	<393	<450	<396	47,000	673,000	<393	<278	<2,040	<1,470	<2,050	<328	<1,320	8,900	<340	<543	<236	<753	<435	<429	<393	<393	<282	<694	<347	1,430,000	
		0958	<1,190	<256	<311	<249	<165	<412	49,200	<324	<317	2,660	<347	<393	<450	<396	66,300	850,000	<393	<278	<2,040	3,480	<2,050	<328	<1,320	26,100	<340	<543	<236	<753	<435	<429	<393	<393	<282	<694	<347	2,380,000	
		1000																																					
		1020	333	<0.639	<0.776	1.34	1.81	<1.03	995	<0.810	<0.793	42.4	4.07	17.1	<1.12	1.20	2,530	8,780	<0.983	<0.694	<5.11	203	<5.12	<0.819	5.09	76.2	<0.851	<1.36	<0.590	<1.88	<1.09	<1.07	12.9	20.8	<0.704	7.02	5.94	54,100	
		1057	90.8	<0.639	<0.776	<0.622	2.85	<1.03	159	<0.810	<0.793	13.3	<0.867	1.08	1.31	1.81	385	1,040	<0.983	<0.694	<5.11	33.6	<5.12	<0.819	<3.30	13.7	<0.851	<1.36	<0.590	<1.88	<1.09	<1.07	1.54	2.56	<0.704	<1.73	1.03	8,220	
		1105																																					
		1218	130	1.41	6.83	31.0	15.5	<1.03	3,090	<0.810	<0.793	32.2	3.73	7.02	<1.12	<0.989	6,260	4,830	1.60	<0.694	<5.11	193	<5.12	<0.819	<3.30	403	<0.851	<1.36	<0.590	6.37	<1.09	<1.07	8.59	15.2	<0.704	5.64	5.03	124,000	
		1315	<238	<51.1	<62.1	<49.8	<33.0	<82.5	104,000	<64.8	<63.4	1,070	<69.4	<78.5	<89.9	<79.1	183,000	1,340,000	<78.7	105	<409	<295	<409	<65.5	<264	4,130	<68.1	<109	<47.2	<151	<87.0	<85.7	<78.5	<56.3	<139	<69.4	4,750,000		
		1015	12,100	<51.1	<62.1	<49.8	<33.0	<82.5	558,000	<96.2	<63.4	<189	<69.4	633	<89.9	<79.1	912,000	8,140,000	<78.7	<55.6	<409	14,100	<409	<65.5	<264	7,740	<68.1	<109	<47.2	<151	<87.0	<85.7	376	854	<56.3	<139	<69.4	27,600,000	
		1017																																					
Levey Well	5/23/2022	1100	<238	<51.1	<62.1	<49.8	<33.0	<82.5	13,400	<64.8	<63.4	549	<69.4	158	<89.9	<79.1	70,800	263,000	<78.7	<55.6	<409	1,090	<409	<65.5	<264	7,450	<68.1	<109	<47.2	<151	<87.0	<85.7	86.9	215	<56.3	<139	<69.4	702,000	
		1200	927	<12.8	<15.5	<12.4	<10.6	<20.6	6,410	<16.2	<15.9	196	<17.3	165	<22.5	<19.8	15,200	50,400	<19.7	<13.9	<102	590	<102	<16.4	<66.0	263	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	121	271	<14.1	<34.7	<17.3	450,000	
		1215																																					
		1355	4,350	<51.1	<62.1	<49.8	88.6	<22.5	16,300	<64.8	<63.4	562	<69.4	146	<89.9	<79.1	47,000	154,000	<78.7	<55.6	<409	1,580	<409	<65.5	<264	7,520	<68.1	<109	<47.2	<151	<87.0	<85.7	85.9	205	<56.3	<139	<64.4	785,000	
		1250	49,400	<1,280	<1,550	<1,240	<826	<2,060	196,000	<1,620	<1,590	12,900	<1,730	<1,960	<2,250	<1,980	336,000	28,000,000	<1,970	<1,390	<2,020	8,230	<10,200	<1,640	<66.0	161,000	<1,700	<2,720	<1,180	<3,770	<2,180	2,330	<1,960	<1,410	<3,470	<1,730	8,260,000		
		6/1/2022	1405	8,290	<256	<311	<249	<165	<412	444,000	<324	<317	1,420	<347	<393	<450	<396	634,000	4,580,000	<393	<278	<2,040	6,100	<2,050	<328	<1,320	14,900	<340	<543	<236	<753	<435	<429	<393	<393	<282	<694	<347	22,600,000
		1033	<238,000	<5,100	<6,210	<4,980	<3,300	<8,250	231,000	<6,480	<6,340	28,800	<6,940	<7,850	<8,990	<7,910	470,000	3,700,000	<7,870	<5,560	<40,900	<29,500	<40,900	<26,400	531,000	<6,810	<10,900	<4,720	<15,100	<8,700	<8,570	<7,850	<5,630	<13,900	<6,940	<15,900	15,900,000		
		1035																																					
	6/8/2022	1058	<																																				

TABLE 4  
AIR SAMPLING (VOCs) ANALYTICAL DATA SUMMARY  
Levey Well  
Oxy Permian Ltd.  
Hobbs, New Mexico  
Ensolum Project No. 03B1417001

Sample Designation	Date	Time	(ug/m <sup>3</sup> )																																			
			Acetone	Benzene	Bromomethane	Carbon disulfide	Chloromethane	2-Chlorotoluene	Cyclohexane	1,2-Dichloroethane	cis-1,2-Dichloroethane	Ethanol	Ethylbenzene	4-Ethyltoluene	Trichlorofluoromethane	Dichlorodifluoromethane	Heptane	n-Hexane	Isopropylbenzene	Methylene Chloride	Methyl Butyl Ketone	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Methyl methacrylate	Naphthalene	2-Propanol	Syrene	Tetrachloroethylene	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylene	TPH (GC/MS) Low Fraction		
	8/18/2022	1231	<238	<51.1	<62.1	<b>246</b>	<33.0	<82.5	<b>146,000</b>	<64.8	<63.4	<b>769</b>	<69.4	<78.5	<89.9	<79.1	<b>295,000</b>	<b>1,370,000</b>	<78.7	<b>63.9</b>	<409	<b>6,250</b>	<409	<65.5	<264	<b>15,500</b>	<68.1	<109	<47.2	<151	<87.0	<85.7	<78.5	<b>148</b>	<56.3	<139	<b>95.4</b>	<b>7,520,000</b>
	8/24/2022	1147	<297	<63.9	<77.6	<62.2	<41.3	<103	<b>85,000</b>	<81.0	<79.3	<236	<86.7	<98.2	<112	<98.9	<b>1,050,000</b>	<b>8,950,000</b>	<98.3	<69.4	<511	<b>13,900</b>	<512	<81.9	<330	<b>13,500</b>	<85.1	<136	<59.0	<188	<109	<98.2	<70.4	<173	<86.7	<b>40,800,000</b>		
	8/31/2022	1247	<b>132,000</b>	<256	<311	<249	<165	<412	<b>71,300</b>	<324	<317	<b>1,430</b>	<347	<393	<450	<396	<b>112,000</b>	<b>959,000</b>	<393	<278	<2,040	<b>3,660</b>	<5,530	<328	<1,320	<b>16,500</b>	<340	<543	<236	<753	<435	<249	<393	<282	<694	<347	<b>2,480,000</b>	
	9/8/2022	1247	<b>57,500</b>	<1,280	<1,550	<1,240	<826	<2,060	<b>403,000</b>	<1,620	<1,590	<b>5,640</b>	<1,730	<1,960	<2,250	<1,980	<b>646,000</b>	<b>6,030,000</b>	<1,970	<1,390	<10,200	<b>46,600</b>	<10,200	<6,600	<1,640	<b>30,200</b>	<1,700	<2,720	<1,180	<3,770	<2,180	<2,140	<1,960	<1,960	<b>49,700</b>	<3,470	<1,730	<b>19,800,000</b>
	9/15/2022	1342	<149	<31.9	<38.8	<b>47.0</b>	<20.7	<51.5	<b>29,100</b>	<40.5	<39.6	<b>1,330</b>	<43.4	<49.1	<56.2	<49.5	<b>59,700</b>	<b>353,000</b>	<49.2	<b>77.8</b>	<256	<b>1,350</b>	<256	<40.9	<165	<b>6,070</b>	<42.5	<b>80.1</b>	<29.5	<94.2	<54.4	<53.6	<49.1	<49.1	<35.2	<86.7	<43.4	<b>830,000</b>
	9/22/2022	1337	<b>151,000</b>	<2,560	<3,110	<2,490	<1,650	<4,120	<b>554,000</b>	<3,240	<3,170	<b>288,000</b>	<b>3,590</b>	<3,930	<4,500	<3,960	<b>573,000</b>	<b>35,200,000</b>	<3,930	<2,780	<20,400	<b>57,200</b>	<20,500	<b>7,700</b>	<13,200	<b>6,930,000</b>	<b>4,110</b>	<b>33,800</b>	<2,360	<b>17,100</b>	<4,350	<4,290	<b>6,090</b>	<3,930	<2,820	<b>14,000</b>	<b>6,680</b>	<b>27,700,000</b>
		1046	<b>39,900</b>	<639	<776	<622	<413	<1,030	<b>641,000</b>	<810	<793	<b>5,710</b>	<867	<982	<1,120	<989	<b>1,060,000</b>	<b>9,450,000</b>	<983	<694	<5,110	<b>20,100</b>	<5,120	<819	<3,300	<b>38,100</b>	<851	<1,360	<590	<1,180	<1,090	<1,070	<982	<982	<704	<1,730	<867	<b>19,600,000</b>
		1255																																				
	9/26/2022	1403	<b>337</b>	<12.8	<15.5	<12.4	<8.26	<20.6	<b>4,170</b>	<16.2	<15.9	<47.1	<17.3	<19.6	<22.5	<19.8	<b>4,830</b>	<b>33,700</b>	<19.7	<13.9	<102	<b>292</b>	<102	<16.4	<66.0	<61.5	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<19.6	<19.6	<14.1	<34.7	<17.3	<b>189,000</b>
		1512	<b>116</b>	<12.8	<15.5	<12.4	<8.26	<20.6	<b>830</b>	<16.2	<15.9	<b>68.1</b>	<17.3	<19.6	<22.5	<19.8	<b>986</b>	<b>4,120</b>	<19.7	<13.9	<102	<b>104</b>	<102	<16.4	<66.0	<61.5	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<19.6	<19.6	<14.1	<34.7	<17.3	<b>39,100</b>
		1512																																				
	10/4/2022	1609	<b>297</b>	<12.8	<15.5	<12.4	<8.26	<20.6	<b>2,100</b>	<16.2	<15.9	<47.1	<17.3	<19.6	<22.5	<19.8	<b>2,380</b>	<b>12,700</b>	<19.7	<13.9	<102	<b>330</b>	<102	<16.4	<66.0	<b>109</b>	<17.0	<27.2	<11.8	<37.7	<21.8	<21.4	<19.6	<b>23.7</b>	<14.1	<34.7	<17.3	<b>88,400</b>
		1215	<b>14,200</b>	<63.9	<77.6	<b>136</b>	<41.3	<103	<b>118,000</b>	<81.0	<79.3	<236	<86.7	<98.2	<112	<98.9	<b>241,000</b>	<b>1,110,000</b>	<98.3	<69.4	<511	<b>6,840</b>	<512	<81.9	<330	<b>6,660</b>	<85.1	<136	<59.0	<188	<109	<107	<98.2	<70.4	<173	<86.7	<b>4,790,000</b>	
	10/10/2022	1327	<29,700	<6,390	<7,760	<6,220	<4,130	<10,300	<b>499,000</b>	<81.00	<7,930	<b>766,000</b>	<8,670	<9,820	<11,200	<9,890	<b>908,000</b>	<b>6,490,000</b>	<9,830	<6,940	<51,100	<b>66,900</b>	<51,200	<b>188,000</b>	<33,000	<b>3,440,000</b>	<8,510	<b>27,500</b>	<5,900	<18,800	<10,900	<10,700	<9,820	<7,040	<17,300	<8,670	<b>32,000,000</b>	
		1226	<b>15,900</b>	<128	<155	<b>128</b>	<82.6	<206	<b>413,000</b>	<162	<159	<b>2,070</b>	<173	<196	<225	<198	<b>658,000</b>	<b>7,760,000</b>	<197	<139	<1,020	<660	<b>9,510</b>	<170	<272	<118	<377	<218	<b>1,390</b>	<196	<b>206&lt;/</b>							



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## APPENDIX C

### Laboratory Data Sheets and Chain-of-Custody Documentation

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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 1/19/2023 10:48:06 AM

## JOB DESCRIPTION

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

## JOB NUMBER

880-23692-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

See page two for job notes and contact information.

# 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  
1/19/2023 10:48:06 AM

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

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

Laboratory Job ID: 880-23692-1  
SDG: Hobbs NM

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## Definitions/Glossary

Client: Ensolum

Job ID: 880-23692-1

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

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
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.**

□	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)
TNTC	Too Numerous To Count

Eurofins Midland

**Case Narrative**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Job ID: 880-23692-1****Laboratory: Eurofins Midland****Narrative****Job Narrative  
880-23692-1****Receipt**

The sample was received on 1/13/2023 4:38 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 2.9°C

**GC/MS VOA**

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-85908 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS/LCSD) recovery is 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 analytical batch 860-85995 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 300\_ORGFMS: Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis : Levey Well (880-23692-1).

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, Magnesium and Sodium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 860-85967 and analytical batch 860-86186 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 (880-23692-1). 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.

**Client Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/13/23 10:40  
 Date Received: 01/13/23 16:38

**Lab Sample ID: 880-23692-1**

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>0.00344</b>		0.00100	0.000533 mg/L			01/16/23 19:11	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			01/16/23 19:11	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			01/16/23 19:11	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			01/16/23 19:11	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			01/16/23 19:11	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			01/16/23 19:11	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			01/16/23 19:11	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			01/16/23 19:11	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			01/16/23 19:11	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			01/16/23 19:11	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			01/16/23 19:11	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			01/16/23 19:11	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			01/16/23 19:11	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			01/16/23 19:11	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			01/16/23 19:11	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			01/16/23 19:11	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			01/16/23 19:11	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			01/16/23 19:11	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			01/16/23 19:11	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			01/16/23 19:11	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/16/23 19:11	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/16/23 19:11	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919 mg/L			01/16/23 19:11	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			01/16/23 19:11	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			01/16/23 19:11	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			01/16/23 19:11	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			01/16/23 19:11	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			01/16/23 19:11	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			01/16/23 19:11	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			01/16/23 19:11	1
<b>Ethylbenzene</b>	<b>0.0135</b>		0.00100	0.000411 mg/L			01/16/23 19:11	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			01/16/23 19:11	1
<b>Isopropylbenzene</b>	<b>0.00668</b>		0.00100	0.000613 mg/L			01/16/23 19:11	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			01/16/23 19:11	1
<b>m,p-Xylenes</b>	<b>0.0558</b>		0.0100	0.00124 mg/L			01/16/23 19:11	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			01/16/23 19:11	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			01/16/23 19:11	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			01/16/23 19:11	1
<b>N-Propylbenzene</b>	<b>0.00303</b>		0.00100	0.000498 mg/L			01/16/23 19:11	1
<b>o-Xylene</b>	<b>0.00827</b>		0.00100	0.000551 mg/L			01/16/23 19:11	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			01/16/23 19:11	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			01/16/23 19:11	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			01/16/23 19:11	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			01/16/23 19:11	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			01/16/23 19:11	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			01/16/23 19:11	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			01/16/23 19:11	1
<b>Toluene</b>	<b>0.0290</b>		0.00100	0.000475 mg/L			01/16/23 19:11	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/16/23 19:11	1

Eurofins Midland

**Client Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/13/23 10:40  
 Date Received: 01/13/23 16:38

**Lab Sample ID: 880-23692-1**

Matrix: Water

**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		01/16/23 19:11	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217	mg/L		01/16/23 19:11	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L		01/16/23 19:11	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169	mg/L		01/16/23 19:11	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511	mg/L		01/16/23 19:11	1
Trichloroethylene	<0.000791	U	0.00500	0.000791	mg/L		01/16/23 19:11	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638	mg/L		01/16/23 19:11	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490	mg/L		01/16/23 19:11	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.0120</b>		0.00100	0.000417	mg/L		01/16/23 19:11	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.00408</b>		0.00100	0.000456	mg/L		01/16/23 19:11	1
Vinyl chloride	<0.000638	U	0.00200	0.000638	mg/L		01/16/23 19:11	1
<b>Xylenes, Total</b>	<b>0.0641</b>		0.0100	0.00124	mg/L		01/16/23 19:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	97		74 - 124				01/16/23 19:11	1
Dibromofluoromethane (Surr)	96		75 - 131				01/16/23 19:11	1
1,2-Dichloroethane-d4 (Surr)	100		63 - 144				01/16/23 19:11	1
Toluene-d8 (Surr)	104		80 - 117				01/16/23 19:11	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.562		0.500	0.0711	mg/L		01/14/23 20:53	1
Nitrate as N	0.227		0.100	0.0391	mg/L		01/14/23 20:53	1
Chloride	292		0.500	0.200	mg/L		01/14/23 20:53	1
Nitrite as N	<0.0293	U H	0.100	0.0293	mg/L		01/17/23 04:22	1
Fluoride	0.202	J	0.500	0.100	mg/L		01/14/23 20:53	1
Sulfate	35.2		0.500	0.109	mg/L		01/14/23 20:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	393		10.0	5.76	mg/L	01/16/23 11:30	01/17/23 13:05	50
Magnesium	71.7		0.200	0.0428	mg/L	01/16/23 11:30	01/17/23 12:33	1
Potassium	6.96		0.500	0.0914	mg/L	01/16/23 11:30	01/17/23 12:33	1
Sodium	125		0.500	0.152	mg/L	01/16/23 11:30	01/17/23 12:33	1
SiO2	75.8		1.07	0.471	mg/L	01/16/23 11:30	01/17/23 12:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	1.05			%			01/17/23 13:23	1
Alkalinity (SM 2320B)	949		4.00	4.00	mg/L		01/17/23 15:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	949		4.00	4.00	mg/L		01/17/23 15:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/17/23 15:39	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/17/23 15:39	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/17/23 15:39	1
Total Dissolved Solids (SM 2540C)	1800		20.0	20.0	mg/L		01/16/23 20:00	1
pH (SM 4500 H+ B)	6.4	HF		SU			01/17/23 13:08	1
Temperature (SM 4500 H+ B)	13.0	HF		Degrees C			01/17/23 13:08	1

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**Surrogate Summary**

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

Job ID: 880-23692-1  
 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)
880-23692-1	Levey Well	97	96	100	104
LCS 860-85908/3	Lab Control Sample	98	98	103	99
LCSD 860-85908/4	Lab Control Sample Dup	98	102	102	100
MB 860-85908/9	Method Blank	99	100	108	101

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-85908/9

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85908

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533	mg/L		01/16/23 16:07	1
Bromobenzene	<0.000665	U	0.00100	0.000665	mg/L		01/16/23 16:07	1
Bromoform	<0.000657	U	0.00100	0.000657	mg/L		01/16/23 16:07	1
Bromochloromethane	<0.000552	U	0.00100	0.000552	mg/L		01/16/23 16:07	1
Bromodichloromethane	<0.000633	U	0.00500	0.000633	mg/L		01/16/23 16:07	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L		01/16/23 16:07	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L		01/16/23 16:07	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L		01/16/23 16:07	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L		01/16/23 16:07	1
Chlorobenzene	<0.000530	U	0.00100	0.000530	mg/L		01/16/23 16:07	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L		01/16/23 16:07	1
Chloroform	<0.000643	U	0.00100	0.000643	mg/L		01/16/23 16:07	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L		01/16/23 16:07	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118	mg/L		01/16/23 16:07	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472	mg/L		01/16/23 16:07	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714	mg/L		01/16/23 16:07	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L		01/16/23 16:07	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L		01/16/23 16:07	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127	mg/L		01/16/23 16:07	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L		01/16/23 16:07	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509	mg/L		01/16/23 16:07	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/16/23 16:07	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/16/23 16:07	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919	mg/L		01/16/23 16:07	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L		01/16/23 16:07	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590	mg/L		01/16/23 16:07	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L		01/16/23 16:07	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667	mg/L		01/16/23 16:07	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L		01/16/23 16:07	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780	mg/L		01/16/23 16:07	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160	mg/L		01/16/23 16:07	1
Ethylbenzene	<0.000411	U	0.00100	0.000411	mg/L		01/16/23 16:07	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126	mg/L		01/16/23 16:07	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613	mg/L		01/16/23 16:07	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L		01/16/23 16:07	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L		01/16/23 16:07	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L		01/16/23 16:07	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L		01/16/23 16:07	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644	mg/L		01/16/23 16:07	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498	mg/L		01/16/23 16:07	1
o-Xylene	<0.000551	U	0.00100	0.000551	mg/L		01/16/23 16:07	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919	mg/L		01/16/23 16:07	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L		01/16/23 16:07	1
Styrene	<0.000655	U	0.00100	0.000655	mg/L		01/16/23 16:07	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L		01/16/23 16:07	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L		01/16/23 16:07	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L		01/16/23 16:07	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801	mg/L		01/16/23 16:07	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L		01/16/23 16:07	1

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-85908/9

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

Matrix: Water

Analysis Batch: 85908

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/16/23 16:07	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			01/16/23 16:07	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			01/16/23 16:07	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			01/16/23 16:07	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			01/16/23 16:07	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			01/16/23 16:07	1
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			01/16/23 16:07	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			01/16/23 16:07	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			01/16/23 16:07	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			01/16/23 16:07	1
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			01/16/23 16:07	1
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			01/16/23 16:07	1
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			01/16/23 16:07	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	99		74 - 124		01/16/23 16:07	1
Dibromofluoromethane (Surr)	100		75 - 131		01/16/23 16:07	1
1,2-Dichloroethane-d4 (Surr)	108		63 - 144		01/16/23 16:07	1
Toluene-d8 (Surr)	101		80 - 117		01/16/23 16:07	1

Lab Sample ID: LCS 860-85908/3

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

Matrix: Water

Analysis Batch: 85908

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Benzene	0.0500	0.04527		mg/L		91	75 - 125
Bromobenzene	0.0500	0.04984		mg/L		100	75 - 125
Bromoform	0.0500	0.04604		mg/L		92	60 - 140
Bromochloromethane	0.0500	0.04797		mg/L		96	75 - 125
Bromodichloromethane	0.0500	0.05432		mg/L		109	70 - 130
Bromomethane	0.0500	0.05399		mg/L		108	60 - 140
2-Butanone	0.250	0.2113		mg/L		85	60 - 140
Carbon tetrachloride	0.0500	0.04804		mg/L		96	70 - 130
Chlorobenzene	0.0500	0.04898		mg/L		98	65 - 135
Chloroethane	0.0500	0.05421		mg/L		108	60 - 140
Chloroform	0.0500	0.04495		mg/L		90	70 - 121
Chloromethane	0.0500	0.05316		mg/L		106	60 - 140
2-Chlorotoluene	0.0500	0.04752		mg/L		95	73 - 125
4-Chlorotoluene	0.0500	0.04805		mg/L		96	74 - 125
cis-1,2-Dichloroethene	0.0500	0.04233		mg/L		85	75 - 125
cis-1,3-Dichloropropene	0.0500	0.04694		mg/L		94	74 - 125
Dibromochloromethane	0.0500	0.05260		mg/L		105	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.05214		mg/L		104	59 - 125
1,2-Dibromoethane	0.0500	0.04953		mg/L		99	73 - 125
1,2-Dichlorobenzene	0.0500	0.05021		mg/L		100	75 - 125
1,3-Dichlorobenzene	0.0500	0.05020		mg/L		100	75 - 125
1,4-Dichlorobenzene	0.0500	0.04924		mg/L		98	75 - 125
Dichlorodifluoromethane	0.0500	0.05898		mg/L		118	70 - 130

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## QC Sample Results

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-85908/3

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

Matrix: Water

Analysis Batch: 85908

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
1,1-Dichloroethane	0.0500	0.04607		mg/L	92	70 - 130	
1,2-Dichloroethane	0.0500	0.04804		mg/L	96	72 - 130	
1,1-Dichloroethene	0.0500	0.04779		mg/L	96	50 - 150	
1,2-Dichloropropane	0.0500	0.04282		mg/L	86	74 - 125	
1,3-Dichloropropane	0.0500	0.04544		mg/L	91	75 - 125	
2,2-Dichloropropane	0.0500	0.04624		mg/L	92	75 - 125	
1,1-Dichloropropene	0.0500	0.04250		mg/L	85	75 - 125	
Ethylbenzene	0.0500	0.04769		mg/L	95	75 - 125	
Hexachlorobutadiene	0.0500	0.05246		mg/L	105	75 - 125	
Isopropylbenzene	0.0500	0.05055		mg/L	101	75 - 125	
Methylene Chloride	0.0500	0.04567		mg/L	91	75 - 125	
m,p-Xylenes	0.0500	0.04878		mg/L	98	75 - 125	
MTBE	0.0500	0.04713		mg/L	94	65 - 135	
Naphthalene	0.0500	0.04811		mg/L	96	70 - 130	
n-Butylbenzene	0.0500	0.04805		mg/L	96	75 - 125	
N-Propylbenzene	0.0500	0.04795		mg/L	96	75 - 125	
o-Xylene	0.0500	0.04908		mg/L	98	75 - 125	
p-Cymene (p-Isopropyltoluene)	0.0500	0.05104		mg/L	102	75 - 125	
sec-Butylbenzene	0.0500	0.04919		mg/L	98	75 - 125	
Styrene	0.0500	0.05006		mg/L	100	75 - 125	
tert-Butylbenzene	0.0500	0.05037		mg/L	101	75 - 125	
1,1,1,2-Tetrachloroethane	0.0500	0.05276		mg/L	106	72 - 125	
1,1,2,2-Tetrachloroethane	0.0500	0.04459		mg/L	89	74 - 125	
Tetrachloroethene	0.0500	0.05237		mg/L	105	71 - 125	
Toluene	0.0500	0.04643		mg/L	93	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04865		mg/L	97	75 - 125	
trans-1,3-Dichloropropene	0.0500	0.04841		mg/L	97	66 - 125	
1,2,3-Trichlorobenzene	0.0500	0.05137		mg/L	103	75 - 137	
1,2,4-Trichlorobenzene	0.0500	0.04977		mg/L	100	75 - 135	
1,1,1-Trichloroethane	0.0500	0.04688		mg/L	94	70 - 130	
1,1,2-Trichloroethane	0.0500	0.04689		mg/L	94	70 - 130	
Trichloroethene	0.0500	0.05010		mg/L	100	75 - 135	
Trichlorofluoromethane	0.0500	0.06744		mg/L	135	60 - 140	
1,2,3-Trichloropropane	0.0500	0.04628		mg/L	93	75 - 125	
1,2,4-Trimethylbenzene	0.0500	0.05064		mg/L	101	75 - 125	
1,3,5-Trimethylbenzene	0.0500	0.05048		mg/L	101	60 - 140	
Vinyl chloride	0.0500	0.05252		mg/L	105	60 - 140	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	98		75 - 131
1,2-Dichloroethane-d4 (Surr)	103		63 - 144
Toluene-d8 (Surr)	99		80 - 117

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## QC Sample Results

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-85908/4

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD RPD	RPD Limit
Benzene	0.0500	0.04304		mg/L		86	75 - 125	5	25
Bromobenzene	0.0500	0.04655		mg/L		93	75 - 125	7	25
Bromoform	0.0500	0.04591		mg/L		92	60 - 140	0	25
Bromochloromethane	0.0500	0.04657		mg/L		93	75 - 125	3	25
Bromodichloromethane	0.0500	0.05192		mg/L		104	70 - 130	5	25
Bromomethane	0.0500	0.05548		mg/L		111	60 - 140	3	25
2-Butanone	0.250	0.2034		mg/L		81	60 - 140	4	25
Carbon tetrachloride	0.0500	0.04899		mg/L		98	70 - 130	2	25
Chlorobenzene	0.0500	0.04560		mg/L		91	65 - 135	7	25
Chloroethane	0.0500	0.05542		mg/L		111	60 - 140	2	25
Chloroform	0.0500	0.04470		mg/L		89	70 - 121	1	25
Chloromethane	0.0500	0.05231		mg/L		105	60 - 140	2	25
2-Chlorotoluene	0.0500	0.04457		mg/L		89	73 - 125	6	25
4-Chlorotoluene	0.0500	0.04519		mg/L		90	74 - 125	6	25
cis-1,2-Dichloroethene	0.0500	0.04108		mg/L		82	75 - 125	3	25
cis-1,3-Dichloropropene	0.0500	0.04491		mg/L		90	74 - 125	4	25
Dibromochloromethane	0.0500	0.04929		mg/L		99	73 - 125	7	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05283		mg/L		106	59 - 125	1	25
1,2-Dibromoethane	0.0500	0.04625		mg/L		92	73 - 125	7	25
1,2-Dichlorobenzene	0.0500	0.04626		mg/L		93	75 - 125	8	25
1,3-Dichlorobenzene	0.0500	0.04656		mg/L		93	75 - 125	8	25
1,4-Dichlorobenzene	0.0500	0.04605		mg/L		92	75 - 125	7	25
Dichlorodifluoromethane	0.0500	0.06037		mg/L		121	70 - 130	2	25
1,1-Dichloroethane	0.0500	0.04558		mg/L		91	70 - 130	1	25
1,2-Dichloroethane	0.0500	0.04450		mg/L		89	72 - 130	8	25
1,1-Dichloroethene	0.0500	0.04723		mg/L		94	50 - 150	1	25
1,2-Dichloropropane	0.0500	0.04146		mg/L		83	74 - 125	3	25
1,3-Dichloropropane	0.0500	0.04255		mg/L		85	75 - 125	7	25
2,2-Dichloropropane	0.0500	0.04671		mg/L		93	75 - 125	1	25
1,1-Dichloropropene	0.0500	0.04381		mg/L		88	75 - 125	3	25
Ethylbenzene	0.0500	0.04576		mg/L		92	75 - 125	4	25
Hexachlorobutadiene	0.0500	0.05171		mg/L		103	75 - 125	1	25
Isopropylbenzene	0.0500	0.04930		mg/L		99	75 - 125	3	25
Methylene Chloride	0.0500	0.04433		mg/L		89	75 - 125	3	25
m,p-Xylenes	0.0500	0.04684		mg/L		94	75 - 125	4	25
MTBE	0.0500	0.04727		mg/L		95	65 - 135	0	25
Naphthalene	0.0500	0.05151		mg/L		103	70 - 130	7	25
n-Butylbenzene	0.0500	0.04623		mg/L		92	75 - 125	4	25
N-Propylbenzene	0.0500	0.04563		mg/L		91	75 - 125	5	25
o-Xylene	0.0500	0.04618		mg/L		92	75 - 125	6	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.04923		mg/L		98	75 - 125	4	25
sec-Butylbenzene	0.0500	0.04825		mg/L		96	75 - 125	2	25
Styrene	0.0500	0.04772		mg/L		95	75 - 125	5	25
tert-Butylbenzene	0.0500	0.04870		mg/L		97	75 - 125	3	25
1,1,1,2-Tetrachloroethane	0.0500	0.04966		mg/L		99	72 - 125	6	25
1,1,2,2-Tetrachloroethane	0.0500	0.04084		mg/L		82	74 - 125	9	25
Tetrachloroethene	0.0500	0.05095		mg/L		102	71 - 125	3	25
Toluene	0.0500	0.04473		mg/L		89	70 - 130	4	25

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-85908/4

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

Matrix: Water

Analysis Batch: 85908

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
trans-1,2-Dichloroethene	0.0500	0.04757		mg/L	95	75 - 125	2	25		
trans-1,3-Dichloropropene	0.0500	0.04457		mg/L	89	66 - 125	8	25		
1,2,3-Trichlorobenzene	0.0500	0.05194		mg/L	104	75 - 137	1	25		
1,2,4-Trichlorobenzene	0.0500	0.04925		mg/L	98	75 - 135	1	25		
1,1,1-Trichloroethane	0.0500	0.04689		mg/L	94	70 - 130	0	25		
1,1,2-Trichloroethane	0.0500	0.04323		mg/L	86	70 - 130	8	25		
Trichloroethene	0.0500	0.04884		mg/L	98	75 - 135	3	25		
Trichlorofluoromethane	0.0500	0.06801		mg/L	136	60 - 140	1	25		
1,2,3-Trichloropropane	0.0500	0.04006		mg/L	80	75 - 125	14	25		
1,2,4-Trimethylbenzene	0.0500	0.04784		mg/L	96	75 - 125	6	25		
1,3,5-Trimethylbenzene	0.0500	0.04805		mg/L	96	60 - 140	5	25		
Vinyl chloride	0.0500	0.05253		mg/L	105	60 - 140	0	25		

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	102		75 - 131
1,2-Dichloroethane-d4 (Surr)	102		63 - 144
Toluene-d8 (Surr)	100		80 - 117

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 860-85855/3

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

Matrix: Water

Analysis Batch: 85855

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711 mg/L			01/14/23 17:26	1
Chloride	<0.200	U	0.500	0.200 mg/L			01/14/23 17:26	1
Fluoride	<0.100	U	0.500	0.100 mg/L			01/14/23 17:26	1
Sulfate	<0.109	U	0.500	0.109 mg/L			01/14/23 17:26	1

Lab Sample ID: LCS 860-85855/4

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

Matrix: Water

Analysis Batch: 85855

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
Bromide	10.0	9.219		mg/L	92	90 - 110				
Chloride	10.0	9.352		mg/L	94	90 - 110				
Fluoride	10.0	9.439		mg/L	94	90 - 110				
Sulfate	10.0	9.277		mg/L	93	90 - 110				

Lab Sample ID: LCSD 860-85855/5

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

Matrix: Water

Analysis Batch: 85855

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
Bromide	10.0	9.287		mg/L	93	90 - 110	1	20		
Chloride	10.0	9.405		mg/L	94	90 - 110	1	20		
Fluoride	10.0	9.499		mg/L	95	90 - 110	1	20		

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCSD 860-85855/5**

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

**Matrix: Water****Analysis Batch: 85855**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Sulfate	10.0	9.251		mg/L		93	0	20

**Lab Sample ID: LLCS 860-85855/7**

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

**Matrix: Water****Analysis Batch: 85855**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	RPD	Limit
Bromide	0.500	0.5691		mg/L		114		50 - 150
Chloride	0.500	0.5315		mg/L		106		50 - 150
Fluoride	0.500	0.4597	J	mg/L		92		50 - 150
Sulfate	0.500	0.6220		mg/L		124		50 - 150

**Lab Sample ID: MB 860-85856/3**

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

**Matrix: Water****Analysis Batch: 85856**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L		01/14/23 17:26	1
Nitrite as N	0.03641	J	0.100	0.0293	mg/L		01/14/23 17:26	1

**Lab Sample ID: LCS 860-85856/4**

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

**Matrix: Water****Analysis Batch: 85856**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	10.0	9.253		mg/L		93		80 - 120
Nitrite as N	10.0	9.038		mg/L		90		80 - 120

**Lab Sample ID: LCSD 860-85856/5**

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

**Matrix: Water****Analysis Batch: 85856**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	10.0	9.319		mg/L		93	80 - 120	1
Nitrite as N	10.0	9.113		mg/L		91	80 - 120	1

**Lab Sample ID: LLCS 860-85856/6**

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

**Matrix: Water****Analysis Batch: 85856**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	0.100	0.1147		mg/L		115		50 - 150
Nitrite as N	0.100	0.09238	J	mg/L		92		50 - 150

**Lab Sample ID: MB 860-85995/3**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L		01/16/23 15:05	1

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: MB 860-85995/3**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Chloride	<0.200	U	0.500		0.200	mg/L			01/16/23 15:05	1
Fluoride	<0.100	U	0.500		0.100	mg/L			01/16/23 15:05	1
Sulfate	<0.109	U	0.500		0.109	mg/L			01/16/23 15:05	1

**Lab Sample ID: MB 860-85995/46**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Bromide	<0.0711	U	0.500		0.0711	mg/L			01/17/23 02:50	1
Chloride	<0.200	U	0.500		0.200	mg/L			01/17/23 02:50	1
Fluoride	<0.100	U	0.500		0.100	mg/L			01/17/23 02:50	1
Sulfate	<0.109	U	0.500		0.109	mg/L			01/17/23 02:50	1

**Lab Sample ID: LCS 860-85995/4**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added									
Bromide	10.0			9.395		mg/L		94	90 - 110	
Chloride	10.0			9.513		mg/L		95	90 - 110	
Fluoride	10.0			9.576		mg/L		96	90 - 110	
Sulfate	10.0			9.277		mg/L		93	90 - 110	

**Lab Sample ID: LCS 860-85995/47**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added									
Bromide	10.0			9.631		mg/L		96	90 - 110	
Chloride	10.0			9.707		mg/L		97	90 - 110	
Fluoride	10.0			9.805		mg/L		98	90 - 110	
Sulfate	10.0			9.503		mg/L		95	90 - 110	

**Lab Sample ID: LCSD 860-85995/48**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added										
Bromide	10.0			9.632		mg/L		96	90 - 110	0	20
Chloride	10.0			9.709		mg/L		97	90 - 110	0	20
Fluoride	10.0			9.789		mg/L		98	90 - 110	0	20
Sulfate	10.0			9.502		mg/L		95	90 - 110	0	20

**Lab Sample ID: LCSD 860-85995/5**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added										
Bromide	10.0			9.387		mg/L		94	90 - 110	0	20

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCSD 860-85995/5**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Chloride	10.0	9.526		mg/L	95	90 - 110	0	20
Fluoride	10.0	9.590		mg/L	96	90 - 110	0	20
Sulfate	10.0	9.297		mg/L	93	90 - 110	0	20

**Lab Sample ID: LLCS 860-85995/7**

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

**Matrix: Water****Analysis Batch: 85995**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	RPD	RPD Limit
Bromide	0.500	0.5551		mg/L	111	50 - 150		
Chloride	0.500	0.5080		mg/L	102	50 - 150		
Fluoride	0.500	0.4530	J	mg/L	91	50 - 150		
Sulfate	0.500	0.5403		mg/L	108	50 - 150		

**Lab Sample ID: MB 860-85996/3**

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

**Matrix: Water****Analysis Batch: 85996**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L		01/16/23 15:05	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L		01/16/23 15:05	1

**Lab Sample ID: MB 860-85996/46**

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

**Matrix: Water****Analysis Batch: 85996**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L		01/17/23 02:50	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L		01/17/23 02:50	1

**Lab Sample ID: LCS 860-85996/4**

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

**Matrix: Water****Analysis Batch: 85996**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	RPD Limit
Nitrate as N	10.0	9.344		mg/L	93	80 - 120		
Nitrite as N	10.0	9.178		mg/L	92	80 - 120		

**Lab Sample ID: LCS 860-85996/47**

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

**Matrix: Water****Analysis Batch: 85996**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	RPD Limit
Nitrate as N	10.0	9.512		mg/L	95	80 - 120		
Nitrite as N	10.0	9.350		mg/L	94	80 - 120		

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCSD 860-85996/48****Matrix: Water****Analysis Batch: 85996**
**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	9.507		mg/L		95	80 - 120	0	20
Nitrite as N	10.0	9.355		mg/L		94	80 - 120	0	20

**Lab Sample ID: LCSD 860-85996/5****Matrix: Water****Analysis Batch: 85996**
**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	9.346		mg/L		93	80 - 120	0	20
Nitrite as N	10.0	9.204		mg/L		92	80 - 120	0	20

**Lab Sample ID: LLCS 860-85996/6****Matrix: Water****Analysis Batch: 85996**
**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
Nitrate as N	0.100	0.1058		mg/L		106	50 - 150		
Nitrite as N	0.100	0.08385	J	mg/L		84	50 - 150		

**Method: 200.7 Rev 4.4 - Metals (ICP)****Lab Sample ID: MB 860-85967/1-A****Matrix: Water****Analysis Batch: 86186**
**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 85967**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.115	U	0.200	0.115	mg/L	01/16/23 11:30	01/17/23 11:54	1
Magnesium	<0.0428	U	0.200	0.0428	mg/L	01/16/23 11:30	01/17/23 11:54	1
Potassium	<0.0914	U	0.500	0.0914	mg/L	01/16/23 11:30	01/17/23 11:54	1
Sodium	<0.152	U	0.500	0.152	mg/L	01/16/23 11:30	01/17/23 11:54	1
SiO2	<0.471	U	1.07	0.471	mg/L	01/16/23 11:30	01/17/23 11:54	1

**Lab Sample ID: LCS 860-85967/2-A****Matrix: Water****Analysis Batch: 86186**
**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 85967**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	25.0	24.90		mg/L		100	85 - 115		
Magnesium	25.0	24.60		mg/L		98	85 - 115		
Potassium	10.0	10.00		mg/L		100	85 - 115		
Sodium	25.0	24.70		mg/L		99	85 - 115		
SiO2	21.4	21.61		mg/L		101	85 - 115		

**Lab Sample ID: LCSD 860-85967/3-A****Matrix: Water****Analysis Batch: 86186**
**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 85967**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	25.0	25.10		mg/L		100	85 - 115	1	20
Magnesium	25.0	24.70		mg/L		99	85 - 115	0	20

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

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

**Lab Sample ID: LCSD 860-85967/3-A** **Client Sample ID: Lab Control Sample Dup**

**Matrix: Water**

**Analysis Batch: 86186**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Potassium	10.0	10.10		mg/L	101	85 - 115	1	20	
Sodium	25.0	25.00		mg/L	100	85 - 115	1	20	
SiO2	21.4	21.83		mg/L	102	85 - 115	1	20	

**Lab Sample ID: LLCS 860-85967/4-A** **Client Sample ID: Lab Control Sample**

**Matrix: Water**

**Analysis Batch: 86186**

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Calcium	0.200	0.2180		mg/L	109	50 - 150			
Magnesium	0.200	0.1980	J	mg/L	99	50 - 150			
Potassium	0.500	0.5780		mg/L	116	50 - 150			
Sodium	0.500	0.4530	J	mg/L	91	50 - 150			
SiO2	1.07	1.173		mg/L	110	50 - 150			

**Method: SM 2320B - Alkalinity**

**Lab Sample ID: MB 860-86233/3** **Client Sample ID: Method Blank**

**Matrix: Water**

**Analysis Batch: 86233**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity	<4.00	U	4.00	4.00 mg/L			01/17/23 12:30	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			01/17/23 12:30	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00 mg/L			01/17/23 12:30	1
Hydroxide Alkalinity	<4.00	U	4.00	4.00 mg/L			01/17/23 12:30	1
Phenolphthalein Alkalinity	<4.00	U	4.00	4.00 mg/L			01/17/23 12:30	1

**Lab Sample ID: LCS 860-86233/4** **Client Sample ID: Lab Control Sample**

**Matrix: Water**

**Analysis Batch: 86233**

Analyte	Spike Added	LC	LC	Unit	D	%Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Alkalinity	250	251.5		mg/L	101	85 - 115			

**Lab Sample ID: LCSD 860-86233/5** **Client Sample ID: Lab Control Sample Dup**

**Matrix: Water**

**Analysis Batch: 86233**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Alkalinity	250	254.6		mg/L	102	85 - 115	1	20	

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

**Lab Sample ID: MB 860-86056/1** **Client Sample ID: Method Blank**

**Matrix: Water**

**Analysis Batch: 86056**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	<5.00	U	5.00	5.00 mg/L			01/16/23 20:00	1

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**QC Sample Results**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)****Lab Sample ID: LCS 860-86056/2****Matrix: Water****Analysis Batch: 86056**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD
Total Dissolved Solids	1000	1003		mg/L	100		80 - 120	

**Lab Sample ID: LCSD 860-86056/3****Matrix: Water****Analysis Batch: 86056**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Total Dissolved Solids	1000	1005		mg/L	101		80 - 120	0	10

**Lab Sample ID: LLCS 860-86056/4****Matrix: Water****Analysis Batch: 86056**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD
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: 880-23692-1  
 SDG: Hobbs NM

**GC/MS VOA****Analysis Batch: 85908**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	8260C	
MB 860-85908/9	Method Blank	Total/NA	Water	8260C	
LCS 860-85908/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-85908/4	Lab Control Sample Dup	Total/NA	Water	8260C	

**HPLC/IC****Analysis Batch: 85855**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	300.0	
MB 860-85855/3	Method Blank	Total/NA	Water	300.0	
LCS 860-85855/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-85855/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-85855/7	Lab Control Sample	Total/NA	Water	300.0	

**Analysis Batch: 85856**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	300.0	
MB 860-85856/3	Method Blank	Total/NA	Water	300.0	
LCS 860-85856/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-85856/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-85856/6	Lab Control Sample	Total/NA	Water	300.0	

**Analysis Batch: 85995**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-85995/3	Method Blank	Total/NA	Water	300.0	
MB 860-85995/46	Method Blank	Total/NA	Water	300.0	
LCS 860-85995/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-85995/47	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-85995/48	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-85995/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-85995/7	Lab Control Sample	Total/NA	Water	300.0	

**Analysis Batch: 85996**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	300.0	
MB 860-85996/3	Method Blank	Total/NA	Water	300.0	
MB 860-85996/46	Method Blank	Total/NA	Water	300.0	
LCS 860-85996/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-85996/47	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-85996/48	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-85996/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-85996/6	Lab Control Sample	Total/NA	Water	300.0	

**Metals****Prep Batch: 85967**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-85967/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-85967/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-85967/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

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**QC Association Summary**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Metals (Continued)****Prep Batch: 85967 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 860-85967/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

**Analysis Batch: 86186**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	85967
880-23692-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	85967
MB 860-85967/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	85967
LCS 860-85967/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	85967
LCSD 860-85967/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	85967
LLCS 860-85967/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	85967

**General Chemistry****Analysis Batch: 86056**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-86056/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-86056/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-86056/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-86056/4	Lab Control Sample	Total/NA	Water	SM 2540C	

**Analysis Batch: 86170**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	SM 1030E	

**Analysis Batch: 86175**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	SM 4500 H+ B	

**Analysis Batch: 86233**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23692-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-86233/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-86233/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-86233/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

**Lab Chronicle**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/13/23 10:40

Date Received: 01/13/23 16:38

**Lab Sample ID: 880-23692-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	85908	AN	EET HOU	01/16/23 19:11
Total/NA	Analysis	300.0		1	85855	RBNS	EET HOU	01/14/23 20:53
Total/NA	Analysis	300.0		1	85856	RBNS	EET HOU	01/14/23 20:53
Total/NA	Analysis	300.0		1	85996	RBNS	EET HOU	01/17/23 04:22
Total Recoverable	Prep	200.7			85967	MD	EET HOU	01/16/23 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	86186	JDM	EET HOU	01/17/23 12:33
Total Recoverable	Prep	200.7			85967	MD	EET HOU	01/16/23 11:30
Total Recoverable	Analysis	200.7 Rev 4.4		50	86186	JDM	EET HOU	01/17/23 13:05
Total/NA	Analysis	SM 1030E		1	86170	AA	EET HOU	01/17/23 13:23
Total/NA	Analysis	SM 2320B		1	86233	TL	EET HOU	01/17/23 15:39
Total/NA	Analysis	SM 2540C		1	86056	HN	EET HOU	01/16/23 20:00
Total/NA	Analysis	SM 4500 H+ B		1	86175	TL	EET HOU	01/17/23 13:08

**Laboratory References:**

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

Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum

Job ID: 880-23692-1

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

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	T104704215-22-48	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

Eurofins Midland

**Method Summary**

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

Job ID: 880-23692-1  
 SDG: Hobbs NM

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

Eurofins Midland

**Sample Summary**

Client: Ensolum

Job ID: 880-23692-1

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

SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-23692-1	Levey Well	Water	01/13/23 10:40	01/13/23 16:38

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## Chain of Custody

Work Order No: 23492

Houston TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio TX (210) 509-3334  
 Midland TX (432-704-5640) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
 Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 620-2000  
[www.xenco.com](http://www.xenco.com) Page 1 of 1

Project Manager:	Beaux Jennings	Bill to (if different)
Company Name:	Ensolum LLC	Company Name:
Address:	601 Merienfeld #400	Address:
City, State ZIP:	Midland TX 79701	City, State ZIP:

Phone: 432-230-3344

Email: bjennings@ensolum.com

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## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23692-1

SDG Number: Hobbs NM

**Login Number:** 23692**List Source:** Eurofins Midland**List Number:** 1**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23692-1

SDG Number: Hobbs NM

**Login Number:** 23692**List Source:** Eurofins Houston**List Number:** 2**List Creation:** 01/14/23 11:19 AM**Creator:** Torres, Sandra

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True	1.8	6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 1/30/2023 8:32:51 AM

## JOB DESCRIPTION

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

## JOB NUMBER

880-23931-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

See page two for job notes and contact information.

# 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  
1/30/2023 8:32:51 AM

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

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

Laboratory Job ID: 880-23931-1  
SDG: Hobbs NM

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## Definitions/Glossary

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

#### HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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.
□	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

Job ID: 880-23931-1

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

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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Eurofins Midland

## Case Narrative

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

Job ID: 880-23931-1  
SDG: Hobbs NM

### **Job ID: 880-23931-1**

#### **Laboratory: Eurofins Midland**

##### **Narrative**

##### **Job Narrative 880-23931-1**

##### **Receipt**

The sample was received on 1/19/2023 3:36 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 1.6°C

##### **GC/MS VOA**

Method 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 860-86883 recovered outside control limits for the following analytes: Naphthalene and 1,2,3-Trichlorobenzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The matrix spike (MS) recoveries for analytical batch 860-86883 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 method blank for analytical batch 860-86693 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300\_ORGFM\_28D: The method blank for analytical batch 860-86693 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300\_ORGFM\_28D: The method blank for analytical batch 860-86693 contained Chloride above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 300\_ORGFMS: The method blank for analytical batch 860-86694 contained Nitrite as N above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300\_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-86694 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 300\_ORGFMS: The method blank for preparation batch 860-86694 contained Nitrite as N above the method detection limit (MDL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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 and Sodium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 860-86956 and analytical batch 860-87098 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**

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: 880-23931-1  
SDG: Hobbs NM

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**Job ID: 880-23931-1 (Continued)**

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**Laboratory: Eurofins Midland (Continued)**

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**Client Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/19/23 12:10  
 Date Received: 01/19/23 15:36

**Lab Sample ID: 880-23931-1**

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>0.00418</b>		0.00100	0.000533 mg/L			01/23/23 13:27	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			01/23/23 13:27	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			01/23/23 13:27	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			01/23/23 13:27	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			01/23/23 13:27	1
Bromomethane	<0.00142	U *- *1	0.00500	0.00142 mg/L			01/23/23 13:27	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			01/23/23 13:27	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			01/23/23 13:27	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			01/23/23 13:27	1
Chloroethane	<0.00198	U *- *1	0.0100	0.00198 mg/L			01/23/23 13:27	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			01/23/23 13:27	1
Chloromethane	<0.00204	U *- *1	0.0100	0.00204 mg/L			01/23/23 13:27	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			01/23/23 13:27	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			01/23/23 13:27	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			01/23/23 13:27	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			01/23/23 13:27	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			01/23/23 13:27	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			01/23/23 13:27	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			01/23/23 13:27	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			01/23/23 13:27	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/23/23 13:27	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/23/23 13:27	1
Dichlorodifluoromethane	<0.000919	U *- *1	0.00100	0.000919 mg/L			01/23/23 13:27	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			01/23/23 13:27	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			01/23/23 13:27	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			01/23/23 13:27	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			01/23/23 13:27	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			01/23/23 13:27	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			01/23/23 13:27	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			01/23/23 13:27	1
<b>Ethylbenzene</b>	<b>0.0146</b>		0.00100	0.000411 mg/L			01/23/23 13:27	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126 mg/L			01/23/23 13:27	1
<b>Isopropylbenzene</b>	<b>0.00684</b>		0.00100	0.000613 mg/L			01/23/23 13:27	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			01/23/23 13:27	1
<b>m,p-Xylenes</b>	<b>0.0602</b>		0.0100	0.00124 mg/L			01/23/23 13:27	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			01/23/23 13:27	1
Naphthalene	<0.00135	U *+	0.0100	0.00135 mg/L			01/23/23 13:27	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644 mg/L			01/23/23 13:27	1
<b>N-Propylbenzene</b>	<b>0.00313</b>		0.00100	0.000498 mg/L			01/23/23 13:27	1
<b>o-Xylene</b>	<b>0.00899</b>		0.00100	0.000551 mg/L			01/23/23 13:27	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919 mg/L			01/23/23 13:27	1
<b>sec-Butylbenzene</b>	<b>0.00135</b>		0.00100	0.000468 mg/L			01/23/23 13:27	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			01/23/23 13:27	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			01/23/23 13:27	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			01/23/23 13:27	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			01/23/23 13:27	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			01/23/23 13:27	1
<b>Toluene</b>	<b>0.0357</b>		0.00100	0.000475 mg/L			01/23/23 13:27	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/23/23 13:27	1

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## Client Sample Results

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

Job ID: 880-23931-1  
SDG: Hobbs NM

**Client Sample ID: Levey Well****Lab Sample ID: 880-23931-1**

Date Collected: 01/19/23 12:10  
Date Received: 01/19/23 15:36

Matrix: Water

**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		01/23/23 13:27	1
1,2,3-Trichlorobenzene	<0.00217	U *+	0.00500	0.00217	mg/L		01/23/23 13:27	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L		01/23/23 13:27	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169	mg/L		01/23/23 13:27	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511	mg/L		01/23/23 13:27	1
Trichloroethene	<0.000791	U	0.00500	0.000791	mg/L		01/23/23 13:27	1
Trichlorofluoromethane	<0.000638	U *- *1	0.00100	0.000638	mg/L		01/23/23 13:27	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490	mg/L		01/23/23 13:27	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.0114</b>		0.00100	0.000417	mg/L		01/23/23 13:27	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.00396</b>		0.00100	0.000456	mg/L		01/23/23 13:27	1
Vinyl chloride	<0.000638	U *- *1	0.00200	0.000638	mg/L		01/23/23 13:27	1
<b>Xylenes, Total</b>	<b>0.0692</b>		0.0100	0.00124	mg/L		01/23/23 13:27	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	98		74 - 124				01/23/23 13:27	1
Dibromofluoromethane (Surr)	96		75 - 131				01/23/23 13:27	1
1,2-Dichloroethane-d4 (Surr)	95		63 - 144				01/23/23 13:27	1
Toluene-d8 (Surr)	106		80 - 117				01/23/23 13:27	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.658		0.500	0.0711	mg/L		01/20/23 23:22	1
Nitrate as N	0.109		0.100	0.0391	mg/L		01/20/23 23:22	1
Chloride	304 B		0.500	0.200	mg/L		01/20/23 23:22	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L		01/20/23 23:22	1
Fluoride	0.191 J		0.500	0.100	mg/L		01/20/23 23:22	1
Sulfate	53.7		0.500	0.109	mg/L		01/20/23 23:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	450		10.0	5.76	mg/L	01/23/23 11:00	01/23/23 19:25	50
Magnesium	84.0		10.0	2.14	mg/L	01/23/23 11:00	01/23/23 19:25	50
Potassium	7.71		0.500	0.0914	mg/L	01/23/23 11:00	01/23/23 18:57	1
Sodium	133		0.500	0.152	mg/L	01/23/23 11:00	01/23/23 18:57	1
SiO2	76.6		1.07	0.471	mg/L	01/23/23 11:00	01/23/23 18:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	0.441			%			01/30/23 09:17	1
Alkalinity (SM 2320B)	1140		4.00	4.00	mg/L		01/21/23 15:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	1140		4.00	4.00	mg/L		01/21/23 15:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/21/23 15:52	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/21/23 15:52	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/21/23 15:52	1
Total Dissolved Solids (SM 2540C)	1730		20.0	20.0	mg/L		01/20/23 15:00	1
pH (SM 4500 H+ B)	6.3 HF			SU			01/20/23 17:16	1
Temperature (SM 4500 H+ B)	15.7 HF			Degrees C			01/20/23 17:16	1

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**Surrogate Summary**

Client: Ensolum

Job ID: 880-23931-1

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

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)
880-23931-1	Levey Well	98	96	95	106
LCS 860-86883/1010	Lab Control Sample	98	100	94	101
LCSD 860-86883/11	Lab Control Sample Dup	102	102	93	102
MB 860-86883/17	Method Blank	101	97	97	105

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-86883/17

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

Matrix: Water

Analysis Batch: 86883

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533	mg/L		01/23/23 12:46	1
Bromobenzene	<0.000665	U	0.00100	0.000665	mg/L		01/23/23 12:46	1
Bromoform	<0.000657	U	0.00100	0.000657	mg/L		01/23/23 12:46	1
Bromochloromethane	<0.000552	U	0.00100	0.000552	mg/L		01/23/23 12:46	1
Bromodichloromethane	<0.000633	U	0.00500	0.000633	mg/L		01/23/23 12:46	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L		01/23/23 12:46	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L		01/23/23 12:46	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L		01/23/23 12:46	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L		01/23/23 12:46	1
Chlorobenzene	<0.000530	U	0.00100	0.000530	mg/L		01/23/23 12:46	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L		01/23/23 12:46	1
Chloroform	<0.000643	U	0.00100	0.000643	mg/L		01/23/23 12:46	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L		01/23/23 12:46	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118	mg/L		01/23/23 12:46	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472	mg/L		01/23/23 12:46	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714	mg/L		01/23/23 12:46	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L		01/23/23 12:46	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L		01/23/23 12:46	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127	mg/L		01/23/23 12:46	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L		01/23/23 12:46	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509	mg/L		01/23/23 12:46	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/23/23 12:46	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/23/23 12:46	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919	mg/L		01/23/23 12:46	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L		01/23/23 12:46	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590	mg/L		01/23/23 12:46	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L		01/23/23 12:46	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667	mg/L		01/23/23 12:46	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L		01/23/23 12:46	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780	mg/L		01/23/23 12:46	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160	mg/L		01/23/23 12:46	1
Ethylbenzene	<0.000411	U	0.00100	0.000411	mg/L		01/23/23 12:46	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126	mg/L		01/23/23 12:46	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613	mg/L		01/23/23 12:46	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L		01/23/23 12:46	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L		01/23/23 12:46	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L		01/23/23 12:46	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L		01/23/23 12:46	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644	mg/L		01/23/23 12:46	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498	mg/L		01/23/23 12:46	1
o-Xylene	<0.000551	U	0.00100	0.000551	mg/L		01/23/23 12:46	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919	mg/L		01/23/23 12:46	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L		01/23/23 12:46	1
Styrene	<0.000655	U	0.00100	0.000655	mg/L		01/23/23 12:46	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L		01/23/23 12:46	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L		01/23/23 12:46	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L		01/23/23 12:46	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801	mg/L		01/23/23 12:46	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L		01/23/23 12:46	1

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-86883/17

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

Matrix: Water

Analysis Batch: 86883

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/23/23 12:46	1	
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			01/23/23 12:46	1	
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			01/23/23 12:46	1	
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			01/23/23 12:46	1	
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			01/23/23 12:46	1	
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			01/23/23 12:46	1	
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			01/23/23 12:46	1	
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			01/23/23 12:46	1	
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			01/23/23 12:46	1	
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			01/23/23 12:46	1	
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			01/23/23 12:46	1	
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			01/23/23 12:46	1	
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			01/23/23 12:46	1	
MB MB		MB MB		MB MB		MB MB		MB MB	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		74 - 124				01/23/23 12:46	1	
Dibromofluoromethane (Surr)	97		75 - 131				01/23/23 12:46	1	
1,2-Dichloroethane-d4 (Surr)	97		63 - 144				01/23/23 12:46	1	
Toluene-d8 (Surr)	105		80 - 117				01/23/23 12:46	1	

Lab Sample ID: LCS 860-86883/1010

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

Matrix: Water

Analysis Batch: 86883

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Benzene	0.0500	0.05157		mg/L		103	75 - 125
Bromobenzene	0.0500	0.04931		mg/L		99	75 - 125
Bromoform	0.0500	0.05295		mg/L		106	60 - 140
Bromochloromethane	0.0500	0.05048		mg/L		101	75 - 125
Bromodichloromethane	0.0500	0.05122		mg/L		102	70 - 130
Bromomethane	0.0500	0.04458		mg/L		89	60 - 140
2-Butanone	0.250	0.2694		mg/L		108	60 - 140
Carbon tetrachloride	0.0500	0.04897		mg/L		98	70 - 130
Chlorobenzene	0.0500	0.05246		mg/L		105	65 - 135
Chloroethane	0.0500	0.04765		mg/L		95	60 - 140
Chloroform	0.0500	0.05165		mg/L		103	70 - 121
Chloromethane	0.0500	0.05016		mg/L		100	60 - 140
2-Chlorotoluene	0.0500	0.05077		mg/L		102	73 - 125
4-Chlorotoluene	0.0500	0.05252		mg/L		105	74 - 125
cis-1,2-Dichloroethene	0.0500	0.05275		mg/L		105	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05483		mg/L		110	74 - 125
Dibromochloromethane	0.0500	0.05232		mg/L		105	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.05503		mg/L		110	59 - 125
1,2-Dibromoethane	0.0500	0.05394		mg/L		108	73 - 125
1,2-Dichlorobenzene	0.0500	0.04938		mg/L		99	75 - 125
1,3-Dichlorobenzene	0.0500	0.04970		mg/L		99	75 - 125
1,4-Dichlorobenzene	0.0500	0.04970		mg/L		99	75 - 125
Dichlorodifluoromethane	0.0500	0.04638		mg/L		93	70 - 130

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## QC Sample Results

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-86883/1010

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

Matrix: Water

Analysis Batch: 86883

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
1,1-Dichloroethane	0.0500	0.04919		mg/L	98	70 - 130	
1,2-Dichloroethane	0.0500	0.05094		mg/L	102	72 - 130	
1,1-Dichloroethene	0.0500	0.04885		mg/L	98	50 - 150	
1,2-Dichloropropane	0.0500	0.05375		mg/L	108	74 - 125	
1,3-Dichloropropane	0.0500	0.05406		mg/L	108	75 - 125	
2,2-Dichloropropane	0.0500	0.04687		mg/L	94	75 - 125	
1,1-Dichloropropene	0.0500	0.05364		mg/L	107	75 - 125	
Ethylbenzene	0.0500	0.05356		mg/L	107	75 - 125	
Hexachlorobutadiene	0.0500	0.04950		mg/L	99	75 - 125	
Isopropylbenzene	0.0500	0.05362		mg/L	107	75 - 125	
Methylene Chloride	0.0500	0.04615		mg/L	92	75 - 125	
m,p-Xylenes	0.0500	0.05341		mg/L	107	75 - 125	
MTBE	0.0500	0.05130		mg/L	103	65 - 135	
Naphthalene	0.0500	0.06378		mg/L	128	70 - 130	
n-Butylbenzene	0.0500	0.05275		mg/L	105	75 - 125	
N-Propylbenzene	0.0500	0.05203		mg/L	104	75 - 125	
o-Xylene	0.0500	0.05312		mg/L	106	75 - 125	
p-Cymene (p-Isopropyltoluene)	0.0500	0.05410		mg/L	108	75 - 125	
sec-Butylbenzene	0.0500	0.05289		mg/L	106	75 - 125	
Styrene	0.0500	0.05429		mg/L	109	75 - 125	
tert-Butylbenzene	0.0500	0.05306		mg/L	106	75 - 125	
1,1,1,2-Tetrachloroethane	0.0500	0.04960		mg/L	99	72 - 125	
1,1,2,2-Tetrachloroethane	0.0500	0.05264		mg/L	105	74 - 125	
Tetrachloroethene	0.0500	0.05156		mg/L	103	71 - 125	
Toluene	0.0500	0.05262		mg/L	105	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04792		mg/L	96	75 - 125	
trans-1,3-Dichloropropene	0.0500	0.05570		mg/L	111	66 - 125	
1,2,3-Trichlorobenzene	0.0500	0.06155		mg/L	123	75 - 137	
1,2,4-Trichlorobenzene	0.0500	0.05637		mg/L	113	75 - 135	
1,1,1-Trichloroethane	0.0500	0.05025		mg/L	100	70 - 130	
1,1,2-Trichloroethane	0.0500	0.05453		mg/L	109	70 - 130	
Trichloroethene	0.0500	0.05311		mg/L	106	75 - 135	
Trichlorofluoromethane	0.0500	0.04200		mg/L	84	60 - 140	
1,2,3-Trichloropropane	0.0500	0.05272		mg/L	105	75 - 125	
1,2,4-Trimethylbenzene	0.0500	0.05412		mg/L	108	75 - 125	
1,3,5-Trimethylbenzene	0.0500	0.05322		mg/L	106	60 - 140	
Vinyl chloride	0.0500	0.04623		mg/L	92	60 - 140	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
1,2-Dichloroethane-d4 (Surr)	94		63 - 144
Toluene-d8 (Surr)	101		80 - 117

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## QC Sample Results

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)****Lab Sample ID: LCSD 860-86883/11****Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA****Matrix: Water****Analysis Batch: 86883**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.05072		mg/L		101	75 - 125	2	25
Bromobenzene	0.0500	0.05076		mg/L		102	75 - 125	3	25
Bromoform	0.0500	0.05312		mg/L		106	60 - 140	0	25
Bromochloromethane	0.0500	0.04991		mg/L		100	75 - 125	1	25
Bromodichloromethane	0.0500	0.04986		mg/L		100	70 - 130	3	25
Bromomethane	0.0500	0.04376		mg/L		88	60 - 140	2	25
2-Butanone	0.250	0.2714		mg/L		109	60 - 140	1	25
Carbon tetrachloride	0.0500	0.05035		mg/L		101	70 - 130	3	25
Chlorobenzene	0.0500	0.05121		mg/L		102	65 - 135	2	25
Chloroethane	0.0500	0.04870		mg/L		97	60 - 140	2	25
Chloroform	0.0500	0.05232		mg/L		105	70 - 121	1	25
Chloromethane	0.0500	0.05291		mg/L		106	60 - 140	5	25
2-Chlorotoluene	0.0500	0.05430		mg/L		109	73 - 125	7	25
4-Chlorotoluene	0.0500	0.05466		mg/L		109	74 - 125	4	25
cis-1,2-Dichloroethene	0.0500	0.05233		mg/L		105	75 - 125	1	25
cis-1,3-Dichloropropene	0.0500	0.05302		mg/L		106	74 - 125	3	25
Dibromochloromethane	0.0500	0.05062		mg/L		101	73 - 125	3	25
1,2-Dibromo-3-Chloropropane	0.0500	0.06131		mg/L		123	59 - 125	11	25
1,2-Dibromoethane	0.0500	0.05352		mg/L		107	73 - 125	1	25
1,2-Dichlorobenzene	0.0500	0.05190		mg/L		104	75 - 125	5	25
1,3-Dichlorobenzene	0.0500	0.05252		mg/L		105	75 - 125	6	25
1,4-Dichlorobenzene	0.0500	0.05253		mg/L		105	75 - 125	6	25
Dichlorodifluoromethane	0.0500	0.04833		mg/L		97	70 - 130	4	25
1,1-Dichloroethane	0.0500	0.05080		mg/L		102	70 - 130	3	25
1,2-Dichloroethane	0.0500	0.04881		mg/L		98	72 - 130	4	25
1,1-Dichloroethene	0.0500	0.05043		mg/L		101	50 - 150	3	25
1,2-Dichloropropane	0.0500	0.05271		mg/L		105	74 - 125	2	25
1,3-Dichloropropane	0.0500	0.05275		mg/L		105	75 - 125	2	25
2,2-Dichloropropane	0.0500	0.04660		mg/L		93	75 - 125	1	25
1,1-Dichloropropene	0.0500	0.05449		mg/L		109	75 - 125	2	25
Ethylbenzene	0.0500	0.05284		mg/L		106	75 - 125	1	25
Hexachlorobutadiene	0.0500	0.05425		mg/L		108	75 - 125	9	25
Isopropylbenzene	0.0500	0.05368		mg/L		107	75 - 125	0	25
Methylene Chloride	0.0500	0.04597		mg/L		92	75 - 125	0	25
m,p-Xylenes	0.0500	0.05373		mg/L		107	75 - 125	1	25
MTBE	0.0500	0.05138		mg/L		103	65 - 135	0	25
Naphthalene	0.0500	0.07492	*+	mg/L		150	70 - 130	16	25
n-Butylbenzene	0.0500	0.05834		mg/L		117	75 - 125	10	25
N-Propylbenzene	0.0500	0.05621		mg/L		112	75 - 125	8	25
o-Xylene	0.0500	0.05341		mg/L		107	75 - 125	1	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05845		mg/L		117	75 - 125	8	25
sec-Butylbenzene	0.0500	0.05799		mg/L		116	75 - 125	9	25
Styrene	0.0500	0.05442		mg/L		109	75 - 125	0	25
tert-Butylbenzene	0.0500	0.05743		mg/L		115	75 - 125	8	25
1,1,1,2-Tetrachloroethane	0.0500	0.04952		mg/L		99	72 - 125	0	25
1,1,2,2-Tetrachloroethane	0.0500	0.05387		mg/L		108	74 - 125	2	25
Tetrachloroethene	0.0500	0.05311		mg/L		106	71 - 125	3	25
Toluene	0.0500	0.05162		mg/L		103	70 - 130	2	25

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-86883/11

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

Matrix: Water

Analysis Batch: 86883

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
trans-1,2-Dichloroethene	0.0500	0.04851		mg/L	97	75 - 125	1	25		
trans-1,3-Dichloropropene	0.0500	0.05402		mg/L	108	66 - 125	3	25		
1,2,3-Trichlorobenzene	0.0500	0.07144	*+	mg/L	143	75 - 137	15	25		
1,2,4-Trichlorobenzene	0.0500	0.06315		mg/L	126	75 - 135	11	25		
1,1,1-Trichloroethane	0.0500	0.05123		mg/L	102	70 - 130	2	25		
1,1,2-Trichloroethane	0.0500	0.05327		mg/L	107	70 - 130	2	25		
Trichloroethene	0.0500	0.05313		mg/L	106	75 - 135	0	25		
Trichlorofluoromethane	0.0500	0.04446		mg/L	89	60 - 140	6	25		
1,2,3-Trichloropropane	0.0500	0.05386		mg/L	108	75 - 125	2	25		
1,2,4-Trimethylbenzene	0.0500	0.05760		mg/L	115	75 - 125	6	25		
1,3,5-Trimethylbenzene	0.0500	0.05621		mg/L	112	60 - 140	5	25		
Vinyl chloride	0.0500	0.04859		mg/L	97	60 - 140	5	25		
<i>Surrogate</i>		LCSD	LCSD							
		%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102			74 - 124						
Dibromofluoromethane (Surr)	102			75 - 131						
1,2-Dichloroethane-d4 (Surr)	93			63 - 144						
Toluene-d8 (Surr)	102			80 - 117						

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 860-86693/3

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

Matrix: Water

Analysis Batch: 86693

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711	mg/L		01/20/23 13:03	1
Chloride	<0.200	U	0.500	0.200	mg/L		01/20/23 13:03	1
Fluoride	<0.100	U	0.500	0.100	mg/L		01/20/23 13:03	1
Sulfate	0.2442	J	0.500	0.109	mg/L		01/20/23 13:03	1

Lab Sample ID: MB 860-86693/39

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

Matrix: Water

Analysis Batch: 86693

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711	mg/L		01/20/23 21:39	1
Chloride	0.2271	J	0.500	0.200	mg/L		01/20/23 21:39	1
Fluoride	<0.100	U	0.500	0.100	mg/L		01/20/23 21:39	1
Sulfate	<0.109	U	0.500	0.109	mg/L		01/20/23 21:39	1

Lab Sample ID: LCS 860-86693/4

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

Matrix: Water

Analysis Batch: 86693

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Bromide	10.0	9.904		mg/L	99	90 - 110	
Chloride	10.0	10.13		mg/L	101	90 - 110	
Fluoride	10.0	10.61		mg/L	106	90 - 110	

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)**

Lab Sample ID: LCS 860-86693/4

Matrix: Water

Analysis Batch: 86693

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	9.867		mg/L	99	99	90 - 110

Lab Sample ID: LCS 860-86693/40

Matrix: Water

Analysis Batch: 86693

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	9.895		mg/L	99	99	90 - 110
Chloride	10.0	10.15		mg/L	102	99	90 - 110
Fluoride	10.0	10.63		mg/L	106	99	90 - 110
Sulfate	10.0	9.880		mg/L	99	99	90 - 110

Lab Sample ID: LCSD 860-86693/41

Matrix: Water

Analysis Batch: 86693

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	9.818		mg/L	98	99	90 - 110	1	20
Chloride	10.0	10.10		mg/L	101	99	90 - 110	1	20
Fluoride	10.0	10.57		mg/L	106	99	90 - 110	1	20
Sulfate	10.0	9.787		mg/L	98	99	90 - 110	1	20

Lab Sample ID: LCSD 860-86693/5

Matrix: Water

Analysis Batch: 86693

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	9.851		mg/L	99	99	90 - 110	1	20
Chloride	10.0	10.10		mg/L	101	99	90 - 110	0	20
Fluoride	10.0	10.54		mg/L	105	99	90 - 110	1	20
Sulfate	10.0	9.822		mg/L	98	99	90 - 110	0	20

Lab Sample ID: LLCS 860-86693/7

Matrix: Water

Analysis Batch: 86693

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.6726		mg/L	135	50	50 - 150
Chloride	0.500	0.5997		mg/L	120	50	50 - 150
Fluoride	0.500	0.5034		mg/L	101	50	50 - 150
Sulfate	0.500	0.5798		mg/L	116	50	50 - 150

Lab Sample ID: MB 860-86694/3

Matrix: Water

Analysis Batch: 86694

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		01/20/23 13:03	1
Nitrite as N	0.03372	J	0.100	0.0293	mg/L		01/20/23 13:03	1

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: MB 860-86694/39**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Nitrate as N	<0.0391	U	0.0391		0.100	mg/L			01/20/23 21:39	1
Nitrite as N	0.03162	J	0.0293		0.100	mg/L			01/20/23 21:39	1

**Lab Sample ID: LCS 860-86694/4**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Nitrate as N	10.0	10.30				mg/L		103	80 - 120	
Nitrite as N	10.0	10.32				mg/L		103	80 - 120	

**Lab Sample ID: LCS 860-86694/40**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Nitrate as N	10.0	10.32				mg/L		103	80 - 120	
Nitrite as N	10.0	10.35				mg/L		103	80 - 120	

**Lab Sample ID: LCSD 860-86694/41**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Nitrate as N	10.0	10.25				mg/L		102	80 - 120	1	20
Nitrite as N	10.0	10.31				mg/L		103	80 - 120	0	20

**Lab Sample ID: LCSD 860-86694/5**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Nitrate as N	10.0	10.25				mg/L		103	80 - 120	0	20
Nitrite as N	10.0	10.32				mg/L		103	80 - 120	0	20

**Lab Sample ID: LLCS 860-86694/6**

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

**Matrix: Water****Analysis Batch: 86694**

Analyte	Spike	LLCS	LLCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Nitrate as N	0.100	0.1198				mg/L		120	50 - 150	
Nitrite as N	0.100	0.08324	J			mg/L		83	50 - 150	

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Method: 200.7 Rev 4.4 - Metals (ICP)****Lab Sample ID: MB 860-86956/1-A****Matrix: Water****Analysis Batch: 87098****Client Sample ID: Method Blank****Prep Type: Total Recoverable****Prep Batch: 86956**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Calcium	<0.115	U	0.200		0.115	mg/L		01/23/23 11:00	01/23/23 18:14	1
Magnesium	<0.0428	U	0.200		0.0428	mg/L		01/23/23 11:00	01/23/23 18:14	1
Potassium	<0.0914	U	0.500		0.0914	mg/L		01/23/23 11:00	01/23/23 18:14	1
Sodium	<0.152	U	0.500		0.152	mg/L		01/23/23 11:00	01/23/23 18:14	1
SiO2	<0.471	U	1.07		0.471	mg/L		01/23/23 11:00	01/23/23 18:14	1

**Lab Sample ID: LCS 860-86956/2-A****Matrix: Water****Analysis Batch: 87098****Client Sample ID: Lab Control Sample****Prep Type: Total Recoverable****Prep Batch: 86956**

Analyte	Spikes	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Calcium	25.0	25.40		mg/L			102	85 - 115		
Magnesium	25.0	24.90		mg/L			100	85 - 115		
Potassium	10.0	9.850		mg/L			99	85 - 115		
Sodium	25.0	25.00		mg/L			100	85 - 115		
SiO2	21.4	21.83		mg/L			102	85 - 115		

**Lab Sample ID: LCSD 860-86956/3-A****Matrix: Water****Analysis Batch: 87098****Client Sample ID: Lab Control Sample Dup****Prep Type: Total Recoverable****Prep Batch: 86956**

Analyte	Spikes	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Calcium	25.0	25.60		mg/L			102	85 - 115		1	20
Magnesium	25.0	25.20		mg/L			101	85 - 115		1	20
Potassium	10.0	9.940		mg/L			99	85 - 115		1	20
Sodium	25.0	25.30		mg/L			101	85 - 115		1	20
SiO2	21.4	22.04		mg/L			103	85 - 115		1	20

**Lab Sample ID: LLCS 860-86956/4-A****Matrix: Water****Analysis Batch: 87098****Client Sample ID: Lab Control Sample****Prep Type: Total Recoverable****Prep Batch: 86956**

Analyte	Spikes	LLCS	LLCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Calcium	0.200	0.2320		mg/L			116	50 - 150		
Magnesium	0.200	0.2340		mg/L			117	50 - 150		
Potassium	0.500	0.5710		mg/L			114	50 - 150		
Sodium	0.500	0.7460		mg/L			149	50 - 150		
SiO2	1.07	1.186		mg/L			111	50 - 150		

**Method: SM 2320B - Alkalinity****Lab Sample ID: MB 860-87121/3****Matrix: Water****Analysis Batch: 87121****Client Sample ID: Method Blank****Prep Type: Total/NA**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Alkalinity	<4.00	U	4.00		4.00	mg/L			01/21/23 12:17	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00		4.00	mg/L			01/21/23 12:17	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00		4.00	mg/L			01/21/23 12:17	1
Hydroxide Alkalinity	<4.00	U	4.00		4.00	mg/L			01/21/23 12:17	1

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Method: SM 2320B - Alkalinity (Continued)**

Lab Sample ID: MB 860-87121/3

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

Matrix: Water

Analysis Batch: 87121

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Phenolphthalein Alkalinity	<4.00	U	4.00		4.00	mg/L			01/21/23 12:17	1

Lab Sample ID: LCS 860-87121/4

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

Matrix: Water

Analysis Batch: 87121

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Alkalinity	250	251.0				mg/L		100	85 - 115	

Lab Sample ID: LCSD 860-87121/5

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

Matrix: Water

Analysis Batch: 87121

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Alkalinity	250	254.0				mg/L		102	85 - 115	1

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

Lab Sample ID: MB 860-86726/1

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

Matrix: Water

Analysis Batch: 86726

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Total Dissolved Solids	<5.00	U	5.00		5.00	mg/L			01/20/23 15:00	1

Lab Sample ID: LCS 860-86726/2

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

Matrix: Water

Analysis Batch: 86726

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Total Dissolved Solids	1000	1003				mg/L		100	80 - 120	

Lab Sample ID: LCSD 860-86726/3

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

Matrix: Water

Analysis Batch: 86726

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Total Dissolved Solids	1000	1004				mg/L		100	80 - 120	0

Lab Sample ID: LLCS 860-86726/4

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

Matrix: Water

Analysis Batch: 86726

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

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**QC Sample Results**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

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

**Lab Sample ID: 880-23931-1 DU**

**Matrix: Water**

**Analysis Batch: 86726**

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

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Total Dissolved Solids	1730		1782		mg/L		3		10

**Method: SM 4500 H+ B - pH**

**Lab Sample ID: 880-23931-1 DU**

**Matrix: Water**

**Analysis Batch: 86787**

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

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
pH	6.3	HF	6.2		SU		0.5		20
Temperature	15.7	HF	15.7		Degrees C		0		20

**QC Association Summary**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**GC/MS VOA****Analysis Batch: 86883**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	8260C	
MB 860-86883/17	Method Blank	Total/NA	Water	8260C	
LCS 860-86883/1010	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-86883/11	Lab Control Sample Dup	Total/NA	Water	8260C	

**HPLC/IC****Analysis Batch: 86693**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	300.0	
MB 860-86693/3	Method Blank	Total/NA	Water	300.0	
MB 860-86693/39	Method Blank	Total/NA	Water	300.0	
LCS 860-86693/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-86693/40	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-86693/41	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-86693/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-86693/7	Lab Control Sample	Total/NA	Water	300.0	

**Analysis Batch: 86694**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	300.0	
MB 860-86694/3	Method Blank	Total/NA	Water	300.0	
MB 860-86694/39	Method Blank	Total/NA	Water	300.0	
LCS 860-86694/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-86694/40	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-86694/41	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-86694/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-86694/6	Lab Control Sample	Total/NA	Water	300.0	

**Metals****Prep Batch: 86956**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-86956/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-86956/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-86956/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-86956/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

**Analysis Batch: 87098**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	86956
880-23931-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	86956
MB 860-86956/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	86956
LCS 860-86956/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	86956
LCSD 860-86956/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	86956
LLCS 860-86956/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	86956

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**QC Association Summary**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**General Chemistry****Analysis Batch: 86726**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-86726/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-86726/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-86726/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-86726/4	Lab Control Sample	Total/NA	Water	SM 2540C	
880-23931-1 DU	Levey Well	Total/NA	Water	SM 2540C	

**Analysis Batch: 86787**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	SM 4500 H+ B	
880-23931-1 DU	Levey Well	Total/NA	Water	SM 4500 H+ B	

**Analysis Batch: 87121**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-87121/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-87121/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-87121/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

**Analysis Batch: 87898**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23931-1	Levey Well	Total/NA	Water	SM 1030E	

**Lab Chronicle**

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

Job ID: 880-23931-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/19/23 12:10

Date Received: 01/19/23 15:36

**Lab Sample ID: 880-23931-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	86883	NA	EET HOU	01/23/23 13:27
Total/NA	Analysis	300.0		1	86693	WP	EET HOU	01/20/23 23:22
Total/NA	Analysis	300.0		1	86694	WP	EET HOU	01/20/23 23:22
Total Recoverable	Prep	200.7			86956	MD	EET HOU	01/23/23 11:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	87098	JDM	EET HOU	01/23/23 18:57
Total Recoverable	Prep	200.7			86956	MD	EET HOU	01/23/23 11:00
Total Recoverable	Analysis	200.7 Rev 4.4		50	87098	JDM	EET HOU	01/23/23 19:25
Total/NA	Analysis	SM 1030E		1	87898	AA	EET HOU	01/30/23 09:17
Total/NA	Analysis	SM 2320B		1	87121	TL	EET HOU	01/21/23 15:52
Total/NA	Analysis	SM 2540C		1	86726	HN	EET HOU	01/20/23 15:00
Total/NA	Analysis	SM 4500 H+ B		1	86787	TL	EET HOU	01/20/23 17:16

**Laboratory References:**

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

Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum

Job ID: 880-23931-1

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

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	T104704215-22-48	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: 880-23931-1  
 SDG: Hobbs NM

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

Eurofins Midland

**Sample Summary**

Client: Ensolum

Job ID: 880-23931-1

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

SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-23931-1	Levey Well	Water	01/19/23 12:10	01/19/23 15:36

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**Chain of Custody Record**

**urofins Midland**

111 W Florida Ave  
Midland TX 79701

**urofins Midland**  
111 W Florida Ave  
Midland, TX 79701  
Phone: 432-704-5440

111 N. Linda Ave  
Midland, TX 79701  
Phone: 432-704-5440

particle. Since laboratories 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/sematrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructors 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 Eurofins Environment Testing South Central, LLC.

Cross-Disease Hazard Identification

*Unconfirmed*

THE JOURNAL OF CLIMATE

EMPTY Kit Relinquished by \_\_\_\_\_ Date: \_\_\_\_\_

Zellulärer und molekularer Mechanismus der Zellzykluskontrolle

Date \_\_\_\_\_.

Date/Time: \_\_\_\_\_

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Date/Time: \_\_\_\_\_

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Custody Seal intact  
Custody Seal No

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## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23931-1

SDG Number: Hobbs NM

**Login Number:** 23931**List Source:** Eurofins Midland**List Number:** 1**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23931-1

SDG Number: Hobbs NM

**Login Number:** 23931**List Source:** Eurofins Houston**List Number:** 2**List Creation:** 01/20/23 12:33 PM**Creator:** Palmar, Pedro

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	N/A		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 2/1/2023 4:48:27 PM

## JOB DESCRIPTION

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

## JOB NUMBER

880-24102-1

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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2/1/2023 4:48:27 PM

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

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

Laboratory Job ID: 880-24102-1  
SDG: Hobbs NM

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## Definitions/Glossary

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
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.
¤	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)
TNTC	Too Numerous To Count

**Case Narrative**

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

Job ID: 880-24102-1  
SDG: Hobbs NM

**Job ID: 880-24102-1****Laboratory: Eurofins Midland****Narrative****Job Narrative  
880-24102-1****Receipt**

The sample was received on 1/25/2023 2:37 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 3.8°C

**GC/MS VOA**

Method 8260C: The matrix spike/matrix spike duplicate (MS/MSD) for analytical batch 860-87630 exceeded control limits for the following analyte(s): Dichloro difluoromethane Note that this analyte is a known poor performer when analyzed using this method.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 860-87630 recovered outside control limits for the following analytes: Dichloro difluoromethane and Hexachlorobutadiene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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 analytical batch 860-87706 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 300\_ORGFMS: The following sample was analyzed outside of analytical holding time due to <EXPLANATION\_REQUIRED>: Levey Well (880-24102-1).

Method 300\_ORGFMS: The following sample was received outside of holding time: Levey Well (880-24102-1).

Method 300\_ORGFMS: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Levey Well (880-24102-1).

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.

**Client Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well****Lab Sample ID: 880-24102-1**

Matrix: Water

Date Collected: 01/25/23 11:50  
 Date Received: 01/25/23 14:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>0.00589</b>		0.00100	0.000533 mg/L			01/27/23 17:09	1
Bromobenzene	<0.000665	U	0.00100	0.000665 mg/L			01/27/23 17:09	1
Bromochloromethane	<0.000657	U	0.00100	0.000657 mg/L			01/27/23 17:09	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552 mg/L			01/27/23 17:09	1
Bromoform	<0.000633	U	0.00500	0.000633 mg/L			01/27/23 17:09	1
Bromomethane	<0.00142	U	0.00500	0.00142 mg/L			01/27/23 17:09	1
2-Butanone	<0.00828	U	0.0500	0.00828 mg/L			01/27/23 17:09	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896 mg/L			01/27/23 17:09	1
Chlorobenzene	<0.000530	U	0.00100	0.000530 mg/L			01/27/23 17:09	1
Chloroethane	<0.00198	U	0.0100	0.00198 mg/L			01/27/23 17:09	1
Chloroform	<0.000643	U	0.00100	0.000643 mg/L			01/27/23 17:09	1
Chloromethane	<0.00204	U	0.0100	0.00204 mg/L			01/27/23 17:09	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118 mg/L			01/27/23 17:09	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472 mg/L			01/27/23 17:09	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714 mg/L			01/27/23 17:09	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107 mg/L			01/27/23 17:09	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547 mg/L			01/27/23 17:09	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127 mg/L			01/27/23 17:09	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999 mg/L			01/27/23 17:09	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509 mg/L			01/27/23 17:09	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/27/23 17:09	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513 mg/L			01/27/23 17:09	1
Dichlorodifluoromethane	<0.000919	U *+	0.00100	0.000919 mg/L			01/27/23 17:09	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635 mg/L			01/27/23 17:09	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590 mg/L			01/27/23 17:09	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738 mg/L			01/27/23 17:09	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667 mg/L			01/27/23 17:09	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514 mg/L			01/27/23 17:09	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780 mg/L			01/27/23 17:09	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160 mg/L			01/27/23 17:09	1
<b>Ethylbenzene</b>	<b>0.0228</b>		0.00100	0.000411 mg/L			01/27/23 17:09	1
Hexachlorobutadiene	<0.00126	U *+	0.00500	0.00126 mg/L			01/27/23 17:09	1
<b>Isopropylbenzene</b>	<b>0.0112</b>		0.00100	0.000613 mg/L			01/27/23 17:09	1
Methylene Chloride	<0.00173	U	0.00500	0.00173 mg/L			01/27/23 17:09	1
<b>m,p-Xylenes</b>	<b>0.0938</b>		0.0100	0.00124 mg/L			01/27/23 17:09	1
MTBE	<0.00139	U	0.00500	0.00139 mg/L			01/27/23 17:09	1
Naphthalene	<0.00135	U	0.0100	0.00135 mg/L			01/27/23 17:09	1
<b>n-Butylbenzene</b>	<b>0.00112</b>		0.00100	0.000644 mg/L			01/27/23 17:09	1
<b>N-Propylbenzene</b>	<b>0.00495</b>		0.00100	0.000498 mg/L			01/27/23 17:09	1
<b>o-Xylene</b>	<b>0.0139</b>		0.00100	0.000551 mg/L			01/27/23 17:09	1
<b>p-Cymene (p-Isopropyltoluene)</b>	<b>0.00108</b>		0.00100	0.000919 mg/L			01/27/23 17:09	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468 mg/L			01/27/23 17:09	1
Styrene	<0.000655	U	0.00100	0.000655 mg/L			01/27/23 17:09	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442 mg/L			01/27/23 17:09	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644 mg/L			01/27/23 17:09	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470 mg/L			01/27/23 17:09	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801 mg/L			01/27/23 17:09	1
<b>Toluene</b>	<b>0.0498</b>		0.00100	0.000475 mg/L			01/27/23 17:09	1
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/27/23 17:09	1

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## Client Sample Results

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

Job ID: 880-24102-1  
SDG: Hobbs NM

**Client Sample ID: Levey Well****Lab Sample ID: 880-24102-1**

Date Collected: 01/25/23 11:50  
Date Received: 01/25/23 14:37

Matrix: Water

**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		01/27/23 17:09	1
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217	mg/L		01/27/23 17:09	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L		01/27/23 17:09	1
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169	mg/L		01/27/23 17:09	1
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511	mg/L		01/27/23 17:09	1
Trichloroethene	<0.000791	U	0.00500	0.000791	mg/L		01/27/23 17:09	1
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638	mg/L		01/27/23 17:09	1
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490	mg/L		01/27/23 17:09	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.0198</b>		0.00100	0.000417	mg/L		01/27/23 17:09	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.00669</b>		0.00100	0.000456	mg/L		01/27/23 17:09	1
Vinyl chloride	<0.000638	U	0.00200	0.000638	mg/L		01/27/23 17:09	1
<b>Xylenes, Total</b>	<b>0.108</b>		0.0100	0.00124	mg/L		01/27/23 17:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	99		74 - 124				01/27/23 17:09	1
Dibromofluoromethane (Surr)	99		75 - 131				01/27/23 17:09	1
1,2-Dichloroethane-d4 (Surr)	94		63 - 144				01/27/23 17:09	1
Toluene-d8 (Surr)	99		80 - 117				01/27/23 17:09	1

**Method: EPA 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<b>0.525</b>		0.500	0.0711	mg/L		01/27/23 21:07	1
Nitrate as N	<b>0.0992</b>	J H	0.100	0.0391	mg/L		01/27/23 21:07	1
Chloride	<b>298</b>		0.500	0.200	mg/L		01/27/23 21:07	1
Nitrite as N	<0.0293	U H	0.100	0.0293	mg/L		01/27/23 21:07	1
Fluoride	<b>0.207</b>	J	0.500	0.100	mg/L		01/27/23 21:07	1
Sulfate	<b>46.7</b>		0.500	0.109	mg/L		01/27/23 21:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<b>416</b>		10.0	5.76	mg/L	01/28/23 13:00	01/30/23 21:51	50
Magnesium	<b>72.6</b>		0.200	0.0428	mg/L	01/28/23 13:00	01/30/23 21:33	1
Potassium	<b>6.84</b>		0.500	0.0914	mg/L	01/28/23 13:00	01/30/23 21:33	1
Sodium	<b>119</b>		0.500	0.152	mg/L	01/28/23 13:00	01/30/23 21:33	1
SiO2	<b>71.7</b>		1.07	0.471	mg/L	01/28/23 13:00	01/30/23 21:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	<b>-2.84</b>			%			01/30/23 09:17	1
Alkalinity (SM 2320B)	<b>1110</b>		4.00	4.00	mg/L		01/28/23 12:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<b>1110</b>		4.00	4.00	mg/L		01/28/23 12:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/28/23 12:58	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/28/23 12:58	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00	4.00	mg/L		01/28/23 12:58	1
Total Dissolved Solids (SM 2540C)	<b>1760</b>		20.0	20.0	mg/L		01/30/23 21:00	1
pH (SM 4500 H+ B)	<b>6.7</b>	HF		SU			01/28/23 12:04	1
Temperature (SM 4500 H+ B)	<b>18.9</b>	HF		Celsius			01/28/23 12:04	1

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**Surrogate Summary**

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

Job ID: 880-24102-1  
 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)
880-24102-1	Levey Well	99	99	94	99
LCS 860-87630/3	Lab Control Sample	95	100	96	95
LCSD 860-87630/4	Lab Control Sample Dup	94	101	95	95
MB 860-87630/11	Method Blank	102	99	94	100

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-87630/11

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

Matrix: Water

Analysis Batch: 87630

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000533	U	0.00100	0.000533	mg/L		01/27/23 13:02	1
Bromobenzene	<0.000665	U	0.00100	0.000665	mg/L		01/27/23 13:02	1
Bromoform	<0.000657	U	0.00100	0.000657	mg/L		01/27/23 13:02	1
Bromochloromethane	<0.000552	U	0.00100	0.000552	mg/L		01/27/23 13:02	1
Bromodichloromethane	<0.000633	U	0.00500	0.000633	mg/L		01/27/23 13:02	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L		01/27/23 13:02	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L		01/27/23 13:02	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L		01/27/23 13:02	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L		01/27/23 13:02	1
Chlorobenzene	<0.000530	U	0.00100	0.000530	mg/L		01/27/23 13:02	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L		01/27/23 13:02	1
Chloroform	<0.000643	U	0.00100	0.000643	mg/L		01/27/23 13:02	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L		01/27/23 13:02	1
2-Chlorotoluene	<0.00118	U	0.00200	0.00118	mg/L		01/27/23 13:02	1
4-Chlorotoluene	<0.000472	U	0.00100	0.000472	mg/L		01/27/23 13:02	1
cis-1,2-Dichloroethene	<0.000714	U	0.00100	0.000714	mg/L		01/27/23 13:02	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L		01/27/23 13:02	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L		01/27/23 13:02	1
1,2-Dibromo-3-Chloropropane	<0.00127	U	0.00500	0.00127	mg/L		01/27/23 13:02	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L		01/27/23 13:02	1
1,2-Dichlorobenzene	<0.000509	U	0.00100	0.000509	mg/L		01/27/23 13:02	1
1,3-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/27/23 13:02	1
1,4-Dichlorobenzene	<0.000513	U	0.00100	0.000513	mg/L		01/27/23 13:02	1
Dichlorodifluoromethane	<0.000919	U	0.00100	0.000919	mg/L		01/27/23 13:02	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L		01/27/23 13:02	1
1,2-Dichloroethane	<0.000590	U	0.00100	0.000590	mg/L		01/27/23 13:02	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L		01/27/23 13:02	1
1,2-Dichloropropane	<0.000667	U	0.00500	0.000667	mg/L		01/27/23 13:02	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L		01/27/23 13:02	1
2,2-Dichloropropane	<0.000780	U	0.00500	0.000780	mg/L		01/27/23 13:02	1
1,1-Dichloropropene	<0.00160	U	0.00500	0.00160	mg/L		01/27/23 13:02	1
Ethylbenzene	<0.000411	U	0.00100	0.000411	mg/L		01/27/23 13:02	1
Hexachlorobutadiene	<0.00126	U	0.00500	0.00126	mg/L		01/27/23 13:02	1
Isopropylbenzene	<0.000613	U	0.00100	0.000613	mg/L		01/27/23 13:02	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L		01/27/23 13:02	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L		01/27/23 13:02	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L		01/27/23 13:02	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L		01/27/23 13:02	1
n-Butylbenzene	<0.000644	U	0.00100	0.000644	mg/L		01/27/23 13:02	1
N-Propylbenzene	<0.000498	U	0.00100	0.000498	mg/L		01/27/23 13:02	1
o-Xylene	<0.000551	U	0.00100	0.000551	mg/L		01/27/23 13:02	1
p-Cymene (p-Isopropyltoluene)	<0.000919	U	0.00100	0.000919	mg/L		01/27/23 13:02	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L		01/27/23 13:02	1
Styrene	<0.000655	U	0.00100	0.000655	mg/L		01/27/23 13:02	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L		01/27/23 13:02	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L		01/27/23 13:02	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L		01/27/23 13:02	1
Tetrachloroethene	<0.000801	U	0.00100	0.000801	mg/L		01/27/23 13:02	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L		01/27/23 13:02	1

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

Lab Sample ID: MB 860-87630/11

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

Matrix: Water

Analysis Batch: 87630

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
trans-1,2-Dichloroethene	<0.000945	U	0.00100	0.000945 mg/L			01/27/23 13:02	1	
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127 mg/L			01/27/23 13:02	1	
1,2,3-Trichlorobenzene	<0.00217	U	0.00500	0.00217 mg/L			01/27/23 13:02	1	
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175 mg/L			01/27/23 13:02	1	
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169 mg/L			01/27/23 13:02	1	
1,1,2-Trichloroethane	<0.000511	U	0.00100	0.000511 mg/L			01/27/23 13:02	1	
Trichloroethene	<0.000791	U	0.00500	0.000791 mg/L			01/27/23 13:02	1	
Trichlorofluoromethane	<0.000638	U	0.00100	0.000638 mg/L			01/27/23 13:02	1	
1,2,3-Trichloropropane	<0.000490	U	0.00100	0.000490 mg/L			01/27/23 13:02	1	
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417 mg/L			01/27/23 13:02	1	
1,3,5-Trimethylbenzene	<0.000456	U	0.00100	0.000456 mg/L			01/27/23 13:02	1	
Vinyl chloride	<0.000638	U	0.00200	0.000638 mg/L			01/27/23 13:02	1	
Xylenes, Total	<0.00124	U	0.0100	0.00124 mg/L			01/27/23 13:02	1	
<b>MB MB</b>		<b>MB MB</b>		<b>MB MB</b>		<b>MB MB</b>		<b>MB MB</b>	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		74 - 124				01/27/23 13:02	1	
Dibromofluoromethane (Surr)	99		75 - 131				01/27/23 13:02	1	
1,2-Dichloroethane-d4 (Surr)	94		63 - 144				01/27/23 13:02	1	
Toluene-d8 (Surr)	100		80 - 117				01/27/23 13:02	1	

Lab Sample ID: LCS 860-87630/3

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

Matrix: Water

Analysis Batch: 87630

Analyte	Spike Added	MB	MB	MB	MB	MB	MB	MB
		Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04982		mg/L	100	75 - 125		
Bromobenzene	0.0500	0.05117		mg/L	102	75 - 125		
Bromoform	0.0500	0.04965		mg/L	99	60 - 140		
Bromochloromethane	0.0500	0.05314		mg/L	106	75 - 125		
Bromodichloromethane	0.0500	0.05655		mg/L	113	70 - 130		
Bromomethane	0.0500	0.05248		mg/L	105	60 - 140		
2-Butanone	0.250	0.2258		mg/L	90	60 - 140		
Carbon tetrachloride	0.0500	0.05353		mg/L	107	70 - 130		
Chlorobenzene	0.0500	0.05153		mg/L	103	65 - 135		
Chloroethane	0.0500	0.05345		mg/L	107	60 - 140		
Chloroform	0.0500	0.04856		mg/L	97	70 - 121		
Chloromethane	0.0500	0.05774		mg/L	115	60 - 140		
2-Chlorotoluene	0.0500	0.05249		mg/L	105	73 - 125		
4-Chlorotoluene	0.0500	0.05231		mg/L	105	74 - 125		
cis-1,2-Dichloroethene	0.0500	0.04637		mg/L	93	75 - 125		
cis-1,3-Dichloropropene	0.0500	0.05020		mg/L	100	74 - 125		
Dibromochloromethane	0.0500	0.05299		mg/L	106	73 - 125		
1,2-Dibromo-3-Chloropropane	0.0500	0.05094		mg/L	102	59 - 125		
1,2-Dibromoethane	0.0500	0.05209		mg/L	104	73 - 125		
1,2-Dichlorobenzene	0.0500	0.05329		mg/L	107	75 - 125		
1,3-Dichlorobenzene	0.0500	0.05402		mg/L	108	75 - 125		
1,4-Dichlorobenzene	0.0500	0.05168		mg/L	103	75 - 125		
Dichlorodifluoromethane	0.0500	0.09237 *+		mg/L	185	70 - 130		

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCS 860-87630/3

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

Matrix: Water

Analysis Batch: 87630

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
1,1-Dichloroethane	0.0500	0.04450		mg/L	89	70 - 130	
1,2-Dichloroethane	0.0500	0.04868		mg/L	97	72 - 130	
1,1-Dichloroethene	0.0500	0.04272		mg/L	85	50 - 150	
1,2-Dichloropropane	0.0500	0.04850		mg/L	97	74 - 125	
1,3-Dichloropropane	0.0500	0.04790		mg/L	96	75 - 125	
2,2-Dichloropropane	0.0500	0.04931		mg/L	99	75 - 125	
1,1-Dichloropropene	0.0500	0.05089		mg/L	102	75 - 125	
Ethylbenzene	0.0500	0.05250		mg/L	105	75 - 125	
Hexachlorobutadiene	0.0500	0.06861	*+	mg/L	137	75 - 125	
Isopropylbenzene	0.0500	0.05632		mg/L	113	75 - 125	
Methylene Chloride	0.0500	0.04231		mg/L	85	75 - 125	
m,p-Xylenes	0.0500	0.05216		mg/L	104	75 - 125	
MTBE	0.0500	0.04441		mg/L	89	65 - 135	
Naphthalene	0.0500	0.05176		mg/L	104	70 - 130	
n-Butylbenzene	0.0500	0.05847		mg/L	117	75 - 125	
N-Propylbenzene	0.0500	0.05360		mg/L	107	75 - 125	
o-Xylene	0.0500	0.05244		mg/L	105	75 - 125	
p-Cymene (p-Isopropyltoluene)	0.0500	0.05822		mg/L	116	75 - 125	
sec-Butylbenzene	0.0500	0.05726		mg/L	115	75 - 125	
Styrene	0.0500	0.05072		mg/L	101	75 - 125	
tert-Butylbenzene	0.0500	0.05547		mg/L	111	75 - 125	
1,1,1,2-Tetrachloroethane	0.0500	0.05349		mg/L	107	72 - 125	
1,1,2,2-Tetrachloroethane	0.0500	0.04741		mg/L	95	74 - 125	
Tetrachloroethene	0.0500	0.05737		mg/L	115	71 - 125	
Toluene	0.0500	0.04937		mg/L	99	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04592		mg/L	92	75 - 125	
trans-1,3-Dichloropropene	0.0500	0.04736		mg/L	95	66 - 125	
1,2,3-Trichlorobenzene	0.0500	0.06046		mg/L	121	75 - 137	
1,2,4-Trichlorobenzene	0.0500	0.05522		mg/L	110	75 - 135	
1,1,1-Trichloroethane	0.0500	0.05075		mg/L	102	70 - 130	
1,1,2-Trichloroethane	0.0500	0.04880		mg/L	98	70 - 130	
Trichloroethene	0.0500	0.05525		mg/L	111	75 - 135	
Trichlorofluoromethane	0.0500	0.05953		mg/L	119	60 - 140	
1,2,3-Trichloropropane	0.0500	0.04484		mg/L	90	75 - 125	
1,2,4-Trimethylbenzene	0.0500	0.05288		mg/L	106	75 - 125	
1,3,5-Trimethylbenzene	0.0500	0.05415		mg/L	108	60 - 140	
Vinyl chloride	0.0500	0.05795		mg/L	116	60 - 140	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
1,2-Dichloroethane-d4 (Surr)	96		63 - 144
Toluene-d8 (Surr)	95		80 - 117

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## QC Sample Results

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-87630/4

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 87630

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.04789		mg/L		96	75 - 125	4	25
Bromobenzene	0.0500	0.04652		mg/L		93	75 - 125	10	25
Bromoform	0.0500	0.04781		mg/L		96	60 - 140	4	25
Bromochloromethane	0.0500	0.05164		mg/L		103	75 - 125	3	25
Bromodichloromethane	0.0500	0.05607		mg/L		112	70 - 130	1	25
Bromomethane	0.0500	0.05478		mg/L		110	60 - 140	4	25
2-Butanone	0.250	0.2239		mg/L		90	60 - 140	1	25
Carbon tetrachloride	0.0500	0.05277		mg/L		106	70 - 130	1	25
Chlorobenzene	0.0500	0.05011		mg/L		100	65 - 135	3	25
Chloroethane	0.0500	0.05520		mg/L		110	60 - 140	3	25
Chloroform	0.0500	0.04786		mg/L		96	70 - 121	1	25
Chloromethane	0.0500	0.05755		mg/L		115	60 - 140	0	25
2-Chlorotoluene	0.0500	0.04887		mg/L		98	73 - 125	7	25
4-Chlorotoluene	0.0500	0.04841		mg/L		97	74 - 125	8	25
cis-1,2-Dichloroethene	0.0500	0.04541		mg/L		91	75 - 125	2	25
cis-1,3-Dichloropropene	0.0500	0.04920		mg/L		98	74 - 125	2	25
Dibromochloromethane	0.0500	0.05164		mg/L		103	73 - 125	3	25
1,2-Dibromo-3-Chloropropane	0.0500	0.04727		mg/L		95	59 - 125	7	25
1,2-Dibromoethane	0.0500	0.05007		mg/L		100	73 - 125	4	25
1,2-Dichlorobenzene	0.0500	0.04989		mg/L		100	75 - 125	7	25
1,3-Dichlorobenzene	0.0500	0.05004		mg/L		100	75 - 125	8	25
1,4-Dichlorobenzene	0.0500	0.04821		mg/L		96	75 - 125	7	25
Dichlorodifluoromethane	0.0500	0.09074	*+	mg/L		181	70 - 130	2	25
1,1-Dichloroethane	0.0500	0.04405		mg/L		88	70 - 130	1	25
1,2-Dichloroethane	0.0500	0.04729		mg/L		95	72 - 130	3	25
1,1-Dichloroethene	0.0500	0.04092		mg/L		82	50 - 150	4	25
1,2-Dichloropropane	0.0500	0.04701		mg/L		94	74 - 125	3	25
1,3-Dichloropropane	0.0500	0.04640		mg/L		93	75 - 125	3	25
2,2-Dichloropropane	0.0500	0.05004		mg/L		100	75 - 125	1	25
1,1-Dichloropropene	0.0500	0.04802		mg/L		96	75 - 125	6	25
Ethylbenzene	0.0500	0.05091		mg/L		102	75 - 125	3	25
Hexachlorobutadiene	0.0500	0.06361	*+	mg/L		127	75 - 125	8	25
Isopropylbenzene	0.0500	0.05418		mg/L		108	75 - 125	4	25
Methylene Chloride	0.0500	0.03902		mg/L		78	75 - 125	8	25
m,p-Xylenes	0.0500	0.04971		mg/L		99	75 - 125	5	25
MTBE	0.0500	0.04351		mg/L		87	65 - 135	2	25
Naphthalene	0.0500	0.04848		mg/L		97	70 - 130	7	25
n-Butylbenzene	0.0500	0.05395		mg/L		108	75 - 125	8	25
N-Propylbenzene	0.0500	0.04936		mg/L		99	75 - 125	8	25
o-Xylene	0.0500	0.05043		mg/L		101	75 - 125	4	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05319		mg/L		106	75 - 125	9	25
sec-Butylbenzene	0.0500	0.05293		mg/L		106	75 - 125	8	25
Styrene	0.0500	0.04988		mg/L		100	75 - 125	2	25
tert-Butylbenzene	0.0500	0.05154		mg/L		103	75 - 125	7	25
1,1,1,2-Tetrachloroethane	0.0500	0.05134		mg/L		103	72 - 125	4	25
1,1,2,2-Tetrachloroethane	0.0500	0.04478		mg/L		90	74 - 125	6	25
Tetrachloroethene	0.0500	0.05291		mg/L		106	71 - 125	8	25
Toluene	0.0500	0.04745		mg/L		95	70 - 130	4	25

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

Lab Sample ID: LCSD 860-87630/4

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

Matrix: Water

Analysis Batch: 87630

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
trans-1,2-Dichloroethene	0.0500	0.04371		mg/L	87	75 - 125	5	25		
trans-1,3-Dichloropropene	0.0500	0.04599		mg/L	92	66 - 125	3	25		
1,2,3-Trichlorobenzene	0.0500	0.05647		mg/L	113	75 - 137	7	25		
1,2,4-Trichlorobenzene	0.0500	0.05199		mg/L	104	75 - 135	6	25		
1,1,1-Trichloroethane	0.0500	0.05044		mg/L	101	70 - 130	1	25		
1,1,2-Trichloroethane	0.0500	0.04793		mg/L	96	70 - 130	2	25		
Trichloroethene	0.0500	0.05366		mg/L	107	75 - 135	3	25		
Trichlorofluoromethane	0.0500	0.06492		mg/L	130	60 - 140	9	25		
1,2,3-Trichloropropane	0.0500	0.04217		mg/L	84	75 - 125	6	25		
1,2,4-Trimethylbenzene	0.0500	0.04808		mg/L	96	75 - 125	9	25		
1,3,5-Trimethylbenzene	0.0500	0.04957		mg/L	99	60 - 140	9	25		
Vinyl chloride	0.0500	0.05773		mg/L	115	60 - 140	0	25		
<i>Surrogate</i>		LCSD	LCSD							
		%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94			74 - 124						
Dibromofluoromethane (Surr)	101			75 - 131						
1,2-Dichloroethane-d4 (Surr)	95			63 - 144						
Toluene-d8 (Surr)	95			80 - 117						

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 860-87706/3

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

Matrix: Water

Analysis Batch: 87706

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromide	<0.0711	U	0.500	0.0711 mg/L			01/27/23 12:45	1
Chloride	<0.200	U	0.500	0.200 mg/L			01/27/23 12:45	1
Fluoride	<0.100	U	0.500	0.100 mg/L			01/27/23 12:45	1
Sulfate	<0.109	U	0.500	0.109 mg/L			01/27/23 12:45	1

Lab Sample ID: LCS 860-87706/4

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

Matrix: Water

Analysis Batch: 87706

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Bromide	10.0	9.631		mg/L	96	90 - 110	
Chloride	10.0	9.753		mg/L	98	90 - 110	
Fluoride	10.0	9.984		mg/L	100	90 - 110	
Sulfate	10.0	9.447		mg/L	94	90 - 110	

Lab Sample ID: LCSD 860-87706/5

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

Matrix: Water

Analysis Batch: 87706

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Bromide	10.0	9.725		mg/L	97	90 - 110	1
Chloride	10.0	9.836		mg/L	98	90 - 110	1
Fluoride	10.0	10.08		mg/L	101	90 - 110	1

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCSD 860-87706/5****Matrix: Water****Analysis Batch: 87706**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Sulfate	10.0	9.511		mg/L		95	1	20

**Lab Sample ID: LLCS 860-87706/7****Matrix: Water****Analysis Batch: 87706**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	RPD	Limit
Bromide	0.500	0.5747		mg/L		115		50 - 150
Chloride	0.500	0.5244		mg/L		105		50 - 150
Fluoride	0.500	0.4750	J	mg/L		95		50 - 150
Sulfate	0.500	0.5571		mg/L		111		50 - 150

**Lab Sample ID: MB 860-87707/3****Matrix: Water****Analysis Batch: 87707**

**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		01/27/23 12:45	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L		01/27/23 12:45	1

**Lab Sample ID: LCS 860-87707/4****Matrix: Water****Analysis Batch: 87707**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	10.0	9.689		mg/L		97		80 - 120
Nitrite as N	10.0	9.440		mg/L		94		80 - 120

**Lab Sample ID: LCSD 860-87707/5****Matrix: Water****Analysis Batch: 87707**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	10.0	9.776		mg/L		98	1	20
Nitrite as N	10.0	9.514		mg/L		95	1	20

**Lab Sample ID: LLCS 860-87707/6****Matrix: Water****Analysis Batch: 87707**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	RPD	Limit
Nitrate as N	0.100	0.1084		mg/L		108		50 - 150
Nitrite as N	0.100	0.07988	J	mg/L		80		50 - 150

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**Method: 200.7 Rev 4.4 - Metals (ICP)****Lab Sample ID: MB 860-87829/1-A****Matrix: Water****Analysis Batch: 88096****Client Sample ID: Method Blank****Prep Type: Total Recoverable****Prep Batch: 87829**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Calcium	<0.115	U	0.200		0.115	mg/L		01/28/23 13:00	01/30/23 20:54	1
Magnesium	<0.0428	U	0.200		0.0428	mg/L		01/28/23 13:00	01/30/23 20:54	1
Potassium	<0.0914	U	0.500		0.0914	mg/L		01/28/23 13:00	01/30/23 20:54	1
Sodium	<0.152	U	0.500		0.152	mg/L		01/28/23 13:00	01/30/23 20:54	1
SiO2	<0.471	U	1.07		0.471	mg/L		01/28/23 13:00	01/30/23 20:54	1

**Lab Sample ID: LCS 860-87829/2-A****Matrix: Water****Analysis Batch: 88096****Client Sample ID: Lab Control Sample****Prep Type: Total Recoverable****Prep Batch: 87829**

Analyte	Spikes	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Calcium	25.0	24.80		mg/L			99	85 - 115		
Magnesium	25.0	24.30		mg/L			97	85 - 115		
Potassium	10.0	9.700		mg/L			97	85 - 115		
Sodium	25.0	24.00		mg/L			96	85 - 115		
SiO2	21.4	21.61		mg/L			101	85 - 115		

**Lab Sample ID: LCSD 860-87829/3-A****Matrix: Water****Analysis Batch: 88096****Client Sample ID: Lab Control Sample Dup****Prep Type: Total Recoverable****Prep Batch: 87829**

Analyte	Spikes	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Calcium	25.0	24.80		mg/L			99	85 - 115	0	20	
Magnesium	25.0	24.30		mg/L			97	85 - 115	0	20	
Potassium	10.0	9.670		mg/L			97	85 - 115	0	20	
Sodium	25.0	24.00		mg/L			96	85 - 115	0	20	
SiO2	21.4	21.61		mg/L			101	85 - 115	0	20	

**Lab Sample ID: LLCS 860-87829/4-A****Matrix: Water****Analysis Batch: 88096****Client Sample ID: Lab Control Sample****Prep Type: Total Recoverable****Prep Batch: 87829**

Analyte	Spikes	LLCS	LLCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Calcium	0.200	0.2200		mg/L			110	50 - 150		
Magnesium	0.200	0.2060		mg/L			103	50 - 150		
Potassium	0.500	0.4330	J	mg/L			87	50 - 150		
Sodium	0.500	0.5170		mg/L			103	50 - 150		
SiO2	1.07	1.160		mg/L			108	50 - 150		

**Method: SM 2320B - Alkalinity****Lab Sample ID: MB 860-87925/3****Matrix: Water****Analysis Batch: 87925****Client Sample ID: Method Blank****Prep Type: Total/NA**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Alkalinity	<4.00	U	4.00		4.00	mg/L			01/28/23 11:52	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00		4.00	mg/L			01/28/23 11:52	1
Carbonate Alkalinity as CaCO3	<4.00	U	4.00		4.00	mg/L			01/28/23 11:52	1
Hydroxide Alkalinity	<4.00	U	4.00		4.00	mg/L			01/28/23 11:52	1

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**Method: SM 2320B - Alkalinity (Continued)**

Lab Sample ID: MB 860-87925/3

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

Matrix: Water

Analysis Batch: 87925

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Phenolphthalein Alkalinity	<4.00	U	4.00		4.00	mg/L			01/28/23 11:52	1

Lab Sample ID: LCS 860-87925/4

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

Matrix: Water

Analysis Batch: 87925

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Alkalinity	250	252.3				mg/L		101	85 - 115	

Lab Sample ID: LCSD 860-87925/5

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

Matrix: Water

Analysis Batch: 87925

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Alkalinity	250	251.6				mg/L		101	85 - 115	0

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

Lab Sample ID: MB 860-88043/1

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

Matrix: Water

Analysis Batch: 88043

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Total Dissolved Solids	<5.00	U	5.00		5.00	mg/L			01/30/23 21:00	1

Lab Sample ID: LCS 860-88043/2

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

Matrix: Water

Analysis Batch: 88043

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Total Dissolved Solids	1000	987.0				mg/L		99	80 - 120	

Lab Sample ID: LCSD 860-88043/3

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

Matrix: Water

Analysis Batch: 88043

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Total Dissolved Solids	1000	983.0				mg/L		98	80 - 120	0

Lab Sample ID: LLCS 860-88043/4

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

Matrix: Water

Analysis Batch: 88043

Analyte	Spike	LLCS	LLCS	Result	Qualifier	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier							
Total Dissolved Solids	5.00	5.000				mg/L		100	50 - 150	

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**QC Sample Results**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

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

**Lab Sample ID: 880-24102-1 DU**

**Matrix: Water**

**Analysis Batch: 88043**

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	1760		1766		mg/L		0.1	10

## QC Association Summary

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

Job ID: 880-24102-1  
SDG: Hobbs NM

### GC/MS VOA

#### Analysis Batch: 87630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	8260C	
MB 860-87630/11	Method Blank	Total/NA	Water	8260C	
LCS 860-87630/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-87630/4	Lab Control Sample Dup	Total/NA	Water	8260C	

### HPLC/IC

#### Analysis Batch: 87706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	300.0	
MB 860-87706/3	Method Blank	Total/NA	Water	300.0	
LCS 860-87706/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-87706/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-87706/7	Lab Control Sample	Total/NA	Water	300.0	

#### Analysis Batch: 87707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	300.0	
MB 860-87707/3	Method Blank	Total/NA	Water	300.0	
LCS 860-87707/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-87707/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-87707/6	Lab Control Sample	Total/NA	Water	300.0	

### Metals

#### Prep Batch: 87829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total Recoverable	Water	200.7	
MB 860-87829/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-87829/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-87829/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-87829/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

#### Analysis Batch: 88096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	87829
880-24102-1	Levey Well	Total Recoverable	Water	200.7 Rev 4.4	87829
MB 860-87829/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	87829
LCS 860-87829/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	87829
LCSD 860-87829/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	87829
LLCS 860-87829/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	87829

### General Chemistry

#### Analysis Batch: 87819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	SM 4500 H+ B	

#### Analysis Batch: 87898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	SM 1030E	

Eurofins Midland

**QC Association Summary**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**General Chemistry****Analysis Batch: 87925**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	SM 2320B	
MB 860-87925/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-87925/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-87925/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

**Analysis Batch: 88043**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24102-1	Levey Well	Total/NA	Water	SM 2540C	
MB 860-88043/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-88043/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-88043/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-88043/4	Lab Control Sample	Total/NA	Water	SM 2540C	
880-24102-1 DU	Levey Well	Total/NA	Water	SM 2540C	

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Eurofins Midland

**Lab Chronicle**

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

**Client Sample ID: Levey Well**

Date Collected: 01/25/23 11:50

Date Received: 01/25/23 14:37

**Lab Sample ID: 880-24102-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	87630	NA	EET HOU	01/27/23 17:09
Total/NA	Analysis	300.0		1	87706	WP	EET HOU	01/27/23 21:07
Total/NA	Analysis	300.0		1	87707	WP	EET HOU	01/27/23 21:07
Total Recoverable	Prep	200.7			87829	MD	EET HOU	01/28/23 13:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	88096	JDM	EET HOU	01/30/23 21:33
Total Recoverable	Prep	200.7			87829	MD	EET HOU	01/28/23 13:00
Total Recoverable	Analysis	200.7 Rev 4.4		50	88096	JDM	EET HOU	01/30/23 21:51
Total/NA	Analysis	SM 1030E		1	87898	AA	EET HOU	01/30/23 09:17
Total/NA	Analysis	SM 2320B		1	87925	TL	EET HOU	01/28/23 12:58
Total/NA	Analysis	SM 2540C		1	88043	HN	EET HOU	01/30/23 21:00
Total/NA	Analysis	SM 4500 H+ B		1	87819	TL	EET HOU	01/28/23 12:04

**Laboratory References:**

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

Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum

Job ID: 880-24102-1

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

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	T104704215-22-48	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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Eurofins Midland

## Method Summary

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

Job ID: 880-24102-1  
 SDG: Hobbs NM

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
300.0	Anions, Ion Chromatography	EPA	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

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

Eurofins Midland

**Sample Summary**

Client: Ensolum

Job ID: 880-24102-1

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

SDG: Hobbs NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24102-1	Levey Well	Water	01/25/23 11:50	01/25/23 14:37

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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  
**M (55-392-7750) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)**

Project Manager:	Beaux Jennings		Bill to: (if different)																																																																																																																														
Company Name:	Ensolum LLC		Company Name:																																																																																																																														
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City, State ZIP:	Midland TX 79701		City, State ZIP:																																																																																																																														
Phone:	432-230-3344		Email:	bjennings@ensolum.com																																																																																																																													
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Total 200.7 / 6010 200.8 / 6020:

Signature of the  
Circle Method(s) and Meta(s) to be ana-

**Signature of this document and relinquishment of service.** Xenco will be liable only for the cost of sample

**Relinquished by:** (Signature)

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Project Manager:	Beaux Jennings		Bill to: (if different)																																																																																																																														
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**Total 2007 / 6020:** 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 SiO<sub>2</sub> 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
1 <i>J.D. Haskins</i>	<i>J.D. Haskins</i>	1/25/23	2 <i>J.D. Haskins</i>		
3 <i>J.D. Haskins</i>		1/31/23	4 <i>J.D. Haskins</i>		
5 <i>J.D. Haskins</i>			6 <i>J.D. Haskins</i>		

Revised Date 05/14/18 Rev 2018.1



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-24102-1

SDG Number: Hobbs NM

**Login Number: 24102****List Source: Eurofins Midland****List Number: 1****Creator: Rodriguez, Leticia**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-24102-1

SDG Number: Hobbs NM

**Login Number: 24102****List Source: Eurofins Houston****List Number: 2****List Creation: 01/27/23 03:04 PM****Creator: Pena, Jesiel**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	N/A		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		



# ANALYTICAL REPORT

January 16, 2023

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: L1574896  
Samples Received: 01/11/2023  
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:

A handwritten signature in blue ink that reads "Chad A Upchurch".

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.

A blurred background image showing several laboratory glass vials containing a blue liquid, with a pipette being used to transfer liquid between them.

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	<sup>2</sup> Tc
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Al: Accreditations & Locations	18	<sup>9</sup> Al
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LEVEY WELL L1574896-01 Air

Collected by  
Shane Diller  
01/04/23 12:18  
Received date/time  
01/11/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1986949	100	01/11/23 22:30	01/11/23 22:30	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1988349	1000	01/13/23 21:15	01/13/23 21:15	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1989001	10000	01/15/23 15:28	01/15/23 15:28	DBB	Mt. Juliet, TN

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> 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: 01/16/2023 09:01				
Project Name: Levey Well			Laboratory Job Number: L1574896-01				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1986949, WG1988349 and WG1989001				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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			1
		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 Name: Pace Analytical National		LRC Date: 01/16/2023 09:01					
Project Name: Levey Well		Laboratory Job Number: L1574896-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1986949, WG1988349 and WG1989001					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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: 01/16/2023 09:01
Project Name: Levey Well	Laboratory Job Number: L1574896-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1986949, WG1988349 and WG1989001
ER # <sup>1</sup>	Description
1	TO-15 WG1986949 Allyl Chloride: Percent Recovery is outside of established control limits.

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).

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1986949
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND	J4	100	WG1986949
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1986949
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1986949
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1986949
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1986949
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1986949
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1986949
Carbon disulfide	75-15-0	76.10	20.0	62.2	39.8	124		100	WG1986949
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1986949
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1986949
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1986949
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1986949
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1986949
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1986949
Cyclohexane	110-82-7	84.20	20.0	68.9	7700	26500		100	WG1986949
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1986949
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1986949
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1986949
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1986949
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1986949
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1986949
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1986949
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1986949
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1986949
trans-1,2-Dichloroethene	156-60-5	96.90	200	793	ND	ND		1000	WG1988349
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1986949
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1986949
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1986949
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1986949
Ethanol	64-17-5	46.10	125	236	1460	2750		100	WG1986949
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1986949
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1986949
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1986949
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1986949
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1986949
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1986949
Heptane	142-82-5	100	20.0	81.8	9510	38900		100	WG1986949
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1986949
n-Hexane	110-54-3	86.20	6300	22200	217000	765000		10000	WG1989001
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1986949
Methylene Chloride	75-09-2	84.90	20.0	69.4	22.0	76.4		100	WG1986949
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1986949
2-Butanone (MEK)	78-93-3	72.10	125	369	1440	4250		100	WG1986949
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1986949
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1986949
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1986949
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1986949
2-Propanol	67-63-0	60.10	125	307	1960	4820		100	WG1986949
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1986949
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1986949
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1986949
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1986949
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1986949
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1986949
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1986949

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1986949</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1986949</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1986949</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1986949</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1986949</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1986949</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1986949</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	283000	1170000		100	<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.1				<a href="#">WG1988349</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG1989001</a>

## Sample Narrative:

L1574896-01 WG1988349: Target compounds too high to run at a lower dilution.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3880313-3 01/11/23 12:29

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Benzene	U		0.0715	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.200	<sup>5</sup> Tr
Bromoform	U		0.0732	0.600	<sup>6</sup> Sr
Bromomethane	U		0.0982	0.200	<sup>7</sup> Qc
1,3-Butadiene	U		0.104	2.00	<sup>8</sup> Gl
Carbon disulfide	U		0.102	0.200	<sup>9</sup> Al
Carbon tetrachloride	U		0.0732	0.200	<sup>10</sup> Sc
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	
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	
Methylene Chloride	U		0.0979	0.200	

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3880313-3 01/11/23 12:29

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv															
Methyl Butyl Ketone	U		0.133	1.25														<sup>1</sup> Cp	
2-Butanone (MEK)	U		0.0814	1.25														<sup>2</sup> Tc	
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25														<sup>3</sup> Ss	
Methyl Methacrylate	U		0.0876	0.200														<sup>4</sup> Cn	
MTBE	U		0.0647	0.200														<sup>5</sup> Tr	
Naphthalene	U		0.350	0.630														<sup>6</sup> Sr	
2-Propanol	U		0.264	1.25														<sup>7</sup> Qc	
Propene	U		0.0932	1.25														<sup>8</sup> Gl	
Styrene	U		0.0788	0.200														<sup>9</sup> Al	
1,1,2,2-Tetrachloroethane	U		0.0743	0.200														<sup>10</sup> Sc	
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	58.5	J	39.7	200															
(S) 1,4-Bromofluorobenzene	90.5			60.0-140															

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	2.73	2.97	72.8	79.2	70.0-130			8.42	25
Allyl Chloride	3.75	2.60	2.55	69.3	68.0	70.0-130	J4	J4	1.94	25
Benzene	3.75	3.38	3.37	90.1	89.9	70.0-130			0.296	25
Benzyl Chloride	3.75	3.01	2.96	80.3	78.9	70.0-152			1.68	25
Bromodichloromethane	3.75	3.34	3.34	89.1	89.1	70.0-130			0.000	25
Bromoform	3.75	3.51	3.53	93.6	94.1	70.0-130			0.568	25

## QUALITY CONTROL SUMMARY

L1574896-01

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromomethane	3.75	3.03	3.02	80.8	80.5	70.0-130			0.331	25
1,3-Butadiene	3.75	2.75	2.75	73.3	73.3	70.0-130			0.000	25
Carbon disulfide	3.75	2.74	2.69	73.1	71.7	70.0-130			1.84	25
Carbon tetrachloride	3.75	3.25	3.25	86.7	86.7	70.0-130			0.000	25
Chlorobenzene	3.75	3.35	3.36	89.3	89.6	70.0-130			0.298	25
Chloroethane	3.75	2.78	2.74	74.1	73.1	70.0-130			1.45	25
Chloroform	3.75	3.28	3.26	87.5	86.9	70.0-130			0.612	25
Chloromethane	3.75	2.80	2.78	74.7	74.1	70.0-130			0.717	25
2-Chlorotoluene	3.75	3.51	3.56	93.6	94.9	70.0-130			1.41	25
Cyclohexane	3.75	3.20	3.18	85.3	84.8	70.0-130			0.627	25
Dibromochloromethane	3.75	3.28	3.27	87.5	87.2	70.0-130			0.305	25
1,2-Dibromoethane	3.75	3.37	3.34	89.9	89.1	70.0-130			0.894	25
1,2-Dichlorobenzene	3.75	3.55	3.58	94.7	95.5	70.0-130			0.842	25
1,3-Dichlorobenzene	3.75	3.72	3.68	99.2	98.1	70.0-130			1.08	25
1,4-Dichlorobenzene	3.75	3.71	3.75	98.9	100	70.0-130			1.07	25
1,2-Dichloroethane	3.75	3.43	3.43	91.5	91.5	70.0-130			0.000	25
1,1-Dichloroethane	3.75	3.34	3.33	89.1	88.8	70.0-130			0.300	25
1,1-Dichloroethene	3.75	2.88	2.82	76.8	75.2	70.0-130			2.11	25
cis-1,2-Dichloroethene	3.75	3.35	3.30	89.3	88.0	70.0-130			1.50	25
1,2-Dichloropropane	3.75	3.27	3.25	87.2	86.7	70.0-130			0.613	25
cis-1,3-Dichloropropene	3.75	3.18	3.15	84.8	84.0	70.0-130			0.948	25
trans-1,3-Dichloropropene	3.75	3.18	3.12	84.8	83.2	70.0-130			1.90	25
1,4-Dioxane	3.75	3.42	3.38	91.2	90.1	70.0-140			1.18	25
Ethanol	3.75	2.81	2.69	74.9	71.7	55.0-148			4.36	25
Ethylbenzene	3.75	3.47	3.47	92.5	92.5	70.0-130			0.000	25
4-Ethyltoluene	3.75	3.52	3.52	93.9	93.9	70.0-130			0.000	25
Trichlorofluoromethane	3.75	3.08	3.05	82.1	81.3	70.0-130			0.979	25
Dichlorodifluoromethane	3.75	2.95	2.91	78.7	77.6	64.0-139			1.37	25
1,1,2-Trichlorotrifluoroethane	3.75	2.85	2.82	76.0	75.2	70.0-130			1.06	25
1,2-Dichlortetrafluoroethane	3.75	3.00	3.01	80.0	80.3	70.0-130			0.333	25
Heptane	3.75	3.26	3.25	86.9	86.7	70.0-130			0.307	25
Hexachloro-1,3-butadiene	3.75	3.47	3.45	92.5	92.0	70.0-151			0.578	25
Isopropylbenzene	3.75	3.43	3.45	91.5	92.0	70.0-130			0.581	25
Methylene Chloride	3.75	2.75	2.71	73.3	72.3	70.0-130			1.47	25
Methyl Butyl Ketone	3.75	3.19	3.19	85.1	85.1	70.0-149			0.000	25
Methyl Ethyl Ketone	3.75	3.18	3.18	84.8	84.8	70.0-130			0.000	25
4-Methyl-2-pentanone (MIBK)	3.75	3.37	3.33	89.9	88.8	70.0-139			1.19	25
Methyl Methacrylate	3.75	3.23	3.20	86.1	85.3	70.0-130			0.933	25
MTBE	3.75	3.16	3.10	84.3	82.7	70.0-130			1.92	25
Naphthalene	3.75	3.35	3.28	89.3	87.5	70.0-159			2.11	25

## QUALITY CONTROL SUMMARY

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
2-Propanol	3.75	2.74	2.67	73.1	71.2	70.0-139			2.59	25
Propene	3.75	3.37	3.33	89.9	88.8	64.0-144			1.19	25
Styrene	3.75	3.51	3.49	93.6	93.1	70.0-130			0.571	25
1,1,2,2-Tetrachloroethane	3.75	3.52	3.55	93.9	94.7	70.0-130			0.849	25
Tetrachloroethylene	3.75	3.42	3.38	91.2	90.1	70.0-130			1.18	25
Tetrahydrofuran	3.75	3.16	3.10	84.3	82.7	70.0-137			1.92	25
Toluene	3.75	3.33	3.33	88.8	88.8	70.0-130			0.000	25
1,2,4-Trichlorobenzene	3.75	3.13	3.04	83.5	81.1	70.0-160			2.92	25
1,1,1-Trichloroethane	3.75	3.22	3.20	85.9	85.3	70.0-130			0.623	25
1,1,2-Trichloroethane	3.75	3.37	3.36	89.9	89.6	70.0-130			0.297	25
Trichloroethylene	3.75	3.43	3.38	91.5	90.1	70.0-130			1.47	25
1,2,4-Trimethylbenzene	3.75	3.53	3.55	94.1	94.7	70.0-130			0.565	25
1,3,5-Trimethylbenzene	3.75	3.54	3.53	94.4	94.1	70.0-130			0.283	25
2,2,4-Trimethylpentane	3.75	3.24	3.20	86.4	85.3	70.0-130			1.24	25
Vinyl chloride	3.75	2.92	2.90	77.9	77.3	70.0-130			0.687	25
Vinyl Bromide	3.75	3.11	3.04	82.9	81.1	70.0-130			2.28	25
Vinyl acetate	3.75	2.97	2.93	79.2	78.1	70.0-130			1.36	25
m&p-Xylene	7.50	7.22	7.17	96.3	95.6	70.0-130			0.695	25
o-Xylene	3.75	3.52	3.50	93.9	93.3	70.0-130			0.570	25
TPH (GC/MS) Low Fraction	203	222	223	109	110	70.0-130			0.449	25
(S) 1,4-Bromofluorobenzene				96.3	98.1	60.0-140				

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3881018-3 01/13/23 11:50

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
trans-1,2-Dichloroethene	U		0.0673	0.200
(S) 1,4-Bromofluorobenzene	96.5			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

(LCS) R3881018-1 01/13/23 10:48 • (LCSD) R3881018-2 01/13/23 11:20

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
trans-1,2-Dichloroethene	3.75	3.87	3.87	103	103	70.0-130			0.000	25
(S) 1,4-Bromofluorobenzene				102	102	60.0-140				

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3881187-3 01/15/23 10:41

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	100		60.0-140	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

(LCS) R3881187-1 01/15/23 09:27 • (LCSD) R3881187-2 01/15/23 10:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
n-Hexane	3.75	4.07	4.30	109	115	70.0-130			5.50	25
(S) 1,4-Bromofluorobenzene				100	102	60.0-140				

## 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.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(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.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
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.	<sup>10</sup> Sc
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.
J4	The associated batch QC was outside the established quality control range for accuracy.

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc





# ANALYTICAL REPORT

January 16, 2023

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Ensolum, LLC

Sample Delivery Group: L1574901  
 Samples Received: 01/11/2023  
 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

<b>Cp: Cover Page</b>	<b>1</b>	 <sup>1</sup> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	 <sup>2</sup> Tc
<b>Ss: Sample Summary</b>	<b>3</b>	 <sup>3</sup> Ss
<b>Cn: Case Narrative</b>	<b>4</b>	 <sup>4</sup> Cn
<b>Tr: TRRP Summary</b>	<b>5</b>	 <sup>5</sup> Tr
TRRP form R	6	 <sup>6</sup> Sr
TRRP form S	7	 <sup>7</sup> Qc
TRRP Exception Reports	8	 <sup>8</sup> Gl
<b>Sr: Sample Results</b>	<b>9</b>	 <sup>9</sup> Al
LEVEY WELL L1574901-01	9	 <sup>10</sup> Sc
LEVEY WELL L1574901-02	11	
LEVEY WELL L1574901-03	13	
LEVEY WELL L1574901-04	15	
<b>Qc: Quality Control Summary</b>	<b>17</b>	
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<b>Gl: Glossary of Terms</b>	<b>24</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>25</b>	
<b>Sc: Sample Chain of Custody</b>	<b>26</b>	

## LEVEY WELL L1574901-01 Air

Collected by  
Shane Diller  
01/09/23 11:10  
Received date/time  
01/11/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1986949	100	01/11/23 23:01	01/11/23 23:01	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1988349	1000	01/13/23 21:45	01/13/23 21:45	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1989001	10000	01/15/23 16:06	01/15/23 16:06	DBB	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## LEVEY WELL L1574901-02 Air

Collected by  
Shane Diller  
01/09/23 15:07  
Received date/time  
01/11/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1986949	100	01/11/23 23:32	01/11/23 23:32	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1988349	100	01/13/23 22:15	01/13/23 22:15	DAH	Mt. Juliet, TN

## LEVEY WELL L1574901-03 Air

Collected by  
Shane Diller  
01/09/23 16:08  
Received date/time  
01/11/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1986949	100	01/12/23 00:02	01/12/23 00:02	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1988349	100	01/13/23 22:46	01/13/23 22:46	DAH	Mt. Juliet, TN

## LEVEY WELL L1574901-04 Air

Collected by  
Shane Diller  
01/09/23 17:06  
Received date/time  
01/11/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1986949	100	01/12/23 00:33	01/12/23 00:33	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1988349	100	01/13/23 23:16	01/13/23 23:16	DAH	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> 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: 01/16/2023 13:47				
Project Name: Levey Well			Laboratory Job Number: L1574901-01, 02, 03 and 04				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1986949, WG1988349 and WG1989001				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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			1
		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 Name: Pace Analytical National		LRC Date: 01/16/2023 13:47					
Project Name: Levey Well		Laboratory Job Number: L1574901-01, 02, 03 and 04					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1986949, WG1988349 and WG1989001					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- 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: 01/16/2023 13:47
Project Name: Levey Well	Laboratory Job Number: L1574901-01, 02, 03 and 04
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1986949, WG1988349 and WG1989001
ER # <sup>1</sup>	Description
1	TO-15 WG1986949 Allyl Chloride: Percent Recovery is outside of established control limits.

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: 01/09/23 11:10

L1574901

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1250	2970	ND	ND		1000	WG1988349
Allyl chloride	107-05-1	76.53	200	626	ND	ND		1000	WG1988349
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1986949
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1986949
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1986949
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1986949
Bromomethane	74-83-9	94.90	200	776	ND	ND		1000	WG1988349
1,3-Butadiene	106-99-0	54.10	2000	4430	ND	ND		1000	WG1988349
Carbon disulfide	75-15-0	76.10	200	622	ND	ND		1000	WG1988349
Carbon tetrachloride	56-23-5	154	200	1260	ND	ND		1000	WG1988349
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1986949
Chloroethane	75-00-3	64.50	200	528	ND	ND		1000	WG1988349
Chloroform	67-66-3	119	200	973	ND	ND		1000	WG1988349
Chloromethane	74-87-3	50.50	200	413	ND	ND		1000	WG1988349
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1986949
Cyclohexane	110-82-7	84.20	200	689	24000	82700		1000	WG1988349
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1986949
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1986949
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1986949
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1986949
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1986949
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1986949
1,1-Dichloroethane	75-34-3	98	200	802	ND	ND		1000	WG1988349
1,1-Dichloroethene	75-35-4	96.90	200	793	ND	ND		1000	WG1988349
cis-1,2-Dichloroethene	156-59-2	96.90	200	793	ND	ND		1000	WG1988349
trans-1,2-Dichloroethene	156-60-5	96.90	200	793	ND	ND		1000	WG1988349
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1986949
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1986949
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1986949
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1986949
Ethanol	64-17-5	46.10	1250	2360	5210	9820		1000	WG1988349
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1986949
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1986949
Trichlorofluoromethane	75-69-4	137.40	200	1120	ND	ND		1000	WG1988349
Dichlorodifluoromethane	75-71-8	120.92	200	989	ND	ND		1000	WG1988349
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	200	1530	ND	ND		1000	WG1988349
1,2-Dichlorotetrafluoroethane	76-14-2	171	200	1400	ND	ND		1000	WG1988349
Heptane	142-82-5	100	200	818	25900	106000		1000	WG1988349
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1986949
n-Hexane	110-54-3	86.20	6300	22200	373000	1320000		10000	WG1989001
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1986949
Methylene Chloride	75-09-2	84.90	200	694	ND	ND		1000	WG1988349
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1986949
2-Butanone (MEK)	78-93-3	72.10	1250	3690	ND	ND		1000	WG1988349
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1986949
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1986949
MTBE	1634-04-4	88.10	200	721	ND	ND		1000	WG1988349
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1986949
2-Propanol	67-63-0	60.10	1250	3070	21900	53800		1000	WG1988349
Propene	115-07-1	42.10	1250	2150	ND	ND		1000	WG1988349
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1986949
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1986949
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1986949
Tetrahydrofuran	109-99-9	72.10	200	590	ND	ND		1000	WG1988349
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1986949
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1986949

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	200	1090	ND	ND		1000	<a href="#">WG1988349</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1986949</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	20.5	101		100	<a href="#">WG1986949</a>
2,2,4-Trimethylpentane	540-84-1	114.22	200	934	ND	ND		1000	<a href="#">WG1988349</a>
Vinyl chloride	75-01-4	62.50	200	511	ND	ND		1000	<a href="#">WG1988349</a>
Vinyl Bromide	593-60-2	106.95	200	875	ND	ND		1000	<a href="#">WG1988349</a>
Vinyl acetate	108-05-4	86.10	200	704	ND	ND		1000	<a href="#">WG1988349</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1986949</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1986949</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	417000	1720000		100	<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.6				<a href="#">WG1988349</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1989001</a>

## Sample Narrative:

L1574901-01 WG1988349: Target compounds too high to run at a lower dilution.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1986949
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND	J4	100	WG1986949
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1986949
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1986949
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1986949
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1986949
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1986949
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1986949
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1986949
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1986949
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1986949
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1986949
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1986949
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1986949
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1986949
Cyclohexane	110-82-7	84.20	20.0	68.9	76.3	263		100	WG1986949
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1986949
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1986949
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1986949
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1986949
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1986949
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1986949
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1986949
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1986949
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1986949
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1988349
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1986949
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1986949
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1986949
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1986949
Ethanol	64-17-5	46.10	125	236	1310	2470		100	WG1986949
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1986949
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1986949
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1986949
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1986949
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1986949
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1986949
Heptane	142-82-5	100	20.0	81.8	156	638		100	WG1986949
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1986949
n-Hexane	110-54-3	86.20	63.0	222	719	2530		100	WG1986949
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1986949
Methylene Chloride	75-09-2	84.90	20.0	69.4	22.4	77.8		100	WG1986949
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1986949
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1986949
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1986949
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1986949
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1986949
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1986949
2-Propanol	67-63-0	60.10	125	307	1720	4230		100	WG1986949
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1986949
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1986949
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1986949
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1986949
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1986949
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1986949
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1986949

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1986949</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	29.7	139		100	<a href="#">WG1986949</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1986949</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1986949</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1986949</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1986949</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1986949</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	ND	ND		100	<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.4				<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				<a href="#">WG1988349</a>

## Sample Narrative:

L1574901-02 WG1988349: Target compounds too high to run at a lower dilution.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1986949
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND	J4	100	WG1986949
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1986949
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1986949
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1986949
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1986949
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1986949
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1986949
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1986949
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1986949
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1986949
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1986949
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1986949
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1986949
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1986949
Cyclohexane	110-82-7	84.20	20.0	68.9	50.6	174		100	WG1986949
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1986949
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1986949
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1986949
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1986949
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1986949
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1986949
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1986949
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1986949
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1986949
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1988349
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1986949
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1986949
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1986949
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1986949
Ethanol	64-17-5	46.10	125	236	1390	2620		100	WG1986949
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1986949
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1986949
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1986949
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1986949
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1986949
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1986949
Heptane	142-82-5	100	20.0	81.8	86.4	353		100	WG1986949
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1986949
n-Hexane	110-54-3	86.20	63.0	222	756	2670		100	WG1986949
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1986949
Methylene Chloride	75-09-2	84.90	20.0	69.4	21.5	74.7		100	WG1986949
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1986949
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1986949
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1986949
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1986949
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1986949
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1986949
2-Propanol	67-63-0	60.10	125	307	3230	7940		100	WG1986949
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1986949
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1986949
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1986949
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1986949
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1986949
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1986949
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1986949

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1986949</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1986949</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1986949</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1986949</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1986949</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1986949</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1986949</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	ND	ND		100	<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.9				<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				<a href="#">WG1988349</a>

## Sample Narrative:

L1574901-03 WG1988349: Target compounds too high to run at a lower dilution.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1986949
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND	J4	100	WG1986949
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1986949
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1986949
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1986949
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1986949
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1986949
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1986949
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1986949
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1986949
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1986949
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1986949
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1986949
Chloromethane	74-87-3	50.50	20.0	41.3	31.3	64.6		100	WG1986949
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1986949
Cyclohexane	110-82-7	84.20	20.0	68.9	592	2040		100	WG1986949
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1986949
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1986949
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1986949
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1986949
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1986949
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1986949
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1986949
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1986949
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1986949
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1988349
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1986949
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1986949
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1986949
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1986949
Ethanol	64-17-5	46.10	125	236	1460	2750		100	WG1986949
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1986949
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1986949
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1986949
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1986949
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1986949
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1986949
Heptane	142-82-5	100	20.0	81.8	917	3750		100	WG1986949
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1986949
n-Hexane	110-54-3	86.20	63.0	222	4540	16000		100	WG1986949
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1986949
Methylene Chloride	75-09-2	84.90	20.0	69.4	22.8	79.2		100	WG1986949
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1986949
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1986949
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1986949
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1986949
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1986949
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1986949
2-Propanol	67-63-0	60.10	125	307	2780	6830		100	WG1986949
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1986949
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1986949
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1986949
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1986949
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1986949
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1986949
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1986949

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1986949</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1986949</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1986949</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1986949</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1986949</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1986949</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1986949</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1986949</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1986949</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	32600	135000	<u>B</u>	100	<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.6				<a href="#">WG1986949</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1988349</a>

## Sample Narrative:

L1574901-04 WG1988349: Target compounds too high to run at a lower dilution.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3880313-3 01/11/23 12:29

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Benzene	U		0.0715	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.200	<sup>5</sup> Tr
Bromoform	U		0.0732	0.600	<sup>6</sup> Sr
Bromomethane	U		0.0982	0.200	<sup>7</sup> Qc
1,3-Butadiene	U		0.104	2.00	<sup>8</sup> Gl
Carbon disulfide	U		0.102	0.200	<sup>9</sup> Al
Carbon tetrachloride	U		0.0732	0.200	<sup>10</sup> Sc
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	
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	
n-Hexane	U		0.206	0.630	
Isopropylbenzene	U		0.0777	0.200	

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3880313-3 01/11/23 12:29

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv															
Methylene Chloride	U		0.0979	0.200															<sup>1</sup> Cp
Methyl Butyl Ketone	U		0.133	1.25															<sup>2</sup> Tc
2-Butanone (MEK)	U		0.0814	1.25															<sup>3</sup> Ss
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25															<sup>4</sup> Cn
Methyl Methacrylate	U		0.0876	0.200															<sup>5</sup> Tr
MTBE	U		0.0647	0.200															<sup>6</sup> Sr
Naphthalene	U		0.350	0.630															<sup>7</sup> Qc
2-Propanol	U		0.264	1.25															<sup>8</sup> Gl
Propene	U		0.0932	1.25															<sup>9</sup> Al
Styrene	U		0.0788	0.200															<sup>10</sup> Sc
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	58.5	J	39.7	200															
(S) 1,4-Bromofluorobenzene	90.5			60.0-140															

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	2.73	2.97	72.8	79.2	70.0-130			8.42	25
Allyl Chloride	3.75	2.60	2.55	69.3	68.0	70.0-130	J4	J4	1.94	25
Benzene	3.75	3.38	3.37	90.1	89.9	70.0-130			0.296	25
Benzyl Chloride	3.75	3.01	2.96	80.3	78.9	70.0-152			1.68	25
Bromodichloromethane	3.75	3.34	3.34	89.1	89.1	70.0-130			0.000	25

## QUALITY CONTROL SUMMARY

L1574901-01,02,03,04

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	3.75	3.51	3.53	93.6	94.1	70.0-130			0.568	25
Bromomethane	3.75	3.03	3.02	80.8	80.5	70.0-130			0.331	25
1,3-Butadiene	3.75	2.75	2.75	73.3	73.3	70.0-130			0.000	25
Carbon disulfide	3.75	2.74	2.69	73.1	71.7	70.0-130			1.84	25
Carbon tetrachloride	3.75	3.25	3.25	86.7	86.7	70.0-130			0.000	25
Chlorobenzene	3.75	3.35	3.36	89.3	89.6	70.0-130			0.298	25
Chloroethane	3.75	2.78	2.74	74.1	73.1	70.0-130			1.45	25
Chloroform	3.75	3.28	3.26	87.5	86.9	70.0-130			0.612	25
Chloromethane	3.75	2.80	2.78	74.7	74.1	70.0-130			0.717	25
2-Chlorotoluene	3.75	3.51	3.56	93.6	94.9	70.0-130			1.41	25
Cyclohexane	3.75	3.20	3.18	85.3	84.8	70.0-130			0.627	25
Dibromochloromethane	3.75	3.28	3.27	87.5	87.2	70.0-130			0.305	25
1,2-Dibromoethane	3.75	3.37	3.34	89.9	89.1	70.0-130			0.894	25
1,2-Dichlorobenzene	3.75	3.55	3.58	94.7	95.5	70.0-130			0.842	25
1,3-Dichlorobenzene	3.75	3.72	3.68	99.2	98.1	70.0-130			1.08	25
1,4-Dichlorobenzene	3.75	3.71	3.75	98.9	100	70.0-130			1.07	25
1,2-Dichloroethane	3.75	3.43	3.43	91.5	91.5	70.0-130			0.000	25
1,1-Dichloroethane	3.75	3.34	3.33	89.1	88.8	70.0-130			0.300	25
1,1-Dichloroethene	3.75	2.88	2.82	76.8	75.2	70.0-130			2.11	25
cis-1,2-Dichloroethene	3.75	3.35	3.30	89.3	88.0	70.0-130			1.50	25
1,2-Dichloropropane	3.75	3.27	3.25	87.2	86.7	70.0-130			0.613	25
cis-1,3-Dichloropropene	3.75	3.18	3.15	84.8	84.0	70.0-130			0.948	25
trans-1,3-Dichloropropene	3.75	3.18	3.12	84.8	83.2	70.0-130			1.90	25
1,4-Dioxane	3.75	3.42	3.38	91.2	90.1	70.0-140			1.18	25
Ethanol	3.75	2.81	2.69	74.9	71.7	55.0-148			4.36	25
Ethylbenzene	3.75	3.47	3.47	92.5	92.5	70.0-130			0.000	25
4-Ethyltoluene	3.75	3.52	3.52	93.9	93.9	70.0-130			0.000	25
Trichlorofluoromethane	3.75	3.08	3.05	82.1	81.3	70.0-130			0.979	25
Dichlorodifluoromethane	3.75	2.95	2.91	78.7	77.6	64.0-139			1.37	25
1,1,2-Trichlorotrifluoroethane	3.75	2.85	2.82	76.0	75.2	70.0-130			1.06	25
1,2-Dichlortetrafluoroethane	3.75	3.00	3.01	80.0	80.3	70.0-130			0.333	25
Heptane	3.75	3.26	3.25	86.9	86.7	70.0-130			0.307	25
Hexachloro-1,3-butadiene	3.75	3.47	3.45	92.5	92.0	70.0-151			0.578	25
n-Hexane	3.75	3.24	3.22	86.4	85.9	70.0-130			0.619	25
Isopropylbenzene	3.75	3.43	3.45	91.5	92.0	70.0-130			0.581	25
Methylene Chloride	3.75	2.75	2.71	73.3	72.3	70.0-130			1.47	25
Methyl Butyl Ketone	3.75	3.19	3.19	85.1	85.1	70.0-149			0.000	25
Methyl Ethyl Ketone	3.75	3.18	3.18	84.8	84.8	70.0-130			0.000	25
4-Methyl-2-pentanone (MIBK)	3.75	3.37	3.33	89.9	88.8	70.0-139			1.19	25
Methyl Methacrylate	3.75	3.23	3.20	86.1	85.3	70.0-130			0.933	25

## QUALITY CONTROL SUMMARY

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

(LCS) R3880313-1 01/11/23 11:23 • (LCSD) R3880313-2 01/11/23 11:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
MTBE	3.75	3.16	3.10	84.3	82.7	70.0-130			1.92	25
Naphthalene	3.75	3.35	3.28	89.3	87.5	70.0-159			2.11	25
2-Propanol	3.75	2.74	2.67	73.1	71.2	70.0-139			2.59	25
Propene	3.75	3.37	3.33	89.9	88.8	64.0-144			1.19	25
Styrene	3.75	3.51	3.49	93.6	93.1	70.0-130			0.571	25
1,1,2,2-Tetrachloroethane	3.75	3.52	3.55	93.9	94.7	70.0-130			0.849	25
Tetrachloroethylene	3.75	3.42	3.38	91.2	90.1	70.0-130			1.18	25
Tetrahydrofuran	3.75	3.16	3.10	84.3	82.7	70.0-137			1.92	25
Toluene	3.75	3.33	3.33	88.8	88.8	70.0-130			0.000	25
1,2,4-Trichlorobenzene	3.75	3.13	3.04	83.5	81.1	70.0-160			2.92	25
1,1,1-Trichloroethane	3.75	3.22	3.20	85.9	85.3	70.0-130			0.623	25
1,1,2-Trichloroethane	3.75	3.37	3.36	89.9	89.6	70.0-130			0.297	25
Trichloroethylene	3.75	3.43	3.38	91.5	90.1	70.0-130			1.47	25
1,2,4-Trimethylbenzene	3.75	3.53	3.55	94.1	94.7	70.0-130			0.565	25
1,3,5-Trimethylbenzene	3.75	3.54	3.53	94.4	94.1	70.0-130			0.283	25
2,2,4-Trimethylpentane	3.75	3.24	3.20	86.4	85.3	70.0-130			1.24	25
Vinyl chloride	3.75	2.92	2.90	77.9	77.3	70.0-130			0.687	25
Vinyl Bromide	3.75	3.11	3.04	82.9	81.1	70.0-130			2.28	25
Vinyl acetate	3.75	2.97	2.93	79.2	78.1	70.0-130			1.36	25
m&p-Xylene	7.50	7.22	7.17	96.3	95.6	70.0-130			0.695	25
o-Xylene	3.75	3.52	3.50	93.9	93.3	70.0-130			0.570	25
TPH (GC/MS) Low Fraction	203	222	223	109	110	70.0-130			0.449	25
(S) 1,4-Bromofluorobenzene				96.3	98.1	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3881018-3 01/13/23 11:50

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Bromomethane	U		0.0982	0.200	<sup>3</sup> Ss
1,3-Butadiene	U		0.104	2.00	<sup>4</sup> Cn
Carbon disulfide	U		0.102	0.200	<sup>5</sup> Tr
Carbon tetrachloride	U		0.0732	0.200	<sup>6</sup> Sr
Chloroethane	U		0.0996	0.200	<sup>7</sup> Qc
Chloroform	U		0.0717	0.200	<sup>8</sup> Gl
Chloromethane	U		0.103	0.200	<sup>9</sup> Al
Cyclohexane	U		0.0753	0.200	<sup>10</sup> Sc
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	
Ethanol	U		0.265	1.25	
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	
Methylene Chloride	U		0.0979	0.200	
2-Butanone (MEK)	U		0.0814	1.25	
MTBE	U		0.0647	0.200	
2-Propanol	U		0.264	1.25	
Propene	U		0.0932	1.25	
Tetrahydrofuran	U		0.0734	0.200	
1,1,1-Trichloroethane	U		0.0736	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	
(S) 1,4-Bromofluorobenzene	96.5			60.0-140	

## QUALITY CONTROL SUMMARY

L1574901-01,02,03,04

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

(LCS) R3881018-1 01/13/23 10:48 • (LCSD) R3881018-2 01/13/23 11:20

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.57	4.07	95.2	109	70.0-130			13.1	25
Allyl Chloride	3.75	3.74	3.66	99.7	97.6	70.0-130			2.16	25
Bromomethane	3.75	3.73	3.73	99.5	99.5	70.0-130			0.000	25
1,3-Butadiene	3.75	3.68	3.69	98.1	98.4	70.0-130			0.271	25
Carbon disulfide	3.75	3.92	3.88	105	103	70.0-130			1.03	25
Carbon tetrachloride	3.75	3.85	3.80	103	101	70.0-130			1.31	25
Chloroethane	3.75	3.71	3.72	98.9	99.2	70.0-130			0.269	25
Chloroform	3.75	3.85	3.84	103	102	70.0-130			0.260	25
Chloromethane	3.75	3.73	3.72	99.5	99.2	70.0-130			0.268	25
Cyclohexane	3.75	3.86	3.81	103	102	70.0-130			1.30	25
1,1-Dichloroethane	3.75	3.78	3.74	101	99.7	70.0-130			1.06	25
1,1-Dichloroethene	3.75	3.93	3.89	105	104	70.0-130			1.02	25
cis-1,2-Dichloroethene	3.75	3.80	3.80	101	101	70.0-130			0.000	25
trans-1,2-Dichloroethene	3.75	3.87	3.87	103	103	70.0-130			0.000	25
Ethanol	3.75	3.62	3.59	96.5	95.7	55.0-148			0.832	25
Trichlorofluoromethane	3.75	3.83	3.80	102	101	70.0-130			0.786	25
Dichlorodifluoromethane	3.75	3.84	3.82	102	102	64.0-139			0.522	25
1,1,2-Trichlorotrifluoroethane	3.75	3.90	3.86	104	103	70.0-130			1.03	25
1,2-Dichlorotetrafluoroethane	3.75	3.89	3.88	104	103	70.0-130			0.257	25
Heptane	3.75	3.89	3.90	104	104	70.0-130			0.257	25
Methylene Chloride	3.75	3.86	3.76	103	100	70.0-130			2.62	25
Methyl Ethyl Ketone	3.75	3.80	3.79	101	101	70.0-130			0.264	25
MTBE	3.75	3.78	3.76	101	100	70.0-130			0.531	25
2-Propanol	3.75	3.64	3.67	97.1	97.9	70.0-139			0.821	25
Propene	3.75	3.68	3.71	98.1	98.9	64.0-144			0.812	25
Tetrahydrofuran	3.75	3.68	3.68	98.1	98.1	70.0-137			0.000	25
1,1,1-Trichloroethane	3.75	3.79	3.74	101	99.7	70.0-130			1.33	25
2,2,4-Trimethylpentane	3.75	3.86	3.84	103	102	70.0-130			0.519	25
Vinyl chloride	3.75	3.84	3.73	102	99.5	70.0-130			2.91	25
Vinyl Bromide	3.75	3.83	3.78	102	101	70.0-130			1.31	25
Vinyl acetate	3.75	3.72	3.62	99.2	96.5	70.0-130			2.72	25
(S) 1,4-Bromofluorobenzene				102	102	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## QUALITY CONTROL SUMMARY

[L1574901-01](#)

## Method Blank (MB)

(MB) R3881187-3 01/15/23 10:41

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	100		60.0-140	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

(LCS) R3881187-1 01/15/23 09:27 • (LCSD) R3881187-2 01/15/23 10:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
n-Hexane	3.75	4.07	4.30	109	115	70.0-130			5.50	25
(S) 1,4-Bromofluorobenzene				100	102	60.0-140				

## 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.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(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.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
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.	<sup>10</sup> Sc
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

Company Name/Address: <b>Ensolum, LLC</b> 601 Marienfeld #400 Midland, TX 79701			Billing Information: <b>Accounts Payable</b> 2351 W Northwest Hwy. Ste. 1203 Dallas, TX 75220			TO-15 Summa	Analysis / Container / Preservative						Chain of Custody					
							Pres Chk											
Report to: <b>Beaux Jennings</b>			Email To: <a href="mailto:bjennings@ensolum.com">bjennings@ensolum.com</a>															
Project Description: Levey Well		City/State Collected: Hobbs NM		Please Circle: PT MT CT ET														
Phone: <b>210-219-8858</b>		Client Project # <b>03B1417001</b>		Lab Project # <b>ENSOLUMMTX-SUMMA</b>													SDG # <b>U1574901</b>	
Collected by (print): Shane Diller		Site/Facility ID # <b>03B1417001</b>		P.O. # <b>03B1417001</b>													Tag # <b>I056</b>	
Collected by (signature):		<b>Rush?</b> (Lab MUST Be Notified)		Quote #													Acctnum: <b>ENSOLUMTX</b>	
Immediately Packed on Ice N <input checked="" type="checkbox"/> X <input type="checkbox"/> Y <input type="checkbox"/>		<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		Date Results Needed			No. of Cntrs.										Template: <b>T180734</b>	
Sample ID		Comp/Grab	Matrix *	Depth	Date			Time										Prelogin: <b>P827709</b>
Levey Well		G	Air	-	1-9-23	1110	1	X									pH _____ Temp _____	
Levey Well		G	Air	-	1-9-23	1507	1	X									Flow _____ Other _____	
Levey Well		G	Air	-	1-9-23	1608	1	X										
Levey Well		G	Air	-	1-9-23	1706	1	X										
<del>WFE</del> <del>SC 1-9-23</del>																		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks: _____													Sample Receipt Checklist				
Samples returned via: UPS FedEx Courier _____														Tracking #		COC Seal Present/Intact: <input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Relinquished by: (Signature) <i>Shane Diller</i>	Date: <b>1/16/23</b>	Time: <b>1030</b>	Received by: (Signature) <i>C. Diller</i>	Trip Blank Received: Yes / No <input type="checkbox"/> HCl <input type="checkbox"/> MeOH <input type="checkbox"/> TBR	Temp: <b>Ampl.</b> °C Bottles Received: <b>1</b>	If preservation required by Login: Date/Time												
Relinquished by: (Signature) <i>C. Diller</i>	Date: <b>1/16/23</b>	Time: <b>1700</b>	Received by: (Signature) <i>FedEx</i>															
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>mm</i>	Date: <b>1/11/23</b>	Time: <b>0830</b>	Hold: _____ Condition: <b>NCF / OK</b>												



# ANALYTICAL REPORT

January 23, 2023

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Ensolum, LLC

Sample Delivery Group: L1577084  
 Samples Received: 01/18/2023  
 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	<sup>1</sup> Cp
Tc: Table of Contents	2	<sup>2</sup> Tc
Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Tr: TRRP Summary	5	<sup>5</sup> Tr
TRRP form R	6	
TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	<sup>6</sup> Sr
LEVEY WELL L1577084-01	9	
Qc: Quality Control Summary	11	<sup>7</sup> Qc
Volatile Organic Compounds (MS) by Method TO-15	11	
Gl: Glossary of Terms	16	<sup>8</sup> Gl
Al: Accreditations & Locations	17	<sup>9</sup> Al
Sc: Sample Chain of Custody	18	<sup>10</sup> Sc

LEVEY WELL L1577084-01 Air

Collected by  
Shane Diller  
01/13/23 12:17  
Received date/time  
01/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1991336	100	01/20/23 00:25	01/20/23 00:25	CEP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1992097	2000	01/20/23 20:58	01/20/23 20:58	SDS	Mt. Juliet, TN

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> 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: 01/23/2023 07:39				
Project Name: Levey Well			Laboratory Job Number: L1577084-01				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1991336 and WG1992097				
# <sup>1</sup>	A <sup>2</sup>	Description					
R1	OI	Chain-of-custody (C-O-C)	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		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	X				
		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	X				
		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	X				
		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	X				
		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):	X				
		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	X				
		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	X				
		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):	X				
		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	X				
		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 Name: Pace Analytical National		LRC Date: 01/23/2023 07:39					
Project Name: Levey Well		Laboratory Job Number: L1577084-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1991336 and WG1992097					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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: 01/23/2023 07:39
Project Name: Levey Well	Laboratory Job Number: L1577084-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1991336 and WG1992097
ER # <sup>1</sup>	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: 01/13/23 12:17

L1577084

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	4000	9510		100	WG1991336
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1991336
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1991336
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1991336
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1991336
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1991336
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1991336
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1991336
Carbon disulfide	75-15-0	76.10	20.0	62.2	30.7	95.6		100	WG1991336
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1991336
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1991336
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1991336
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1991336
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1991336
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1991336
Cyclohexane	110-82-7	84.20	400	1380	12600	43400		2000	WG1992097
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1991336
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1991336
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1991336
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1991336
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1991336
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1991336
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1991336
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1991336
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1991336
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1991336
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1991336
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1991336
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1991336
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1991336
Ethanol	64-17-5	46.10	125	236	2590	4880		100	WG1991336
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1991336
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1991336
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1991336
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1991336
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1991336
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1991336
Heptane	142-82-5	100	20.0	81.8	ND	ND		100	WG1991336
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1991336
n-Hexane	110-54-3	86.20	1260	4440	68300	241000		2000	WG1992097
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1991336
Methylene Chloride	75-09-2	84.90	20.0	69.4	ND	ND		100	WG1991336
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1991336
2-Butanone (MEK)	78-93-3	72.10	125	369	1110	3270		100	WG1991336
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1991336
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1991336
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1991336
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1991336
2-Propanol	67-63-0	60.10	125	307	5400	13300		100	WG1991336
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1991336
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1991336
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1991336
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG1991336
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1991336
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1991336
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1991336

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1991336</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1991336</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1991336</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1991336</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1991336</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1991336</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1991336</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1991336</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1991336</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1991336</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1991336</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	366000	1510000		100	<a href="#">WG1991336</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				<a href="#">WG1991336</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		92.1				<a href="#">WG1992097</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3882870-3 01/19/23 10:08

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Benzene	U		0.0715	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.200	<sup>5</sup> Tr
Bromoform	U		0.0732	0.600	<sup>6</sup> Sr
Bromomethane	U		0.0982	0.200	<sup>7</sup> Qc
1,3-Butadiene	U		0.104	2.00	<sup>8</sup> Gl
Carbon disulfide	U		0.102	0.200	<sup>9</sup> Al
Carbon tetrachloride	U		0.0732	0.200	<sup>10</sup> Sc
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	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	
Methylene Chloride	U		0.0979	0.200	

## QUALITY CONTROL SUMMARY

L1577084-01

## Method Blank (MB)

(MB) R3882870-3 01/19/23 10:08

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv															
Methyl Butyl Ketone	U		0.133	1.25															<sup>1</sup> Cp
2-Butanone (MEK)	U		0.0814	1.25															<sup>2</sup> Tc
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25															<sup>3</sup> Ss
Methyl Methacrylate	U		0.0876	0.200															<sup>4</sup> Cn
MTBE	U		0.0647	0.200															<sup>5</sup> Tr
Naphthalene	U		0.350	0.630															<sup>6</sup> Sr
2-Propanol	U		0.264	1.25															<sup>7</sup> Qc
Propene	U		0.0932	1.25															<sup>8</sup> Gl
Styrene	U		0.0788	0.200															<sup>9</sup> Al
1,1,2,2-Tetrachloroethane	U		0.0743	0.200															<sup>10</sup> Sc
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	103			60.0-140															

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

(LCS) R3882870-1 01/19/23 08:49 • (LCSD) R3882870-2 01/19/23 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.47	3.54	92.5	94.4	70.0-130			2.00	25
Allyl Chloride	3.75	3.89	3.92	104	105	70.0-130			0.768	25
Benzene	3.75	3.79	3.84	101	102	70.0-130			1.31	25
Benzyl Chloride	3.75	4.17	4.26	111	114	70.0-152			2.14	25
Bromodichloromethane	3.75	3.66	3.73	97.6	99.5	70.0-130			1.89	25
Bromoform	3.75	3.86	3.92	103	105	70.0-130			1.54	25

## QUALITY CONTROL SUMMARY

L1577084-01

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

(LCS) R3882870-1 01/19/23 08:49 • (LCSD) R3882870-2 01/19/23 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromomethane	3.75	3.10	3.14	82.7	83.7	70.0-130			1.28	25
1,3-Butadiene	3.75	3.12	3.15	83.2	84.0	70.0-130			0.957	25
Carbon disulfide	3.75	3.94	4.03	105	107	70.0-130			2.26	25
Carbon tetrachloride	3.75	3.84	3.94	102	105	70.0-130			2.57	25
Chlorobenzene	3.75	3.62	3.68	96.5	98.1	70.0-130			1.64	25
Chloroethane	3.75	3.36	3.47	89.6	92.5	70.0-130			3.22	25
Chloroform	3.75	3.82	3.89	102	104	70.0-130			1.82	25
Chloromethane	3.75	3.51	3.53	93.6	94.1	70.0-130			0.568	25
2-Chlorotoluene	3.75	3.91	3.97	104	106	70.0-130			1.52	25
Dibromochloromethane	3.75	3.63	3.68	96.8	98.1	70.0-130			1.37	25
1,2-Dibromoethane	3.75	3.78	3.83	101	102	70.0-130			1.31	25
1,2-Dichlorobenzene	3.75	3.76	3.82	100	102	70.0-130			1.58	25
1,3-Dichlorobenzene	3.75	3.79	3.79	101	101	70.0-130			0.000	25
1,4-Dichlorobenzene	3.75	3.80	3.85	101	103	70.0-130			1.31	25
1,2-Dichloroethane	3.75	3.65	3.73	97.3	99.5	70.0-130			2.17	25
1,1-Dichloroethane	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,1-Dichloroethene	3.75	3.90	4.00	104	107	70.0-130			2.53	25
cis-1,2-Dichloroethene	3.75	4.03	4.08	107	109	70.0-130			1.23	25
trans-1,2-Dichloroethene	3.75	3.98	4.06	106	108	70.0-130			1.99	25
1,2-Dichloropropane	3.75	3.67	3.70	97.9	98.7	70.0-130			0.814	25
cis-1,3-Dichloropropene	3.75	4.03	4.02	107	107	70.0-130			0.248	25
trans-1,3-Dichloropropene	3.75	4.07	4.09	109	109	70.0-130			0.490	25
1,4-Dioxane	3.75	3.91	3.95	104	105	70.0-140			1.02	25
Ethanol	3.75	3.64	3.73	97.1	99.5	55.0-148			2.44	25
Ethylbenzene	3.75	4.00	4.04	107	108	70.0-130			0.995	25
4-Ethyltoluene	3.75	4.13	4.14	110	110	70.0-130			0.242	25
Trichlorofluoromethane	3.75	2.85	2.91	76.0	77.6	70.0-130			2.08	25
Dichlorodifluoromethane	3.75	3.54	3.57	94.4	95.2	64.0-139			0.844	25
1,1,2-Trichlorotrifluoroethane	3.75	3.80	3.88	101	103	70.0-130			2.08	25
1,2-Dichlortetrafluoroethane	3.75	3.87	3.87	103	103	70.0-130			0.000	25
Heptane	3.75	3.83	3.90	102	104	70.0-130			1.81	25
Hexachloro-1,3-butadiene	3.75	3.92	3.98	105	106	70.0-151			1.52	25
Isopropylbenzene	3.75	4.27	4.32	114	115	70.0-130			1.16	25
Methylene Chloride	3.75	3.58	3.59	95.5	95.7	70.0-130			0.279	25
Methyl Butyl Ketone	3.75	3.83	3.84	102	102	70.0-149			0.261	25
Methyl Ethyl Ketone	3.75	4.07	4.12	109	110	70.0-130			1.22	25
4-Methyl-2-pentanone (MIBK)	3.75	3.76	3.79	100	101	70.0-139			0.795	25
Methyl Methacrylate	3.75	3.97	4.04	106	108	70.0-130			1.75	25
MTBE	3.75	4.32	4.43	115	118	70.0-130			2.51	25
Naphthalene	3.75	4.08	4.16	109	111	70.0-159			1.94	25

## QUALITY CONTROL SUMMARY

L1577084-01

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

(LCS) R3882870-1 01/19/23 08:49 • (LCSD) R3882870-2 01/19/23 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
2-Propanol	3.75	3.87	3.96	103	106	70.0-139			2.30	25
Propene	3.75	3.63	3.66	96.8	97.6	64.0-144			0.823	25
Styrene	3.75	4.18	4.24	111	113	70.0-130			1.43	25
1,1,2,2-Tetrachloroethane	3.75	3.74	3.76	99.7	100	70.0-130			0.533	25
Tetrachloroethylene	3.75	3.75	3.78	100	101	70.0-130			0.797	25
Tetrahydrofuran	3.75	3.85	3.91	103	104	70.0-137			1.55	25
Toluene	3.75	3.97	4.00	106	107	70.0-130			0.753	25
1,2,4-Trichlorobenzene	3.75	3.94	4.03	105	107	70.0-160			2.26	25
1,1,1-Trichloroethane	3.75	3.91	4.01	104	107	70.0-130			2.53	25
1,1,2-Trichloroethane	3.75	3.70	3.75	98.7	100	70.0-130			1.34	25
Trichloroethylene	3.75	3.79	3.83	101	102	70.0-130			1.05	25
1,2,4-Trimethylbenzene	3.75	4.18	4.25	111	113	70.0-130			1.66	25
1,3,5-Trimethylbenzene	3.75	4.06	4.13	108	110	70.0-130			1.71	25
2,2,4-Trimethylpentane	3.75	4.25	4.33	113	115	70.0-130			1.86	25
Vinyl chloride	3.75	3.52	3.58	93.9	95.5	70.0-130			1.69	25
Vinyl Bromide	3.75	2.89	2.94	77.1	78.4	70.0-130			1.72	25
Vinyl acetate	3.75	3.91	3.97	104	106	70.0-130			1.52	25
m&p-Xylene	7.50	8.35	8.43	111	112	70.0-130			0.954	25
o-Xylene	3.75	4.36	4.37	116	117	70.0-130			0.229	25
TPH (GC/MS) Low Fraction	203	218	219	107	108	70.0-130			0.458	25
(S) 1,4-Bromofluorobenzene				105	105	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## QUALITY CONTROL SUMMARY

[L1577084-01](#)

## Method Blank (MB)

(MB) R3882974-3 01/20/23 09:44

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Cyclohexane	U		0.0753	0.200
n-Hexane	U		0.206	0.630
(S) 1,4-Bromofluorobenzene	96.1		60.0-140	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

(LCS) R3882974-1 01/20/23 08:41 • (LCSD) R3882974-2 01/20/23 09:14

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Cyclohexane	3.75	3.92	4.01	105	107	70.0-130			2.27	25
n-Hexane	3.75	4.03	4.15	107	111	70.0-130			2.93	25
(S) 1,4-Bromofluorobenzene			100	104	104	60.0-140				

## 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.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(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.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
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.	<sup>10</sup> Sc
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc





# ANALYTICAL REPORT

January 27, 2023

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Ensolum, LLC

Sample Delivery Group: L1578612  
 Samples Received: 01/24/2023  
 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](http://www.pacenational.com)

Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	<sup>2</sup> Tc
Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Tr: TRRP Summary	5	<sup>5</sup> Tr
TRRP form R	6	
TRRP form S	7	
TRRP Exception Reports	8	
Sr: Sample Results	9	<sup>6</sup> Sr
LEVEY WELL L1578612-01	9	
Qc: Quality Control Summary	11	<sup>7</sup> Qc
Volatile Organic Compounds (MS) by Method TO-15	11	
Gl: Glossary of Terms	16	<sup>8</sup> Gl
Al: Accreditations & Locations	17	<sup>9</sup> Al
Sc: Sample Chain of Custody	18	<sup>10</sup> Sc

LEVEY WELL L1578612-01 Air

Collected by  
Shane Diller  
01/19/23 11:54  
Received date/time  
01/24/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1994508	100	01/25/23 22:04	01/25/23 22:04	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1995213	5000	01/26/23 13:56	01/26/23 13:56	DAH	Mt. Juliet, TN

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> 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: 01/27/2023 09:21				
Project Name: Levey Well			Laboratory Job Number: L1578612-01				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1994508 and WG1995213				
# <sup>1</sup>	A <sup>2</sup>	Description					
R1	OI	Chain-of-custody (C-O-C)	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		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	X				
		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	X				
		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	X				
		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	X				
		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):	X				
		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	X				
		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	X				
		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):	X				
		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	X				
		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: 01/27/2023 09:21					
Project Name: Levey Well		Laboratory Job Number: L1578612-01					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1994508 and WG1995213					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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: 01/27/2023 09:21
Project Name: Levey Well	Laboratory Job Number: L1578612-01
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1994508 and WG1995213
ER # <sup>1</sup>	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).	

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	6250	14900	14800	35200		5000	WG1995213
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1994508
Benzene	71-43-2	78.10	20.0	63.9	154	492		100	WG1994508
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1994508
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1994508
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1994508
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1994508
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1994508
Carbon disulfide	75-15-0	76.10	20.0	62.2	103	321		100	WG1994508
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1994508
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1994508
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1994508
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1994508
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1994508
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1994508
Cyclohexane	110-82-7	84.20	1000	3440	183000	630000		5000	WG1995213
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1994508
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1994508
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1994508
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1994508
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1994508
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1994508
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1994508
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1994508
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1994508
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1994508
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1994508
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1994508
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1994508
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1994508
Ethanol	64-17-5	46.10	125	236	3540	6670		100	WG1994508
Ethylbenzene	100-41-4	106	20.0	86.7	27.6	120		100	WG1994508
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1994508
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1994508
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1994508
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1994508
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1994508
Heptane	142-82-5	100	1000	4090	17700	72400		5000	WG1995213
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1994508
n-Hexane	110-54-3	86.20	3150	11100	200000	705000		5000	WG1995213
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1994508
Methylene Chloride	75-09-2	84.90	20.0	69.4	516	1790		100	WG1994508
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1994508
2-Butanone (MEK)	78-93-3	72.10	125	369	962	2840		100	WG1994508
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1994508
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1994508
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1994508
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1994508
2-Propanol	67-63-0	60.10	125	307	4810	11800		100	WG1994508
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1994508
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1994508
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1994508
Tetrachloroethylene	127-18-4	166	20.0	136	23.9	162		100	WG1994508
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1994508
Toluene	108-88-3	92.10	50.0	188	321	1210		100	WG1994508
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1994508

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<u>WG1994508</u>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<u>WG1994508</u>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<u>WG1994508</u>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<u>WG1994508</u>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<u>WG1994508</u>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<u>WG1994508</u>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<u>WG1994508</u>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<u>WG1994508</u>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<u>WG1994508</u>
m&p-Xylene	1330-20-7	106	40.0	173	58.2	252		100	<u>WG1994508</u>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<u>WG1994508</u>
TPH (GC/MS) Low Fraction	8006-61-9	101	1000000	4130000	1320000	5450000		5000	<u>WG1995213</u>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.5				<u>WG1994508</u>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.4				<u>WG1995213</u>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## QUALITY CONTROL SUMMARY

[L1578612-01](#)

## Method Blank (MB)

(MB) R3884357-3 01/25/23 10:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Allyl Chloride	U		0.114	0.200	<sup>1</sup> Cp
Benzene	U		0.0715	0.200	<sup>2</sup> Tc
Benzyl Chloride	U		0.0598	0.200	<sup>3</sup> Ss
Bromodichloromethane	U		0.0702	0.200	<sup>4</sup> Cn
Bromoform	U		0.0732	0.600	<sup>5</sup> Tr
Bromomethane	U		0.0982	0.200	<sup>6</sup> Sr
1,3-Butadiene	U		0.104	2.00	<sup>7</sup> Qc
Carbon disulfide	U		0.102	0.200	<sup>8</sup> Gl
Carbon tetrachloride	U		0.0732	0.200	<sup>9</sup> Al
Chlorobenzene	U		0.0832	0.200	<sup>10</sup> Sc
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	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	
2-Butanone (MEK)	U		0.0814	1.25	

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3884357-3 01/25/23 10:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv														
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25														<sup>1</sup> Cp
Methyl Methacrylate	U		0.0876	0.200														<sup>2</sup> Tc
MTBE	U		0.0647	0.200														<sup>3</sup> Ss
Naphthalene	U		0.350	0.630														<sup>4</sup> Cn
2-Propanol	U		0.264	1.25														<sup>5</sup> Tr
Propene	U		0.0932	1.25														<sup>6</sup> Sr
Styrene	U		0.0788	0.200														<sup>7</sup> Qc
1,1,2,2-Tetrachloroethane	U		0.0743	0.200														<sup>8</sup> Gl
Tetrachloroethylene	U		0.0814	0.200														<sup>9</sup> Al
Tetrahydrofuran	U		0.0734	0.200														<sup>10</sup> Sc
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	96.7			60.0-140														

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

(LCS) R3884357-1 01/25/23 09:05 • (LCSD) R3884357-2 01/25/23 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Allyl Chloride	3.75	3.86	4.02	103	107	70.0-130			4.06	25
Benzene	3.75	3.72	3.81	99.2	102	70.0-130			2.39	25
Benzyl Chloride	3.75	3.93	3.85	105	103	70.0-152			2.06	25
Bromodichloromethane	3.75	3.76	3.83	100	102	70.0-130			1.84	25
Bromoform	3.75	3.94	3.91	105	104	70.0-130			0.764	25
Bromomethane	3.75	3.83	3.93	102	105	70.0-130			2.58	25
1,3-Butadiene	3.75	3.84	3.92	102	105	70.0-130			2.06	25
Carbon disulfide	3.75	3.89	4.05	104	108	70.0-130			4.03	25
Carbon tetrachloride	3.75	3.80	3.82	101	102	70.0-130			0.525	25

## QUALITY CONTROL SUMMARY

L1578612-01

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

(LCS) R3884357-1 01/25/23 09:05 • (LCSD) R3884357-2 01/25/23 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Chlorobenzene	3.75	3.68	3.78	98.1	101	70.0-130			2.68	25
Chloroethane	3.75	3.82	3.94	102	105	70.0-130			3.09	25
Chloroform	3.75	3.79	3.84	101	102	70.0-130			1.31	25
Chloromethane	3.75	3.82	4.01	102	107	70.0-130			4.85	25
2-Chlorotoluene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
Dibromochloromethane	3.75	3.80	3.87	101	103	70.0-130			1.83	25
1,2-Dibromoethane	3.75	3.77	3.86	101	103	70.0-130			2.36	25
1,2-Dichlorobenzene	3.75	3.99	3.99	106	106	70.0-130			0.000	25
1,3-Dichlorobenzene	3.75	4.00	3.99	107	106	70.0-130			0.250	25
1,4-Dichlorobenzene	3.75	4.06	4.03	108	107	70.0-130			0.742	25
1,2-Dichloroethane	3.75	3.70	3.79	98.7	101	70.0-130			2.40	25
1,1-Dichloroethane	3.75	3.76	3.87	100	103	70.0-130			2.88	25
1,1-Dichloroethylene	3.75	3.88	3.88	103	103	70.0-130			0.000	25
cis-1,2-Dichloroethylene	3.75	3.84	3.87	102	103	70.0-130			0.778	25
trans-1,2-Dichloroethylene	3.75	3.85	4.02	103	107	70.0-130			4.32	25
1,2-Dichloropropane	3.75	3.69	3.79	98.4	101	70.0-130			2.67	25
cis-1,3-Dichloropropene	3.75	3.83	3.89	102	104	70.0-130			1.55	25
trans-1,3-Dichloropropene	3.75	3.86	3.92	103	105	70.0-130			1.54	25
1,4-Dioxane	3.75	3.57	3.57	95.2	95.2	70.0-140			0.000	25
Ethanol	3.75	3.64	3.80	97.1	101	55.0-148			4.30	25
Ethylbenzene	3.75	3.90	3.92	104	105	70.0-130			0.512	25
4-Ethyltoluene	3.75	4.07	4.08	109	109	70.0-130			0.245	25
Trichlorofluoromethane	3.75	3.80	3.94	101	105	70.0-130			3.62	25
Dichlorodifluoromethane	3.75	4.07	4.11	109	110	64.0-139			0.978	25
1,1,2-Trichlorotrifluoroethane	3.75	3.86	4.04	103	108	70.0-130			4.56	25
1,2-Dichlorotetrafluoroethane	3.75	3.90	4.04	104	108	70.0-130			3.53	25
Hexachloro-1,3-butadiene	3.75	3.98	4.00	106	107	70.0-151			0.501	25
Isopropylbenzene	3.75	3.93	3.94	105	105	70.0-130			0.254	25
Methylene Chloride	3.75	3.80	3.79	101	101	70.0-130			0.264	25
Methyl Butyl Ketone	3.75	3.79	3.86	101	103	70.0-149			1.83	25
Methyl Ethyl Ketone	3.75	3.88	3.93	103	105	70.0-130			1.28	25
4-Methyl-2-pentanone (MIBK)	3.75	3.86	3.93	103	105	70.0-139			1.80	25
Methyl Methacrylate	3.75	3.86	3.96	103	106	70.0-130			2.56	25
MTBE	3.75	3.77	3.87	101	103	70.0-130			2.62	25
Naphthalene	3.75	4.35	4.32	116	115	70.0-159			0.692	25
2-Propanol	3.75	3.59	3.71	95.7	98.9	70.0-139			3.29	25
Propene	3.75	3.91	3.91	104	104	64.0-144			0.000	25
Styrene	3.75	4.01	4.04	107	108	70.0-130			0.745	25
1,1,2,2-Tetrachloroethane	3.75	3.92	3.92	105	105	70.0-130			0.000	25
Tetrachloroethylene	3.75	3.72	3.79	99.2	101	70.0-130			1.86	25

## QUALITY CONTROL SUMMARY

L1578612-01

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

(LCS) R3884357-1 01/25/23 09:05 • (LCSD) R3884357-2 01/25/23 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Tetrahydrofuran	3.75	3.86	3.93	103	105	70.0-137			1.80	25
Toluene	3.75	3.76	3.89	100	104	70.0-130			3.40	25
1,2,4-Trichlorobenzene	3.75	4.08	4.06	109	108	70.0-160			0.491	25
1,1,1-Trichloroethane	3.75	3.78	3.82	101	102	70.0-130			1.05	25
1,1,2-Trichloroethane	3.75	3.68	3.80	98.1	101	70.0-130			3.21	25
Trichloroethylene	3.75	3.76	3.81	100	102	70.0-130			1.32	25
1,2,4-Trimethylbenzene	3.75	4.21	4.22	112	113	70.0-130			0.237	25
1,3,5-Trimethylbenzene	3.75	4.14	4.12	110	110	70.0-130			0.484	25
2,2,4-Trimethylpentane	3.75	3.83	3.92	102	105	70.0-130			2.32	25
Vinyl chloride	3.75	3.84	3.96	102	106	70.0-130			3.08	25
Vinyl Bromide	3.75	3.82	3.98	102	106	70.0-130			4.10	25
Vinyl acetate	3.75	3.32	3.16	88.5	84.3	70.0-130			4.94	25
m&p-Xylene	7.50	8.10	8.10	108	108	70.0-130			0.000	25
o-Xylene	3.75	4.06	4.04	108	108	70.0-130			0.494	25
(S) 1,4-Bromofluorobenzene			99.6	97.9	60.0-140					

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3884766-3 01/26/23 10:11

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
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	98.8		60.0-140	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

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

(LCS) R3884766-1 01/26/23 08:52 • (LCSD) R3884766-2 01/26/23 09:32

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	4.23	4.24	113	113	70.0-130			0.236	25
Cyclohexane	3.75	4.78	4.66	127	124	70.0-130			2.54	25
Heptane	3.75	4.79	4.82	128	129	70.0-130			0.624	25
n-Hexane	3.75	4.80	4.69	128	125	70.0-130			2.32	25
TPH (GC/MS) Low Fraction	203	253	250	125	123	70.0-130			1.19	25
(S) 1,4-Bromofluorobenzene			99.6	99.7	60.0-140					

## 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.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(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.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
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.	<sup>10</sup> Sc
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

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 1 of 1



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 # L1578612

K167

Acctnum: ENSOLUMIMTX

Template: T180734

Prelogin: P827709

PM: 134 - Mark W. Beasley

PB:

Shipped Via:

Remarks Sample # (lab only)

Report to:  
**Beaux Jennings**Project Description:  
Levey WellCity/State  
Collected: Hobbs NMPlease Circle:  
PT MT CT ET

Phone: 210-219-8858

Client Project #

03B1417001

Lab Project #

ENSOLUMIMTX-SUMMA

Collected by (print):

Shane Diller

Site/Facility ID #

03B1417001

P.O. #

03B1417001

Collected by (signature):

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

No.  
of  
CntrsImmediately  
Packed on Ice N  Y 

Sample ID

Comp/Grab

Matrix \*

Depth

Date

Time

Levey Well

G

Air

-

1-19-23 1154

1

X

TO-15 Summa

\* 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  NCOC Signed/Accurate:  Y  NBottles arrive intact:  Y  NCorrect bottles used:  A  NSufficient volume sent:  A  N

If Applicable

VOA Zero Headspace:  Y  NPreservation Correct/Checked:  A  NRAD Screen <0.5 mR/hr:  A  N

Relinquished by: (Signature)

Date:

1/20

Time:

3:04pm

Received by: (Signature)

Trip Blank Received: Yes  No 

HCl / MeOH

TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp:

°C

Bottles Received:

1

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

1/24/23 0900

Hold:

Condition: NCF / OK



# ANALYTICAL REPORT

January 30, 2023

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Ensolum, LLC

Sample Delivery Group: L1579035

Samples Received: 01/25/2023

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

<b>Cp: Cover Page</b>	<b>1</b>	 <sup>1</sup> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	 <sup>2</sup> Tc
<b>Ss: Sample Summary</b>	<b>3</b>	 <sup>3</sup> Ss
<b>Cn: Case Narrative</b>	<b>4</b>	 <sup>4</sup> Cn
<b>Tr: TRRP Summary</b>	<b>5</b>	 <sup>5</sup> Tr
TRRP form R	6	 <sup>6</sup> Sr
TRRP form S	7	 <sup>7</sup> Qc
TRRP Exception Reports	8	 <sup>8</sup> Gl
<b>Sr: Sample Results</b>	<b>9</b>	 <sup>9</sup> Al
LEVEY WELL L1579035-01	9	 <sup>10</sup> Sc
LEVEY WELL L1579035-02	11	
LEVEY WELL L1579035-03	13	
LEVEY WELL L1579035-04	15	
<b>Qc: Quality Control Summary</b>	<b>17</b>	
Volatile Organic Compounds (MS) by Method TO-15	17	
<b>Gl: Glossary of Terms</b>	<b>25</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>26</b>	
<b>Sc: Sample Chain of Custody</b>	<b>27</b>	

LEVEY WELL L1579035-01 Air			Collected by Shane Diller	Collected date/time 01/23/23 11:11	Received date/time 01/25/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1995894	10000	01/27/23 22:11	01/27/23 22:11	DAH	Mt. Juliet, TN
LEVEY WELL L1579035-02 Air			Collected by Shane Diller	Collected date/time 01/23/23 13:20	Received date/time 01/25/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1995174	100	01/26/23 19:46	01/26/23 19:46	CEP	Mt. Juliet, TN
LEVEY WELL L1579035-03 Air			Collected by Shane Diller	Collected date/time 01/23/23 14:20	Received date/time 01/25/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1995174	100	01/26/23 20:14	01/26/23 20:14	CEP	Mt. Juliet, TN
LEVEY WELL L1579035-04 Air			Collected by Shane Diller	Collected date/time 01/23/23 15:20	Received date/time 01/25/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1995174	100	01/26/23 20:43	01/26/23 20:43	CEP	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> 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: 01/30/2023 14:33				
Project Name: Levey Well			Laboratory Job Number: L1579035-01, 02, 03 and 04				
Reviewer Name: Chad A Upchurch			Prep Batch Number(s): WG1995174 and WG1995894				
# <sup>1</sup>	A <sup>2</sup>	Description					
R1	OI	Chain-of-custody (C-O-C)	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		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	X				
		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	X				
		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			1
		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	X				
		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	X				
		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):	X				
		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	X				
		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	X				
		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):	X				
		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	X				
		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 Name: Pace Analytical National		LRC Date: 01/30/2023 14:33					
Project Name: Levey Well		Laboratory Job Number: L1579035-01, 02, 03 and 04					
Reviewer Name: Chad A Upchurch		Prep Batch Number(s): WG1995174 and WG1995894					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
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: 01/30/2023 14:33
Project Name: Levey Well	Laboratory Job Number: L1579035-01, 02, 03 and 04
Reviewer Name: Chad A Upchurch	Prep Batch Number(s): WG1995174 and WG1995894
ER # <sup>1</sup>	Description
1	TO-15 WG1995174 L1579035-02: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).  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).

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	12500	29700	ND	ND		10000	WG1995894
Allyl chloride	107-05-1	76.53	2000	6260	ND	ND		10000	WG1995894
Benzene	71-43-2	78.10	2000	6390	ND	ND		10000	WG1995894
Benzyl Chloride	100-44-7	127	2000	10400	ND	ND		10000	WG1995894
Bromodichloromethane	75-27-4	164	2000	13400	ND	ND		10000	WG1995894
Bromoform	75-25-2	253	6000	62100	ND	ND		10000	WG1995894
Bromomethane	74-83-9	94.90	2000	7760	ND	ND		10000	WG1995894
1,3-Butadiene	106-99-0	54.10	20000	44300	ND	ND		10000	WG1995894
Carbon disulfide	75-15-0	76.10	2000	6220	ND	ND		10000	WG1995894
Carbon tetrachloride	56-23-5	154	2000	12600	ND	ND		10000	WG1995894
Chlorobenzene	108-90-7	113	2000	9240	ND	ND		10000	WG1995894
Chloroethane	75-00-3	64.50	2000	5280	ND	ND		10000	WG1995894
Chloroform	67-66-3	119	2000	9730	ND	ND		10000	WG1995894
Chloromethane	74-87-3	50.50	2000	4130	ND	ND		10000	WG1995894
2-Chlorotoluene	95-49-8	126	2000	10300	ND	ND		10000	WG1995894
Cyclohexane	110-82-7	84.20	2000	6890	141000	486000		10000	WG1995894
Dibromochloromethane	124-48-1	208	2000	17000	ND	ND		10000	WG1995894
1,2-Dibromoethane	106-93-4	188	2000	15400	ND	ND		10000	WG1995894
1,2-Dichlorobenzene	95-50-1	147	2000	12000	ND	ND		10000	WG1995894
1,3-Dichlorobenzene	541-73-1	147	2000	12000	ND	ND		10000	WG1995894
1,4-Dichlorobenzene	106-46-7	147	2000	12000	ND	ND		10000	WG1995894
1,2-Dichloroethane	107-06-2	99	2000	8100	ND	ND		10000	WG1995894
1,1-Dichloroethane	75-34-3	98	2000	8020	ND	ND		10000	WG1995894
1,1-Dichloroethene	75-35-4	96.90	2000	7930	ND	ND		10000	WG1995894
cis-1,2-Dichloroethene	156-59-2	96.90	2000	7930	ND	ND		10000	WG1995894
trans-1,2-Dichloroethene	156-60-5	96.90	2000	7930	ND	ND		10000	WG1995894
1,2-Dichloropropane	78-87-5	113	2000	9240	ND	ND		10000	WG1995894
cis-1,3-Dichloropropene	10061-01-5	111	2000	9080	ND	ND		10000	WG1995894
trans-1,3-Dichloropropene	10061-02-6	111	2000	9080	ND	ND		10000	WG1995894
1,4-Dioxane	123-91-1	88.10	2000	7210	ND	ND		10000	WG1995894
Ethanol	64-17-5	46.10	12500	23600	667000	1260000		10000	WG1995894
Ethylbenzene	100-41-4	106	2000	8670	ND	ND		10000	WG1995894
4-Ethyltoluene	622-96-8	120	2000	9820	ND	ND		10000	WG1995894
Trichlorofluoromethane	75-69-4	137.40	2000	11200	ND	ND		10000	WG1995894
Dichlorodifluoromethane	75-71-8	120.92	2000	9890	ND	ND		10000	WG1995894
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	2000	15300	ND	ND		10000	WG1995894
1,2-Dichlorotetrafluoroethane	76-14-2	171	2000	14000	ND	ND		10000	WG1995894
Heptane	142-82-5	100	2000	8180	26700	109000		10000	WG1995894
Hexachloro-1,3-butadiene	87-68-3	261	6300	67300	ND	ND		10000	WG1995894
n-Hexane	110-54-3	86.20	6300	22200	245000	864000		10000	WG1995894
Isopropylbenzene	98-82-8	120.20	2000	9830	ND	ND		10000	WG1995894
Methylene Chloride	75-09-2	84.90	2000	6940	5400	18800		10000	WG1995894
Methyl Butyl Ketone	591-78-6	100	12500	51100	ND	ND		10000	WG1995894
2-Butanone (MEK)	78-93-3	72.10	12500	36900	ND	ND		10000	WG1995894
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	12500	51200	ND	ND		10000	WG1995894
Methyl methacrylate	80-62-6	100.12	2000	8190	9990	40900		10000	WG1995894
MTBE	1634-04-4	88.10	2000	7210	ND	ND		10000	WG1995894
Naphthalene	91-20-3	128	6300	33000	ND	ND		10000	WG1995894
2-Propanol	67-63-0	60.10	12500	30700	623000	1530000		10000	WG1995894
Propene	115-07-1	42.10	12500	21500	ND	ND		10000	WG1995894
Styrene	100-42-5	104	2000	8510	ND	ND		10000	WG1995894
1,1,2,2-Tetrachloroethane	79-34-5	168	2000	13700	ND	ND		10000	WG1995894
Tetrachloroethylene	127-18-4	166	2000	13600	ND	ND		10000	WG1995894
Tetrahydrofuran	109-99-9	72.10	2000	5900	ND	ND		10000	WG1995894
Toluene	108-88-3	92.10	5000	18800	7230	27200		10000	WG1995894
1,2,4-Trichlorobenzene	120-82-1	181	6300	46600	ND	ND		10000	WG1995894

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	2000	10900	ND	ND		10000	<a href="#">WG1995894</a>
1,1,2-Trichloroethane	79-00-5	133	2000	10900	ND	ND		10000	<a href="#">WG1995894</a>
Trichloroethylene	79-01-6	131	2000	10700	ND	ND		10000	<a href="#">WG1995894</a>
1,2,4-Trimethylbenzene	95-63-6	120	2000	9820	ND	ND		10000	<a href="#">WG1995894</a>
1,3,5-Trimethylbenzene	108-67-8	120	2000	9820	ND	ND		10000	<a href="#">WG1995894</a>
2,2,4-Trimethylpentane	540-84-1	114.22	2000	9340	ND	ND		10000	<a href="#">WG1995894</a>
Vinyl chloride	75-01-4	62.50	2000	5110	ND	ND		10000	<a href="#">WG1995894</a>
Vinyl Bromide	593-60-2	106.95	2000	8750	ND	ND		10000	<a href="#">WG1995894</a>
Vinyl acetate	108-05-4	86.10	2000	7040	ND	ND		10000	<a href="#">WG1995894</a>
m&p-Xylene	1330-20-7	106	4000	17300	ND	ND		10000	<a href="#">WG1995894</a>
o-Xylene	95-47-6	106	2000	8670	ND	ND		10000	<a href="#">WG1995894</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	2000000	8260000	2980000	12300000	<a href="#">B</a>	10000	<a href="#">WG1995894</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.8				<a href="#">WG1995894</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1995174
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1995174
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1995174
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1995174
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1995174
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1995174
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1995174
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1995174
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1995174
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1995174
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1995174
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1995174
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1995174
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1995174
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1995174
Cyclohexane	110-82-7	84.20	20.0	68.9	513	1770		100	WG1995174
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1995174
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1995174
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1995174
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1995174
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1995174
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1995174
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1995174
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1995174
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1995174
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1995174
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1995174
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1995174
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1995174
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1995174
Ethanol	64-17-5	46.10	125	236	1890	3560		100	WG1995174
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1995174
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1995174
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1995174
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1995174
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1995174
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1995174
Heptane	142-82-5	100	20.0	81.8	144	589		100	WG1995174
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1995174
n-Hexane	110-54-3	86.20	63.0	222	1060	3740		100	WG1995174
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1995174
Methylene Chloride	75-09-2	84.90	20.0	69.4	91.8	319		100	WG1995174
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1995174
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1995174
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1995174
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1995174
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1995174
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1995174
2-Propanol	67-63-0	60.10	125	307	11200	27500	E	100	WG1995174
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1995174
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1995174
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1995174
Tetrachloroethylene	127-18-4	166	20.0	136	22.5	153		100	WG1995174
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1995174
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1995174
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1995174

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1995174</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1995174</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1995174</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1995174</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1995174</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1995174</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1995174</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	28100	116000	<u>B</u>	100	<a href="#">WG1995174</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				<a href="#">WG1995174</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1995174
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1995174
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1995174
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1995174
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1995174
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1995174
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1995174
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1995174
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1995174
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1995174
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1995174
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1995174
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1995174
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1995174
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1995174
Cyclohexane	110-82-7	84.20	20.0	68.9	303	1040		100	WG1995174
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1995174
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1995174
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1995174
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1995174
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1995174
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1995174
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1995174
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1995174
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1995174
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1995174
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1995174
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1995174
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1995174
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1995174
Ethanol	64-17-5	46.10	125	236	2120	4000		100	WG1995174
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1995174
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1995174
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1995174
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1995174
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1995174
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1995174
Heptane	142-82-5	100	20.0	81.8	88.6	362		100	WG1995174
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1995174
n-Hexane	110-54-3	86.20	63.0	222	789	2780		100	WG1995174
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1995174
Methylene Chloride	75-09-2	84.90	20.0	69.4	103	358		100	WG1995174
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1995174
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1995174
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1995174
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1995174
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1995174
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1995174
2-Propanol	67-63-0	60.10	125	307	4330	10600		100	WG1995174
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1995174
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1995174
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1995174
Tetrachloroethylene	127-18-4	166	20.0	136	36.1	245		100	WG1995174
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1995174
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1995174
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1995174

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1995174</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1995174</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1995174</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1995174</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	610	2150		100	<a href="#">WG1995174</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1995174</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1995174</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	29600	122000	<u>B</u>	100	<a href="#">WG1995174</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.7				<a href="#">WG1995174</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG1995174
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG1995174
Benzene	71-43-2	78.10	20.0	63.9	ND	ND		100	WG1995174
Benzyl Chloride	100-44-7	127	20.0	104	ND	ND		100	WG1995174
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG1995174
Bromoform	75-25-2	253	60.0	621	ND	ND		100	WG1995174
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG1995174
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG1995174
Carbon disulfide	75-15-0	76.10	20.0	62.2	ND	ND		100	WG1995174
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG1995174
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG1995174
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG1995174
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG1995174
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG1995174
2-Chlorotoluene	95-49-8	126	20.0	103	ND	ND		100	WG1995174
Cyclohexane	110-82-7	84.20	20.0	68.9	650	2240		100	WG1995174
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG1995174
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG1995174
1,2-Dichlorobenzene	95-50-1	147	20.0	120	ND	ND		100	WG1995174
1,3-Dichlorobenzene	541-73-1	147	20.0	120	ND	ND		100	WG1995174
1,4-Dichlorobenzene	106-46-7	147	20.0	120	ND	ND		100	WG1995174
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG1995174
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG1995174
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG1995174
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG1995174
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG1995174
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG1995174
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG1995174
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG1995174
1,4-Dioxane	123-91-1	88.10	20.0	72.1	ND	ND		100	WG1995174
Ethanol	64-17-5	46.10	125	236	2230	4200		100	WG1995174
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	WG1995174
4-Ethyltoluene	622-96-8	120	20.0	98.2	ND	ND		100	WG1995174
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG1995174
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG1995174
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG1995174
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG1995174
Heptane	142-82-5	100	20.0	81.8	158	646		100	WG1995174
Hexachloro-1,3-butadiene	87-68-3	261	63.0	673	ND	ND		100	WG1995174
n-Hexane	110-54-3	86.20	63.0	222	1250	4410		100	WG1995174
Isopropylbenzene	98-82-8	120.20	20.0	98.3	ND	ND		100	WG1995174
Methylene Chloride	75-09-2	84.90	20.0	69.4	109	378		100	WG1995174
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG1995174
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG1995174
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG1995174
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG1995174
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1995174
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	WG1995174
2-Propanol	67-63-0	60.10	125	307	5220	12800		100	WG1995174
Propene	115-07-1	42.10	125	215	ND	ND		100	WG1995174
Styrene	100-42-5	104	20.0	85.1	ND	ND		100	WG1995174
1,1,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	WG1995174
Tetrachloroethylene	127-18-4	166	20.0	136	23.5	160		100	WG1995174
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG1995174
Toluene	108-88-3	92.10	50.0	188	ND	ND		100	WG1995174
1,2,4-Trichlorobenzene	120-82-1	181	63.0	466	ND	ND		100	WG1995174

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1995174</a>
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1995174</a>
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1995174</a>
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	ND	ND		100	<a href="#">WG1995174</a>
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1995174</a>
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	<a href="#">WG1995174</a>
Vinyl acetate	108-05-4	86.10	20.0	70.4	ND	ND		100	<a href="#">WG1995174</a>
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1995174</a>
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1995174</a>
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	26500	109000	<a href="#">B</a>	100	<a href="#">WG1995174</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.7				<a href="#">WG1995174</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3884993-3 01/26/23 09:39

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Benzene	U		0.0715	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.200	<sup>5</sup> Tr
Bromoform	U		0.0732	0.600	<sup>6</sup> Sr
Bromomethane	U		0.0982	0.200	<sup>7</sup> Qc
1,3-Butadiene	U		0.104	2.00	<sup>8</sup> Gl
Carbon disulfide	U		0.102	0.200	<sup>9</sup> Al
Carbon tetrachloride	U		0.0732	0.200	<sup>10</sup> Sc
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	
n-Hexane	U		0.206	0.630	

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3884993-3 01/26/23 09:39

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv															
Isopropylbenzene	U		0.0777	0.200															<sup>1</sup> Cp
Methylene Chloride	U		0.0979	0.200															<sup>2</sup> Tc
Methyl Butyl Ketone	U		0.133	1.25															<sup>3</sup> Ss
2-Butanone (MEK)	U		0.0814	1.25															<sup>4</sup> Cn
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25															<sup>5</sup> Tr
Methyl Methacrylate	U		0.0876	0.200															<sup>6</sup> Sr
MTBE	U		0.0647	0.200															<sup>7</sup> Qc
Naphthalene	U		0.350	0.630															<sup>8</sup> Gl
2-Propanol	U		0.264	1.25															<sup>9</sup> Al
Propene	U		0.0932	1.25															<sup>10</sup> Sc
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	67.6	J	39.7	200															
(S) 1,4-Bromofluorobenzene	99.6			60.0-140															

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

(LCS) R3884993-1 01/26/23 08:41 • (LCSD) R3884993-2 01/26/23 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	3.75	4.00	3.92	107	105	70.0-130			2.02	25
Allyl Chloride	3.75	4.21	3.99	112	106	70.0-130			5.37	25
Benzene	3.75	3.88	3.91	103	104	70.0-130			0.770	25
Benzyl Chloride	3.75	4.20	4.09	112	109	70.0-152			2.65	25

## QUALITY CONTROL SUMMARY

L1579035-02,03,04

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

(LCS) R3884993-1 01/26/23 08:41 • (LCSD) R3884993-2 01/26/23 09:11

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	4.11	4.08	110	109	70.0-130			0.733	25
Bromoform	3.75	4.07	4.07	109	109	70.0-130			0.000	25
Bromomethane	3.75	4.12	4.09	110	109	70.0-130			0.731	25
1,3-Butadiene	3.75	4.14	4.03	110	107	70.0-130			2.69	25
Carbon disulfide	3.75	4.22	4.10	113	109	70.0-130			2.88	25
Carbon tetrachloride	3.75	3.97	3.80	106	101	70.0-130			4.38	25
Chlorobenzene	3.75	3.81	3.73	102	99.5	70.0-130			2.12	25
Chloroethane	3.75	4.04	3.84	108	102	70.0-130			5.08	25
Chloroform	3.75	3.95	3.96	105	106	70.0-130			0.253	25
Chloromethane	3.75	4.05	4.14	108	110	70.0-130			2.20	25
2-Chlorotoluene	3.75	3.92	3.87	105	103	70.0-130			1.28	25
Cyclohexane	3.75	3.64	3.76	97.1	100	70.0-130			3.24	25
Dibromochloromethane	3.75	4.08	3.92	109	105	70.0-130			4.00	25
1,2-Dibromoethane	3.75	3.93	3.89	105	104	70.0-130			1.02	25
1,2-Dichlorobenzene	3.75	3.89	3.89	104	104	70.0-130			0.000	25
1,3-Dichlorobenzene	3.75	3.90	3.84	104	102	70.0-130			1.55	25
1,4-Dichlorobenzene	3.75	3.85	3.82	103	102	70.0-130			0.782	25
1,2-Dichloroethane	3.75	4.09	4.12	109	110	70.0-130			0.731	25
1,1-Dichloroethane	3.75	3.57	4.42	95.2	118	70.0-130			21.3	25
1,1-Dichloroethene	3.75	4.16	4.03	111	107	70.0-130			3.17	25
cis-1,2-Dichloroethene	3.75	3.86	3.86	103	103	70.0-130			0.000	25
trans-1,2-Dichloroethene	3.75	4.22	4.04	113	108	70.0-130			4.36	25
1,2-Dichloropropane	3.75	3.96	3.91	106	104	70.0-130			1.27	25
cis-1,3-Dichloropropene	3.75	4.28	4.25	114	113	70.0-130			0.703	25
trans-1,3-Dichloropropene	3.75	4.11	4.00	110	107	70.0-130			2.71	25
1,4-Dioxane	3.75	4.02	3.99	107	106	70.0-140			0.749	25
Ethanol	3.75	4.11	3.77	110	101	55.0-148			8.63	25
Ethylbenzene	3.75	4.05	4.01	108	107	70.0-130			0.993	25
4-Ethyltoluene	3.75	4.00	3.94	107	105	70.0-130			1.51	25
Trichlorofluoromethane	3.75	3.89	3.88	104	103	70.0-130			0.257	25
Dichlorodifluoromethane	3.75	4.06	4.06	108	108	64.0-139			0.000	25
1,1,2-Trichlorotrifluoroethane	3.75	4.10	4.00	109	107	70.0-130			2.47	25
1,2-Dichlorotetrafluoroethane	3.75	4.06	3.95	108	105	70.0-130			2.75	25
Heptane	3.75	4.21	4.22	112	113	70.0-130			0.237	25
Hexachloro-1,3-butadiene	3.75	3.88	3.85	103	103	70.0-151			0.776	25
n-Hexane	3.75	4.04	3.83	108	102	70.0-130			5.34	25
Isopropylbenzene	3.75	3.96	3.86	106	103	70.0-130			2.56	25
Methylene Chloride	3.75	4.14	3.99	110	106	70.0-130			3.69	25
Methyl Butyl Ketone	3.75	4.20	4.31	112	115	70.0-149			2.59	25
Methyl Ethyl Ketone	3.75	3.68	3.53	98.1	94.1	70.0-130			4.16	25

## QUALITY CONTROL SUMMARY

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

(LCS) R3884993-1 01/26/23 08:41 • (LCSD) R3884993-2 01/26/23 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.07	3.98	109	106	70.0-139			2.24	25
Methyl Methacrylate	3.75	3.83	3.90	102	104	70.0-130			1.81	25
MTBE	3.75	3.67	3.76	97.9	100	70.0-130			2.42	25
Naphthalene	3.75	4.03	3.98	107	106	70.0-159			1.25	25
2-Propanol	3.75	3.86	3.77	103	101	70.0-139			2.36	25
Propene	3.75	3.49	3.40	93.1	90.7	64.0-144			2.61	25
Styrene	3.75	3.78	3.79	101	101	70.0-130			0.264	25
1,1,2,2-Tetrachloroethane	3.75	4.06	4.03	108	107	70.0-130			0.742	25
Tetrachloroethylene	3.75	3.73	3.87	99.5	103	70.0-130			3.68	25
Tetrahydrofuran	3.75	4.01	4.12	107	110	70.0-137			2.71	25
Toluene	3.75	3.86	3.89	103	104	70.0-130			0.774	25
1,2,4-Trichlorobenzene	3.75	3.99	4.01	106	107	70.0-160			0.500	25
1,1,1-Trichloroethane	3.75	3.85	3.75	103	100	70.0-130			2.63	25
1,1,2-Trichloroethane	3.75	3.87	3.88	103	103	70.0-130			0.258	25
Trichloroethylene	3.75	3.83	3.91	102	104	70.0-130			2.07	25
1,2,4-Trimethylbenzene	3.75	3.96	3.98	106	106	70.0-130			0.504	25
1,3,5-Trimethylbenzene	3.75	3.90	3.85	104	103	70.0-130			1.29	25
2,2,4-Trimethylpentane	3.75	4.03	4.00	107	107	70.0-130			0.747	25
Vinyl chloride	3.75	4.22	3.97	113	106	70.0-130			6.11	25
Vinyl Bromide	3.75	3.93	4.01	105	107	70.0-130			2.02	25
Vinyl acetate	3.75	3.83	3.43	102	91.5	70.0-130			11.0	25
m&p-Xylene	7.50	7.69	7.72	103	103	70.0-130			0.389	25
o-Xylene	3.75	3.80	3.85	101	103	70.0-130			1.31	25
TPH (GC/MS) Low Fraction	203	259	254	128	125	70.0-130			1.95	25
(S) 1,4-Bromofluorobenzene				102	106	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## QUALITY CONTROL SUMMARY

L1579035-01

## Method Blank (MB)

(MB) R3885150-3 01/27/23 09:31

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.114	0.200	<sup>2</sup> Tc
Benzene	U		0.0715	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.200	<sup>5</sup> Tr
Bromoform	U		0.0732	0.600	<sup>6</sup> Sr
Bromomethane	U		0.0982	0.200	<sup>7</sup> Qc
1,3-Butadiene	U		0.104	2.00	<sup>8</sup> Gl
Carbon disulfide	U		0.102	0.200	<sup>9</sup> Al
Carbon tetrachloride	U		0.0732	0.200	<sup>10</sup> Sc
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	
n-Hexane	U		0.206	0.630	

## QUALITY CONTROL SUMMARY

L1579035-01

## Method Blank (MB)

(MB) R3885150-3 01/27/23 09:31

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv															
Isopropylbenzene	U		0.0777	0.200															<sup>1</sup> Cp
Methylene Chloride	U		0.0979	0.200															<sup>2</sup> Tc
Methyl Butyl Ketone	U		0.133	1.25															<sup>3</sup> Ss
2-Butanone (MEK)	U		0.0814	1.25															<sup>4</sup> Cn
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25															<sup>5</sup> Tr
Methyl Methacrylate	U		0.0876	0.200															<sup>6</sup> Sr
MTBE	U		0.0647	0.200															<sup>7</sup> Qc
Naphthalene	U		0.350	0.630															<sup>8</sup> Gl
2-Propanol	U		0.264	1.25															<sup>9</sup> Al
Propene	U		0.0932	1.25															<sup>10</sup> Sc
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	56.0	J	39.7	200															
(S) 1,4-Bromofluorobenzene	96.7			60.0-140															

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

(LCS) R3885150-1 01/27/23 08:33 • (LCSD) R3885150-2 01/27/23 09:03

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.77	4.03	101	107	70.0-130			6.67	25
Allyl Chloride	3.75	4.08	4.08	109	109	70.0-130			0.000	25
Benzene	3.75	3.97	3.96	106	106	70.0-130			0.252	25
Benzyl Chloride	3.75	3.74	3.75	99.7	100	70.0-152			0.267	25

## QUALITY CONTROL SUMMARY

L1579035-01

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

(LCS) R3885150-1 01/27/23 08:33 • (LCSD) R3885150-2 01/27/23 09:03

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	4.04	3.96	108	106	70.0-130			2.00	25
Bromoform	3.75	4.12	4.03	110	107	70.0-130			2.21	25
Bromomethane	3.75	3.95	3.93	105	105	70.0-130			0.508	25
1,3-Butadiene	3.75	4.05	4.01	108	107	70.0-130			0.993	25
Carbon disulfide	3.75	4.00	3.90	107	104	70.0-130			2.53	25
Carbon tetrachloride	3.75	3.91	3.87	104	103	70.0-130			1.03	25
Chlorobenzene	3.75	3.90	3.87	104	103	70.0-130			0.772	25
Chloroethane	3.75	3.99	3.98	106	106	70.0-130			0.251	25
Chloroform	3.75	4.00	3.98	107	106	70.0-130			0.501	25
Chloromethane	3.75	4.09	4.11	109	110	70.0-130			0.488	25
2-Chlorotoluene	3.75	4.17	4.24	111	113	70.0-130			1.66	25
Cyclohexane	3.75	4.08	4.13	109	110	70.0-130			1.22	25
Dibromochloromethane	3.75	4.05	3.93	108	105	70.0-130			3.01	25
1,2-Dibromoethane	3.75	3.97	3.92	106	105	70.0-130			1.27	25
1,2-Dichlorobenzene	3.75	4.09	4.19	109	112	70.0-130			2.42	25
1,3-Dichlorobenzene	3.75	4.11	4.16	110	111	70.0-130			1.21	25
1,4-Dichlorobenzene	3.75	4.15	4.23	111	113	70.0-130			1.91	25
1,2-Dichloroethane	3.75	3.92	3.88	105	103	70.0-130			1.03	25
1,1-Dichloroethane	3.75	4.05	4.02	108	107	70.0-130			0.743	25
1,1-Dichloroethene	3.75	3.91	3.89	104	104	70.0-130			0.513	25
cis-1,2-Dichloroethene	3.75	4.12	4.08	110	109	70.0-130			0.976	25
trans-1,2-Dichloroethene	3.75	4.08	4.01	109	107	70.0-130			1.73	25
1,2-Dichloropropane	3.75	3.96	3.94	106	105	70.0-130			0.506	25
cis-1,3-Dichloropropene	3.75	4.07	4.01	109	107	70.0-130			1.49	25
trans-1,3-Dichloropropene	3.75	4.01	3.99	107	106	70.0-130			0.500	25
1,4-Dioxane	3.75	3.80	3.88	101	103	70.0-140			2.08	25
Ethanol	3.75	3.91	3.97	104	106	55.0-148			1.52	25
Ethylbenzene	3.75	4.18	4.23	111	113	70.0-130			1.19	25
4-Ethyltoluene	3.75	4.29	4.34	114	116	70.0-130			1.16	25
Trichlorofluoromethane	3.75	3.85	3.81	103	102	70.0-130			1.04	25
Dichlorodifluoromethane	3.75	3.99	3.95	106	105	64.0-139			1.01	25
1,1,2-Trichlorotrifluoroethane	3.75	3.85	3.80	103	101	70.0-130			1.31	25
1,2-Dichlorotetrafluoroethane	3.75	4.01	4.02	107	107	70.0-130			0.249	25
Heptane	3.75	4.23	4.21	113	112	70.0-130			0.474	25
Hexachloro-1,3-butadiene	3.75	4.08	4.07	109	109	70.0-151			0.245	25
n-Hexane	3.75	4.20	4.22	112	113	70.0-130			0.475	25
Isopropylbenzene	3.75	4.13	4.16	110	111	70.0-130			0.724	25
Methylene Chloride	3.75	3.90	3.89	104	104	70.0-130			0.257	25
Methyl Butyl Ketone	3.75	4.00	4.09	107	109	70.0-149			2.22	25
Methyl Ethyl Ketone	3.75	4.07	4.04	109	108	70.0-130			0.740	25

## QUALITY CONTROL SUMMARY

L1579035-01

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

(LCS) R3885150-1 01/27/23 08:33 • (LCSD) R3885150-2 01/27/23 09:03

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.05	4.05	108	108	70.0-139			0.000	25
Methyl Methacrylate	3.75	4.12	4.10	110	109	70.0-130			0.487	25
MTBE	3.75	3.96	3.97	106	106	70.0-130			0.252	25
Naphthalene	3.75	4.58	4.59	122	122	70.0-159			0.218	25
2-Propanol	3.75	3.83	3.79	102	101	70.0-139			1.05	25
Propene	3.75	4.12	4.05	110	108	64.0-144			1.71	25
Styrene	3.75	4.29	4.35	114	116	70.0-130			1.39	25
1,1,2,2-Tetrachloroethane	3.75	4.12	4.15	110	111	70.0-130			0.726	25
Tetrachloroethylene	3.75	3.88	3.84	103	102	70.0-130			1.04	25
Tetrahydrofuran	3.75	4.15	4.16	111	111	70.0-137			0.241	25
Toluene	3.75	4.05	4.02	108	107	70.0-130			0.743	25
1,2,4-Trichlorobenzene	3.75	4.25	4.23	113	113	70.0-160			0.472	25
1,1,1-Trichloroethane	3.75	3.91	3.87	104	103	70.0-130			1.03	25
1,1,2-Trichloroethane	3.75	3.88	3.86	103	103	70.0-130			0.517	25
Trichloroethylene	3.75	3.98	3.92	106	105	70.0-130			1.52	25
1,2,4-Trimethylbenzene	3.75	4.39	4.47	117	119	70.0-130			1.81	25
1,3,5-Trimethylbenzene	3.75	4.30	4.37	115	117	70.0-130			1.61	25
2,2,4-Trimethylpentane	3.75	4.13	4.14	110	110	70.0-130			0.242	25
Vinyl chloride	3.75	4.03	4.05	107	108	70.0-130			0.495	25
Vinyl Bromide	3.75	3.91	3.95	104	105	70.0-130			1.02	25
Vinyl acetate	3.75	3.52	3.31	93.9	88.3	70.0-130			6.15	25
m&p-Xylene	7.50	8.52	8.62	114	115	70.0-130			1.17	25
o-Xylene	3.75	4.30	4.31	115	115	70.0-130			0.232	25
TPH (GC/MS) Low Fraction	203	248	250	122	123	70.0-130			0.803	25
(S) 1,4-Bromofluorobenzene				98.1	97.9	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>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.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(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.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
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.	<sup>10</sup> Sc
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

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

Company Name/Address:  
**Ensolum, LLC**601 N Marienfeld Street, Ste. 400  
Midland, TX 79701Billing Information:  
**Accounts Payable**  
601 N Marienfeld Street, Ste. 400  
Midland, TX 79701Report To:  
**Beaux Jennings**

Project

Description: *Levey Well*City/State  
Collected:*Hobbs New Mexico*Please Circle:  
PT MT CT ETPhone:  
**210-219-8858**Client Project #  
*0381417001*Lab Project #  
**ENSOLUMMTX-SUMMA**

Collected by (print):

*SHANE DUNN*

Collected by (signature):

*Shane Dunn*

Rush? (Lab MUST Be Notified)

- Same Day  Three Day  
 Next Day  Five Day  
 Two Day

Date Results Needed

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

TO-15 Summa

*Levey Well**12008**021118**1-23-23**1111**-26**0**X**Levey Well**021339**022754**1-23-23**1320**-18**0**X**Levey Well**007686**005966**1-23-23**1420**-26**0**X**Levey Well**021958**010350**1-23-23**1520**-27**0**X*

## Sample Receipt Checklist

COC Seal Present/Intact:  N If Applicable  
COC Signed/Accurate:  N VOA Zero Headspace:  Y N  
Bottles arrive intact:  N Pres.Correct/Check:  Y N  
Correct bottles used:  N  
Sufficient volume sent:  N  
RAD Screen <0.5 mR/hr:  N

## Samples returned via:

 UPS  FedEx  Courier

Tracking #

Hold #

Relinquished by: (Signature)

*Shane Dunn*

Date:

*1/24/23*

Time:

*10:49*

Received by: (Signature)

*J. Dunn*

Date:

Time:

Condition:

(lab use only) *OK*

Relinquished by: (Signature)

*J. Dunn*

Date:

*1/24/23*

Time:

*5:00*

Received by: (Signature)

*FedEx*

Date:

Time:

COC Seal Intact:

 Y  N  NA

Relinquished by: (Signature)

*J. Dunn*

Date:

Time:

Received for lab by: (Signature)

*J. Dunn*

Date:

*1/25/23*

Time:

*0900*

NCF:



Acctnum: **ENSOLUMMTX**  
Template: **T180734**  
Prelogin: **P974731**  
PM: 3564 - Chad A Upchurch  
PB: *1580417003*

Shipped Via: **FedEX Ground**

Rem/Contaminant Sample # (lab only)

*-01**-02**-03**-04*

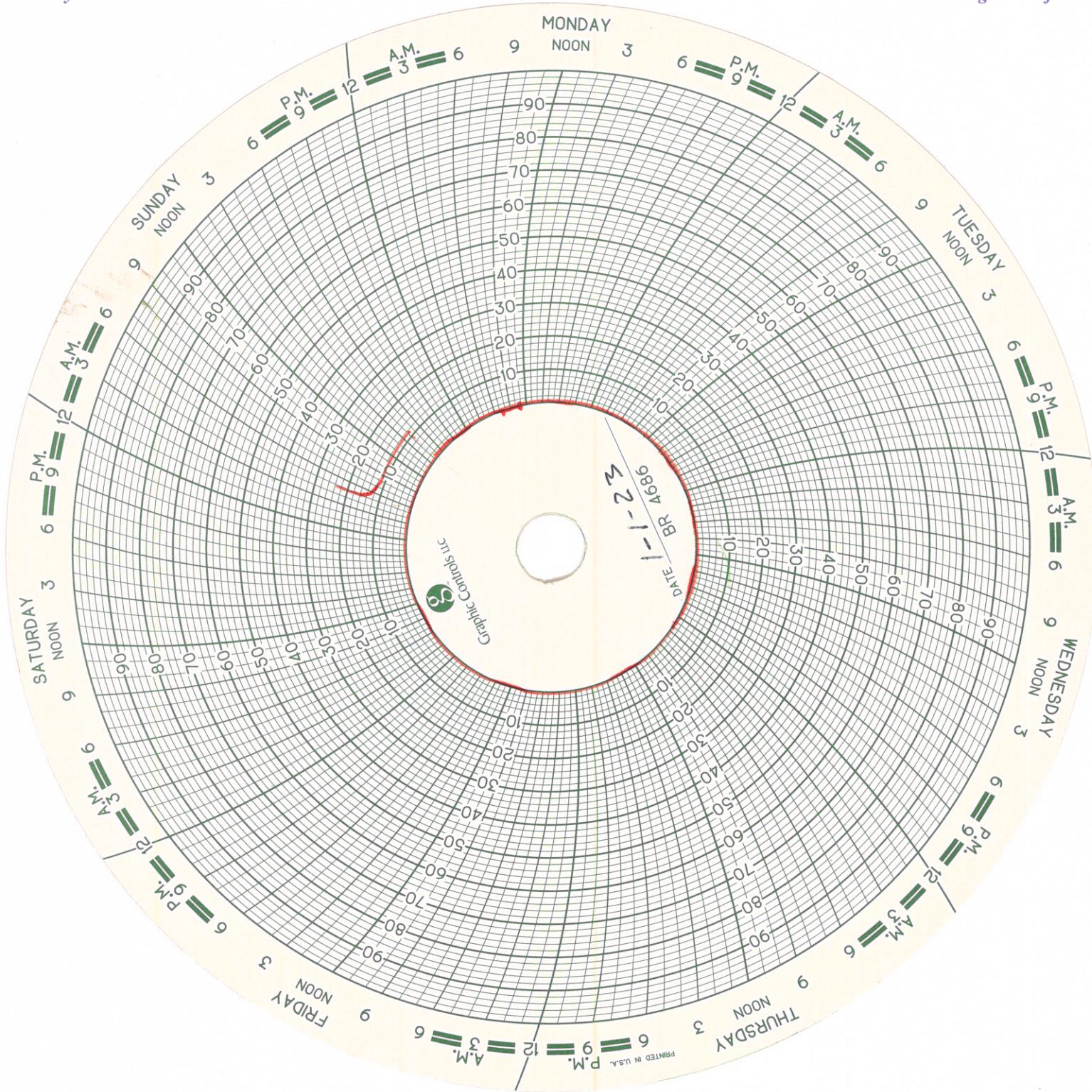


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## APPENDIX D

### Levey Well Pressure Reading Documentation

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**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 284060

**CONDITIONS**

Operator:  OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID:  157984
	Action Number:  284060
	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 - JANUARY 2023 South Hobbs G/SA Unit Order No. R-4934-F, Case No. 14981	3/21/2024