



**OXY USA WTP Limited Partnership / OXY
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**SOUTH HOBBS G/SA UNIT OPERATIONS
QUARTERLY REPORT**

Property:

**South Hobbs G/SA Unit Operations
Unit F, Section 5, T19S, R38E
Lea County, New Mexico**

New Mexico EMNRD OCD Order No. R-4934-F

November 6, 2020

**Occidental Permian LTD
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**Groundwater Monitoring Report
South Hobbs G/SA Unit Operations
Order No. R-4934-F dated July 18, 2013, Case No. 14981
Unit F, Section 5, Township 19 South, Range 38 East NMPM
Latitude 32.690683, Longitude -103.173158
Lea County, New Mexico**

1.0 INTRODUCTION

1.1 Site Description & Background

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

This report presents the results of the groundwater analytical concentrations at the Levey-1 water well and two (2) monitoring wells (MW-1 and MW-2) installed in May 2020, production data to represent findings of subsurface evaluations in relation to adjacent South Hobbs Grayburg/San Andres Unit (SHU) lease wells in close proximity to L-1458 (Levey-1) and the anticipated future activities to address the remaining free gas at the site. 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-1 water well and the two (2) monitoring wells are referred to as the "Site".

Occidental Permian LTD (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 monitoring wells and the Levey-1 water well in relation to pertinent structures and general Site boundaries, is included as **Figure 1 of Appendix A**.

On June 30, 2019, elevated pressure was observed at the Levey-1 wells. At NMOCD's request, all area wells were "shut in" from operational use. Over time, the pressure being observed at the Levey-1 water supply declined until pressure was no longer recorded. Observations and water analysis of the Levey-1 supply 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' southwest of the Levey-1 supply well, the 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 could be a source of the pressure observed at Levey-1 water supply well. In response, OXY plugged SHU # 183 well. 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 is designated as SHU # 297, is currently operational and shows no concerns for free gas migration

In February of 2020, permission was gained from the NMOCD to drill two monitoring wells for analysis and observation purposes, one near the Levey-1 supply well (MW-1) and one near the SHU # 183 (MW-2). This action led to NMOCD's authorizing a return of the area wells back to injection and production, including the SHU # 290 injection well, located just southeast of the Levey-1 water supply well. NMOCD authorization was given in May of 2020, with the caveat that OXY monitor the Levey-1 water supply well and the two monitor wells (MW-1, and MW-2) for gas, explosivity, and pressure. See **Appendix C and Appendix E**

During initial pre-start up background sampling of Levey-1, 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 Levey-1 and MW-2 **Appendix C**. This finding was consistent with previous analysis and findings within the Levey-1 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-1. Findings and expectations were presented to NMOCD and it was agreed that the presence of this gas was not unusual for the circumstances surrounding the SHU # 183 leak and that the presence of pressure would be a significant signal for contribution from SHU # 290 or any other area wells, once they were returned to production.

OXY promptly analyzed the localized groundwater consistent with the following program. 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 and August 20, 2020. The Levey-1 water well was sampled on a weekly basis from December 6, 2019 to October 1, 2020. The groundwater samples collected from the monitoring wells (MW-1 and MW-2) were analyzed for total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) utilizing Environmental Protection Agency (EPA) Method 8015M, volatile organic compounds (VOCs) utilizing EPA Method SW-846 #8260 (full list), carbon dioxide utilizing Standard Method 4500 CO₂ C, dissolved sulfide utilizing EPA Method SW-846 #376.2, chloride using EPA Method #846 300 and pH utilizing EPA Method SW-846 #150.1. The groundwater samples collected from the Levey-1 water 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. **Appendix B**

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 non-detect in monitoring well MW-1 to 0.0167 milligrams per liter (mg/l) in Levey-1 water well. However, as shown on the graph included in **Appendix A**, the trendline shows benzene concentrations are decreasing overall in the Levey-1 water well. Chloride concentrations in the Levey-1 water well were highly variable ranging from 190 mg/l to 635 mg/l with an average chloride concentration over the sampling period of 366 mg/l. Chloride concentrations in MW-1 ranged from 339 mg/l to 363 mg/l. TDS analytical results ranged from 1,100 mg/l to 2,570 mg/l, which exceeds the applicable WQCC GQS of 1,000 mg/l. 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 nitrite as N analytical data was below the GQS in monitoring wells (MW-1 and MW-2), as well as the Levey-1 water well during the last two (2) weekly sampling events of the groundwater monitoring program detailed in this report. The groundwater analytical summary tables are included in **Appendix B** and the laboratory analytical reports are included in **Appendix F**.

On July 2nd, 2020, SHU # 290 was returned to injection and it and the area wells were monitored for any anomalies that could contribute to introducing free gas into the groundwater-bearing zone. OXY utilized automated processes to compile and monitor data 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 including SHU # 290 that could contribute free gas into the groundwater-bearing zone. **Appendix D**

To mitigate potential exposures, the Levey residence was purchased by OXY and remains unoccupied. A passive vent was installed on the Levey-1 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-1 water supply well, or MW-1 and MW-2. Hydrogen sulfide (H₂S) has not been detected in any of the three (3) aforementioned wells since July 15, 2020. All detections of H₂S prior to July 15th were within the well bore. No H₂S above permissible exposure limits was observed outside of the well bores.

OXY installed pressure reading charts at the Levey-1 water supply well to measure the potential for any returning pressure at the well. These charts measure pressure 24 hours a day starting 6/1/2020 to present. The attached charts in **Appendix E** show that no pressure has returned to the Levey-1 water supply well. MW-1 and MW-2 were physically monitored for the presence of gas and pressure on several dates from 7/1/2020 to 10/12/2020, with no pressure observed in either monitor well. See attached pressure charts and quad gas readings in **Appendix E**. OXY is continuing to chart the pressure in Levey-1 to present, with no corresponding pressure readings.

As previously discussed with NMOCD personnel, the data indicates that neither SHU # 290 nor any of the remaining oil and gas wells in the area, are or were contributors to the free gas observed in the groundwater bearing zone in and near the Levey-1 water supply well in July of 2019 to present. The data indicates that SHU # 183 was the sole contributor to the pressure events at Level-1. The absence of pressure once re-injection and normal operations were resumed at SHU #290 from July 2nd, 2020 to November 2nd, 2020, indicates that no additional pressure has been added to the groundwater bearing zone and free gas pool that remains under the Site near Levey-1 and MW-2. This along with MW-2 experiencing a larger influence of CO₂ within its wellbore than Levey-1 indicates that the now plugged SHU # 183 was the source of pressure.

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-1 water supply 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 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. They 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-1 and 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 will have to be introduced to release the free gas pool from the subsurface red bed.

OXY requests approval to move forward with technologies sufficient to remove these gases from the subsurface. OXY proposes that this can be accomplished by attaching a pump truck to the Levey-1 water supply 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 may take several applications and other methods may become necessary should this process not achieve its anticipated results.

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. The New Mexico EMNRD OCD utilizes the New Mexico WQCC GQS (NMAC 20.6.2 *Groundwater and Surface Water Protection*) to evaluate groundwater conditions. NMAC 20.6.2 was most recently amended on December 21, 2018.

1.2 Site Setting and Geology

The Site is located on the southwestern perimeter of Hobbs, in east-central Lea County, New Mexico, approximately two (2) miles west of the Texas state line. The surrounding area contains a mixture of residential properties, agricultural fields, and oil and gas injection/production wells and associated facilities.

Active oilfield development in the area began in 1930. A number of leases were unitized (or combined) into the South Hobbs Unit (SHU) in 1970, followed by the North Hobbs Unit (NHU) in 1980, which are collectively referred to as the "Hobbs Field." OXY currently operates the Hobbs Field for the purpose of enhanced oil recovery (EOR) using carbon dioxide (CO₂) flooding. The field primarily produces oil from the San Andres Formation and the Basal Grayburg Formation, which immediately overlies the San Andres.

City of Hobbs water supply was brought to the area in the 1980s. In addition, there is a city ordinance requiring water supply wells to be plugged and abandoned upon connection of a property to the city water distribution system (Hobbs New Mexico Municipal Code, Title 13.04.017). Consequently, few water wells in the area remain in active use (GSI, 20190). There are no surface water bodies within one mile of the Site.

The principal aquifer in Lea County, New Mexico is the late Miocene to early Pliocene-aged Ogallala or High Plains Aquifer, which ranges in thickness from 100 to 250 feet (Nicholson and Clebsch, 1961; Hart and McAda, 1985). The Ogallala Aquifer generally consists of unconsolidated to consolidated sands and gravels with interbedded silts and clays. Depths to water vary across the study area but generally range between 60 and 170 feet below ground surface



(ft bgs) (Daniel B. Stephens & Associates, 2009). The Ogallala Aquifer is overlain by Quaternary alluvium and valley-fill deposits, which can also be water bearing and consist of sand, gravel, silt, and clay.

The Ogallala Aquifer overlies the Triassic-aged Dockum Group, which extends to a depth of approximately 1,500 ft bgs in this area. The Dockum Group may be referred to locally as the Santa Rosa. The Ogallala Aquifer is typically separated from these underlying units by "red beds," which are distinctive red shales with low hydraulic conductivity. These may locally act as confining layers between the Ogallala Aquifer and deeper water-bearing zones.

Groundwater is present in useable quantities in the Triassic strata, although this water can be brackish in quality. The Dockum Group is underlain by a series of Permian and older formations, including several oil and gas-producing formations (i.e., the Yates, San Andres, Wolfcamp, Cisco/Canyon, and Ellenburger). The San Andres Formation is the primary oil producing formation in this area, though some oil is also produced from the overlying Basal Grayburg Formation.

2.0 GROUNDWATER MONITORING – DECEMBER 2019 THROUGH OCTOBER 2020

2.1 Groundwater Sampling Program

Groundwater sampling events were conducted on a weekly basis from December 6, 2019 through October 1, 2020 by Ensolum on the Levey-1 water well. Three (3) groundwater monitoring events were conducted on monitoring wells MW-1 and MW-2.

The groundwater sampling program was based on information provided by OXY, requirements from NMOCD and Ensolum's review of the Site. Ensolum's groundwater sampling program consisted of the following:

Levey-1 Water Well

Prior to sample collection, Ensolum ran the existing pump in the water well to a frac tank staged on-Site for approximately 10 minutes. Once the Levey-1 had been properly purged, groundwater samples were collected.

Monitoring Wells MW-1 and MW-2

Prior to sample collection, Ensolum gauged the depth to fluids in each monitoring well (MW-1 and MW-2) using an interface probe capable of detecting non-aqueous phase liquids (NAPL). Each monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Subsequent to the completion of the micro-purge process, one (1) groundwater sample was collected from each monitoring well.

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. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. 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) are 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 were taken every three (3) to five (5) minutes. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three (3) successive readings.



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

2.2 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the Levey-1 water well was 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.

The groundwater samples collected from the monitoring wells 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 #846 300 and pH utilizing EPA Method SW-846 #150.1.

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

2.3 Data Evaluation

Ensolum compared the laboratory analytical results or laboratory practical quantitation limits (PQLs) associated with the groundwater samples collected from Levey-1 water 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-1 Water Well Sampling Results

The groundwater samples collected from the Levey-1 water well did not exhibit VOC concentrations above the WQCC GQS's with the exception of benzene. Benzene concentrations ranged from 0.00190 mg/l on August 27, 2020, to 0.0167 mg/l on December 26, 2019. As indicated on the graph, **Benzene Over Time** in **Appendix A**, the concentration of benzene has been declining since December 2019.

TDS analytical results ranged from 1,100 mg/l to 2,570 mg/l, which exceeds the applicable WQCC GQS of 1,000 mg/l. Although above the GQS, these TDS concentrations are consistent with background levels in the Quaternary Alluvium, Ogallala Formation, and the Dockum Group (i.e., the three groundwater bearing units) in Southern Lea County (Nicholson and Clebsch, 1961). Specifically, for the 20 water supply wells sampled by the USGS in Southern Lea County with TDS analyses, the median TDS concentration was 722 mg/l, and the 75th percentile TDS concentration was 1,953 mg/l.

Nitrite as N has ranged from non-detect to 1.75 mg/l, with a GQS groundwater protection standard of 1.0 mg/l. However, groundwater sampling data of water wells in the immediate vicinity, including the apparent upgradient water wells, revealed nitrite concentrations ranging from 0.031 mg/l to 5.99 mg/l with an average concentration in the area wells of 2.135 mg/l (GSI, 2019). Therefore, the nitrite concentrations appear to be inherent to the groundwater bearing formation either as background or potentially originating from an alternate source.

Chloride concentrations in the Levey-1 water well ranged from 190 mg/l on January 15, 2020, to 635 mg/l on September 2, 2020, with highly variable concentrations over the sampling period. The average chloride concentration over the sampling period is 366 mg/l.



Monitoring Well Sampling Results

The groundwater samples collected from monitoring well MW-1 did not exhibit benzene concentrations above the WQCC GQS of 5 µg/L. The groundwater samples collected from monitoring well MW-2 exhibited benzene concentrations ranging from 0.00901 mg/l to 0.0148 mg/l, which exceed the WQCC GQS of 5 µg/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.

Nitrite as N has ranged from non-detect to 1.03 mg/l in monitoring well MW-1, with a GQS groundwater protection standard of 1.0 mg/l. It should be noted that the lone nitrite exceedance was on May 26, 2020, which was during the first of three (3) sampling events.

TDS analytical results ranged from 1,320 mg/l to 1,890 mg/l over the sampling period of May 2020 to October 2020. The results do not appear to be statistically different from the TDS sampling results from the Levey-1 water well.

The groundwater samples collected from monitoring well MW-2 did not exhibit chloride concentrations above the WQCC GQS of 250 mg/L. The groundwater samples collected from monitoring well MW-1 exhibited chloride concentrations that ranged from 339 mg/l to 363 mg/l.

3.0 RECOMMENDATIONS

OXY requests to re-start injection in South Hobbs G/SA Unit #290 production/injection well upon approval of the implementation plan below. The Levey-1 and monitoring wells were monitored frequently upon the July 2nd, 2020 restart of injection for the development of pressure and a significant increase in gases, no pressure or significant increases in gas were observed subsequent to re-start.

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-1 water well. This has been demonstrated by over three (3) months of readings (**Appendix C and Appendix E**) 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-1 water supply well.

Based on the results of all monitoring activities, OXY has the following requests of action:

- Begin assessing and implementing measures to start removing free gas accumulations from the underlying red bed and groundwater-bearing zone as mechanically practical to do so, and to acceptable levels of removal to achieve compliance expectations.
- Continuing to monitor Levey-1, MW-1 and MW-2 for significant changes in pressure weekly, which could indicate a secondary source, until compliance of free gas removal is achieved.
- Groundwater sampling of the Levey-1 water well and monitoring wells MW-1 and MW-2 for benzene and chloride monthly through 2020; and,
- If benzene and chloride concentrations are steady and/or declining for the remainder of 2020, instituting groundwater sampling on a quarterly basis in 2021 or until benzene concentrations decline below GQS and chloride concentrations stabilize at an acceptable level.



4.0 REFERENCES

GSI Environmental. Preliminary Draft -Results of Water Supply Well Sampling and Investigation. November 2019.

Hobbs New Mexico Municipal Code, Title 13.04.017. Accessed September 2020

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

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

Appendix A

Figures



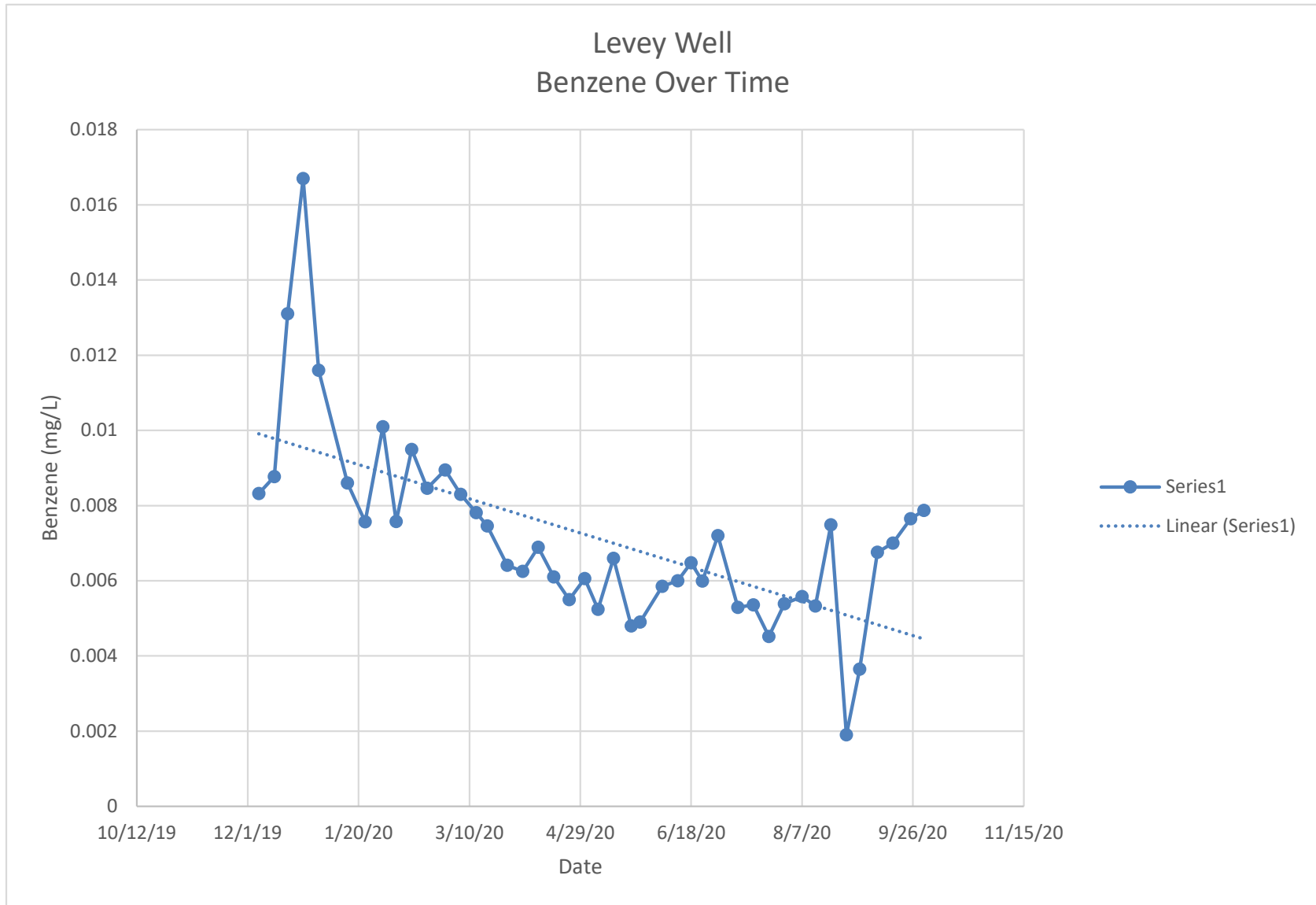
SITE MAP

PERMIAN EOR, INC
S HOBBS G/SA UNIT
SE ¼ of the NW ¼, Sec 5, T29S, R38E, Hobbs, New Mexico
32.690683° N, 103.173158° W

PROJECT NUMBER: 03B1417002

FIGURE

1



Appendix B

Summary Tables

TABLE 1 - GROUNDWATER SAMPLING (VOCs) ANALYTICAL DATA SUMMARY

Permian EOR - Levey Well
Hobbs, New Mexico

Well ID		Date	VOCs (mg/l)																		
			Benzene	Toluene	Ethylbenzene	o-Xylene	m,p-Xylenes	Total Xylenes	Methyl ethyl ketone (2-Butanone)	n-Butylbenzene	Sec-Butylbenzene	tert-Butylbenzene	2-Chlorotoluene	4-Chlorotoluene	p-Cymene (p-Isopropyltoluene)	1,1-Dichloropropene	Isopropylbenzene	Naphthalene	n-Propylbenzene	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	NE	NE	NE	NE	NE	0.03	NE	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	0.00138	<0.00500	0.0126	<0.0100	0.00566	<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	0.00112	<0.00500	0.0112	<0.0100	0.00470	<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	<0.000214	<0.000183	0.00173	<0.000481	0.0170	<0.00200	0.00747	<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	0.00183	<0.00500	0.0235	<0.0100	0.00934	<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	0.00127	<0.00500	0.0107	0.0120	0.00544	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	<0.00100	<0.00500	0.0148	<0.0100	0.0104	<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	0.00180	<0.00500	0.0158	<0.0100	0.0166	<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	0.0343	0.0344	<0.0100	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	0.00165	<0.00500	0.0174	<0.0100	0.0237	<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	0.00251	<0.00500	0.0251	<0.0100	0.0450	<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	0.00229	<0.00500	0.0208	<0.0100	0.0431	<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	<0.00500	<0.0250	0.0249	<0.0500	0.0488	<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	0.00254	<0.00500	0.0231	<0.0100	0.0472	<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	0.00247	<0.00500	0.0224	<0.0100	0.0428	<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	0.00224	<0.00500	0.0199	<0.0100	0.0365	<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	0.00189	<0.00500	0.0166	<0.0100	0.0336	<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	0.00209	<0.00500	0.0174	<0.0100	0.0363	<0.00100	0.273	0.0756
	4/10/2020	0.00689	0.0327	0.0277	0.0159	0.0924	0.108	<0.0500	0.00253	0.00338	<0.00100	<0.00100	<0.00100	0.00188	<0.00500	0.0171	<0.0100	0.0300	<0.00100	0.264	0.0580
	4/17/2020	0.00610	0.0258	0.0253	0.0141	0.0814	0.0955	<0.0500	0.00238	0.00321	<0.00100	<0.00100	<0.00100	0.00171	<0.00500	0.0164	<0.0100	0.0280	<0.00100	0.220	0.0562
	4/24/2020	0.00550	0.0241	0.0225	0.0125	0.0756	0.0881	<0.0500	<0.00100	0.00297	<0.00100	<0.00100	<0.00100	0.00179	<0.00500	0.0148	<0.0100	0.0251	<0.00100	0.199	0.0526
	5/1/2020	0.00606	0.0277	0.0237	0.0129	0.0773	0.0902	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00159	<0.00500	0.0143	<0.0100	0.0242	<0.0100	0.185	0.0513
	5/7/2020	0.00524	0.0168	0.0211	0.0108	0.0655	0.0763	<0.0500	<0.00100	0.00306	<0.00100	<0.00100	<0.00100	0.00171	<0.00500	0.0138	<0.0100	0.0270	<0.0100	0.202	0.0582
	5/14/2020	0.00660	0.0357	0.0268	0.0141	0.0882	0.102	<0.0500	0.00236	0.00324	<0.00100	<0.00100	<0.00100	0.00191	<0.00500	0.0165	<0.0100	0.0236	<0.00100	0.201	0.0453
	5/22/2020	0.00480	0.00851	0.0193	0.00896	0.0567	0.0657	<0.0500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00194	<0.00500	0.0137	<0.0100	0.0276	<0.00100	0.187	0.0597
	5/26/2020	0.00490	0.0169	0.0210	0.0109	0.0637	0.0746	<0.0500	0.00122	0.00300	<0.00100	<0.00100	<0.00100	0.00164	<0.00500	0.0138	<0.0100	0.0256	<0.00100	0.192	0.0532
	6/5/2020	0.00585	0.0317	0.0228	0.0117	0.0744	0.0861	<0.0500	0.00183	0.00271	<0.00100	<0.00100	<0.00100	0.00155	<0.00500	0.0134	<0.0100	0.0182	<0.00100	0.129	0.0367
	6/12/2020	0.00600	0.0299	0.0231	0.0122	0.0757	0.0879	<0.0500	<0.00100	0.00283	<0.00100	<0.00100	<0.00100	0.00154	<0.00500	0.0135	<0.0100	0.0211	<0.00100	0.150	0.0429
	6/18/2020	0.00648	0.0374	0.0236	0.0129	0.0818	0.0947	<0.0500	<0.00100	0.00256	<0.00100	<0.00100	<0.00100	0.00145	<0.00500	0.0130	<0.0100	0.0162	<0.00100	0.121	0.0336
	6/23/2020	0.00599	0.0311	0.0232	0.0116	0.0771	0.0887	<0.0500	0.00103	<0.00100	<0.00100	<0.00100	<0.00100	0.00153	<0.00500	0.0137	<0.0100	0.0193	<0.00100	0.135	0.0385
	6/30/2020	0.00720	0.0450	0.0276	0.0138	0.0923	0.106	<0.0500	0.00105	0.00306	<0.00100	<0.00100	<0.00100	0.00176	<0.00500	0.0152	<0.0100	0.0169	<0.00100	0.119	0.0339
	7/9/2020	0.00529	0.0272	0.0203	0.0103	0.0700	0.0803	<0.0500	<0.00100	0.00253	<0.00100	<0.00100	<0.00100	0.00136	<0.00500	0.0118	<0.0100	0.0156	<0.00100	0.118	0.0328
	7/16/2020	0.00536	0.0316	0.0204	0.0103	0.0684	0.0787	<0.0500	0.00148	0.00252	<0.00100	<0.00100	<0.00100	0.00133	<0.00500	0.0117	<0.0100	0.0142	<0.00100	0.0944	0.0273
	7/23/2020	0.00452	0.0268	0.0174	0.00895	0.0602	0.0692	<0.0500	<0.00100	0.00199	<0.00100	<0.00100	<0.00100	0.00112	<0.00500	0.00991	<0.0100	0.0113	<0.00100	0.0775	0.0224
	7/30/2020	0.00539	0.0302	0.0197	0.0100	0.0641	0.0741	<0.0500	<0.00100	0.00210	<0.00100	<0.00100	<0.00100	0.00123	<0.00500	0.0111	<0.0100	0.0124	<0.00100	0.0751	0.0215
	8/7/2020	0.00558	0.0300	0.0200	0.00987	0.0628	0.0727	<0.0500	<0.00100	0.00215	<0.00100	<0.00100	<0.00100	0.00114	<0.00500	0.0110	<0.0100	0.0118	<0.00100	0.0707	0.0209
	8/13/2020	0.00533	0.0300	0.0195	0.00978	0.0622	0.0720	<0.0500	<0.00100	0.00196	<0.00100	<0.00100	<0.00100	0.00115	<0.00500	0.0107	<0.0100	0.0119	<0.00100	0.0710	0.0206
8/20/2020	0.00749	0.0400	0.0269	0.0128	0.0864	0.0992	<0.0500	<0.00100	0.00292	<0.00100	<0.00100	<0.00100	0.00168	<0.00500	0.0150	<0.0100	0.0161	<0.00100	0.0988	0.0295	
8/27/2020	0.00190	0.0101	0.00678	0.00322	0.0205	0.0237	<0.0500	<0.00100	0.00104	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	0.00403	<0.00100	0.00459	<0.00100	0.0230	0.00758	
9/2/2020	0.00365	0.0199	0.0132	0.00646	0.0412	0.0477	<0.0500	<0.00100	0.00165	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	0.00749	<0.0100	0.00761	<0.00100	0.0483	0.0410	
9/10/2020	0.00676	0.0358	0.0246	0.0115	0.0760	0.0875	<0.0500	<0.00100	0.00271	<0.00100	<0.00100	<0.00100	0.00150	<0.00500	0.0132	<0.0100	0.0136	<0.00100			

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

Permian EOR - Levey Well
Hobbs, New Mexico

Well ID	Date	(mg/l)														%	SU	
		Bromide	Chloride	Fluoride	Nitrate as N	Nitrite as N	Sulfate	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Carbonate (as CaCO3)	Cation-Anion Balance	pH		
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		
Levey Well	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		
	9/17/2020	0.769	472	<0.500	0.272	1.06	40.8	467	73.4	6.45	119	1,930	1,110	<4.00	1.10	6.14		
	9/25/2020	0.779	541	<0.500	0.150	<0.100	44.0	386	75.9	5.86	133	1,680	1,110	<4.00	6.70	6.17		
	10/1/2020	0.721	466	<0.500	0.173	<0.100	41.4	398	75.5	6.25	124	1,940	1,110	<4.00	3.30	6.07		
	10/9/2020	0.786	527	<0.500	0.161	<0.100	43.8	426	79.8	6.90	139	2,220	1,090	<4.00	1.90	6.21		
	10/16/2020	0.595	460	0.511	<0.100	<2.00	45.7	376	72.5	5.90	122	2,020	1,080	<4.00	4.80	6.20		
MW-1	5/26/2020	NA	363	0.913	0.998	1.03	283	NA										7.21
	6/30/2020	0.591	342	<0.500	0.145	<0.100	88.8	401	84.7	6.41	191	1,890	1,290	<4.00	NA	6.75		
	8/20/2020	0.634	339	<0.500	<0.100	<0.100	68.3	401	90.3	5.38	147	1,760	1,210	<4.00	NA	6.30		
MW-2	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		

NOTES:

SU - standard units

mg/l - milligrams per liter

NE - not established

J - 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

Permian EOR - South Hobbs G/SA Unit

Hobbs, New Mexico

Well ID	Date	(mg/l)						°C
		Sulfide	Carbon Dioxide (Free)	TPH GRO	TPH DRO	TPH MRO	Total TPH	Temperture
20 NMAC 6.2 Water Quality - Ground and Surface Water Protection Human Health Standards		NE	NE	NE	NE	NE	NE	NE
MW-1	5/26/2020	<0.495	163	<0.943	1.48	<0.910	1.48	22.9
	6/30/2020	<5.00	648	<2.34	<2.34	<2.34	<2.34	21.9
	8/20/2020	<5.00	596	2.35	3.18	<2.26	5.53	23.7
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

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.

Appendix C

Well Pressure/Gas Weekly Readings

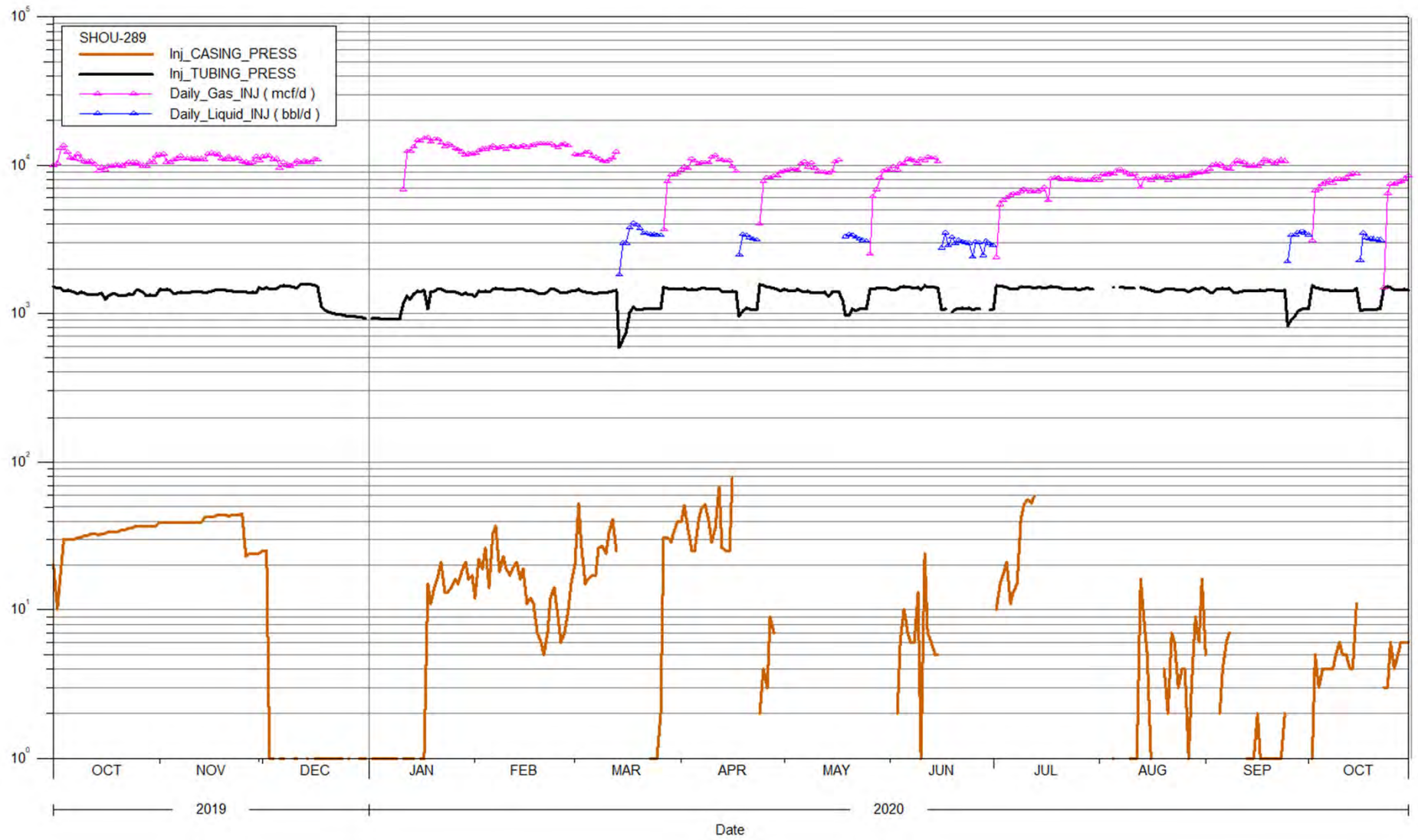
Levey Well Analysis

Date	Site	H2S	Co2	LEL	O2	Pressure
7/1/2020	Well L-1458	0 ppm	14 ppm	OL %	17.90%	0 psi
	MWell #1	0 ppm	8 ppm	2%	20.20%	0 psi
	MWell #2	.3 ppm	13 ppm	60%	16.50%	0 psi
7/5/2020	Well L-1458	0 ppm	13 ppm	OL %	19%	0 psi
	MWell #1	0 ppm	1 ppm	0%	20%	0 psi
	MWell #2	.2 ppm	14 ppm	OL %	14%	0psi
7/10/2020	Well L-1458	0 ppm	11 ppm	OL %	20%	0 psi
	MWell #1	0 ppm	.15 ppm	0%	19%	0 psi
	MWell #2	.2 ppm	21 ppm	OL %	11%	0 psi
7/15/2020	Well L-1458	0 ppm	13 ppm	OL %	20%	0 psi
	MWell #1	0 ppm	10 ppm	0%	20%	0 psi
	MWell #2	0 ppm	14 ppm	OL %	13.10%	0 psi
7/20/2020	Well L-1458	0 ppm	14 ppm	OL %	19%	0 psi
	MWell #1	0 ppm	2 ppm	0%	20%	0 psi
	MWell #2	0 ppm	13 ppm	OL %	12%	0 psi
7/24/2020	Well L-1458	0 ppm	10 ppm	OL%	19%	0 psi
	MWell #1	0 ppm	10 ppm	0%	20%	0 psi
	MWell #2	0 ppm	14 ppm	OL%	14%	0 psi
7/31/2020	Well L-1458	0 ppm	10 ppm	OL%	19%	0 psi
	MWell #1	0 ppm	10 ppm	0%	20%	0 psi
	MWell #2	0 ppm	14 ppm	OL%	14%	0 psi
8/7/2020	Well L-1458	0 ppm	13 ppm	OL %	20%	0 psi
	MWell #1	0 ppm	10 ppm	0%	20%	0 psi
	MWell #2	0 ppm	14 ppm	OL %	13.00%	0 psi
10/30/2020	Well L-1458	0 ppm	14 ppm	OL %	12%	0 psi
	MWell #1	0 ppm	5 ppm	3%	14%	0 psi
	MWell #2	0 ppm	18 ppm	31%	11.70%	0 psi

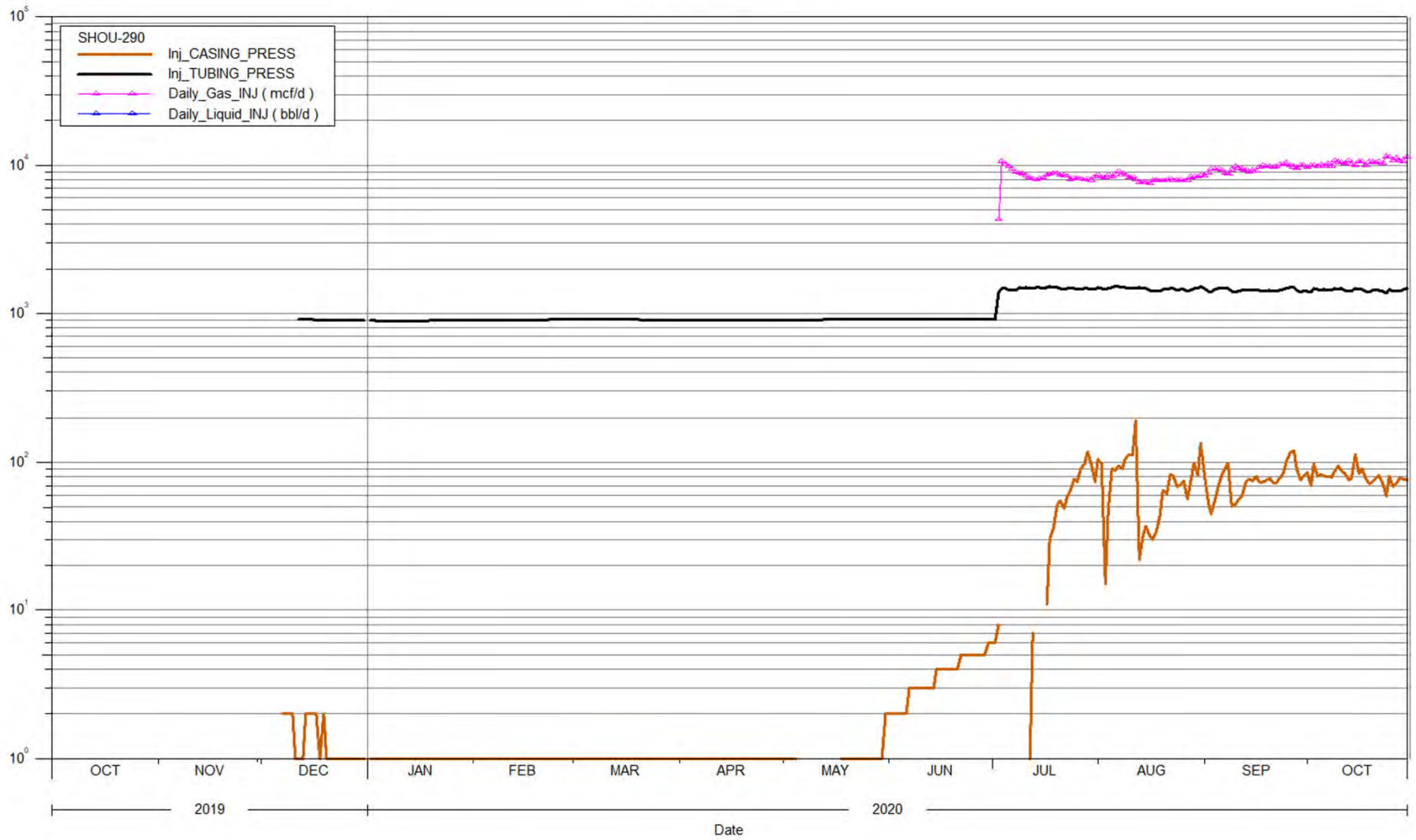
Appendix D

Well Integrity Reports

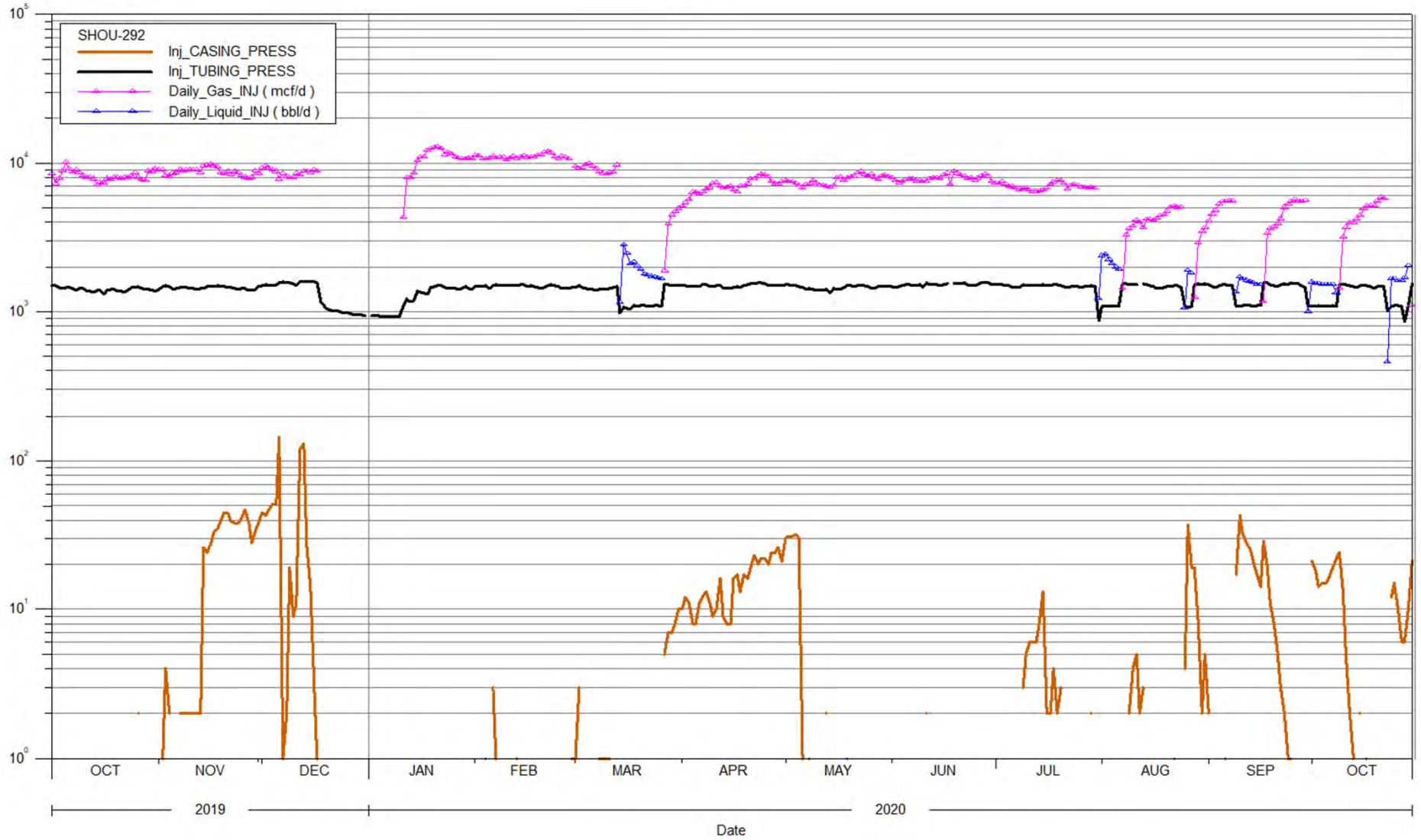
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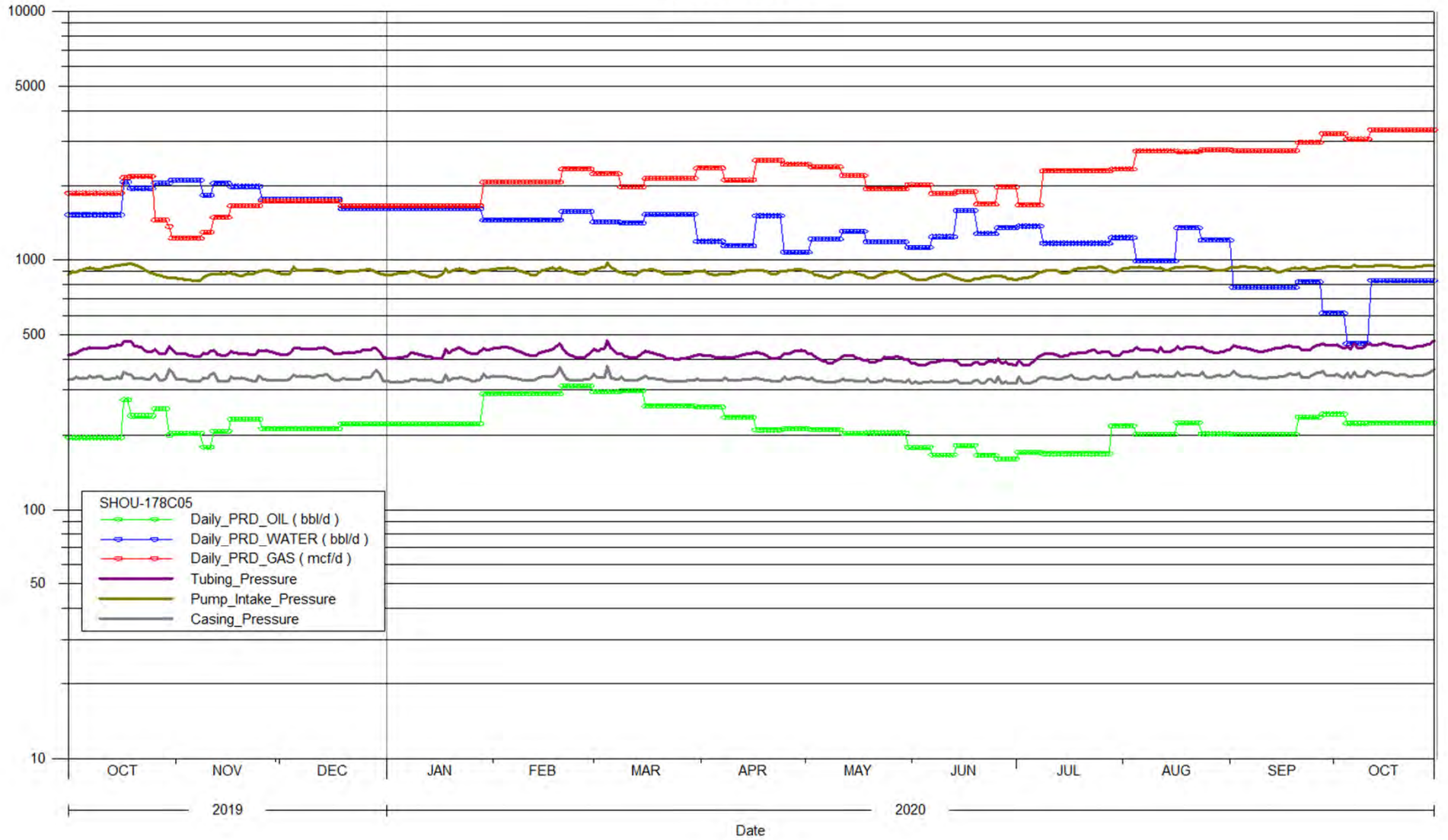
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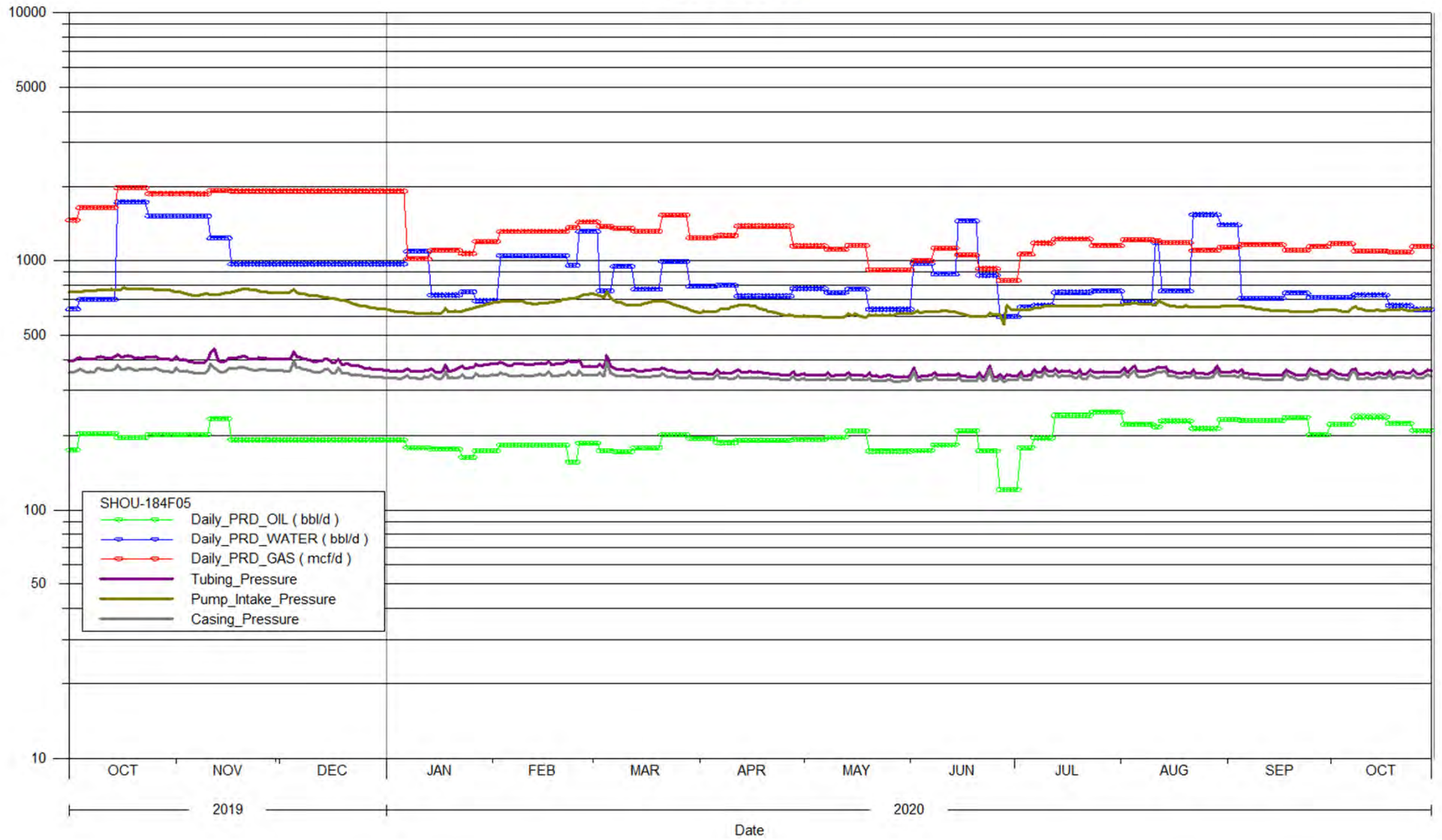
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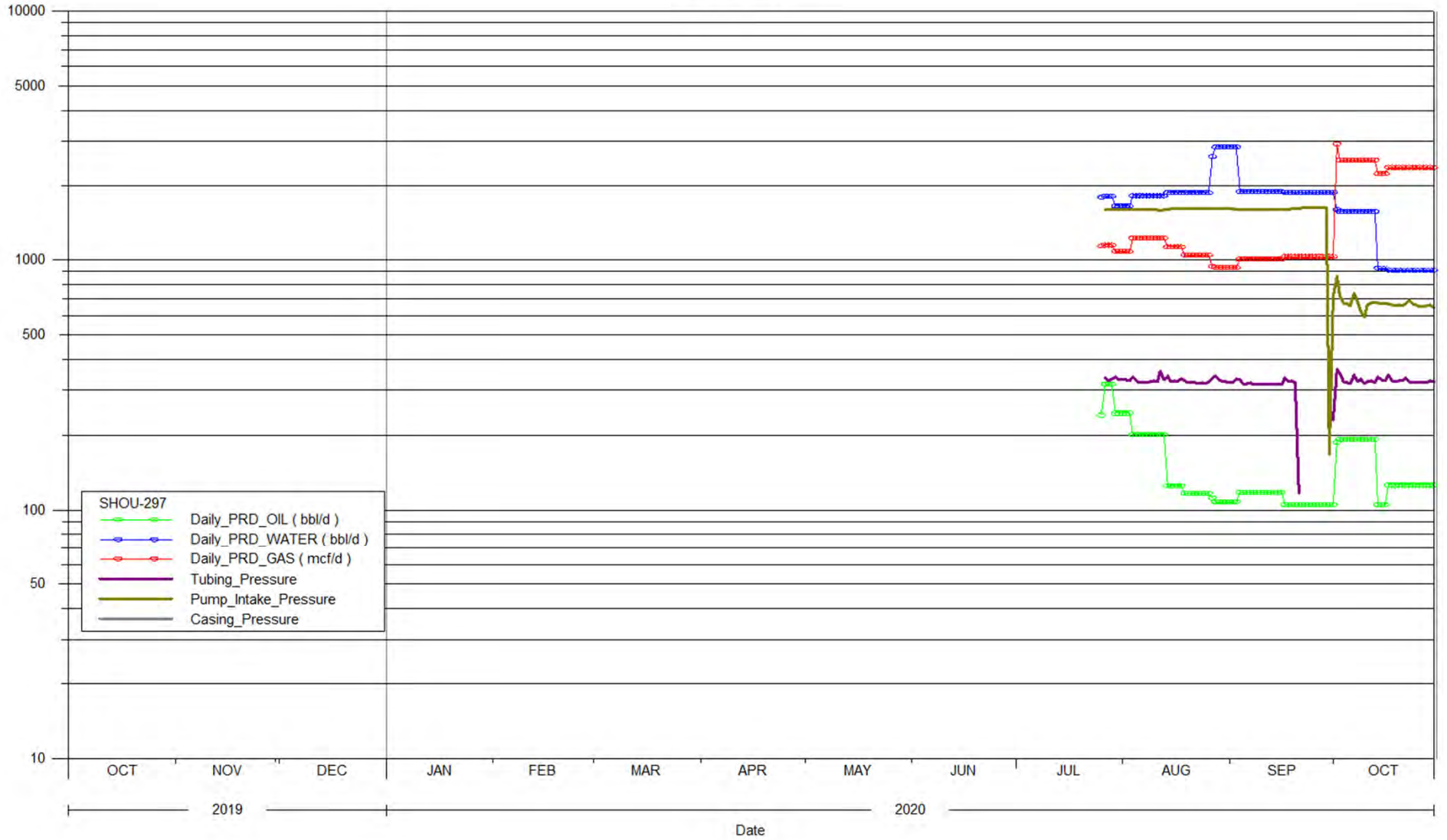
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SHOU-184F05

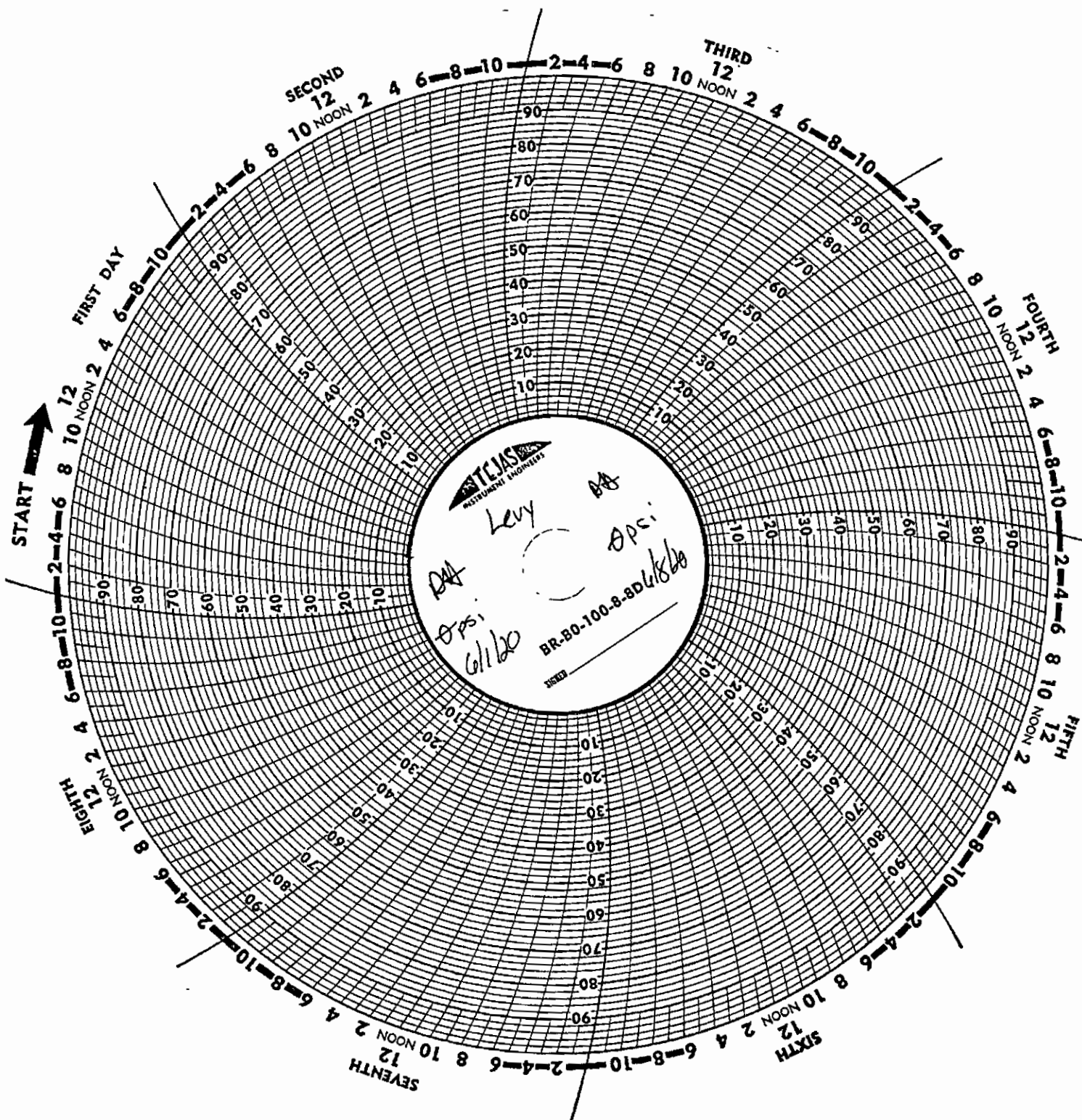


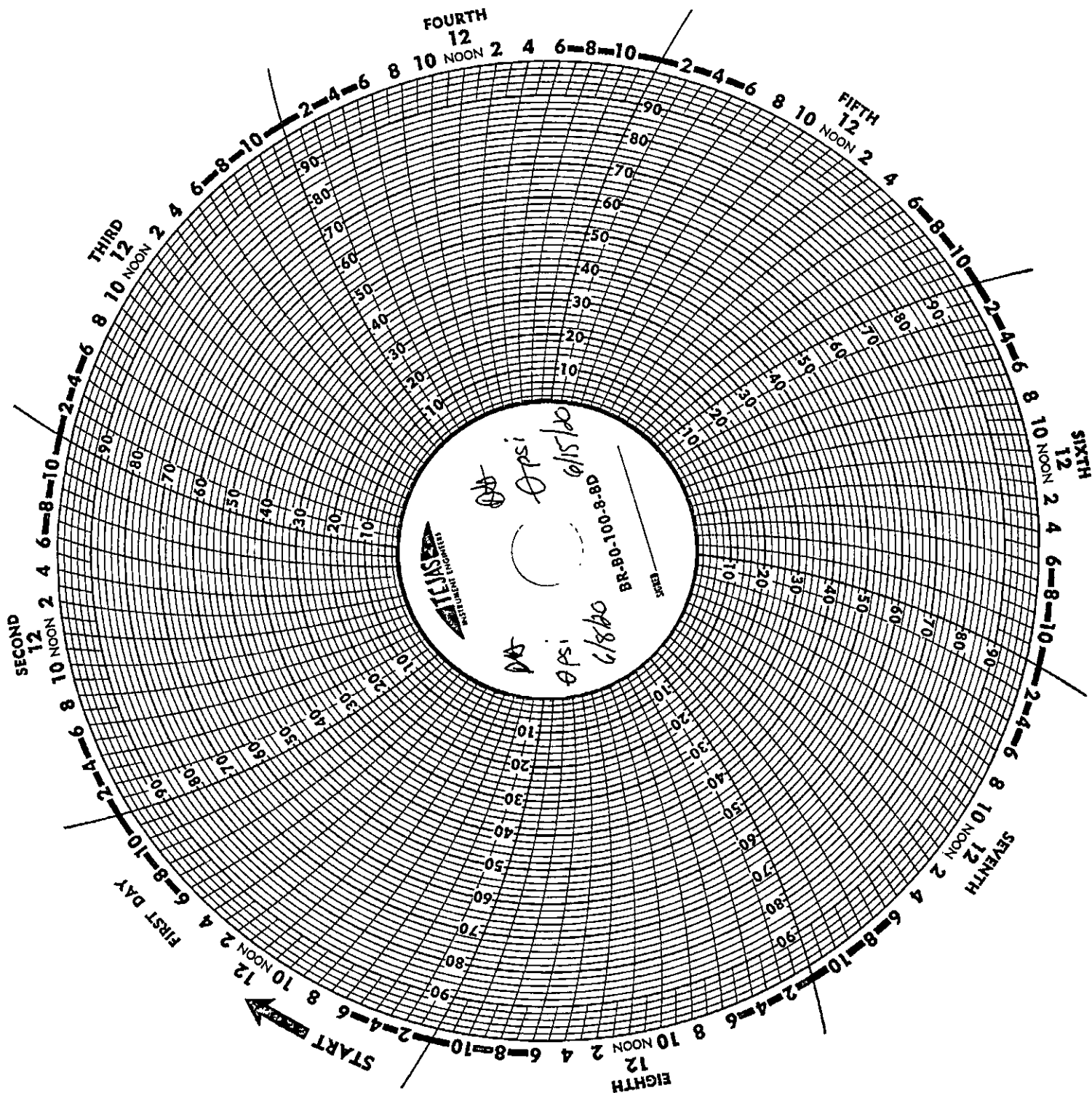
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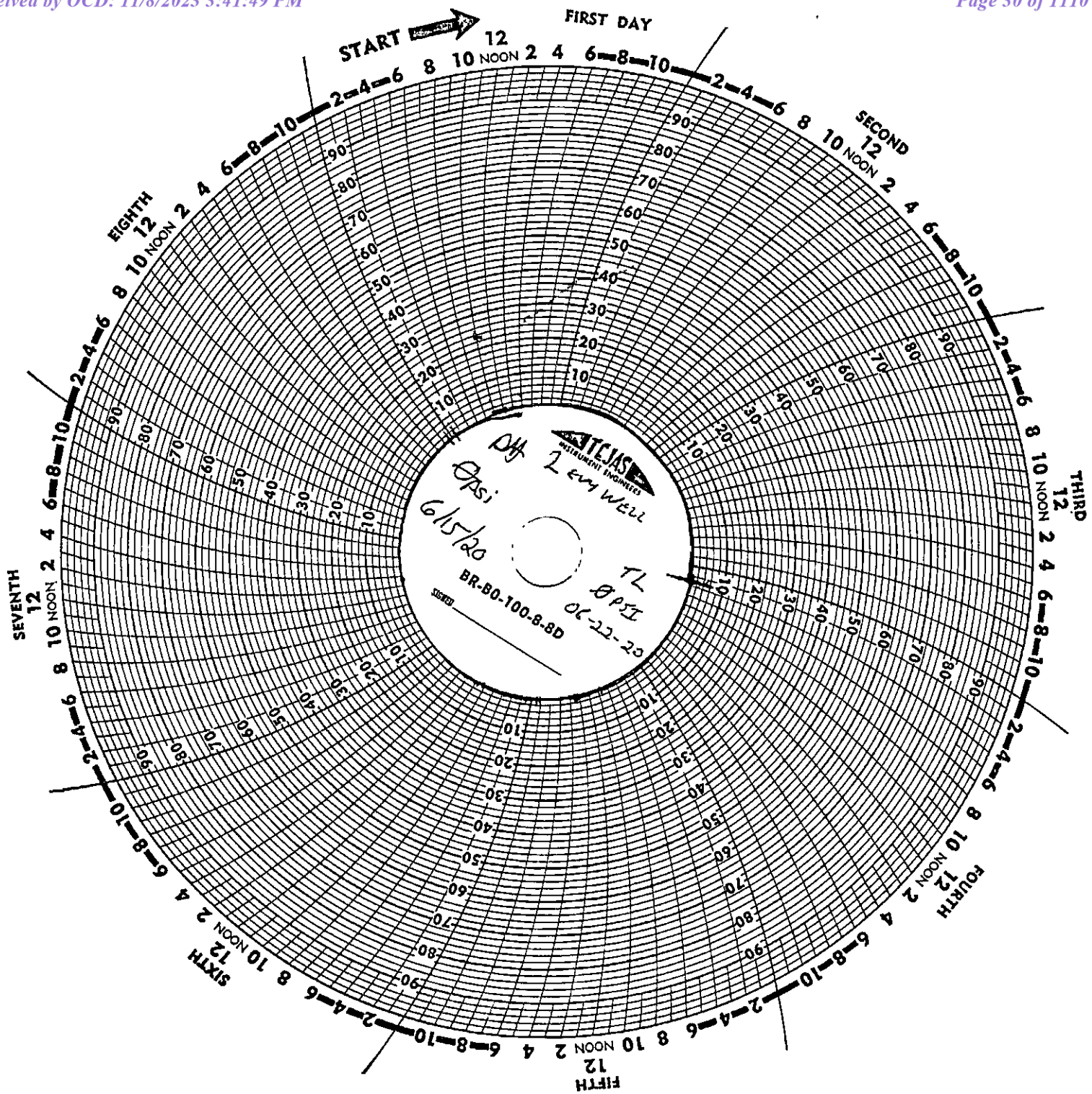


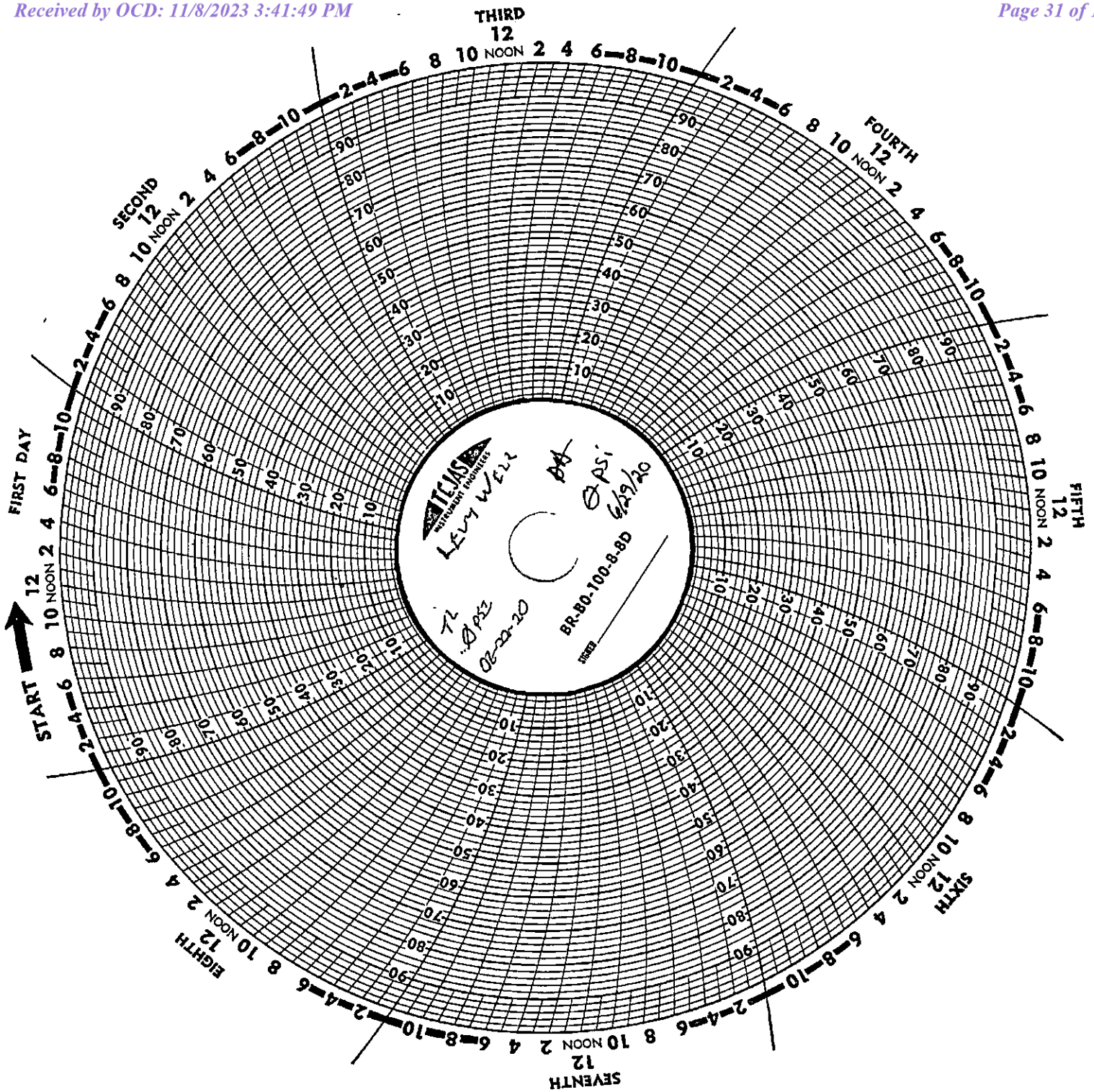
Appendix E

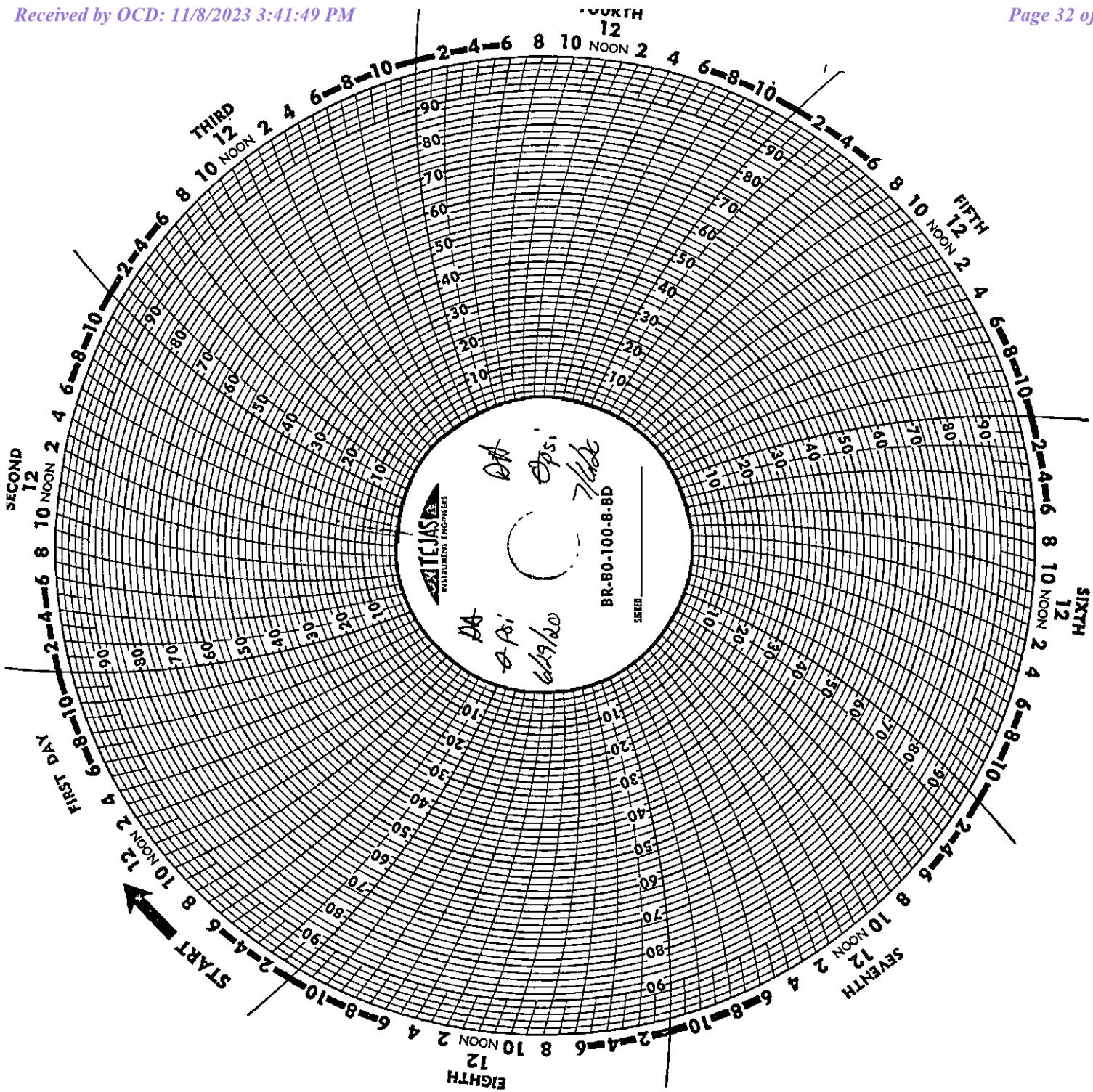
Levey-1 Well Pressure Charts



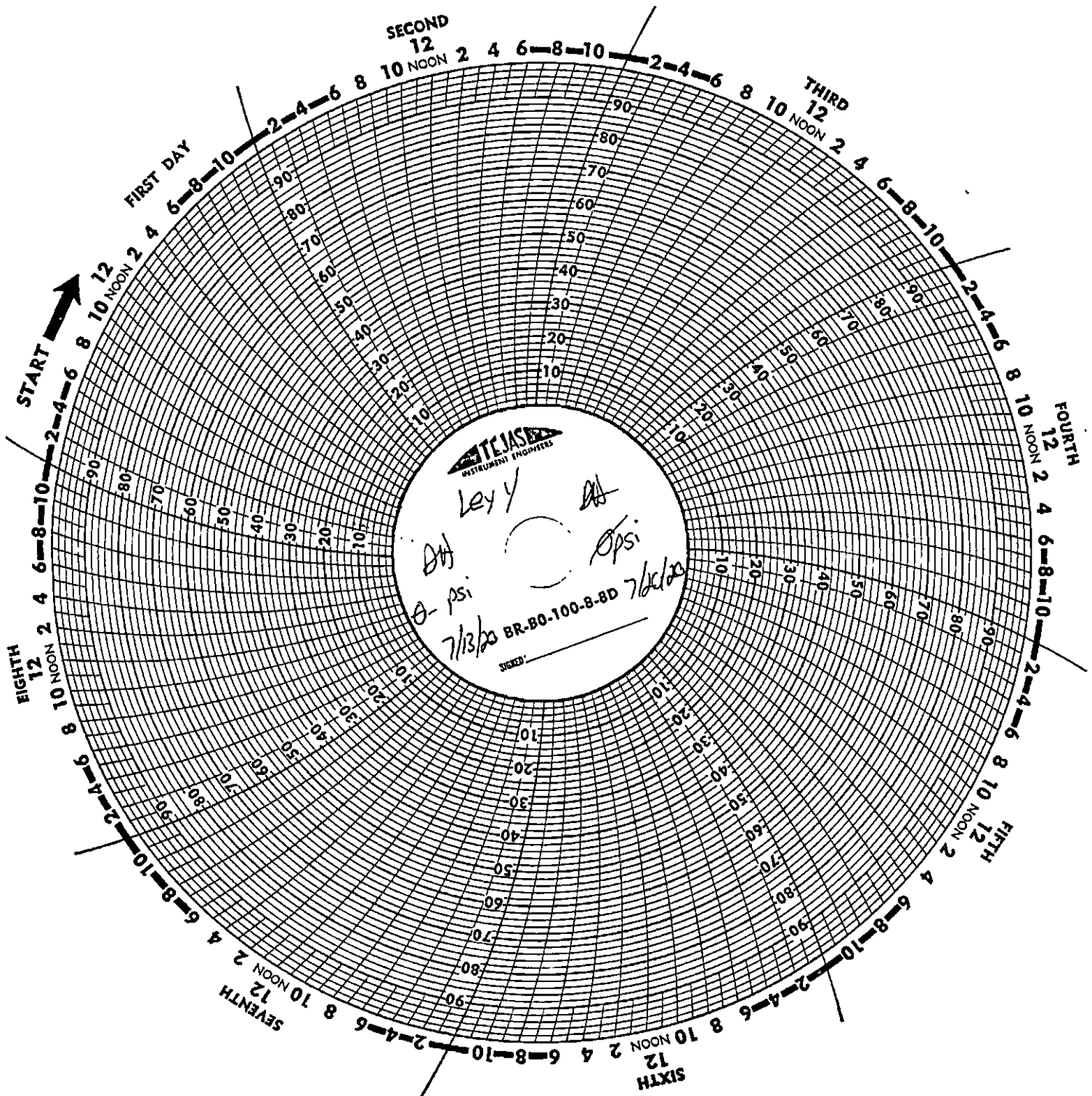


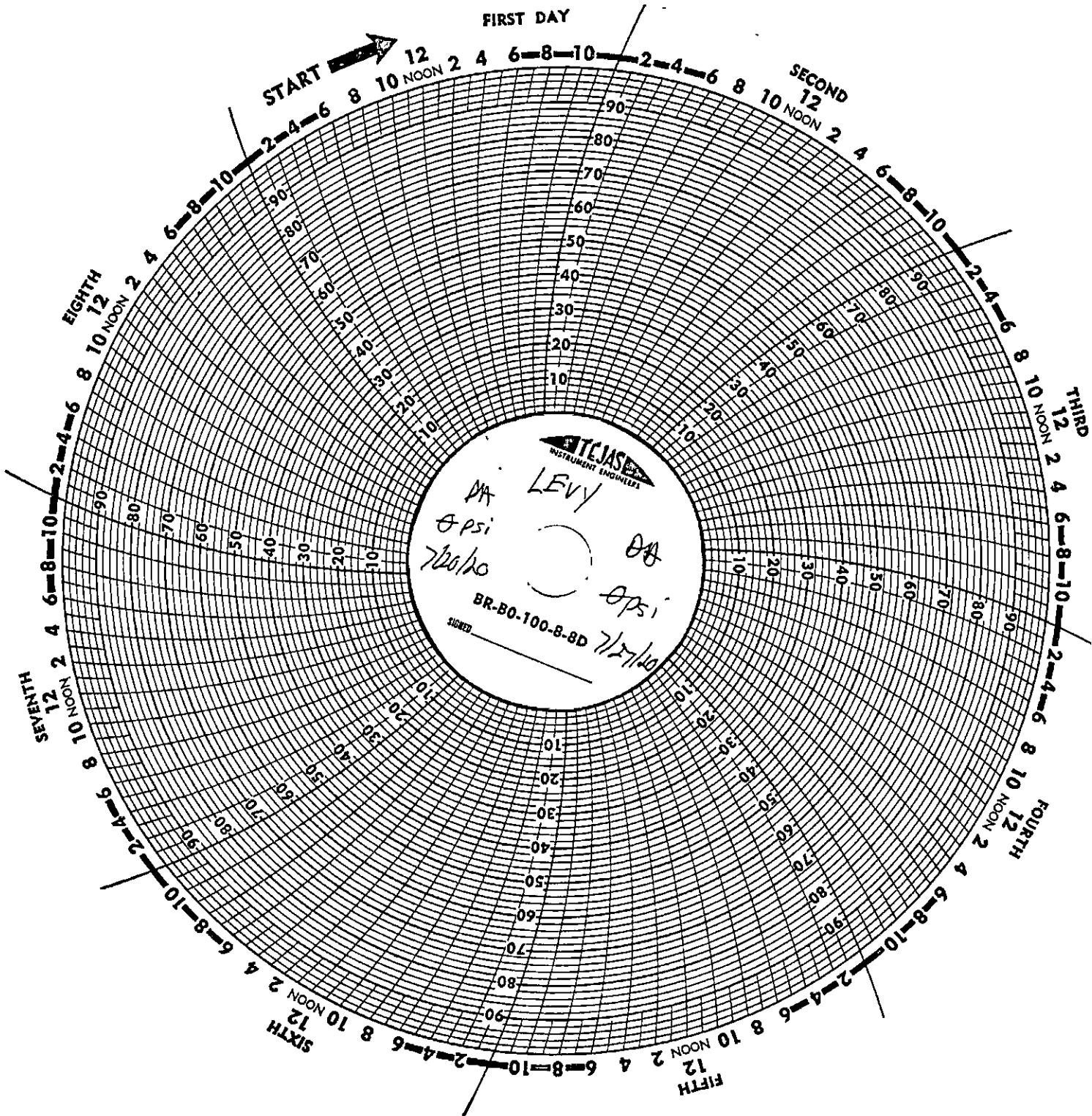


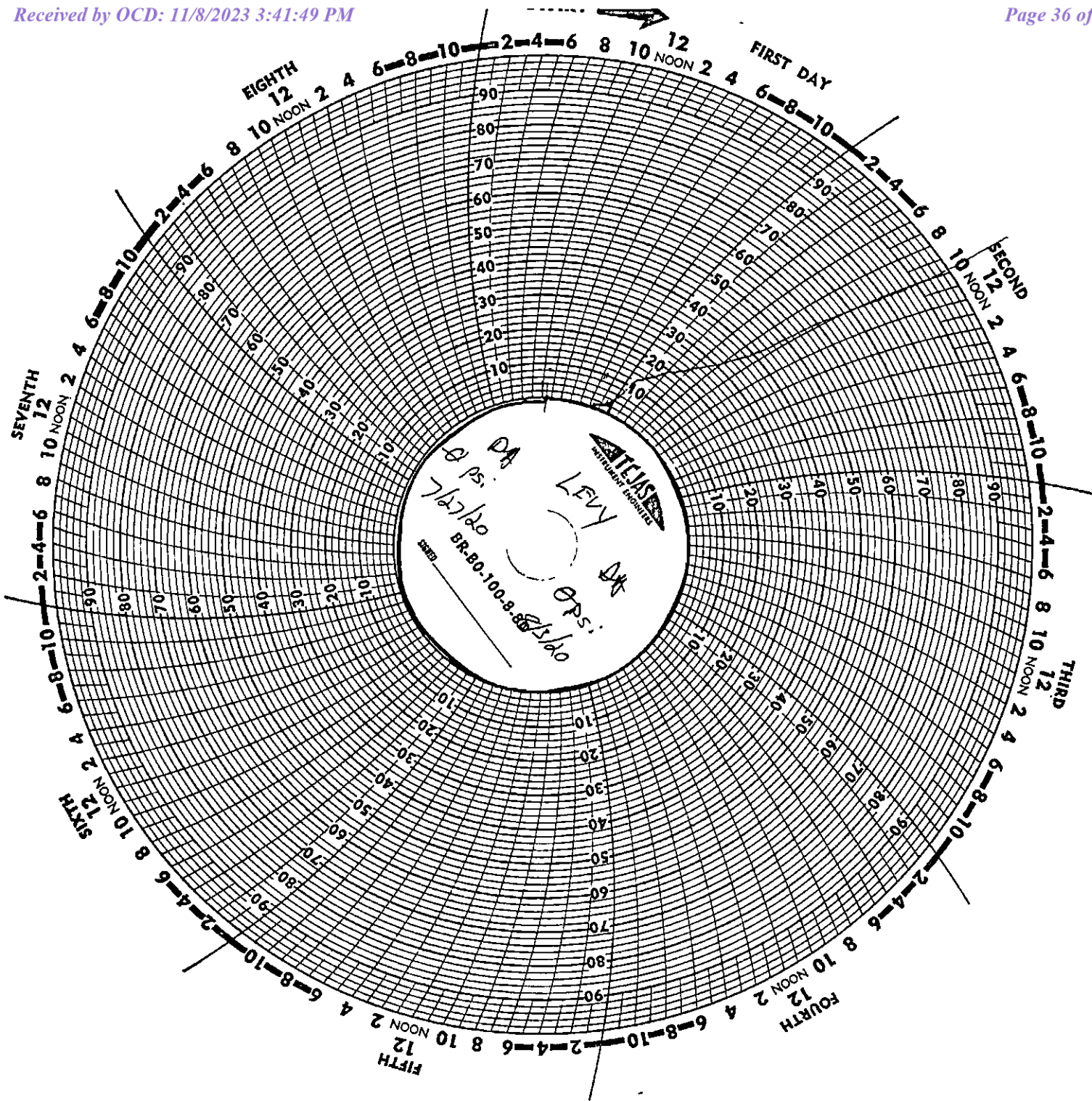


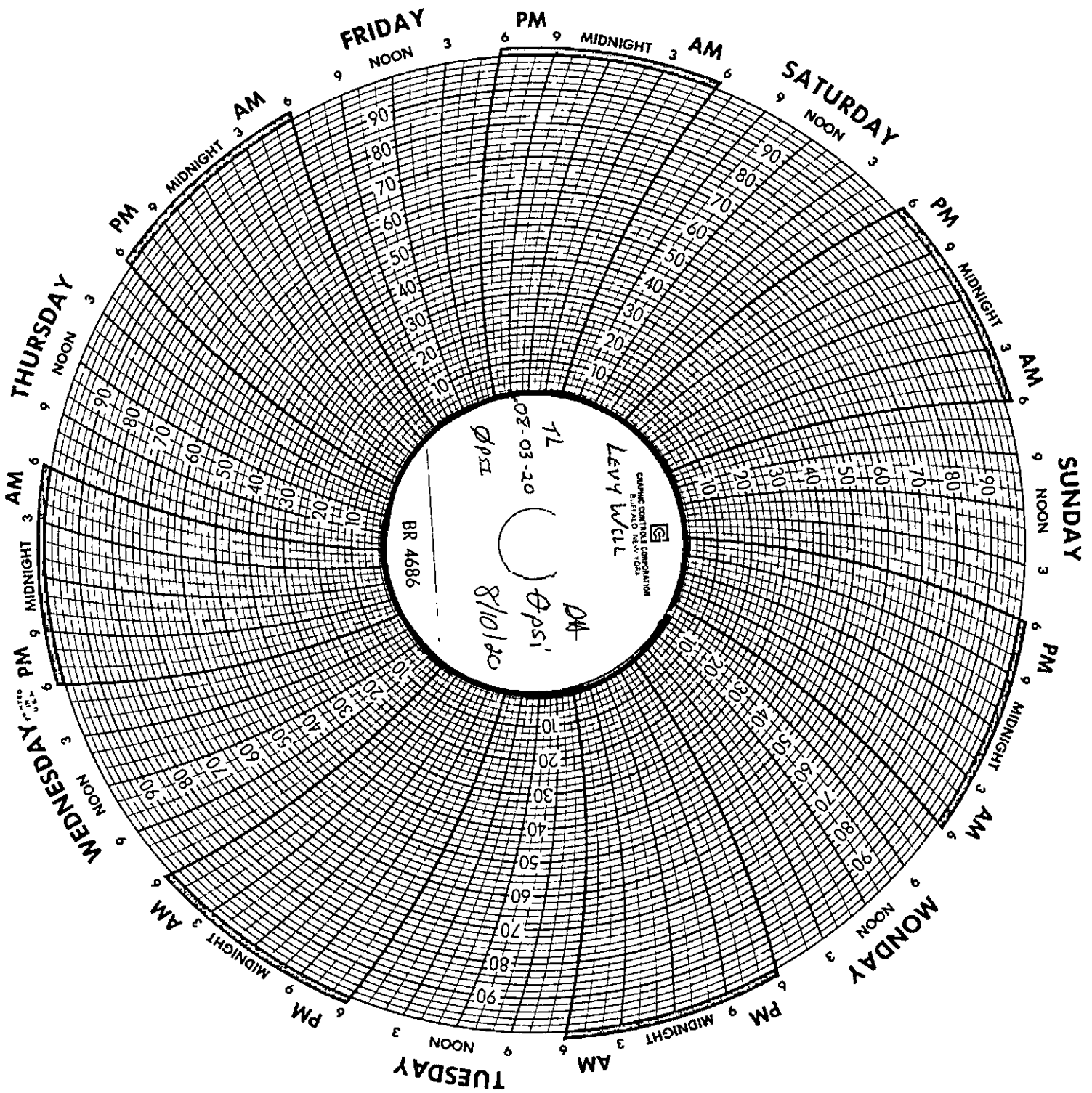


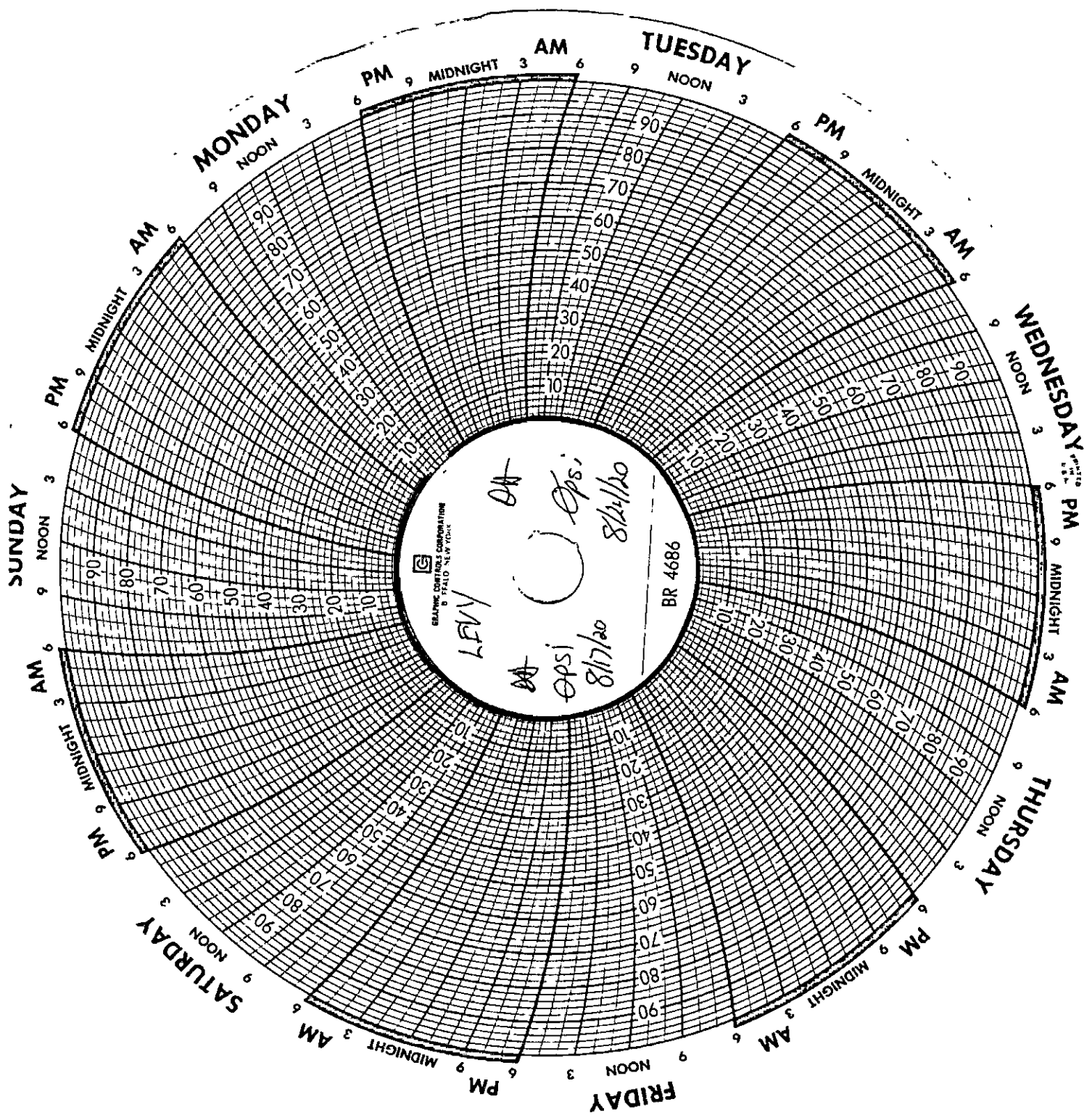


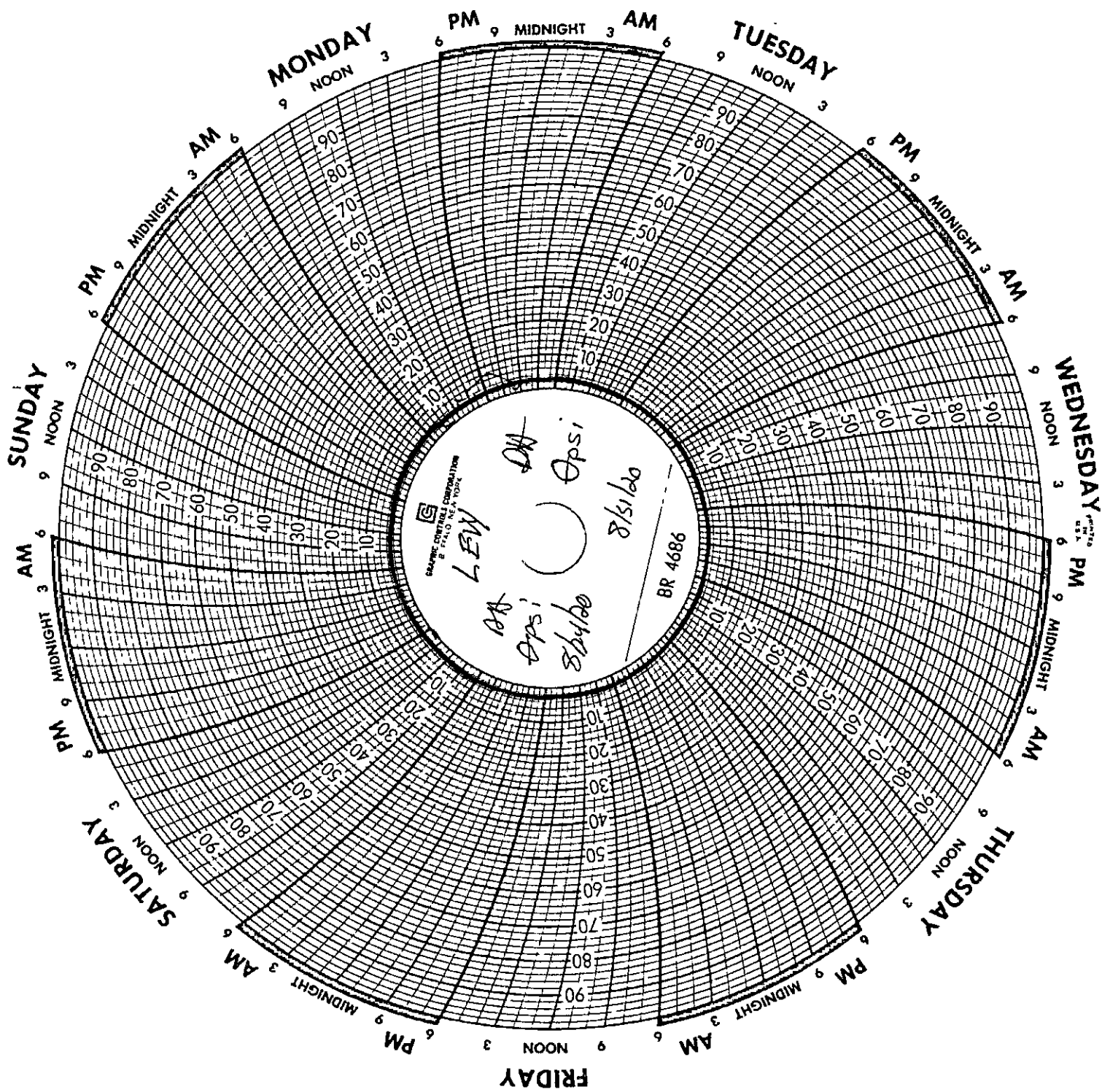


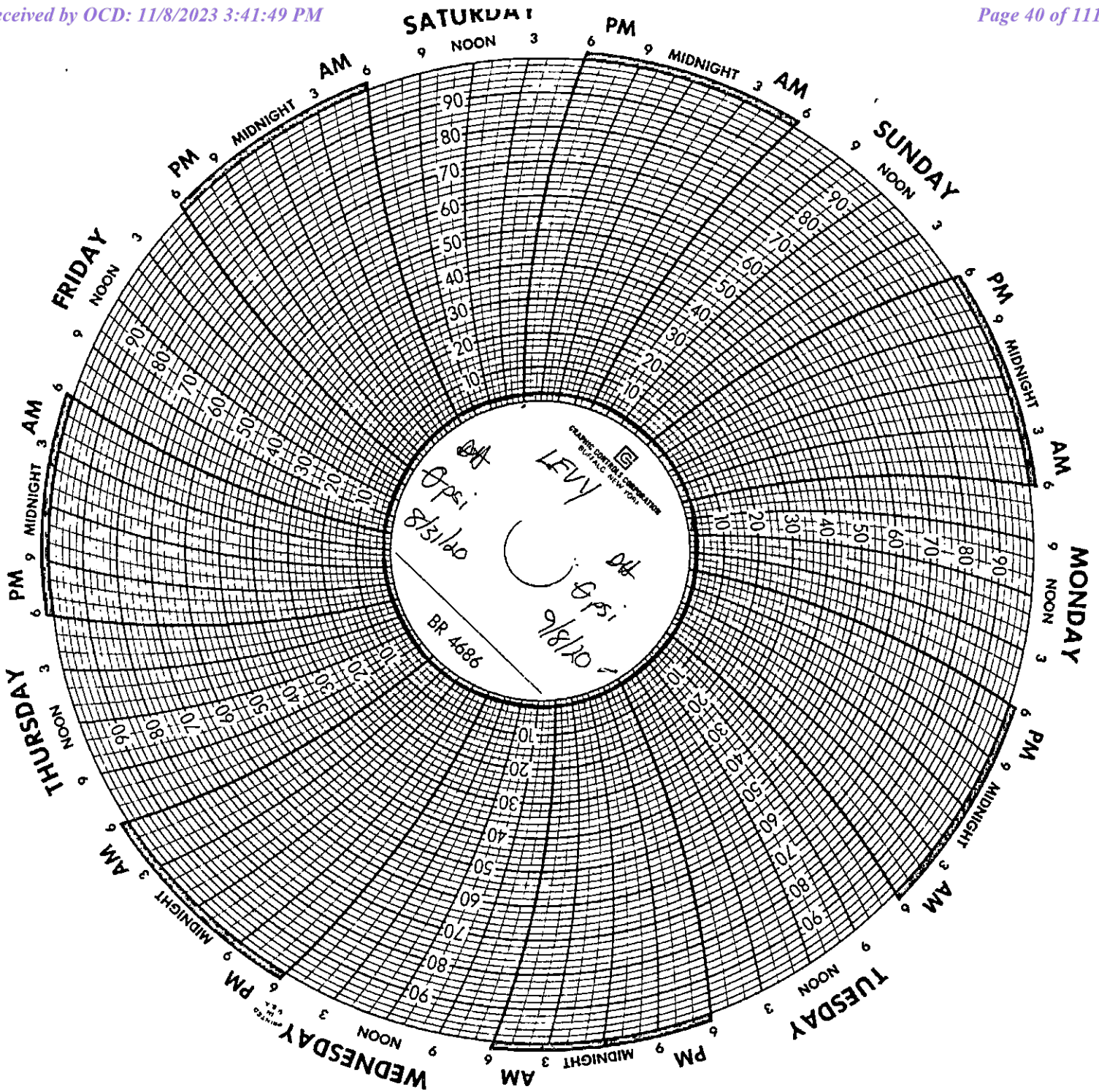


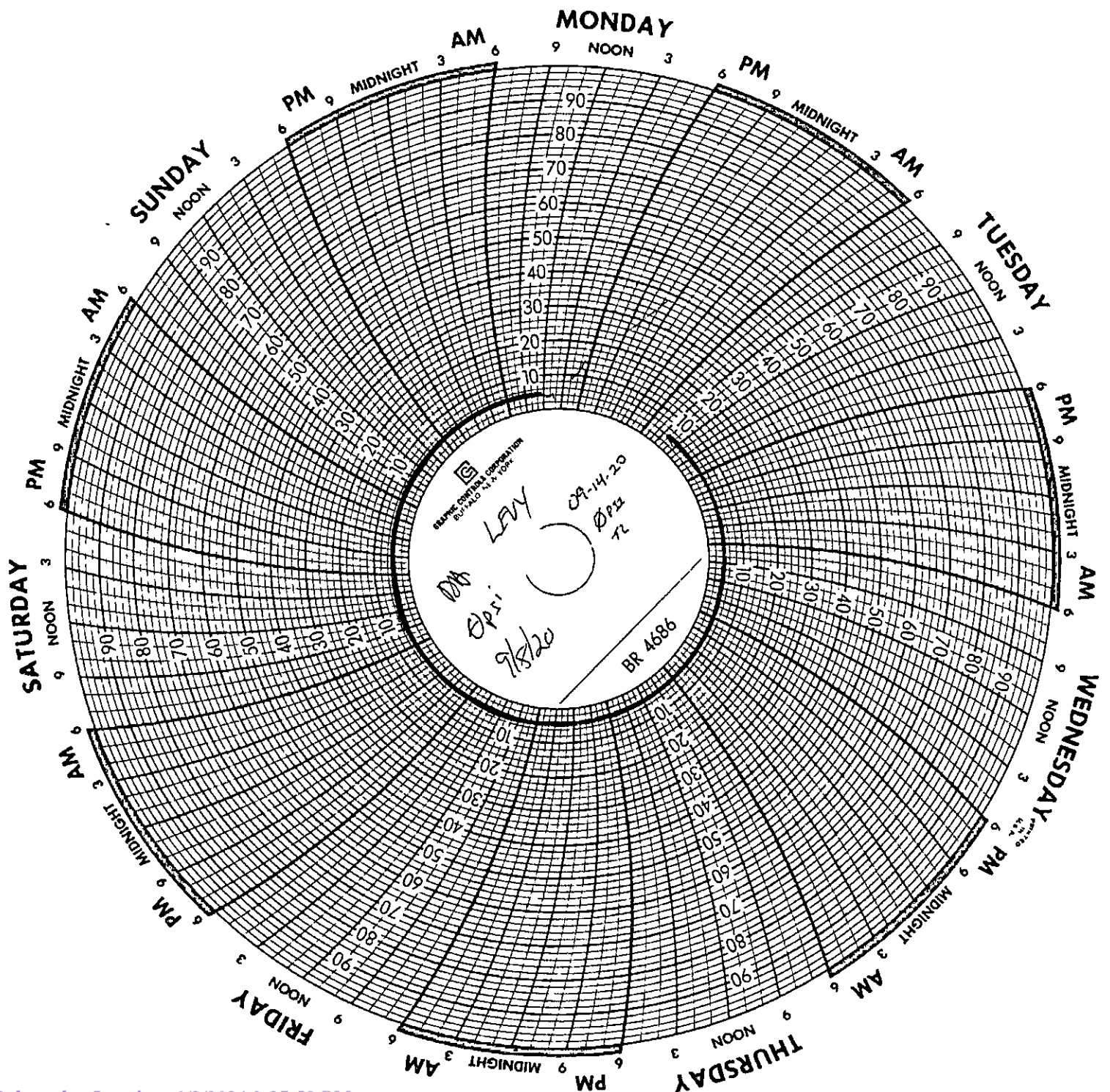


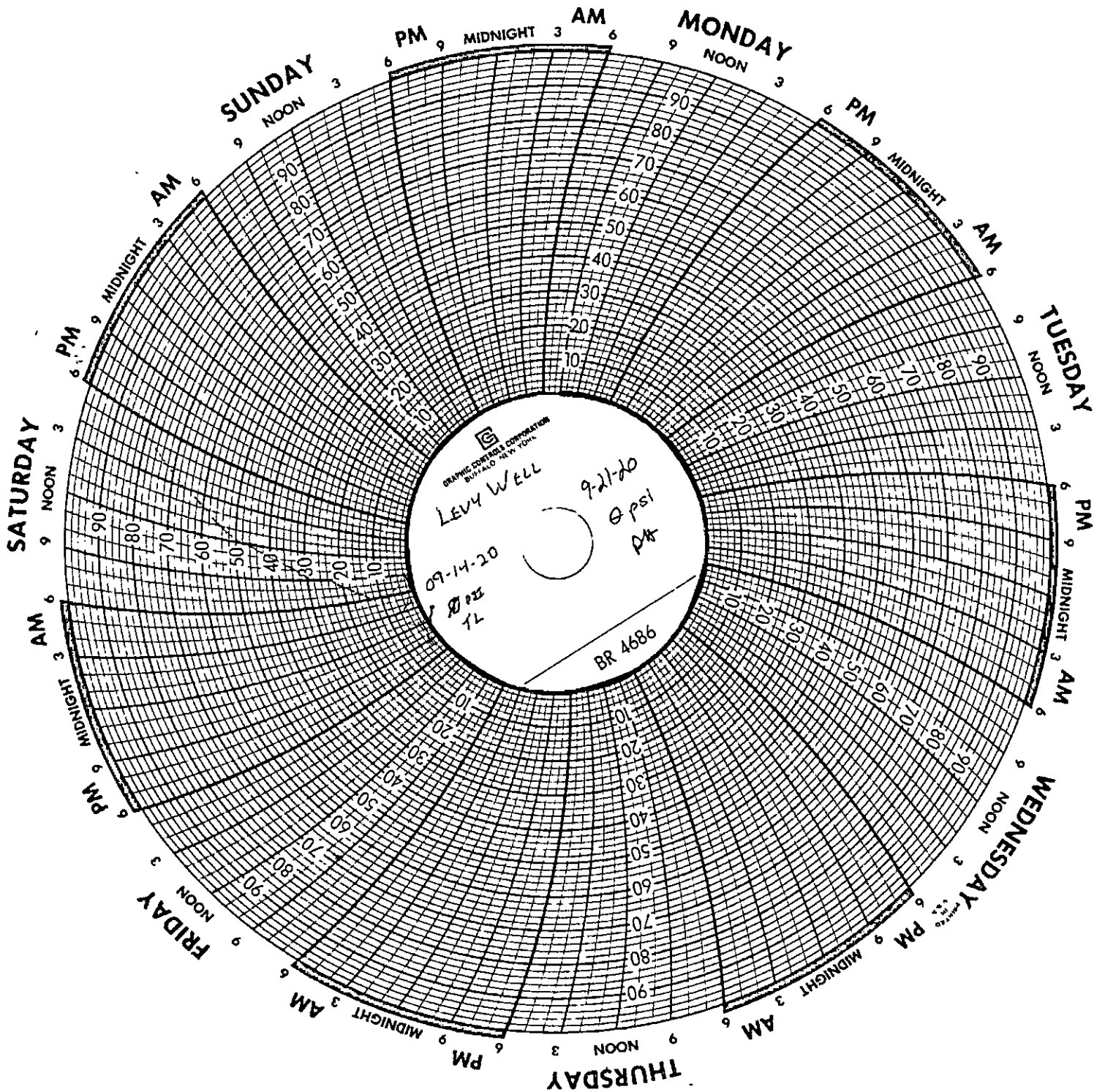


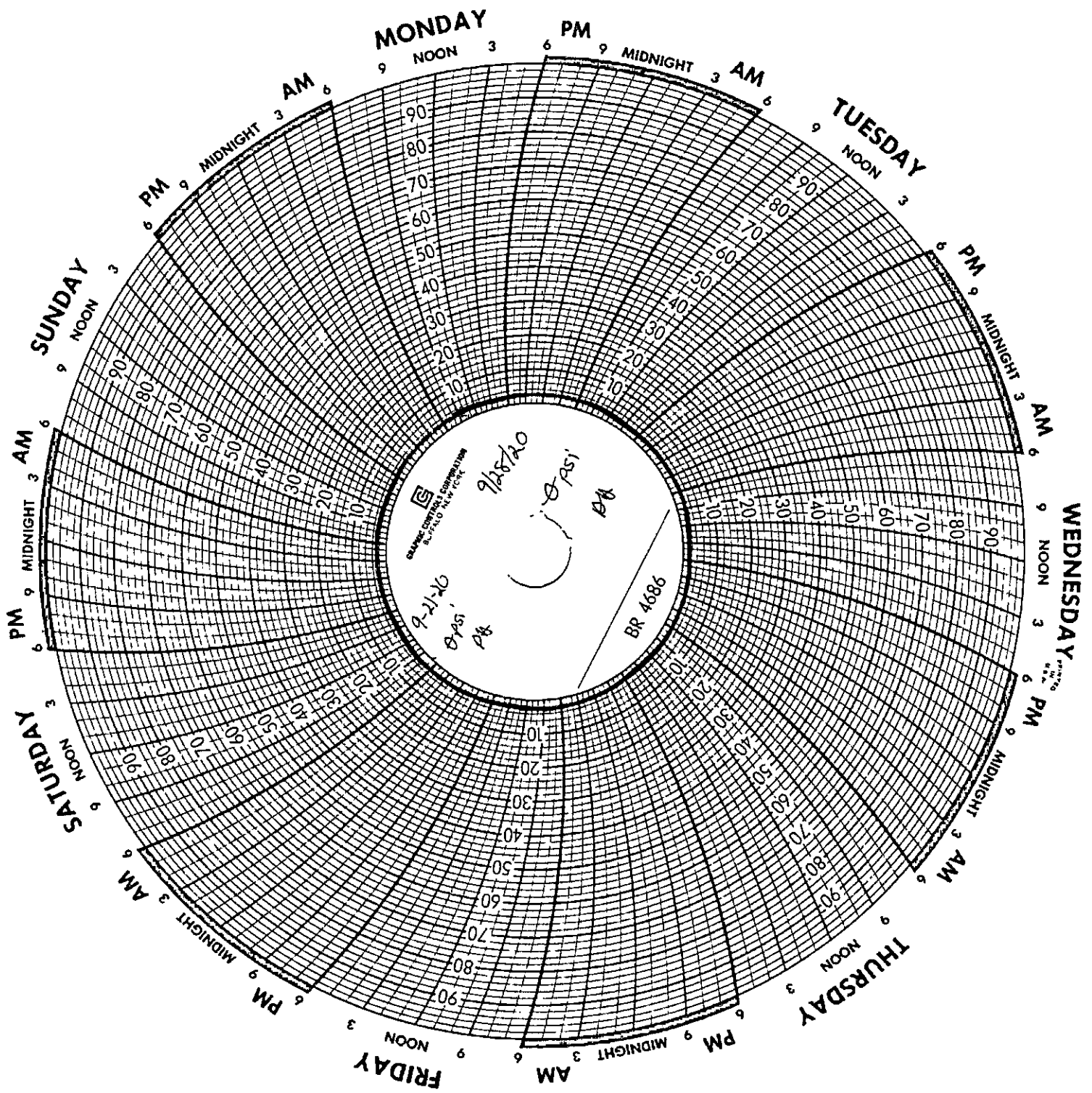


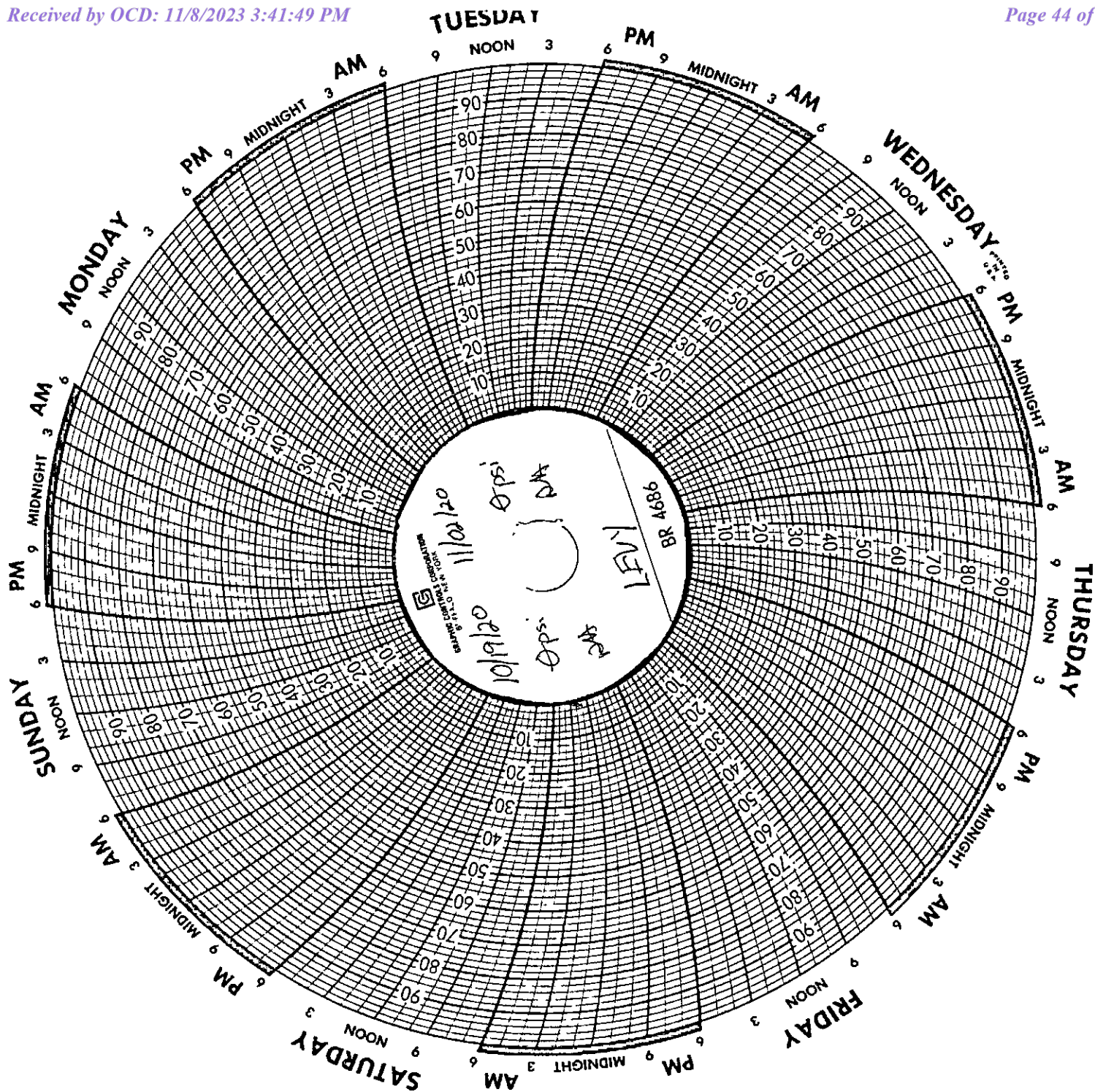


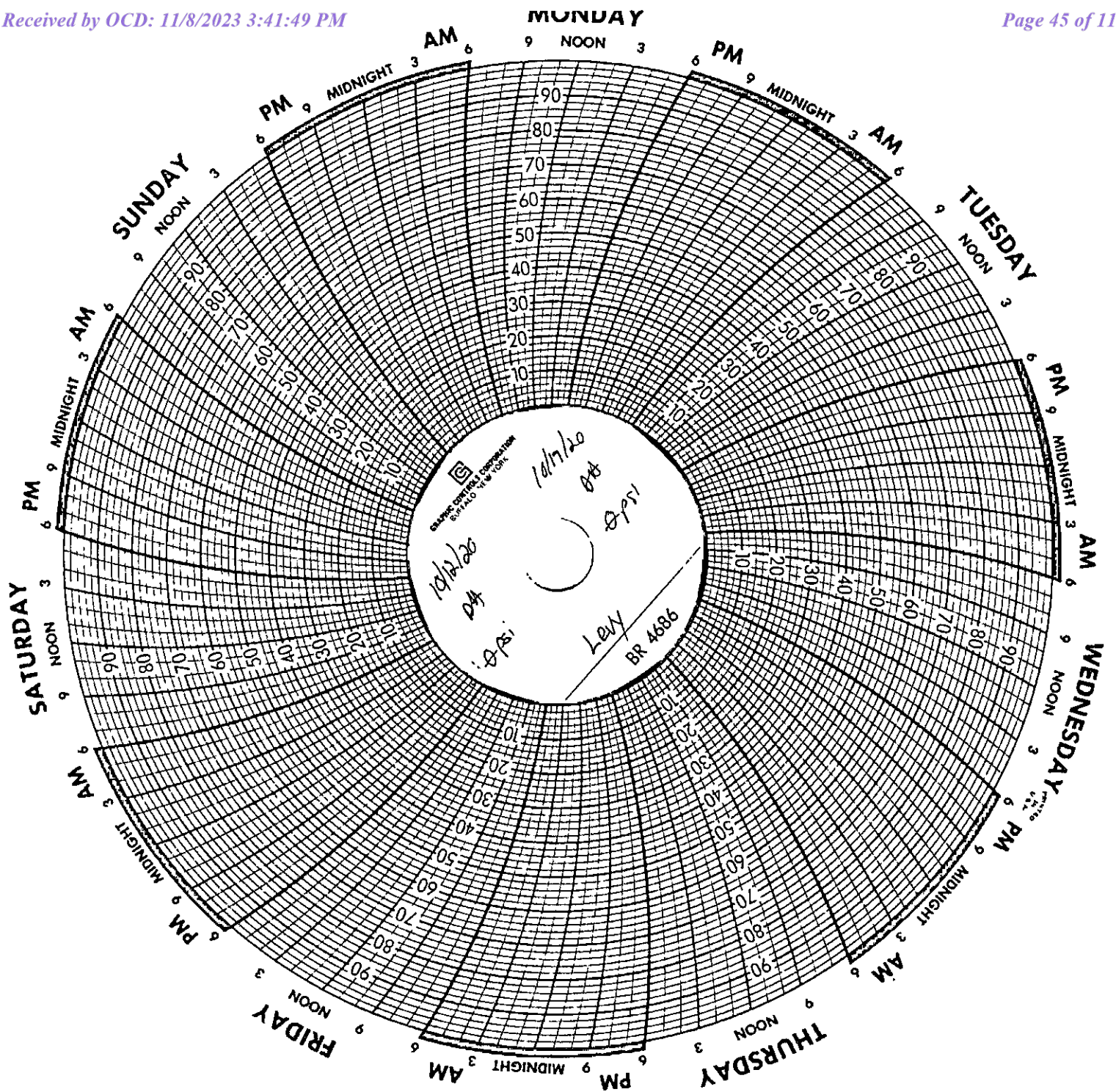


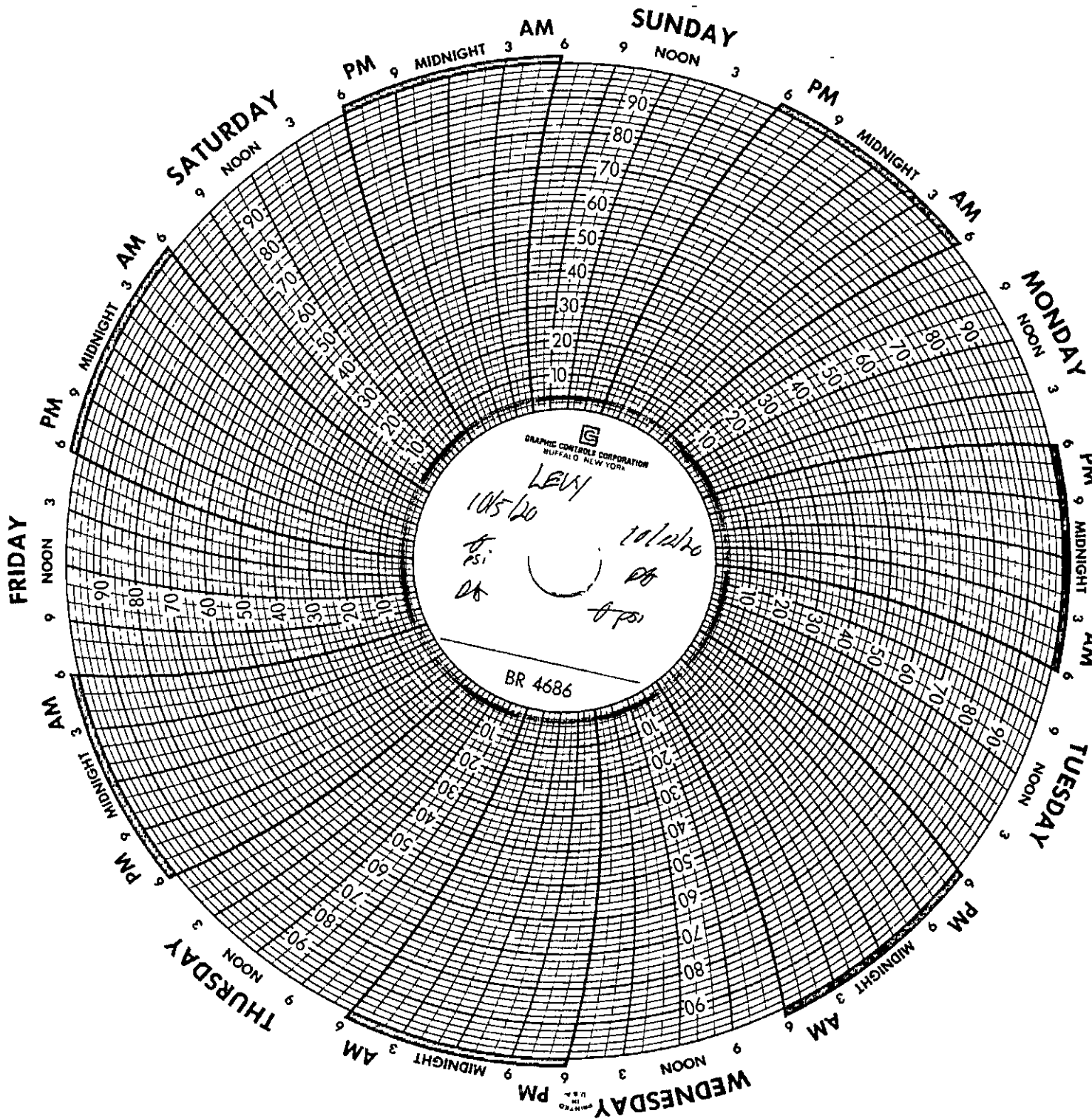


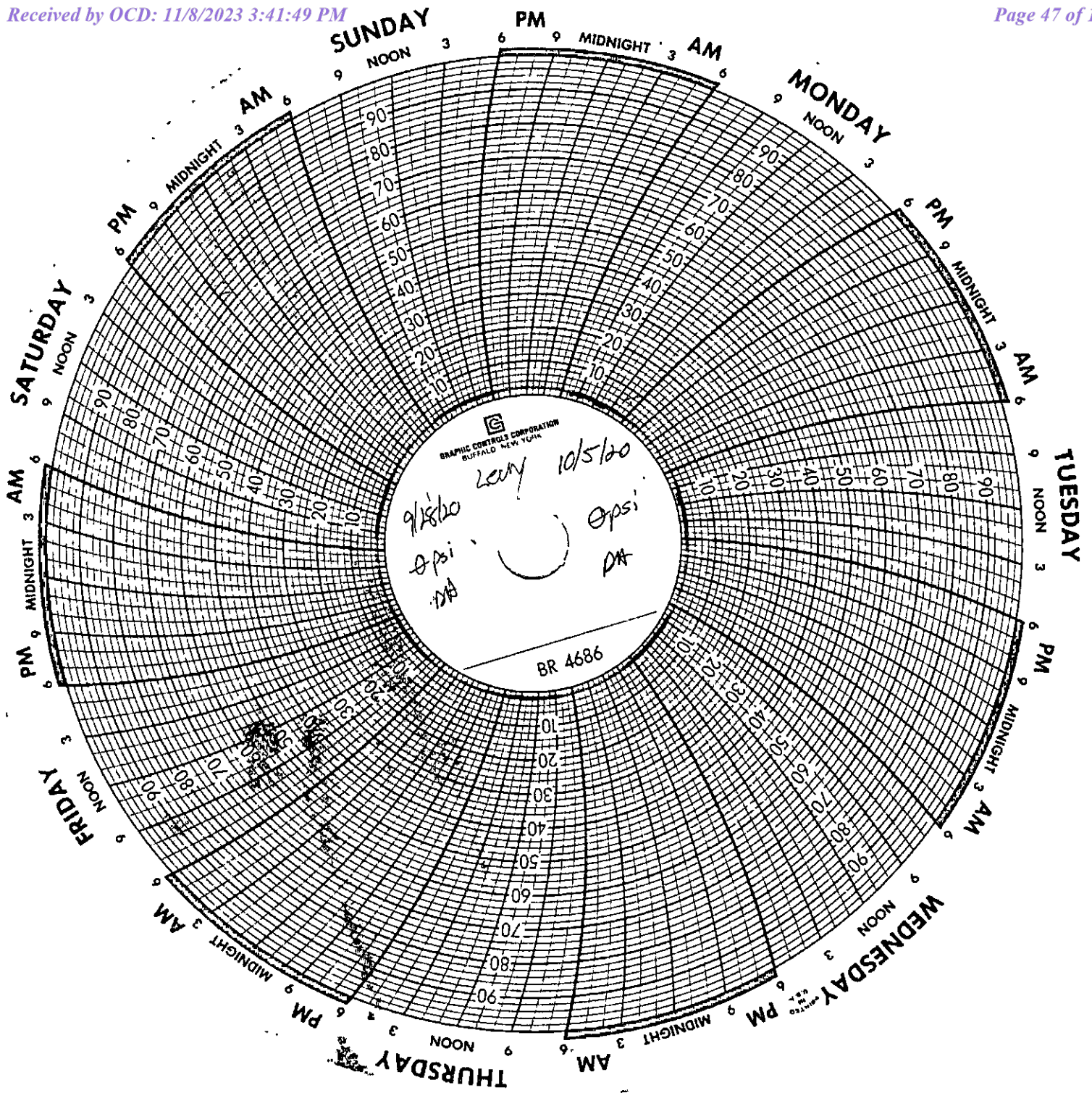












Appendix F

Laboratory Analytical Reports



Certificate of Analysis Summary 645439

Ensolum, Dallas, TX

Project Name: Levey Well

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-06-19 01:57 pm
Report Date: 10-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 645439-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-06-19 11:00					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Dec-09-19 09:02 Analyzed: Dec-09-19 10:06 Units/RL: mg/L RL					
Alkalinity, Bicarbonate (as CaCO ₃)	1260 4.00					
Alkalinity, Carbonate (as CaCO ₃)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Dec-09-19 17:01 Units/RL: % RL					
Cation-Anion Balance	2.70					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Dec-07-19 09:30 Analyzed: Dec-07-19 11:56 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	253 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.594 0.100					
Nitrite as N	0.199 0.100					
Sulfate	61.5 0.500					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: Dec-07-19 11:10 Analyzed: Dec-08-19 19:54 Units/RL: mg/L RL					
Calcium	405 D 10.0					
Magnesium	65.0 0.400					
Potassium	5.27 0.500					
Sodium	83.7 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645439

Ensolum, Dallas, TX

Project Name: Levey Well



Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri Dec-06-19 01:57 pm
 Report Date: 10-DEC-19
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645439-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
TDS by SM2540C SUB: T104704215-19-30	Sampled:	Dec-06-19 11:00					
	Extracted:						
	Analyzed:	Dec-09-19 09:00					
Total Dissolved Solids	Units/RL:	mg/L RL					
		1680 5.00					

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Version: 1.0%

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 645439

Ensolum, Dallas, TX

Project Name: Levey Well

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-06-19 01:57 pm
Report Date: 10-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 645439-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-06-19 11:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-09-19 14:25 Analyzed: Dec-09-19 18:02 Units/RL: mg/L RL					
Benzene	0.00832 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
Methyl ethyl ketone	<0.0500 0.0500					
n-Butylbenzene	0.00151 0.00100					
Sec-Butylbenzene	0.00206 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00138 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645439

Ensolum, Dallas, TX

Project Name: Levey Well

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-06-19 01:57 pm
Report Date: 10-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 645439-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-06-19 11:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-09-19 14:25 Analyzed: Dec-09-19 18:02 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0296 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0126 0.00100					
Methylene Chloride	<0.0100 0.0100					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.00566 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645439

Ensolum, Dallas, TX

Project Name: Levey Well

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-06-19 01:57 pm
Report Date: 10-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 645439-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-06-19 11:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-09-19 14:25 Analyzed: Dec-09-19 18:02 Units/RL: mg/L RL					
Toluene	0.0708 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0358 0.00100					
1,3,5-Trimethylbenzene	0.0106 0.00100					
o-Xylene	0.0242 0.00100					
m,p-Xylenes	0.129 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.153 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-09-19 14:15 Units/RL: Deg C RL					
Temperature	22.4 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-09-19 14:15 Units/RL: SU RL					
pH	6.45 K					

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Version: 1.0%

Jessica Kramer
Project Assistant

Analytical Report 645439

for Ensolum

Project Manager: Beaux Jennings

Levey Well

03B1417001

10-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-DEC-19

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **645439**

Levey Well

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645439. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645439 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 645439

Ensolum, Dallas, TX

Levey Well

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	12-06-19 11:00		645439-001



CASE NARRATIVE

Client Name: Ensolum
Project Name: Levey Well

Project ID: 03B1417001
Work Order Number(s): 645439

Report Date: 10-DEC-19
Date Received: 12/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 645439



Ensolum, Dallas, TX

Levey Well

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.06.19 13.57

Lab Sample Id: 645439-001

Date Collected: 12.06.19 11.00

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 12.09.19 09.02

Seq Number: 3109821

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1260	4.00	mg/L	12.09.19 10.06		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	12.09.19 10.06	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3109846

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	2.70		%	12.09.19 17.01		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 12.07.19 09.30

Seq Number: 3109730

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	12.07.19 11.56	U	1
Chloride	16887-00-6	253	0.500	mg/L	12.07.19 11.56		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	12.07.19 11.56	U	1
Nitrate as N	14797-55-8	0.594	0.100	mg/L	12.07.19 11.56		1
Nitrite as N	14797-65-0	0.199	0.100	mg/L	12.07.19 11.56		1
Sulfate	14808-79-8	61.5	0.500	mg/L	12.07.19 11.56		1



Certificate of Analytical Results 645439



Ensolum, Dallas, TX

Levey Well

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.06.19 13.57

Lab Sample Id: 645439-001

Date Collected: 12.06.19 11.00

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3109829

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1680	5.00	mg/L	12.09.19 09.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3109823

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.45		SU	12.09.19 14.15	K	1
Temperature	TEMP	22.4		Deg C	12.09.19 14.15	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 12.07.19 11.10

Seq Number: 3109772

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	405	10.0	mg/L	12.08.19 20.15	D	50
Magnesium	7439-95-4	65.0	0.400	mg/L	12.08.19 19.54		1
Potassium	7440-09-7	5.27	0.500	mg/L	12.08.19 19.54		1
Sodium	7440-23-5	83.7	0.500	mg/L	12.08.19 19.54		1



Certificate of Analytical Results 645439



Ensolum, Dallas, TX

Levey Well

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.06.19 13.57

Lab Sample Id: 645439-001

Date Collected: 12.06.19 11.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.09.19 14.25

Seq Number: 3109855

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00832	0.00100	mg/L	12.09.19 18.02		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	12.09.19 18.02	U	1
n-Butylbenzene	104-51-8	0.00151	0.00100	mg/L	12.09.19 18.02		1
Sec-Butylbenzene	135-98-8	0.00206	0.00100	mg/L	12.09.19 18.02		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	12.09.19 18.02	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	12.09.19 18.02	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00138	0.00100	mg/L	12.09.19 18.02		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Ethylbenzene	100-41-4	0.0296	0.00100	mg/L	12.09.19 18.02		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1



Certificate of Analytical Results 645439



Ensolum, Dallas, TX

Levey Well

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.06.19 13.57

Lab Sample Id: 645439-001

Date Collected: 12.06.19 11.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.09.19 14.25

Seq Number: 3109855

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0126	0.00100	mg/L	12.09.19 18.02		1
Methylene Chloride	75-09-2	<0.0100	0.0100	mg/L	12.09.19 18.02	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	12.09.19 18.02	U	1
n-Propylbenzene	103-65-1	0.00566	0.00100	mg/L	12.09.19 18.02		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Toluene	108-88-3	0.0708	0.00100	mg/L	12.09.19 18.02		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	12.09.19 18.02	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	12.09.19 18.02	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0358	0.00100	mg/L	12.09.19 18.02		1
1,3,5-Trimethylbenzene	108-67-8	0.0106	0.00100	mg/L	12.09.19 18.02		1
o-Xylene	95-47-6	0.0242	0.00100	mg/L	12.09.19 18.02		1
m,p-Xylenes	179601-23-1	0.129	0.0100	mg/L	12.09.19 18.02		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	12.09.19 18.02	U	1
Total Xylenes	1330-20-7	0.153	0.00100	mg/L	12.09.19 18.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	75-131	12.09.19 18.02	
1,2-Dichloroethane-D4	17060-07-0	102	%	63-144	12.09.19 18.02	
Toluene-D8	2037-26-5	104	%	80-117	12.09.19 18.02	
4-Bromofluorobenzene	460-00-4	103	%	74-124	12.09.19 18.02	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum Levey Well

Analytical Method: Alkalinity by SM2320B

Seq Number: 3109821

Matrix: Water

Prep Method: SM2320P

Date Prep: 12.09.19

MB Sample Id: 7691935-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	12.09.19 09:38	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	12.09.19 09:38	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3109821

Matrix: Drinking Water

Prep Method: SM2320P

Date Prep: 12.09.19

Parent Sample Id: 645334-001

MD Sample Id: 645334-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	227	226	0	20	mg/L	12.09.19 11:41	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.09.19 11:41	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3109821

Matrix: Water

Prep Method: SM2320P

Date Prep: 12.09.19

Parent Sample Id: 645439-001

MD Sample Id: 645439-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	1260	1250	1	20	mg/L	12.09.19 10:20	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.09.19 10:20	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3109730

Matrix: Water

Prep Method: E300P

Date Prep: 12.07.19

MB Sample Id: 7691922-1-BLK

LCS Sample Id: 7691922-1-BKS

LCSD Sample Id: 7691922-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	12.07.19 08:54	
Chloride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	12.07.19 08:54	
Fluoride	<0.500	10.0	10.9	109	10.8	108	90-110	1	20	mg/L	12.07.19 08:54	
Nitrate as N	<0.100	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	12.07.19 08:54	
Nitrite as N	<0.100	10.0	10.4	104	10.3	103	90-110	1	20	mg/L	12.07.19 08:54	
Sulfate	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.07.19 08:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



**Ensolum
Levey Well**

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3109730

Matrix: Drinking Water

Prep Method: E300P

Parent Sample Id: 645334-001

MS Sample Id: 645334-001 S

Date Prep: 12.07.19

MSD Sample Id: 645334-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.24	10.0	11.1	99	11.1	99	90-110	0	20	mg/L	12.07.19 09:48	
Chloride	236	200	452	108	453	109	90-110	0	20	mg/L	12.07.19 10:14	
Fluoride	0.699	10.0	10.6	99	10.6	99	90-110	0	20	mg/L	12.07.19 09:48	
Nitrate as N	3.98	10.0	13.7	97	13.8	98	90-110	1	20	mg/L	12.07.19 09:48	
Nitrite as N	<0.100	10.0	9.83	98	9.86	99	90-110	0	20	mg/L	12.07.19 09:48	
Sulfate	189	200	402	107	402	107	90-110	0	20	mg/L	12.07.19 10:14	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3109730

Matrix: Ground Water

Prep Method: SW9056P

Parent Sample Id: 645402-005

MS Sample Id: 645402-005 S

Date Prep: 12.07.19

MSD Sample Id: 645402-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	12.09.19 10:14	
Chloride	6.69	10.0	16.5	98	16.5	98	90-110	0	20	mg/L	12.09.19 10:14	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.09.19 10:14	
Nitrate as N	0.484	10.0	10.5	100	10.5	100	90-110	0	20	mg/L	12.09.19 10:14	
Nitrite as N	0.224	10.0	10.5	103	10.4	102	90-110	1	20	mg/L	12.09.19 10:14	
Sulfate	1.17	10.0	11.8	106	11.8	106	90-110	0	20	mg/L	12.09.19 10:14	

Analytical Method: TDS by SM2540C

Seq Number: 3109829

Matrix: Water

MB Sample Id: 3109829-1-BLK

LCS Sample Id: 3109829-1-BKS

LCSD Sample Id: 3109829-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	972	97	974	97	80-120	0	10	mg/L	12.09.19 09:00	

Analytical Method: TDS by SM2540C

Seq Number: 3109829

Matrix: Water

Parent Sample Id: 645439-001

MD Sample Id: 645439-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1680	1680	0	10	mg/L	12.09.19 09:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well

Analytical Method: pH by SM4500-H

Seq Number: 3109823

Matrix: Ground Water

Parent Sample Id: 645127-003

MD Sample Id: 645127-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.55	7.56	0	20	SU	12.09.19 14:15	
Temperature	22.3	22.5	1	20	Deg C	12.09.19 14:15	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3109772

Matrix: Water

MB Sample Id: 7691903-1-BLK

LCS Sample Id: 7691903-1-BKS

Prep Method: E200.7P

Date Prep: 12.07.19

LCSD Sample Id: 7691903-1-BS D

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.2	97	24.1	96	85-115	0	20	mg/L	12.08.19 19:13	
Magnesium	<0.400	25.0	24.3	97	24.2	97	85-115	0	20	mg/L	12.08.19 19:13	
Potassium	<0.500	10.0	9.98	100	9.96	100	85-115	0	20	mg/L	12.08.19 19:13	
Sodium	<0.500	25.0	24.5	98	24.4	98	85-115	0	20	mg/L	12.08.19 19:13	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3109772

Matrix: Drinking Water

Parent Sample Id: 645157-001

MS Sample Id: 645157-001 S

Prep Method: E200.7P

Date Prep: 12.07.19

MSD Sample Id: 645157-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	36.0	25.0	57.3	85	57.5	86	70-130	0	20	mg/L	12.08.19 19:25	
Magnesium	8.31	25.0	30.0	87	30.1	87	70-130	0	20	mg/L	12.08.19 19:25	
Potassium	2.28	10.0	11.5	92	11.5	92	70-130	0	20	mg/L	12.08.19 19:25	
Sodium	8.17	25.0	30.4	89	30.5	89	70-130	0	20	mg/L	12.08.19 19:25	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3109772

Matrix: Water

Parent Sample Id: 645272-003

MS Sample Id: 645272-003 S

Prep Method: E200.7P

Date Prep: 12.07.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	2.84	25.0	24.5	87	70-130	mg/L	12.08.19 21:14	
Magnesium	0.515	25.0	22.3	87	70-130	mg/L	12.08.19 21:14	
Potassium	1.58	10.0	10.7	91	70-130	mg/L	12.08.19 21:14	
Sodium	5.02	25.0	27.1	88	70-130	mg/L	12.08.19 21:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum Levey Well

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3109855

MB Sample Id: 7692001-1-BLK

Matrix: Water

LCS Sample Id: 7692001-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692001-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0460	92	0.0424	85	66-142	8	25	mg/L	12.09.19 14:46	
Bromobenzene	<0.00100	0.0500	0.0481	96	0.0419	84	75-125	14	25	mg/L	12.09.19 14:46	
Bromochloromethane	<0.00100	0.0500	0.0476	95	0.0458	92	60-140	4	25	mg/L	12.09.19 14:46	
Bromodichloromethane	<0.00100	0.0500	0.0484	97	0.0462	92	75-125	5	25	mg/L	12.09.19 14:46	
Bromoform	<0.00500	0.0500	0.0506	101	0.0484	97	75-125	4	25	mg/L	12.09.19 14:46	
Methyl bromide	<0.00500	0.0500	0.0479	96	0.0432	86	60-140	10	25	mg/L	12.09.19 14:46	
Methyl ethyl ketone	<0.0500	0.250	0.230	92	0.228	91	60-140	1	25	mg/L	12.09.19 14:46	
n-Butylbenzene	<0.000286	0.0500	0.0486	97	0.0390	78	75-125	22	25	mg/L	12.09.19 14:46	
Sec-Butylbenzene	<0.00100	0.0500	0.0487	97	0.0390	78	75-125	22	25	mg/L	12.09.19 14:46	
tert-Butylbenzene	<0.00100	0.0500	0.0494	99	0.0397	79	75-125	22	25	mg/L	12.09.19 14:46	
Carbon Tetrachloride	<0.00500	0.0500	0.0437	87	0.0382	76	62-125	13	25	mg/L	12.09.19 14:46	
Chlorobenzene	<0.00100	0.0500	0.0471	94	0.0435	87	60-133	8	25	mg/L	12.09.19 14:46	
Chloroethane	<0.0100	0.0500	0.0432	86	0.0392	78	60-140	10	25	mg/L	12.09.19 14:46	
Chloroform	<0.00100	0.0500	0.0462	92	0.0442	88	70-130	4	25	mg/L	12.09.19 14:46	
Methyl Chloride	<0.0100	0.0500	0.0416	83	0.0377	75	60-140	10	25	mg/L	12.09.19 14:46	
2-Chlorotoluene	<0.00100	0.0500	0.0487	97	0.0408	82	73-125	18	25	mg/L	12.09.19 14:46	
4-Chlorotoluene	<0.00100	0.0500	0.0499	100	0.0420	84	74-125	17	25	mg/L	12.09.19 14:46	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0509	102	0.0407	81	75-125	22	25	mg/L	12.09.19 14:46	
Dibromochloromethane	<0.00500	0.0500	0.0497	99	0.0472	94	73-125	5	25	mg/L	12.09.19 14:46	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0550	110	0.0486	97	59-125	12	25	mg/L	12.09.19 14:46	
1,2-Dibromoethane	<0.00500	0.0500	0.0507	101	0.0482	96	73-125	5	25	mg/L	12.09.19 14:46	
Methylene Bromide	<0.00100	0.0500	0.0479	96	0.0455	91	69-127	5	25	mg/L	12.09.19 14:46	
1,2-Dichlorobenzene	<0.000236	0.0500	0.0497	99	0.0426	85	75-125	15	25	mg/L	12.09.19 14:46	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0413	83	75-125	15	25	mg/L	12.09.19 14:46	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0491	98	0.0415	83	75-125	17	25	mg/L	12.09.19 14:46	
Dichlorodifluoromethane	<0.00100	0.0500	0.0401	80	0.0317	63	60-140	23	25	mg/L	12.09.19 14:46	
1,1-Dichloroethane	<0.00100	0.0500	0.0460	92	0.0431	86	72-125	7	25	mg/L	12.09.19 14:46	
1,2-Dichloroethane	<0.00100	0.0500	0.0478	96	0.0459	92	68-127	4	25	mg/L	12.09.19 14:46	
1,1-Dichloroethene	<0.00100	0.0500	0.0439	88	0.0383	77	59-172	14	25	mg/L	12.09.19 14:46	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0474	95	0.0449	90	75-125	5	25	mg/L	12.09.19 14:46	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0453	91	0.0411	82	75-125	10	25	mg/L	12.09.19 14:46	
1,2-Dichloropropane	<0.00500	0.0500	0.0469	94	0.0451	90	74-125	4	25	mg/L	12.09.19 14:46	
1,3-Dichloropropane	<0.00500	0.0500	0.0491	98	0.0467	93	75-125	5	25	mg/L	12.09.19 14:46	
2,2-Dichloropropane	<0.00500	0.0500	0.0439	88	0.0392	78	75-125	11	25	mg/L	12.09.19 14:46	
1,1-Dichloropropene	<0.00500	0.0500	0.0442	88	0.0391	78	75-125	12	25	mg/L	12.09.19 14:46	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0492	98	0.0465	93	74-125	6	25	mg/L	12.09.19 14:46	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0500	100	0.0468	94	66-125	7	25	mg/L	12.09.19 14:46	
Ethylbenzene	<0.00100	0.0500	0.0475	95	0.0425	85	75-125	11	25	mg/L	12.09.19 14:46	
Hexachlorobutadiene	<0.00500	0.0500	0.0469	94	0.0380	76	75-125	21	25	mg/L	12.09.19 14:46	
Isopropylbenzene	<0.00100	0.0500	0.0480	96	0.0426	85	75-125	12	25	mg/L	12.09.19 14:46	
Methylene Chloride	<0.00191	0.0500	0.0454	91	0.0430	86	75-125	5	25	mg/L	12.09.19 14:46	
MTBE	<0.00500	0.0500	0.0498	100	0.0487	97	65-135	2	25	mg/L	12.09.19 14:46	
Naphthalene	<0.0100	0.0500	0.0553	111	0.0493	99	70-130	11	25	mg/L	12.09.19 14:46	
n-Propylbenzene	<0.00100	0.0500	0.0485	97	0.0392	78	75-125	21	25	mg/L	12.09.19 14:46	
Styrene	<0.00100	0.0500	0.0502	100	0.0461	92	75-125	9	25	mg/L	12.09.19 14:46	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0498	100	0.0462	92	72-125	8	25	mg/L	12.09.19 14:46	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0526	105	0.0467	93	74-125	12	25	mg/L	12.09.19 14:46	
Tetrachloroethylene	<0.00100	0.0500	0.0445	89	0.0385	77	71-125	14	25	mg/L	12.09.19 14:46	
Toluene	<0.00100	0.0500	0.0457	91	0.0413	83	59-139	10	25	mg/L	12.09.19 14:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3109855

MB Sample Id: 7692001-1-BLK

Matrix: Water

LCS Sample Id: 7692001-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692001-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0525	105	0.0457	91	75-137	14	25	mg/L	12.09.19 14:46	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0509	102	0.0440	88	75-135	15	25	mg/L	12.09.19 14:46	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0454	91	0.0402	80	75-125	12	25	mg/L	12.09.19 14:46	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0490	98	0.0469	94	75-127	4	25	mg/L	12.09.19 14:46	
Trichloroethylene	<0.00500	0.0500	0.0443	89	0.0403	81	62-137	9	25	mg/L	12.09.19 14:46	
Trichlorofluoromethane	<0.00100	0.0500	0.0415	83	0.0345	69	60-140	18	25	mg/L	12.09.19 14:46	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0508	102	0.0446	89	75-125	13	25	mg/L	12.09.19 14:46	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0510	102	0.0425	85	75-125	18	25	mg/L	12.09.19 14:46	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0502	100	0.0407	81	70-125	21	25	mg/L	12.09.19 14:46	
o-Xylene	<0.00100	0.0500	0.0484	97	0.0442	88	75-125	9	25	mg/L	12.09.19 14:46	
m,p-Xylenes	<0.000330	0.100	0.0957	96	0.0855	86	75-125	11	25	mg/L	12.09.19 14:46	
Vinyl Chloride	<0.00200	0.0500	0.0438	88	0.0375	75	60-140	15	25	mg/L	12.09.19 14:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		100		101		75-131	%	12.09.19 14:46
1,2-Dichloroethane-D4	102		98		101		63-144	%	12.09.19 14:46
Toluene-D8	99		102		100		80-117	%	12.09.19 14:46
4-Bromofluorobenzene	104		102		98		74-124	%	12.09.19 14:46

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum Levey Well

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3109855

Matrix: Water

Prep Method: SW5030B

Date Prep: 12.09.19

Parent Sample Id: 645445-001

MS Sample Id: 645445-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0404	81	66-142	mg/L	12.09.19 15:41	
Bromobenzene	<0.00100	0.0500	0.0399	80	75-125	mg/L	12.09.19 15:41	
Bromochloromethane	<0.00100	0.0500	0.0388	78	60-140	mg/L	12.09.19 15:41	
Bromodichloromethane	<0.00100	0.0500	0.0406	81	75-125	mg/L	12.09.19 15:41	
Bromoform	<0.00500	0.0500	0.0417	83	75-125	mg/L	12.09.19 15:41	
Methyl bromide	<0.00500	0.0500	0.0403	81	60-140	mg/L	12.09.19 15:41	
Methyl ethyl ketone	<0.0500	0.250	0.199	80	60-140	mg/L	12.09.19 15:41	
n-Butylbenzene	<0.000286	0.0500	0.0433	87	75-125	mg/L	12.09.19 15:41	
Sec-Butylbenzene	<0.00100	0.0500	0.0435	87	75-125	mg/L	12.09.19 15:41	
tert-Butylbenzene	<0.00100	0.0500	0.0433	87	75-125	mg/L	12.09.19 15:41	
Carbon Tetrachloride	<0.00500	0.0500	0.0425	85	62-125	mg/L	12.09.19 15:41	
Chlorobenzene	<0.00100	0.0500	0.0398	80	60-133	mg/L	12.09.19 15:41	
Chloroethane	<0.0100	0.0500	0.0404	81	60-140	mg/L	12.09.19 15:41	
Chloroform	<0.00100	0.0500	0.0397	79	70-130	mg/L	12.09.19 15:41	
Methyl Chloride	<0.000318	0.0500	0.0386	77	60-140	mg/L	12.09.19 15:41	
2-Chlorotoluene	<0.00100	0.0500	0.0400	80	73-125	mg/L	12.09.19 15:41	
4-Chlorotoluene	<0.00100	0.0500	0.0414	83	74-125	mg/L	12.09.19 15:41	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0445	89	75-125	mg/L	12.09.19 15:41	
Dibromochloromethane	<0.00500	0.0500	0.0405	81	73-125	mg/L	12.09.19 15:41	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0463	93	59-125	mg/L	12.09.19 15:41	
1,2-Dibromoethane	<0.00500	0.0500	0.0414	83	73-125	mg/L	12.09.19 15:41	
Methylene Bromide	<0.00100	0.0500	0.0396	79	69-127	mg/L	12.09.19 15:41	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0403	81	75-125	mg/L	12.09.19 15:41	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0400	80	75-125	mg/L	12.09.19 15:41	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0398	80	75-125	mg/L	12.09.19 15:41	
Dichlorodifluoromethane	<0.00100	0.0500	0.0513	103	60-140	mg/L	12.09.19 15:41	
1,1-Dichloroethane	<0.00100	0.0500	0.0404	81	72-125	mg/L	12.09.19 15:41	
1,2-Dichloroethane	0.0189	0.0500	0.0608	84	68-127	mg/L	12.09.19 15:41	
1,1-Dichloroethene	<0.00100	0.0500	0.0429	86	59-172	mg/L	12.09.19 15:41	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0403	81	75-125	mg/L	12.09.19 15:41	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0403	81	75-125	mg/L	12.09.19 15:41	
1,2-Dichloropropane	<0.000396	0.0500	0.0402	80	74-125	mg/L	12.09.19 15:41	
1,3-Dichloropropane	<0.00500	0.0500	0.0398	80	75-125	mg/L	12.09.19 15:41	
2,2-Dichloropropane	<0.00500	0.0500	0.0430	86	75-125	mg/L	12.09.19 15:41	
1,1-Dichloropropene	<0.00500	0.0500	0.0416	83	75-125	mg/L	12.09.19 15:41	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0407	81	74-125	mg/L	12.09.19 15:41	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0408	82	66-125	mg/L	12.09.19 15:41	
Ethylbenzene	<0.00100	0.0500	0.0411	82	75-125	mg/L	12.09.19 15:41	
Hexachlorobutadiene	<0.00500	0.0500	0.0416	83	75-125	mg/L	12.09.19 15:41	
Isopropylbenzene	<0.00100	0.0500	0.0431	86	75-125	mg/L	12.09.19 15:41	
Methylene Chloride	<0.00191	0.0500	0.0369	74	75-125	mg/L	12.09.19 15:41	X
MTBE	<0.00500	0.0500	0.0413	83	65-135	mg/L	12.09.19 15:41	
Naphthalene	<0.0100	0.0500	0.0468	94	70-130	mg/L	12.09.19 15:41	
n-Propylbenzene	<0.00100	0.0500	0.0431	86	75-125	mg/L	12.09.19 15:41	
Styrene	<0.00100	0.0500	0.0417	83	75-125	mg/L	12.09.19 15:41	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0415	83	72-125	mg/L	12.09.19 15:41	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0440	88	74-125	mg/L	12.09.19 15:41	
Tetrachloroethylene	<0.00100	0.0500	0.0406	81	71-125	mg/L	12.09.19 15:41	
Toluene	<0.00100	0.0500	0.0397	79	59-139	mg/L	12.09.19 15:41	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3109855

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 645445-001

MS Sample Id: 645445-001 S

Date Prep: 12.09.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0429	86	75-137	mg/L	12.09.19 15:41	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0415	83	75-135	mg/L	12.09.19 15:41	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0423	85	75-125	mg/L	12.09.19 15:41	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0401	80	75-127	mg/L	12.09.19 15:41	
Trichloroethylene	<0.00500	0.0500	0.0395	79	62-137	mg/L	12.09.19 15:41	
Trichlorofluoromethane	<0.00100	0.0500	0.0445	89	60-140	mg/L	12.09.19 15:41	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0426	85	75-125	mg/L	12.09.19 15:41	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0427	85	75-125	mg/L	12.09.19 15:41	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0425	85	70-125	mg/L	12.09.19 15:41	
o-Xylene	<0.00100	0.0500	0.0412	82	75-125	mg/L	12.09.19 15:41	
m,p-Xylenes	<0.0100	0.100	0.0830	83	75-125	mg/L	12.09.19 15:41	
Vinyl Chloride	<0.00200	0.0500	0.0441	88	60-140	mg/L	12.09.19 15:41	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	12.09.19 15:41
1,2-Dichloroethane-D4	99		63-144	%	12.09.19 15:41
Toluene-D8	101		80-117	%	12.09.19 15:41
4-Bromofluorobenzene	101		74-124	%	12.09.19 15:41

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

045439

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 Cleburn, TX (432) 704-5440

Phoenix, AZ (480) 385-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

www.xenco.com Page 1 of 1

Project Manager:	Beverly Tanager	Bill to: (if different)	
Company Name:	Kasabum LLC	Company Name:	
Address:	205 W. 1st St.	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-230 3344	Email:	

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

Project Name:	03081412001 Levey Well	Turn Around	
Project Number:	03081412001	Routine	☐
Project Location:	46665 WPM	Rush:	X 24 hr
Sampler's Name:	Samantha Dickey	Due Date:	
PO #: 03081412001	Quote #:		
SAMPLE RECEIPT			
Temperature (°C):	4.5	Temp Blank:	Yes ☒ No ☐
Received Inact:	Yes ☒ No ☐	Thermometer ID:	DE
Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	0
Sample Custody Seals:	Yes ☒ No ☐	Total Containers:	0

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number														Sample Comments
	Levey Well	W	12-6-19	1100	-	9	X	BTEX	X	VOC	X	Ca	X	TD	X	PH				24 hr

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/6/19			

CUSTODY SEAL
Date 12-6-15
Signature [Signature]

Thermo
S C I E N T I F I C

90009

Inter-Office Shipment

IOS Number : **53699**

Date/Time: 12.06.2019

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

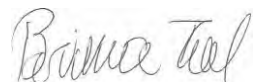
Air Bill No.: 777178065203

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
645439-001	W	Levey Well	12.06.2019 11:00	SW8260C	VOCs by SW-846 8260C	12.09.2019	12.20.2019	JKR	BDCME BRBZ BRCLME	
645439-001	W	Levey Well	12.06.2019 11:00	SW8260CBTEX	BTEX by SW 8260C	12.09.2019	12.20.2019	JKR	BZ BZME EBZ XYLENE	
645439-001	W	Levey Well	12.06.2019 11:00	E200.7	Recoverable Metals per ICP by EPA 200	12.09.2019	06.03.2020	JKR	CA K MG NA	
645439-001	W	Levey Well	12.06.2019 11:00	E300	Inorganic Anions by EPA 300/300.1	12.09.2019	12.08.2019 11:00	JKR	BR CL F NO2N NO3N SC	
645439-001	W	Levey Well	12.06.2019 11:00	SM4500-H	pH by SM4500-H	12.09.2019	12.06.2019 11:15	JKR		
645439-001	W	Levey Well	12.06.2019 11:00	SM2540C	TDS by SM2540C	12.09.2019	12.13.2019	JKR	TDS	
645439-001	W	Levey Well	12.06.2019 11:00	SM2320B	Alkalinity by SM2320B	12.09.2019	12.20.2019	JKR	ALKB ALKC	
645439-001	W	Levey Well	12.06.2019 11:00	SM1030E	Cation-Anion Balance Calculation	12.09.2019	01.05.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 12.06.2019

Received By:



Ashly Kowalski

Date Received: 12.07.2019

Cooler Temperature: 2.0



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 53699

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 12.06.2019 02.12 PM

Received By: Ashly Kowalski

Date Received: 12.07.2019 09.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Ashly Kowalski

Date: 12.07.2019



Certificate of Analysis Summary 646334

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-13-19 02:00 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 646334-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-13-19 10:45					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Dec-16-19 17:40 Analyzed: Dec-16-19 21:32 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1230 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1230 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Dec-20-19 11:07 Units/RL: % RL					
Cation-Anion Balance	2.00					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Dec-16-19 11:30 Analyzed: Dec-16-19 13:30 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	315 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.744 K 0.100					
Nitrite as N	0.222 K 0.100					
Sulfate	72.9 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646334

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-13-19 02:00 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	646334-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	Dec-13-19 10:45					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Dec-18-19 08:25					
	Analyzed:	Dec-18-19 21:34					
	Units/RL:	mg/L RL					
Calcium		450 D 10.0					
Magnesium		80.1 D 20.0					
Potassium		6.71 0.500					
Silica		79.4 1.07					
Sodium		110 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Dec-17-19 13:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1900 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646334

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-13-19 02:00 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 646334-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-13-19 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-18-19 15:00 Analyzed: Dec-18-19 23:54 Units/RL: mg/L RL					
Benzene	0.00877 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
Methyl ethyl ketone	<0.0500 0.0500					
n-Butylbenzene	0.00118 U 0.00100					
Sec-Butylbenzene	0.00171 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00112 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646334

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-13-19 02:00 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 646334-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-13-19 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-18-19 15:00 Analyzed: Dec-18-19 23:54 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0271 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0112 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.00470 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646334

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri Dec-13-19 02:00 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 646334-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Dec-13-19 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-18-19 15:00 Analyzed: Dec-18-19 23:54 Units/RL: mg/L RL					
Toluene	0.0654 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0315 0.00100					
1,3,5-Trimethylbenzene	0.00944 0.00100					
o-Xylene	0.0233 0.00100					
m,p-Xylenes	0.121 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.144 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-17-19 11:41 Units/RL: Deg C RL					
Temperature	23.0 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-17-19 11:41 Units/RL: SU RL					
pH	7.02 K					

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Jessica Kramer
Project Assistant

Analytical Report 646334

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

23-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



23-DEC-19

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **646334**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 646334. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 646334 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 646334

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	12-13-19 10:45		646334-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 646334

Report Date: 23-DEC-19
Date Received: 12/13/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3110979 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 646480-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 646334-001.

The Laboratory Control Sample for Calcium is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3111137 VOCs by SW-846 8260C

Naphthalene recovered above QC limits in the Blank Spike Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 646334-001.



Certificate of Analytical Results 646334



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.13.19 14.00

Lab Sample Id: 646334-001

Date Collected: 12.13.19 10.45

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 12.16.19 17.40

Seq Number: 3110829

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1230	4.00	mg/L	12.16.19 21.32		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1230	4.00	mg/L	12.16.19 21.32		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	12.16.19 21.32	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	12.16.19 21.32	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3111233

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	2.00		%	12.20.19 11.07		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 12.16.19 11.30

Seq Number: 3110699

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	12.16.19 13.30	UK	1
Chloride	16887-00-6	315	0.500	mg/L	12.16.19 13.30		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	12.16.19 13.30	U	1
Nitrate as N	14797-55-8	0.744	0.100	mg/L	12.16.19 13.30	K	1
Nitrite as N	14797-65-0	0.222	0.100	mg/L	12.23.19 12.53	K	1
Sulfate	14808-79-8	72.9	0.500	mg/L	12.16.19 13.30		1



Certificate of Analytical Results 646334



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.13.19 14.00

Lab Sample Id: 646334-001

Date Collected: 12.13.19 10.45

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3110762

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1900	5.00	mg/L	12.17.19 13.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3110813

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	7.02		SU	12.17.19 11.41	K	1
Temperature	TEMP	23.0		Deg C	12.17.19 11.41	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 12.18.19 08.25

Seq Number: 3110979

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	450	10.0	mg/L	12.18.19 22.03	D	50
Magnesium	7439-95-4	80.1	20.0	mg/L	12.18.19 22.03	D	50
Potassium	7440-09-7	6.71	0.500	mg/L	12.18.19 21.34		1
Silica	7631-86-9	79.4	1.07	mg/L	12.18.19 21.34		1
Sodium	7440-23-5	110	0.500	mg/L	12.18.19 21.34		1



Certificate of Analytical Results 646334

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.13.19 14.00

Lab Sample Id: 646334-001

Date Collected: 12.13.19 10.45

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.18.19 15.00

Seq Number: 3111137

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00877	0.00100	mg/L	12.18.19 23.54		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	12.18.19 23.54	U	1
n-Butylbenzene	104-51-8	0.00118	0.00100	mg/L	12.18.19 23.54	U	1
Sec-Butylbenzene	135-98-8	0.00171	0.00100	mg/L	12.18.19 23.54		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	12.18.19 23.54	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	12.18.19 23.54	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00112	0.00100	mg/L	12.18.19 23.54		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Ethylbenzene	100-41-4	0.0271	0.00100	mg/L	12.18.19 23.54		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1



Certificate of Analytical Results 646334

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 12.13.19 14.00

Lab Sample Id: 646334-001

Date Collected: 12.13.19 10.45

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.18.19 15.00

Seq Number: 3111137

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0112	0.00100	mg/L	12.18.19 23.54		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	12.18.19 23.54	U	1
n-Propylbenzene	103-65-1	0.00470	0.00100	mg/L	12.18.19 23.54		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Toluene	108-88-3	0.0654	0.00100	mg/L	12.18.19 23.54		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	12.18.19 23.54	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	12.18.19 23.54	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0315	0.00100	mg/L	12.18.19 23.54		1
1,3,5-Trimethylbenzene	108-67-8	0.00944	0.00100	mg/L	12.18.19 23.54		1
o-Xylene	95-47-6	0.0233	0.00100	mg/L	12.18.19 23.54		1
m,p-Xylenes	179601-23-1	0.121	0.0100	mg/L	12.18.19 23.54		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	12.18.19 23.54	U	1
Total Xylenes	1330-20-7	0.144	0.00100	mg/L	12.18.19 23.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	75-131	12.18.19 23.54	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	12.18.19 23.54	
Toluene-D8	2037-26-5	97	%	80-117	12.18.19 23.54	
4-Bromofluorobenzene	460-00-4	102	%	74-124	12.18.19 23.54	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3110829

MB Sample Id: 7692569-1-BLK

Matrix: Water

LCS Sample Id: 7692569-1-BKS

Prep Method: SM2320P

Date Prep: 12.16.19

LCSD Sample Id: 7692569-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	256	102	257	103	80-120	0	20	mg/L	12.16.19 18:39	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3110829

Matrix: Water

MB Sample Id: 7692569-1-BLK

Prep Method: SM2320P

Date Prep: 12.16.19

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	12.16.19 18:32	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	12.16.19 18:32	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	12.16.19 18:32	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3110829

Matrix: Ground Water

Parent Sample Id: 645838-001

MD Sample Id: 645838-001 D

Prep Method: SM2320P

Date Prep: 12.16.19

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	136	137	1	20	mg/L	12.16.19 18:58	
Alkalinity, Bicarbonate (as CaCO ₃)	136	137	1	20	mg/L	12.16.19 18:58	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.16.19 18:58	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.16.19 18:58	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3110829

Matrix: Waste Water

Parent Sample Id: 646011-004

MD Sample Id: 646011-004 D

Prep Method: SM2320P

Date Prep: 12.16.19

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	47.5	49.2	4	20	mg/L	12.16.19 20:28	
Alkalinity, Bicarbonate (as CaCO ₃)	47.5	49.2	4	20	mg/L	12.16.19 20:28	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.16.19 20:28	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	12.16.19 20:28	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3110699

Matrix: Water

Prep Method: E300P

MB Sample Id: 7692494-1-BLK

LCS Sample Id: 7692494-1-BKS

Date Prep: 12.16.19

LCSD Sample Id: 7692494-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.4	104	90-110	1	20	mg/L	12.16.19 13:00	
Chloride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.16.19 13:00	
Fluoride	<0.0286	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	12.16.19 13:00	
Nitrate as N	<0.100	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.16.19 13:00	
Nitrite as N	<0.100	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	12.16.19 13:00	
Sulfate	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	12.16.19 13:00	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3110699

Matrix: Waste Water

Prep Method: E300P

Parent Sample Id: 646383-004

MS Sample Id: 646383-004 S

Date Prep: 12.16.19

MSD Sample Id: 646383-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.16.19 13:59	
Chloride	17.1	10.0	19.7	26	19.7	26	90-110	0	20	mg/L	12.16.19 13:59	X
Fluoride	0.539	10.0	11.4	109	11.5	110	90-110	1	20	mg/L	12.16.19 13:59	
Nitrate as N	0.162	10.0	10.5	103	10.5	103	90-110	0	20	mg/L	12.16.19 13:59	
Nitrite as N	0.0547	10.0	10.5	104	10.6	105	90-110	1	20	mg/L	12.16.19 13:59	
Sulfate	4.48	10.0	11.7	72	11.8	73	90-110	1	20	mg/L	12.16.19 13:59	X

Analytical Method: TDS by SM2540C

Seq Number: 3110762

Matrix: Water

MB Sample Id: 3110762-1-BLK

LCS Sample Id: 3110762-1-BKS

LCSD Sample Id: 3110762-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	925	93	924	92	80-120	0	10	mg/L	12.17.19 13:00	

Analytical Method: TDS by SM2540C

Seq Number: 3110762

Matrix: Waste Water

Parent Sample Id: 646218-001

MD Sample Id: 646218-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	68.5	68.5	0	10	mg/L	12.17.19 13:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: TDS by SM2540C

Seq Number: 3110762

Matrix: Waste Water

Parent Sample Id: 646383-003

MD Sample Id: 646383-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	111	112	1	10	mg/L	12.17.19 13:00	

Analytical Method: pH by SM4500-H

Seq Number: 3110813

Matrix: Storm Water

Parent Sample Id: 645553-001

MD Sample Id: 645553-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.72	6.73	0	20	SU	12.17.19 11:41	
Temperature	22.1	22.4	1	20	Deg C	12.17.19 11:41	

Analytical Method: pH by SM4500-H

Seq Number: 3110813

Matrix: Waste Water

Parent Sample Id: 645977-001

MD Sample Id: 645977-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.17	8.18	0	20	SU	12.17.19 11:41	
Temperature	24.3	24.5	1	20	Deg C	12.17.19 11:41	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3110979

Matrix: Water

MB Sample Id: 7692716-1-BLK

LCS Sample Id: 7692716-1-BKS

Prep Method: E200.7P

Date Prep: 12.18.19

LCSD Sample Id: 7692716-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.7	99	24.8	99	85-115	0	20	mg/L	12.18.19 15:47	
Magnesium	<0.400	25.0	24.5	98	24.6	98	85-115	0	20	mg/L	12.18.19 15:47	
Potassium	<0.500	10.0	10.1	101	10.1	101	85-115	0	20	mg/L	12.18.19 15:47	
Silica	<1.07	21.4	21.1	99	21.2	99	85-115	0	20	mg/L	12.18.19 15:47	
Sodium	<0.500	25.0	24.8	99	24.9	100	85-115	0	20	mg/L	12.18.19 15:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3110979

Matrix: Drinking Water

Prep Method: E200.7P

Date Prep: 12.18.19

Parent Sample Id: 646480-001

MS Sample Id: 646480-001 S

MSD Sample Id: 646480-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	42.5	25.0	70.4	112	70.4	112	70-130	0	20	mg/L	12.18.19 15:59	
Magnesium	9.68	25.0	36.7	108	36.7	108	70-130	0	20	mg/L	12.18.19 15:59	
Potassium	2.61	10.0	13.9	113	13.9	113	70-130	0	20	mg/L	12.18.19 15:59	
Silica	41.9	21.4	66.8	116	66.7	116	70-130	0	20	mg/L	12.18.19 15:59	
Sodium	9.69	25.0	37.4	111	37.3	110	70-130	0	20	mg/L	12.18.19 15:59	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3110979

Matrix: Water

Prep Method: E200.7P

Date Prep: 12.18.19

Parent Sample Id: 646334-001

MS Sample Id: 646334-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	458	25.0	473	60	70-130	mg/L	12.18.19 21:38	X
Magnesium	82.5	25.0	107	98	70-130	mg/L	12.18.19 21:38	
Potassium	6.71	10.0	17.9	112	70-130	mg/L	12.18.19 21:38	
Silica	79.4	21.4	105	120	70-130	mg/L	12.18.19 21:38	
Sodium	110	25.0	135	100	70-130	mg/L	12.18.19 21:38	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111137

MB Sample Id: 7692890-1-BLK

Matrix: Water

LCS Sample Id: 7692890-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.19

LCSD Sample Id: 7692890-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0507	101	0.0510	102	66-142	1	25	mg/L	12.18.19 13:57	
Bromobenzene	<0.00100	0.0500	0.0503	101	0.0545	109	75-125	8	25	mg/L	12.18.19 13:57	
Bromochloromethane	<0.00100	0.0500	0.0516	103	0.0520	104	60-140	1	25	mg/L	12.18.19 13:57	
Bromodichloromethane	<0.00100	0.0500	0.0511	102	0.0526	105	75-125	3	25	mg/L	12.18.19 13:57	
Bromoform	<0.00500	0.0500	0.0514	103	0.0522	104	75-125	2	25	mg/L	12.18.19 13:57	
Methyl bromide	<0.00500	0.0500	0.0427	85	0.0421	84	60-140	1	25	mg/L	12.18.19 13:57	
Methyl ethyl ketone	<0.0500	0.250	0.288	115	0.277	111	60-140	4	25	mg/L	12.18.19 13:57	
n-Butylbenzene	<0.00100	0.0500	0.0537	107	0.0576	115	75-125	7	25	mg/L	12.18.19 13:57	
Sec-Butylbenzene	<0.00100	0.0500	0.0509	102	0.0544	109	75-125	7	25	mg/L	12.18.19 13:57	
tert-Butylbenzene	<0.00100	0.0500	0.0535	107	0.0575	115	75-125	7	25	mg/L	12.18.19 13:57	
Carbon Tetrachloride	<0.00500	0.0500	0.0507	101	0.0496	99	62-125	2	25	mg/L	12.18.19 13:57	
Chlorobenzene	<0.00100	0.0500	0.0484	97	0.0506	101	60-133	4	25	mg/L	12.18.19 13:57	
Chloroethane	<0.0100	0.0500	0.0432	86	0.0409	82	60-140	5	25	mg/L	12.18.19 13:57	
Chloroform	<0.00100	0.0500	0.0524	105	0.0528	106	70-130	1	25	mg/L	12.18.19 13:57	
Methyl Chloride	<0.0100	0.0500	0.0434	87	0.0433	87	60-140	0	25	mg/L	12.18.19 13:57	
2-Chlorotoluene	<0.00100	0.0500	0.0524	105	0.0568	114	73-125	8	25	mg/L	12.18.19 13:57	
4-Chlorotoluene	<0.00100	0.0500	0.0531	106	0.0576	115	74-125	8	25	mg/L	12.18.19 13:57	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0501	100	0.0542	108	75-125	8	25	mg/L	12.18.19 13:57	
Dibromochloromethane	<0.00500	0.0500	0.0503	101	0.0528	106	73-125	5	25	mg/L	12.18.19 13:57	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0595	119	0.0625	125	59-125	5	25	mg/L	12.18.19 13:57	
1,2-Dibromoethane	<0.00500	0.0500	0.0522	104	0.0544	109	73-125	4	25	mg/L	12.18.19 13:57	
Methylene Bromide	<0.00100	0.0500	0.0515	103	0.0521	104	69-127	1	25	mg/L	12.18.19 13:57	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0509	102	0.0559	112	75-125	9	25	mg/L	12.18.19 13:57	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0511	102	0.0552	110	75-125	8	25	mg/L	12.18.19 13:57	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0505	101	0.0547	109	75-125	8	25	mg/L	12.18.19 13:57	
Dichlorodifluoromethane	<0.00100	0.0500	0.0438	88	0.0426	85	60-140	3	25	mg/L	12.18.19 13:57	
1,1-Dichloroethane	<0.00100	0.0500	0.0562	112	0.0562	112	72-125	0	25	mg/L	12.18.19 13:57	
1,2-Dichloroethane	<0.00100	0.0500	0.0498	100	0.0514	103	68-127	3	25	mg/L	12.18.19 13:57	
1,1-Dichloroethene	<0.00100	0.0500	0.0514	103	0.0514	103	59-172	0	25	mg/L	12.18.19 13:57	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0531	106	0.0524	105	75-125	1	25	mg/L	12.18.19 13:57	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0510	102	0.0514	103	75-125	1	25	mg/L	12.18.19 13:57	
1,2-Dichloropropane	<0.00500	0.0500	0.0525	105	0.0534	107	74-125	2	25	mg/L	12.18.19 13:57	
1,3-Dichloropropane	<0.00500	0.0500	0.0540	108	0.0566	113	75-125	5	25	mg/L	12.18.19 13:57	
2,2-Dichloropropane	<0.00500	0.0500	0.0567	113	0.0558	112	75-125	2	25	mg/L	12.18.19 13:57	
1,1-Dichloropropene	<0.00500	0.0500	0.0540	108	0.0532	106	75-125	1	25	mg/L	12.18.19 13:57	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0542	108	0.0553	111	74-125	2	25	mg/L	12.18.19 13:57	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0542	108	0.0565	113	66-125	4	25	mg/L	12.18.19 13:57	
Ethylbenzene	<0.00100	0.0500	0.0504	101	0.0519	104	75-125	3	25	mg/L	12.18.19 13:57	
Hexachlorobutadiene	<0.00500	0.0500	0.0507	101	0.0534	107	75-125	5	25	mg/L	12.18.19 13:57	
Isopropylbenzene	<0.00100	0.0500	0.0521	104	0.0534	107	75-125	2	25	mg/L	12.18.19 13:57	
Methylene Chloride	<0.00500	0.0500	0.0562	112	0.0568	114	75-125	1	25	mg/L	12.18.19 13:57	
MTBE	<0.00500	0.0500	0.0530	106	0.0534	107	65-135	1	25	mg/L	12.18.19 13:57	
Naphthalene	<0.0100	0.0500	0.0643	129	0.0680	136	70-130	6	25	mg/L	12.18.19 13:57	H
n-Propylbenzene	<0.00100	0.0500	0.0541	108	0.0571	114	75-125	5	25	mg/L	12.18.19 13:57	
Styrene	<0.00100	0.0500	0.0529	106	0.0548	110	75-125	4	25	mg/L	12.18.19 13:57	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0494	99	0.0513	103	72-125	4	25	mg/L	12.18.19 13:57	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0582	116	0.0615	123	74-125	6	25	mg/L	12.18.19 13:57	
Tetrachloroethylene	<0.00100	0.0500	0.0480	96	0.0488	98	71-125	2	25	mg/L	12.18.19 13:57	
Toluene	<0.00100	0.0500	0.0490	98	0.0504	101	59-139	3	25	mg/L	12.18.19 13:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111137

MB Sample Id: 7692890-1-BLK

Matrix: Water

LCS Sample Id: 7692890-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.19

LCSD Sample Id: 7692890-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0549	110	0.0590	118	75-137	7	25	mg/L	12.18.19 13:57	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0525	105	0.0568	114	75-135	8	25	mg/L	12.18.19 13:57	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0516	103	0.0515	103	75-125	0	25	mg/L	12.18.19 13:57	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0520	104	0.0545	109	75-127	5	25	mg/L	12.18.19 13:57	
Trichloroethylene	<0.00500	0.0500	0.0446	89	0.0452	90	62-137	1	25	mg/L	12.18.19 13:57	
Trichlorofluoromethane	<0.00100	0.0500	0.0453	91	0.0438	88	60-140	3	25	mg/L	12.18.19 13:57	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0554	111	0.0587	117	75-125	6	25	mg/L	12.18.19 13:57	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0513	103	0.0563	113	75-125	9	25	mg/L	12.18.19 13:57	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0538	108	0.0579	116	70-125	7	25	mg/L	12.18.19 13:57	
o-Xylene	<0.00100	0.0500	0.0514	103	0.0526	105	75-125	2	25	mg/L	12.18.19 13:57	
m,p-Xylenes	<0.0100	0.100	0.102	102	0.104	104	75-125	2	25	mg/L	12.18.19 13:57	
Vinyl Chloride	<0.00200	0.0500	0.0457	91	0.0448	90	60-140	2	25	mg/L	12.18.19 13:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		104		104		75-131	%	12.18.19 13:57
1,2-Dichloroethane-D4	102		101		100		63-144	%	12.18.19 13:57
Toluene-D8	98		99		100		80-117	%	12.18.19 13:57
4-Bromofluorobenzene	105		103		106		74-124	%	12.18.19 13:57

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111137

Parent Sample Id: 646442-001

Matrix: Water

MS Sample Id: 646442-001 S

Prep Method: SW5030B

Date Prep: 12.18.19

MSD Sample Id: 646442-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0107	2.50	2.47	99	2.56	102	66-142	4	25	mg/L	12.18.19 14:52	
Bromobenzene	<0.0500	2.50	2.40	96	2.74	110	75-125	13	25	mg/L	12.18.19 14:52	
Bromochloromethane	<0.0500	2.50	2.47	99	2.65	106	60-140	7	25	mg/L	12.18.19 14:52	
Bromodichloromethane	<0.0500	2.50	2.49	100	2.60	104	75-125	4	25	mg/L	12.18.19 14:52	
Bromoform	<0.250	2.50	2.45	98	2.73	109	75-125	11	25	mg/L	12.18.19 14:52	
Methyl bromide	<0.250	2.50	2.05	82	2.15	86	60-140	5	25	mg/L	12.18.19 14:52	
Methyl ethyl ketone	<2.50	12.5	12.9	103	14.3	114	60-140	10	25	mg/L	12.18.19 14:52	
n-Butylbenzene	<0.0500	2.50	2.61	104	2.99	120	75-125	14	25	mg/L	12.18.19 14:52	
Sec-Butylbenzene	<0.0500	2.50	2.50	100	2.83	113	75-125	12	25	mg/L	12.18.19 14:52	
tert-Butylbenzene	<0.0500	2.50	2.63	105	2.98	119	75-125	12	25	mg/L	12.18.19 14:52	
Carbon Tetrachloride	<0.250	2.50	2.51	100	2.59	104	62-125	3	25	mg/L	12.18.19 14:52	
Chlorobenzene	<0.0500	2.50	2.36	94	2.53	101	60-133	7	25	mg/L	12.18.19 14:52	
Chloroethane	<0.500	2.50	2.03	81	2.08	83	60-140	2	25	mg/L	12.18.19 14:52	
Chloroform	<0.0500	2.50	2.53	101	2.64	106	70-130	4	25	mg/L	12.18.19 14:52	
Methyl Chloride	<0.500	2.50	2.10	84	2.17	87	60-140	3	25	mg/L	12.18.19 14:52	
2-Chlorotoluene	<0.0500	2.50	2.50	100	2.84	114	73-125	13	25	mg/L	12.18.19 14:52	
4-Chlorotoluene	<0.0500	2.50	2.57	103	2.93	117	74-125	13	25	mg/L	12.18.19 14:52	
p-Cymene (p-Isopropyltoluene)	<0.0500	2.50	2.46	98	2.78	111	75-125	12	25	mg/L	12.18.19 14:52	
Dibromochloromethane	<0.250	2.50	2.45	98	2.65	106	73-125	8	25	mg/L	12.18.19 14:52	
1,2-Dibromo-3-Chloropropane	<0.0500	2.50	2.73	109	3.23	129	59-125	17	25	mg/L	12.18.19 14:52	X
1,2-Dibromoethane	<0.250	2.50	2.51	100	2.73	109	73-125	8	25	mg/L	12.18.19 14:52	
Methylene Bromide	<0.0500	2.50	2.43	97	2.63	105	69-127	8	25	mg/L	12.18.19 14:52	
1,2-Dichlorobenzene	<0.0500	2.50	2.46	98	2.79	112	75-125	13	25	mg/L	12.18.19 14:52	
1,3-Dichlorobenzene	<0.0500	2.50	2.46	98	2.80	112	75-125	13	25	mg/L	12.18.19 14:52	
1,4-Dichlorobenzene	<0.0500	2.50	2.46	98	2.79	112	75-125	13	25	mg/L	12.18.19 14:52	
Dichlorodifluoromethane	<0.0500	2.50	2.29	92	2.31	92	60-140	1	25	mg/L	12.18.19 14:52	
1,1-Dichloroethane	<0.0500	2.50	2.74	110	2.83	113	72-125	3	25	mg/L	12.18.19 14:52	
1,2-Dichloroethane	<0.0500	2.50	2.39	96	2.52	101	68-127	5	25	mg/L	12.18.19 14:52	
1,1-Dichloroethene	<0.0500	2.50	2.56	102	2.61	104	59-172	2	25	mg/L	12.18.19 14:52	
cis-1,2-Dichloroethylene	<0.0500	2.50	2.53	101	2.66	106	75-125	5	25	mg/L	12.18.19 14:52	
trans-1,2-dichloroethylene	<0.0500	2.50	2.49	100	2.60	104	75-125	4	25	mg/L	12.18.19 14:52	
1,2-Dichloropropane	<0.250	2.50	2.56	102	2.65	106	74-125	3	25	mg/L	12.18.19 14:52	
1,3-Dichloropropane	<0.250	2.50	2.61	104	2.84	114	75-125	8	25	mg/L	12.18.19 14:52	
2,2-Dichloropropane	<0.250	2.50	2.82	113	2.88	115	75-125	2	25	mg/L	12.18.19 14:52	
1,1-Dichloropropene	<0.250	2.50	2.62	105	2.75	110	75-125	5	25	mg/L	12.18.19 14:52	
cis-1,3-Dichloropropene	<0.250	2.50	2.65	106	2.77	111	74-125	4	25	mg/L	12.18.19 14:52	
trans-1,3-dichloropropene	<0.250	2.50	2.64	106	2.83	113	66-125	7	25	mg/L	12.18.19 14:52	
Ethylbenzene	0.0105	2.50	2.45	98	2.64	105	75-125	7	25	mg/L	12.18.19 14:52	
Hexachlorobutadiene	<0.250	2.50	2.53	101	2.85	114	75-125	12	25	mg/L	12.18.19 14:52	
Isopropylbenzene	<0.0500	2.50	2.56	102	2.73	109	75-125	6	25	mg/L	12.18.19 14:52	
Methylene Chloride	<0.250	2.50	2.68	107	2.81	112	75-125	5	25	mg/L	12.18.19 14:52	
MTBE	<0.250	2.50	2.52	101	2.69	108	65-135	7	25	mg/L	12.18.19 14:52	
Naphthalene	<0.500	2.50	2.95	118	3.49	140	70-130	17	25	mg/L	12.18.19 14:52	X
n-Propylbenzene	<0.0500	2.50	2.64	106	2.96	118	75-125	11	25	mg/L	12.18.19 14:52	
Styrene	<0.0500	2.50	2.56	102	2.77	111	75-125	8	25	mg/L	12.18.19 14:52	
1,1,1,2-Tetrachloroethane	<0.0500	2.50	2.42	97	2.60	104	72-125	7	25	mg/L	12.18.19 14:52	
1,1,2,2-Tetrachloroethane	<0.0500	2.50	2.72	109	3.12	125	74-125	14	25	mg/L	12.18.19 14:52	
Tetrachloroethylene	<0.0500	2.50	2.38	95	2.56	102	71-125	7	25	mg/L	12.18.19 14:52	
Toluene	0.0545	2.50	2.41	94	2.62	103	59-139	8	25	mg/L	12.18.19 14:52	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111137

Parent Sample Id: 646442-001

Matrix: Water

MS Sample Id: 646442-001 S

Prep Method: SW5030B

Date Prep: 12.18.19

MSD Sample Id: 646442-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.250	2.50	2.59	104	2.99	120	75-137	14	25	mg/L	12.18.19 14:52	
1,2,4-Trichlorobenzene	<0.250	2.50	2.52	101	2.87	115	75-135	13	25	mg/L	12.18.19 14:52	
1,1,1-Trichloroethane	<0.250	2.50	2.52	101	2.60	104	75-125	3	25	mg/L	12.18.19 14:52	
1,1,2-Trichloroethane	<0.0500	2.50	2.54	102	2.75	110	75-127	8	25	mg/L	12.18.19 14:52	
Trichloroethylene	<0.250	2.50	2.19	88	2.30	92	62-137	5	25	mg/L	12.18.19 14:52	
Trichlorofluoromethane	<0.0500	2.50	2.31	92	2.33	93	60-140	1	25	mg/L	12.18.19 14:52	
1,2,3-Trichloropropane	<0.0500	2.50	2.57	103	3.00	120	75-125	15	25	mg/L	12.18.19 14:52	
1,2,4-Trimethylbenzene	<0.0126	2.50	2.50	100	2.84	114	75-125	13	25	mg/L	12.18.19 14:52	
1,3,5-Trimethylbenzene	<0.0500	2.50	2.62	105	2.96	118	70-125	12	25	mg/L	12.18.19 14:52	
o-Xylene	0.0155	2.50	2.50	99	2.72	108	75-125	8	25	mg/L	12.18.19 14:52	
m,p-Xylenes	0.0535	5.00	4.98	99	5.36	106	75-125	7	25	mg/L	12.18.19 14:52	
Vinyl Chloride	<0.100	2.50	2.25	90	2.27	91	60-140	1	25	mg/L	12.18.19 14:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		104		75-131	%	12.18.19 14:52
1,2-Dichloroethane-D4	101		103		63-144	%	12.18.19 14:52
Toluene-D8	99		101		80-117	%	12.18.19 14:52
4-Bromofluorobenzene	102		107		74-124	%	12.18.19 14:52

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Work Order No.

0: 0440334

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	5.8				Thermometer, lb		
Received intact:	Yes	No					
Cooler Custody Seals:	Yes	No			Correction Factor:		
Sample Custody Seals:	Yes	No			Total Containers:		

Number of Containers

F, Cl, SO₄, B

: Ca, K, Mg, Na, Si

ity

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/13/19			

Dr Cole-Parker
Person Collecting Sample [Signature] Sample No. 8
(signature)
Date Collected 12-13-13 Time Collected 1200

Inter-Office Shipment

IOS Number : **54361**

Date/Time: 12.13.2019

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777246254437

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
646334-001	W	Levey Well	12.13.2019 10:45	SW8260C	VOCs by SW-846 8260C	12.19.2019	12.27.2019	JKR	BDCME BRBZ BRCLME	
646334-001	W	Levey Well	12.13.2019 10:45	E200.7	Recoverable Metals per ICP by EPA 200	12.19.2019	06.10.2020	JKR	CA K MG NA SI	
646334-001	W	Levey Well	12.13.2019 10:45	E300	Inorganic Anions by EPA 300/300.1	12.19.2019	01.10.2020	JKR	BR CL F SO4	
646334-001	W	Levey Well	12.13.2019 10:45	SM4500-H	pH by SM4500-H	12.19.2019	12.13.2019 11:00	JKR		
646334-001	W	Levey Well	12.13.2019 10:45	SM2540C	TDS by SM2540C	12.19.2019	12.20.2019	JKR	TDS	
646334-001	W	Levey Well	12.13.2019 10:45	SM2320B	Alkalinity by SM2320B	12.19.2019	12.20.2019	JKR	ALK	

Inter Office Shipment or Sample Comments:

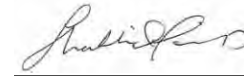
Relinquished By:



Brianna Teel

Date Relinquished: 12.13.2019

Received By:



Monica Shakhshir

Date Received: 12.14.2019

Cooler Temperature: 1.9



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 54361

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 12.13.2019 02:58 PM

Received By: Monica Shakhshir

Date Received: 12.14.2019 10:00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.9	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	No	pH out of hold

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Shakhshir

Date: 12.14.2019



Client: Ensolum

Date/ Time Received: 12/13/2019 02:00:00 PM

Work Order #: 646334

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	5.8	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 12/13/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/16/2019



Certificate of Analysis Summary 647076

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-19-19 01:39 pm
Report Date: 24-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647076-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-19-19 10:20					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Dec-21-19 11:00 Analyzed: Dec-21-19 17:34 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1140 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1140 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Dec-24-19 09:25 Units/RL: % RL					
Cation-Anion Balance	0.200					
Inorganic Anions by EPA 300 SUB: T104704215-19-30	Extracted: Dec-21-19 12:30 Analyzed: Dec-21-19 17:37 Units/RL: mg/L RL					
Bromide	0.414 J 0.500					
Chloride	311 DX 10.0					
Fluoride	0.381 J 0.500					
Nitrate as N	0.539 K 0.100					
Nitrite as N	<0.0293 0.100					
Sulfate	62.9 D 10.0					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: Dec-23-19 10:22 Units/RL: mg/L RL					
Total Dissolved Solids	1640 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 647076

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-19-19 01:39 pm
Report Date: 24-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647076-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
Total Metals by EPA 6010B SUB: T104704215-19-30	Sampled:	Dec-19-19 10:20					
	Extracted:	Dec-23-19 07:30					
	Analyzed:	Dec-23-19 13:24					
	Units/RL:	mg/L RL					
Calcium		411 D 10.0					
Silica		77.0 1.07					
Magnesium		72.2 0.400					
Potassium		5.61 0.500					
Sodium		101 0.500					

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 647076

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-19-19 01:39 pm
Report Date: 24-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647076-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Dec-19-19 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	Dec-21-19 14:00					
	Analyzed:	Dec-21-19 14:35					
	Units/RL:	mg/L RL					
Benzene		0.0131 0.00100					
Bromobenzene		<0.000300 0.00100					
Bromochloromethane		<0.000209 0.00100					
Bromodichloromethane		<0.000231 0.00100					
Bromoform		<0.000630 0.00500					
Methyl bromide		<0.00105 0.00500					
Methyl ethyl ketone		0.0125 J 0.0500					
n-Butylbenzene		0.00187 0.00100					
Sec-Butylbenzene		0.00257 0.00100					
tert-Butylbenzene		<0.000195 0.00100					
Carbon Tetrachloride		<0.000423 0.00500					
Chlorobenzene		<0.000159 0.00100					
Chloroethane		<0.000433 0.0100					
Chloroform		<0.000259 0.00100					
Methyl Chloride		<0.000318 0.0100					
2-Chlorotoluene		<0.000214 0.00100					
4-Chlorotoluene		<0.000183 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00173 0.00100					
Dibromochloromethane		<0.000739 0.00500					
1,2-Dibromo-3-Chloropropane		<0.000319 0.00100					
1,2-Dibromoethane		<0.000337 0.00500					
Methylene Bromide		<0.000130 0.00100					
1,2-Dichlorobenzene		<0.000236 0.00100					
1,3-Dichlorobenzene		<0.000197 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 647076

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-19-19 01:39 pm
Report Date: 24-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647076-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-19-19 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-21-19 14:00 Analyzed: Dec-21-19 14:35 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.000199 0.00100					
Dichlorodifluoromethane	<0.000316 0.00100					
1,1-Dichloroethane	<0.000244 0.00100					
1,2-Dichloroethane	<0.000285 0.00100					
1,1-Dichloroethene	<0.000216 0.00100					
cis-1,2-Dichloroethylene	<0.000174 0.00100					
trans-1,2-dichloroethylene	<0.000256 0.00100					
1,2-Dichloropropane	<0.000396 0.00500					
1,3-Dichloropropane	<0.000439 0.00500					
2,2-Dichloropropane	<0.000360 0.00500					
1,1-Dichloropropene	<0.000481 0.00500					
cis-1,3-Dichloropropene	<0.000690 0.00500					
trans-1,3-dichloropropene	<0.000752 0.00500					
Ethylbenzene	0.0385 0.00100					
Hexachlorobutadiene	<0.00200 0.00500					
Isopropylbenzene	0.0170 0.00100					
Methylene Chloride	<0.00191 0.00500					
MTBE	<0.000571 0.00500					
Naphthalene	<0.00200 0.0100					
n-Propylbenzene	0.00747 0.00100					
Styrene	<0.000162 0.00100					
1,1,1,2-Tetrachloroethane	<0.000327 0.00100					
1,1,2,2-Tetrachloroethane	<0.000284 0.00100					
Tetrachloroethylene	<0.000500 0.00100					

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 647076

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-19-19 01:39 pm
Report Date: 24-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647076-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-19-19 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-21-19 14:00 Analyzed: Dec-21-19 14:35 Units/RL: mg/L RL					
Toluene	0.0861 0.00100					
1,2,3-Trichlorobenzene	<0.00200 0.00500					
1,2,4-Trichlorobenzene	<0.00200 0.00500					
1,1,1-Trichloroethane	<0.000504 0.00500					
1,1,2-Trichloroethane	<0.000228 0.00100					
Trichloroethylene	<0.000424 0.00500					
Trichlorofluoromethane	<0.000245 0.00100					
1,2,3-Trichloropropane	<0.000283 0.00100					
1,2,4-Trimethylbenzene	0.0469 0.00100					
1,3,5-Trimethylbenzene	0.0144 0.00100					
o-Xylene	0.0318 0.00100					
m,p-Xylenes	0.170 0.0100					
Vinyl Chloride	<0.000234 0.00200					
Total Xylenes	0.202 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-23-19 16:38 Units/RL: Deg C RL					
Temperature	25.2 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-23-19 16:38 Units/RL: SU RL					
pH	6.57 K					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 647076

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

24-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



24-DEC-19

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **647076**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647076. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647076 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 647076

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	12-19-19 10:20		647076-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 647076

Report Date: 24-DEC-19
Date Received: 12/19/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3111403 Inorganic Anions by EPA 300

Lab Sample ID 647076-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Bromide, Chloride, Fluoride, Nitrate as N, Nitrite as N recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 647076-001.

The Laboratory Control Sample for Nitrate as N, Chloride, Nitrite as N, Fluoride, Bromide is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 647076



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.19.19 13.39

Lab Sample Id: 647076-001

Date Collected: 12.19.19 10.20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: YAV

% Moisture:

Analyst: YAV

Date Prep: 12.21.19 11.00

Seq Number: 3111442

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1140	4.00	mg/L	12.21.19 17.34		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1140	4.00	mg/L	12.21.19 17.34		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	12.21.19 17.34	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	12.21.19 17.34	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3111551

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.200		%	12.24.19 09.25		1

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 12.21.19 12.30

Seq Number: 3111403

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.414	0.500	mg/L	12.21.19 17.37	J	1
Chloride	16887-00-6	311	10.0	mg/L	12.21.19 18.26	DX	20
Fluoride	16984-48-8	0.381	0.500	mg/L	12.21.19 17.37	J	1
Nitrate as N	14797-55-8	0.539	0.100	mg/L	12.21.19 17.37	K	1
Nitrite as N	14797-65-0	<0.0293	0.100	mg/L	12.21.19 17.37	UK	1
Sulfate	14808-79-8	62.9	10.0	mg/L	12.21.19 18.26	D	20



Certificate of Analytical Results 647076



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.19.19 13.39

Lab Sample Id: 647076-001

Date Collected: 12.19.19 10.20

Analytical Method: TDS by SM2540C

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3111421

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1640	5.00	mg/L	12.23.19 10.22		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3111537

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.57		SU	12.23.19 16.38	K	1
Temperature	TEMP	25.2		Deg C	12.23.19 16.38	K	1

Analytical Method: Total Metals by EPA 6010B

Prep Method: SW3010A

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 12.23.19 07.30

Seq Number: 3111517

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	411	10.0	mg/L	12.23.19 13.45	D	50
Silica	7631-86-9	77.0	1.07	mg/L	12.23.19 13.24		1
Magnesium	7439-95-4	72.2	0.400	mg/L	12.23.19 13.24		1
Potassium	7440-09-7	5.61	0.500	mg/L	12.23.19 13.24		1
Sodium	7440-23-5	101	0.500	mg/L	12.23.19 13.24		1



Certificate of Analytical Results 647076

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.19.19 13.39

Lab Sample Id: 647076-001

Date Collected: 12.19.19 10.20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.21.19 14.00

Seq Number: 3111450

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0131	0.00100	mg/L	12.21.19 14.35		1
Bromobenzene	108-86-1	<0.000300	0.00100	mg/L	12.21.19 14.35	U	1
Bromochloromethane	74-97-5	<0.000209	0.00100	mg/L	12.21.19 14.35	U	1
Bromodichloromethane	75-27-4	<0.000231	0.00100	mg/L	12.21.19 14.35	U	1
Bromoform	75-25-2	<0.000630	0.00500	mg/L	12.21.19 14.35	U	1
Methyl bromide	74-83-9	<0.00105	0.00500	mg/L	12.21.19 14.35	U	1
Methyl ethyl ketone	78-93-3	0.0125	0.0500	mg/L	12.21.19 14.35	J	1
n-Butylbenzene	104-51-8	0.00187	0.00100	mg/L	12.21.19 14.35		1
Sec-Butylbenzene	135-98-8	0.00257	0.00100	mg/L	12.21.19 14.35		1
tert-Butylbenzene	98-06-6	<0.000195	0.00100	mg/L	12.21.19 14.35	U	1
Carbon Tetrachloride	56-23-5	<0.000423	0.00500	mg/L	12.21.19 14.35	U	1
Chlorobenzene	108-90-7	<0.000159	0.00100	mg/L	12.21.19 14.35	U	1
Chloroethane	75-00-3	<0.000433	0.0100	mg/L	12.21.19 14.35	U	1
Chloroform	67-66-3	<0.000259	0.00100	mg/L	12.21.19 14.35	U	1
Methyl Chloride	74-87-3	<0.000318	0.0100	mg/L	12.21.19 14.35	U	1
2-Chlorotoluene	95-49-8	<0.000214	0.00100	mg/L	12.21.19 14.35	U	1
4-Chlorotoluene	106-43-4	<0.000183	0.00100	mg/L	12.21.19 14.35	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00173	0.00100	mg/L	12.21.19 14.35		1
Dibromochloromethane	124-48-1	<0.000739	0.00500	mg/L	12.21.19 14.35	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.000319	0.00100	mg/L	12.21.19 14.35	U	1
1,2-Dibromoethane	106-93-4	<0.000337	0.00500	mg/L	12.21.19 14.35	U	1
Methylene Bromide	74-95-3	<0.000130	0.00100	mg/L	12.21.19 14.35	U	1
1,2-Dichlorobenzene	95-50-1	<0.000236	0.00100	mg/L	12.21.19 14.35	U	1
1,3-Dichlorobenzene	541-73-1	<0.000197	0.00100	mg/L	12.21.19 14.35	U	1
1,4-Dichlorobenzene	106-46-7	<0.000199	0.00100	mg/L	12.21.19 14.35	U	1
Dichlorodifluoromethane	75-71-8	<0.000316	0.00100	mg/L	12.21.19 14.35	U	1
1,1-Dichloroethane	75-34-3	<0.000244	0.00100	mg/L	12.21.19 14.35	U	1
1,2-Dichloroethane	107-06-2	<0.000285	0.00100	mg/L	12.21.19 14.35	U	1
1,1-Dichloroethene	75-35-4	<0.000216	0.00100	mg/L	12.21.19 14.35	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.000174	0.00100	mg/L	12.21.19 14.35	U	1
trans-1,2-dichloroethylene	156-60-5	<0.000256	0.00100	mg/L	12.21.19 14.35	U	1
1,2-Dichloropropane	78-87-5	<0.000396	0.00500	mg/L	12.21.19 14.35	U	1
1,3-Dichloropropane	142-28-9	<0.000439	0.00500	mg/L	12.21.19 14.35	U	1
2,2-Dichloropropane	594-20-7	<0.000360	0.00500	mg/L	12.21.19 14.35	U	1
1,1-Dichloropropene	563-58-6	<0.000481	0.00500	mg/L	12.21.19 14.35	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.000690	0.00500	mg/L	12.21.19 14.35	U	1
trans-1,3-dichloropropene	10061-02-6	<0.000752	0.00500	mg/L	12.21.19 14.35	U	1
Ethylbenzene	100-41-4	0.0385	0.00100	mg/L	12.21.19 14.35		1
Hexachlorobutadiene	87-68-3	<0.00200	0.00500	mg/L	12.21.19 14.35	U	1



Certificate of Analytical Results 647076



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.19.19 13.39

Lab Sample Id: 647076-001

Date Collected: 12.19.19 10.20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.21.19 14.00

Seq Number: 3111450

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0170	0.00100	mg/L	12.21.19 14.35		1
Methylene Chloride	75-09-2	<0.00191	0.00500	mg/L	12.21.19 14.35	U	1
MTBE	1634-04-4	<0.000571	0.00500	mg/L	12.21.19 14.35	U	1
Naphthalene	91-20-3	<0.00200	0.0100	mg/L	12.21.19 14.35	U	1
n-Propylbenzene	103-65-1	0.00747	0.00100	mg/L	12.21.19 14.35		1
Styrene	100-42-5	<0.000162	0.00100	mg/L	12.21.19 14.35	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.000327	0.00100	mg/L	12.21.19 14.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.000284	0.00100	mg/L	12.21.19 14.35	U	1
Tetrachloroethylene	127-18-4	<0.000500	0.00100	mg/L	12.21.19 14.35	U	1
Toluene	108-88-3	0.0861	0.00100	mg/L	12.21.19 14.35		1
1,2,3-Trichlorobenzene	87-61-6	<0.00200	0.00500	mg/L	12.21.19 14.35	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00200	0.00500	mg/L	12.21.19 14.35	U	1
1,1,1-Trichloroethane	71-55-6	<0.000504	0.00500	mg/L	12.21.19 14.35	U	1
1,1,2-Trichloroethane	79-00-5	<0.000228	0.00100	mg/L	12.21.19 14.35	U	1
Trichloroethylene	79-01-6	<0.000424	0.00500	mg/L	12.21.19 14.35	U	1
Trichlorofluoromethane	75-69-4	<0.000245	0.00100	mg/L	12.21.19 14.35	U	1
1,2,3-Trichloropropane	96-18-4	<0.000283	0.00100	mg/L	12.21.19 14.35	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0469	0.00100	mg/L	12.21.19 14.35		1
1,3,5-Trimethylbenzene	108-67-8	0.0144	0.00100	mg/L	12.21.19 14.35		1
o-Xylene	95-47-6	0.0318	0.00100	mg/L	12.21.19 14.35		1
m,p-Xylenes	179601-23-1	0.170	0.0100	mg/L	12.21.19 14.35		1
Vinyl Chloride	75-01-4	<0.000234	0.00200	mg/L	12.21.19 14.35	U	1
Total Xylenes	1330-20-7	0.202	0.00100	mg/L	12.21.19 14.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	75-131	12.21.19 14.35	
1,2-Dichloroethane-D4	17060-07-0	99	%	63-144	12.21.19 14.35	
Toluene-D8	2037-26-5	100	%	80-117	12.21.19 14.35	
4-Bromofluorobenzene	460-00-4	103	%	74-124	12.21.19 14.35	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111442

MB Sample Id: 7693099-1-BLK

Matrix: Water

LCS Sample Id: 7693099-1-BKS

Prep Method: SM2320P

Date Prep: 12.21.19

LCSD Sample Id: 7693099-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	254	102	258	103	80-120	2	20	mg/L	12.21.19 17:14	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111442

Matrix: Water

MB Sample Id: 7693099-1-BLK

Prep Method: SM2320P

Date Prep: 12.21.19

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	12.21.19 17:07	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	12.21.19 17:07	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	12.21.19 17:07	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111442

Matrix: Ground Water

Parent Sample Id: 647076-001

MD Sample Id: 647076-001 D

Prep Method: SM2320P

Date Prep: 12.21.19

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1140	1130	1	20	mg/L	12.21.19 17:47	
Alkalinity, Bicarbonate (as CaCO3)	1140	1130	1	20	mg/L	12.21.19 17:47	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	12.21.19 17:47	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	12.21.19 17:47	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3111403

Matrix: Water

MB Sample Id: 7693065-1-BLK

LCS Sample Id: 7693065-1-BKS

Prep Method: E300P

Date Prep: 12.21.19

LCSD Sample Id: 7693065-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.0711	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.21.19 08:49	
Chloride	<0.0738	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	12.21.19 08:49	
Fluoride	<0.0286	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	12.21.19 08:49	
Nitrate as N	<0.0391	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	12.21.19 08:49	
Nitrite as N	<0.0293	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	12.21.19 08:49	
Sulfate	<0.109	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	12.21.19 08:49	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3111403

Parent Sample Id: 646578-002

Matrix: Ground Water

MS Sample Id: 646578-002 S

Prep Method: E300P

Date Prep: 12.21.19

MSD Sample Id: 646578-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	3.67	10.0	14.2	105	14.2	105	90-110	0	20	mg/L	12.21.19 13:16	
Fluoride	1.36	10.0	11.0	96	11.0	96	90-110	0	20	mg/L	12.21.19 13:16	
Nitrate as N	5.78	10.0	15.8	100	15.8	100	90-110	0	20	mg/L	12.21.19 13:16	
Nitrite as N	<0.0293	10.0	8.38	84	8.37	84	90-110	0	20	mg/L	12.21.19 13:16	X

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3111403

Parent Sample Id: 647076-001

Matrix: Ground Water

MS Sample Id: 647076-001 S

Prep Method: E300P

Date Prep: 12.21.19

MSD Sample Id: 647076-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.414	10.0	10.4	100	10.4	100	90-110	0	20	mg/L	12.21.19 17:47	
Fluoride	0.381	10.0	10.1	97	10.2	98	90-110	1	20	mg/L	12.21.19 17:47	
Nitrate as N	0.539	10.0	10.5	100	10.5	100	90-110	0	20	mg/L	12.21.19 17:47	
Nitrite as N	<0.0293	10.0	9.37	94	9.35	94	90-110	0	20	mg/L	12.21.19 17:47	

Analytical Method: TDS by SM2540C

Seq Number: 3111421

MB Sample Id: 3111421-1-BLK

Matrix: Water

LCS Sample Id: 3111421-1-BKS

LCSD Sample Id: 3111421-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1050	105	1080	108	80-120	3	10	mg/L	12.23.19 10:22	

Analytical Method: TDS by SM2540C

Seq Number: 3111421

Parent Sample Id: 647076-001

Matrix: Ground Water

MD Sample Id: 647076-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1640	1580	4	10	mg/L	12.23.19 10:22	

Analytical Method: pH by SM4500-H

Seq Number: 3111537

Parent Sample Id: 646923-001

Matrix: Liquid

MD Sample Id: 646923-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	0.890	0.900	1	20	SU	12.23.19 16:38	
Temperature	25.0	25.2	1	20	Deg C	12.23.19 16:38	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: pH by SM4500-H

Seq Number: 3111537

Parent Sample Id: 647134-001

Matrix: Waste Water

MD Sample Id: 647134-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.54	6.55	0	20	SU	12.23.19 16:38	
Temperature	25.3	25.6	1	20	Deg C	12.23.19 16:38	

Analytical Method: Total Metals by EPA 6010B

Seq Number: 3111517

MB Sample Id: 7693095-1-BLK

Matrix: Water

LCS Sample Id: 7693095-1-BKS

Prep Method: SW3010A

Date Prep: 12.23.19

LCSD Sample Id: 7693095-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.0182	25.0	23.9	96	24.2	97	75-125	1	20	mg/L	12.23.19 13:16	
Silica	<0.0781	21.4	21.8	102	22.0	103	75-125	1	30	mg/L	12.23.19 13:16	
Magnesium	<0.00954	25.0	23.9	96	24.1	96	75-125	1	20	mg/L	12.23.19 13:16	
Potassium	<0.0545	10.0	9.99	100	10.1	101	75-125	1	20	mg/L	12.23.19 13:16	
Sodium	<0.0570	25.0	24.8	99	25.0	100	75-125	1	20	mg/L	12.23.19 13:16	

Analytical Method: Total Metals by EPA 6010B

Seq Number: 3111517

Parent Sample Id: 647076-001

Matrix: Ground Water

MS Sample Id: 647076-001 S

Prep Method: SW3010A

Date Prep: 12.23.19

MSD Sample Id: 647076-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	396	25.0	422	104	420	96	75-125	0	20	mg/L	12.23.19 13:29	
Silica	77.0	21.4	101	112	100	107	75-125	1	30	mg/L	12.23.19 13:29	
Magnesium	72.2	25.0	97.2	100	97.0	99	75-125	0	20	mg/L	12.23.19 13:29	
Potassium	5.61	10.0	16.6	110	16.6	110	75-125	0	20	mg/L	12.23.19 13:29	
Sodium	101	25.0	128	108	127	104	75-125	1	20	mg/L	12.23.19 13:29	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111450

MB Sample Id: 7693107-1-BLK

Matrix: Water

LCS Sample Id: 7693107-1-BKS

Prep Method: SW5030B

Date Prep: 12.21.19

LCSD Sample Id: 7693107-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000214	0.0500	0.0437	87	0.0452	90	66-142	3	25	mg/L	12.21.19 10:48	
Bromobenzene	<0.000300	0.0500	0.0447	89	0.0489	98	75-125	9	25	mg/L	12.21.19 10:48	
Bromochloromethane	<0.000209	0.0500	0.0454	91	0.0474	95	60-140	4	25	mg/L	12.21.19 10:48	
Bromodichloromethane	<0.000231	0.0500	0.0480	96	0.0506	101	75-125	5	25	mg/L	12.21.19 10:48	
Bromoform	<0.000630	0.0500	0.0485	97	0.0522	104	75-125	7	25	mg/L	12.21.19 10:48	
Methyl bromide	<0.00105	0.0500	0.0425	85	0.0427	85	60-140	0	25	mg/L	12.21.19 10:48	
Methyl ethyl ketone	<0.00270	0.250	0.220	88	0.247	99	60-140	12	25	mg/L	12.21.19 10:48	
n-Butylbenzene	<0.000286	0.0500	0.0459	92	0.0505	101	75-125	10	25	mg/L	12.21.19 10:48	
Sec-Butylbenzene	<0.000199	0.0500	0.0469	94	0.0509	102	75-125	8	25	mg/L	12.21.19 10:48	
tert-Butylbenzene	<0.000195	0.0500	0.0466	93	0.0506	101	75-125	8	25	mg/L	12.21.19 10:48	
Carbon Tetrachloride	<0.000423	0.0500	0.0476	95	0.0476	95	62-125	0	25	mg/L	12.21.19 10:48	
Chlorobenzene	<0.000159	0.0500	0.0438	88	0.0462	92	60-133	5	25	mg/L	12.21.19 10:48	
Chloroethane	<0.000433	0.0500	0.0431	86	0.0423	85	60-140	2	25	mg/L	12.21.19 10:48	
Chloroform	<0.000259	0.0500	0.0472	94	0.0483	97	70-130	2	25	mg/L	12.21.19 10:48	
Methyl Chloride	<0.000318	0.0500	0.0390	78	0.0387	77	60-140	1	25	mg/L	12.21.19 10:48	
2-Chlorotoluene	<0.000214	0.0500	0.0449	90	0.0484	97	73-125	8	25	mg/L	12.21.19 10:48	
4-Chlorotoluene	<0.000183	0.0500	0.0455	91	0.0492	98	74-125	8	25	mg/L	12.21.19 10:48	
p-Cymene (p-Isopropyltoluene)	<0.000233	0.0500	0.0473	95	0.0511	102	75-125	8	25	mg/L	12.21.19 10:48	
Dibromochloromethane	<0.000739	0.0500	0.0480	96	0.0506	101	73-125	5	25	mg/L	12.21.19 10:48	
1,2-Dibromo-3-Chloropropane	<0.000319	0.0500	0.0477	95	0.0546	109	59-125	13	25	mg/L	12.21.19 10:48	
1,2-Dibromoethane	<0.000337	0.0500	0.0443	89	0.0476	95	73-125	7	25	mg/L	12.21.19 10:48	
Methylene Bromide	<0.000130	0.0500	0.0443	89	0.0469	94	69-127	6	25	mg/L	12.21.19 10:48	
1,2-Dichlorobenzene	<0.000236	0.0500	0.0464	93	0.0505	101	75-125	8	25	mg/L	12.21.19 10:48	
1,3-Dichlorobenzene	<0.000197	0.0500	0.0452	90	0.0494	99	75-125	9	25	mg/L	12.21.19 10:48	
1,4-Dichlorobenzene	<0.000199	0.0500	0.0451	90	0.0491	98	75-125	8	25	mg/L	12.21.19 10:48	
Dichlorodifluoromethane	<0.000316	0.0500	0.0433	87	0.0428	86	60-140	1	25	mg/L	12.21.19 10:48	
1,1-Dichloroethane	<0.000244	0.0500	0.0467	93	0.0473	95	72-125	1	25	mg/L	12.21.19 10:48	
1,2-Dichloroethane	<0.000285	0.0500	0.0448	90	0.0471	94	68-127	5	25	mg/L	12.21.19 10:48	
1,1-Dichloroethene	<0.000216	0.0500	0.0435	87	0.0432	86	59-172	1	25	mg/L	12.21.19 10:48	
cis-1,2-Dichloroethylene	<0.000174	0.0500	0.0448	90	0.0466	93	75-125	4	25	mg/L	12.21.19 10:48	
trans-1,2-dichloroethylene	<0.000256	0.0500	0.0422	84	0.0421	84	75-125	0	25	mg/L	12.21.19 10:48	
1,2-Dichloropropane	<0.000396	0.0500	0.0466	93	0.0486	97	74-125	4	25	mg/L	12.21.19 10:48	
1,3-Dichloropropane	<0.000439	0.0500	0.0459	92	0.0491	98	75-125	7	25	mg/L	12.21.19 10:48	
2,2-Dichloropropane	<0.000360	0.0500	0.0482	96	0.0478	96	75-125	1	25	mg/L	12.21.19 10:48	
1,1-Dichloropropene	<0.000481	0.0500	0.0445	89	0.0437	87	75-125	2	25	mg/L	12.21.19 10:48	
cis-1,3-Dichloropropene	<0.000690	0.0500	0.0469	94	0.0495	99	74-125	5	25	mg/L	12.21.19 10:48	
trans-1,3-dichloropropene	<0.000752	0.0500	0.0465	93	0.0493	99	66-125	6	25	mg/L	12.21.19 10:48	
Ethylbenzene	<0.000146	0.0500	0.0427	85	0.0443	89	75-125	4	25	mg/L	12.21.19 10:48	
Hexachlorobutadiene	<0.00200	0.0500	0.0440	88	0.0502	100	75-125	13	25	mg/L	12.21.19 10:48	
Isopropylbenzene	<0.000161	0.0500	0.0453	91	0.0470	94	75-125	4	25	mg/L	12.21.19 10:48	
Methylene Chloride	<0.00191	0.0500	0.0415	83	0.0433	87	75-125	4	25	mg/L	12.21.19 10:48	
MTBE	<0.000571	0.0500	0.0478	96	0.0507	101	65-135	6	25	mg/L	12.21.19 10:48	
Naphthalene	<0.00200	0.0500	0.0452	90	0.0522	104	70-130	14	25	mg/L	12.21.19 10:48	
n-Propylbenzene	<0.000179	0.0500	0.0450	90	0.0484	97	75-125	7	25	mg/L	12.21.19 10:48	
Styrene	<0.000162	0.0500	0.0453	91	0.0481	96	75-125	6	25	mg/L	12.21.19 10:48	
1,1,1,2-Tetrachloroethane	<0.000327	0.0500	0.0472	94	0.0495	99	72-125	5	25	mg/L	12.21.19 10:48	
1,1,2,2-Tetrachloroethane	<0.000284	0.0500	0.0478	96	0.0528	106	74-125	10	25	mg/L	12.21.19 10:48	
Tetrachloroethylene	<0.000500	0.0500	0.0415	83	0.0426	85	71-125	3	25	mg/L	12.21.19 10:48	
Toluene	<0.000500	0.0500	0.0422	84	0.0439	88	59-139	4	25	mg/L	12.21.19 10:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111450

MB Sample Id: 7693107-1-BLK

Matrix: Water

LCS Sample Id: 7693107-1-BKS

Prep Method: SW5030B

Date Prep: 12.21.19

LCSD Sample Id: 7693107-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00200	0.0500	0.0449	90	0.0514	103	75-137	13	25	mg/L	12.21.19 10:48	
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0463	93	0.0509	102	75-135	9	25	mg/L	12.21.19 10:48	
1,1,1-Trichloroethane	<0.000504	0.0500	0.0459	92	0.0465	93	75-125	1	25	mg/L	12.21.19 10:48	
1,1,2-Trichloroethane	<0.000228	0.0500	0.0471	94	0.0503	101	75-127	7	25	mg/L	12.21.19 10:48	
Trichloroethylene	<0.000424	0.0500	0.0429	86	0.0439	88	62-137	2	25	mg/L	12.21.19 10:48	
Trichlorofluoromethane	<0.000245	0.0500	0.0451	90	0.0446	89	60-140	1	25	mg/L	12.21.19 10:48	
1,2,3-Trichloropropane	<0.000283	0.0500	0.0471	94	0.0524	105	75-125	11	25	mg/L	12.21.19 10:48	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0447	89	0.0487	97	75-125	9	25	mg/L	12.21.19 10:48	
1,3,5-Trimethylbenzene	<0.000279	0.0500	0.0455	91	0.0497	99	70-125	9	25	mg/L	12.21.19 10:48	
o-Xylene	<0.000192	0.0500	0.0440	88	0.0462	92	75-125	5	25	mg/L	12.21.19 10:48	
m,p-Xylenes	<0.000330	0.100	0.0850	85	0.0881	88	75-125	4	25	mg/L	12.21.19 10:48	
Vinyl Chloride	<0.000234	0.0500	0.0415	83	0.0405	81	60-140	2	25	mg/L	12.21.19 10:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		102		102		75-131	%	12.21.19 10:48
1,2-Dichloroethane-D4	102		101		103		63-144	%	12.21.19 10:48
Toluene-D8	99		100		101		80-117	%	12.21.19 10:48
4-Bromofluorobenzene	102		100		102		74-124	%	12.21.19 10:48

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111450

Matrix: Water

Prep Method: SW5030B

Date Prep: 12.21.19

Parent Sample Id: 646698-001

MS Sample Id: 646698-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.000214	0.0500	0.0342	68	66-142	mg/L	12.21.19 11:50	
Bromobenzene	<0.000300	0.0500	0.0331	66	75-125	mg/L	12.21.19 11:50	X
Bromochloromethane	<0.000209	0.0500	0.0340	68	60-140	mg/L	12.21.19 11:50	
Bromodichloromethane	<0.000231	0.0500	0.0359	72	75-125	mg/L	12.21.19 11:50	X
Bromoform	<0.000630	0.0500	0.0373	75	75-125	mg/L	12.21.19 11:50	
Methyl bromide	<0.00105	0.0500	0.0325	65	60-140	mg/L	12.21.19 11:50	
Methyl ethyl ketone	<0.00270	0.250	0.210	84	60-140	mg/L	12.21.19 11:50	
n-Butylbenzene	<0.000286	0.0500	0.0362	72	75-125	mg/L	12.21.19 11:50	X
Sec-Butylbenzene	<0.000199	0.0500	0.0367	73	75-125	mg/L	12.21.19 11:50	X
tert-Butylbenzene	<0.000195	0.0500	0.0364	73	75-125	mg/L	12.21.19 11:50	X
Carbon Tetrachloride	<0.000423	0.0500	0.0388	78	62-125	mg/L	12.21.19 11:50	
Chlorobenzene	<0.000159	0.0500	0.0332	66	60-133	mg/L	12.21.19 11:50	
Chloroethane	<0.000433	0.0500	0.0351	70	60-140	mg/L	12.21.19 11:50	
Chloroform	<0.000259	0.0500	0.0364	73	70-130	mg/L	12.21.19 11:50	
Methyl Chloride	<0.000318	0.0500	0.0307	61	60-140	mg/L	12.21.19 11:50	
2-Chlorotoluene	<0.000214	0.0500	0.0341	68	73-125	mg/L	12.21.19 11:50	X
4-Chlorotoluene	<0.000183	0.0500	0.0337	67	74-125	mg/L	12.21.19 11:50	X
p-Cymene (p-Isopropyltoluene)	<0.000233	0.0500	0.0366	73	75-125	mg/L	12.21.19 11:50	X
Dibromochloromethane	<0.000739	0.0500	0.0350	70	73-125	mg/L	12.21.19 11:50	X
1,2-Dibromo-3-Chloropropane	<0.000319	0.0500	0.0439	88	59-125	mg/L	12.21.19 11:50	
1,2-Dibromoethane	<0.000337	0.0500	0.0340	68	73-125	mg/L	12.21.19 11:50	X
Methylene Bromide	<0.000130	0.0500	0.0338	68	69-127	mg/L	12.21.19 11:50	X
1,2-Dichlorobenzene	<0.000236	0.0500	0.0341	68	75-125	mg/L	12.21.19 11:50	X
1,3-Dichlorobenzene	<0.000197	0.0500	0.0336	67	75-125	mg/L	12.21.19 11:50	X
1,4-Dichlorobenzene	<0.000199	0.0500	0.0331	66	75-125	mg/L	12.21.19 11:50	X
Dichlorodifluoromethane	<0.000316	0.0500	0.0358	72	60-140	mg/L	12.21.19 11:50	
1,1-Dichloroethane	<0.000244	0.0500	0.0363	73	72-125	mg/L	12.21.19 11:50	
1,2-Dichloroethane	<0.000285	0.0500	0.0334	67	68-127	mg/L	12.21.19 11:50	X
1,1-Dichloroethene	<0.000216	0.0500	0.0352	70	59-172	mg/L	12.21.19 11:50	
cis-1,2-Dichloroethylene	<0.000174	0.0500	0.0348	70	75-125	mg/L	12.21.19 11:50	X
trans-1,2-dichloroethylene	<0.000256	0.0500	0.0333	67	75-125	mg/L	12.21.19 11:50	X
1,2-Dichloropropane	<0.000396	0.0500	0.0353	71	74-125	mg/L	12.21.19 11:50	X
1,3-Dichloropropane	<0.000439	0.0500	0.0343	69	75-125	mg/L	12.21.19 11:50	X
2,2-Dichloropropane	<0.000360	0.0500	0.0389	78	75-125	mg/L	12.21.19 11:50	
1,1-Dichloropropene	<0.000481	0.0500	0.0357	71	75-125	mg/L	12.21.19 11:50	X
cis-1,3-Dichloropropene	<0.000690	0.0500	0.0349	70	74-125	mg/L	12.21.19 11:50	X
trans-1,3-dichloropropene	<0.000752	0.0500	0.0341	68	66-125	mg/L	12.21.19 11:50	
Ethylbenzene	<0.000146	0.0500	0.0331	66	75-125	mg/L	12.21.19 11:50	X
Hexachlorobutadiene	<0.00200	0.0500	0.0361	72	75-125	mg/L	12.21.19 11:50	X
Isopropylbenzene	<0.000161	0.0500	0.0358	72	75-125	mg/L	12.21.19 11:50	X
Methylene Chloride	<0.00191	0.0500	0.0314	63	75-125	mg/L	12.21.19 11:50	X
MTBE	<0.000571	0.0500	0.0368	74	65-135	mg/L	12.21.19 11:50	
Naphthalene	<0.00200	0.0500	0.0385	77	70-130	mg/L	12.21.19 11:50	
n-Propylbenzene	<0.000179	0.0500	0.0349	70	75-125	mg/L	12.21.19 11:50	X
Styrene	<0.000162	0.0500	0.0342	68	75-125	mg/L	12.21.19 11:50	X
1,1,1,2-Tetrachloroethane	<0.000327	0.0500	0.0352	70	72-125	mg/L	12.21.19 11:50	X
1,1,2,2-Tetrachloroethane	<0.000284	0.0500	0.0391	78	74-125	mg/L	12.21.19 11:50	
Tetrachloroethylene	<0.000500	0.0500	0.0331	66	71-125	mg/L	12.21.19 11:50	X
Toluene	<0.000500	0.0500	0.0327	65	59-139	mg/L	12.21.19 11:50	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111450

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 646698-001

MS Sample Id: 646698-001 S

Date Prep: 12.21.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00200	0.0500	0.0351	70	75-137	mg/L	12.21.19 11:50	X
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0343	69	75-135	mg/L	12.21.19 11:50	X
1,1,1-Trichloroethane	<0.000504	0.0500	0.0373	75	75-125	mg/L	12.21.19 11:50	
1,1,2-Trichloroethane	<0.000228	0.0500	0.0350	70	75-127	mg/L	12.21.19 11:50	X
Trichloroethylene	<0.000424	0.0500	0.0338	68	62-137	mg/L	12.21.19 11:50	
Trichlorofluoromethane	<0.000245	0.0500	0.0378	76	60-140	mg/L	12.21.19 11:50	
1,2,3-Trichloropropane	<0.000283	0.0500	0.0384	77	75-125	mg/L	12.21.19 11:50	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0340	68	75-125	mg/L	12.21.19 11:50	X
1,3,5-Trimethylbenzene	<0.000279	0.0500	0.0350	70	70-125	mg/L	12.21.19 11:50	
o-Xylene	<0.000192	0.0500	0.0338	68	75-125	mg/L	12.21.19 11:50	X
m,p-Xylenes	<0.000330	0.100	0.0660	66	75-125	mg/L	12.21.19 11:50	X
Vinyl Chloride	<0.000234	0.0500	0.0339	68	60-140	mg/L	12.21.19 11:50	

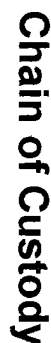
Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		75-131	%	12.21.19 11:50
1,2-Dichloroethane-D4	101		63-144	%	12.21.19 11:50
Toluene-D8	99		80-117	%	12.21.19 11:50
4-Bromofluorobenzene	100		74-124	%	12.21.19 11:50

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



1047074

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Page 1 of 1

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

[illegible]

	TAT starts the day received by the lab, if received by 4:30pm

[illegible]

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 \$8 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
		12/19/19			
		1339			

Person Collecting Sample DP Cole-Parker
Date Collected 12-19-15
Time Collected 1020
Sample No. 6
CUSTODY SEAL
(Signature)

Inter-Office Shipment

IOS Number : **54759**

Date/Time: 12.19.2019

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777305071905

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
647076-001	W	Levey Well	12.19.2019 10:20	SW8260C	VOCs by SW-846 8260C	12.20.2019	01.02.2020	JKR	BDCME BRBZ BRCLME	
647076-001	W	Levey Well	12.19.2019 10:20	SW6010B	Total Metals by EPA 6010B	12.20.2019	06.16.2020	JKR	CA K MG NA SI	
647076-001	W	Levey Well	12.19.2019 10:20	SM2320B	Alkalinity by SM2320B	12.20.2019	01.02.2020	JKR	ALK ALKB ALKC	
647076-001	W	Levey Well	12.19.2019 10:20	SM1030E	Cation-Anion Balance Calculation	12.20.2019	01.18.2020	JKR	Cation-Anion Balance	
647076-001	W	Levey Well	12.19.2019 10:20	SM2540C	TDS by SM2540C	12.20.2019	12.26.2019 10:20	JKR	TDS	
647076-001	W	Levey Well	12.19.2019 10:20	E300	Inorganic Anions by EPA 300	12.20.2019	01.16.2020	JKR	BR CL F SO4	
647076-001	W	Levey Well	12.19.2019 10:20	SM4500-H	pH by SM4500-H	12.20.2019	12.19.2019 10:35	JKR		

Inter Office Shipment or Sample Comments:

Relinquished By:



Jessica Kramer

Date Relinquished: 12.19.2019

Received By:



Ashly Kowalski

Date Received: 12.21.2019

Cooler Temperature: 2.0



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 54759

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 12.19.2019 01:58 PM

Received By: Ashly Kowalski

Date Received: 12.21.2019 10:30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	Late Shipment. arrived 12/21/19 @ 1030

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Ashly Kowalski

Date: 12.21.2019



Client: Ensolum

Date/ Time Received: 12/19/2019 01:39:00 PM

Work Order #: 647076

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	5.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 12/19/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/19/2019



Certificate of Analysis Summary 647496

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-26-19 01:35 pm
Report Date: 30-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647496-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-26-19 10:25					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Dec-27-19 10:11 Analyzed: Dec-27-19 11:07 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1280 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1280 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Dec-30-19 11:12 Units/RL: % RL					
Cation-Anion Balance	1.30					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Dec-27-19 10:28 Analyzed: Dec-27-19 10:35 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	257 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.617 0.100					
Nitrite as N	0.204 0.100					
Sulfate	61.7 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647496

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-26-19 01:35 pm
Report Date: 30-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647496-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Dec-26-19 10:25					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Dec-27-19 09:15					
	Analyzed:	Dec-27-19 14:47					
	Units/RL:	mg/L RL					
Calcium		418 D 10.0					
Magnesium		68.8 0.400					
Potassium		5.82 0.500					
Silica		70.2 1.07					
Sodium		88.5 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Dec-27-19 11:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1760 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647496

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-26-19 01:35 pm
Report Date: 30-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647496-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Dec-26-19 10:25					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	Dec-27-19 11:10					
	Analyzed:	Dec-27-19 13:24					
	Units/RL:	mg/L RL					
Benzene		0.0167 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
Methyl ethyl ketone		<0.0500 0.0500					
n-Butylbenzene		0.00211 0.00100					
Sec-Butylbenzene		0.00320 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00183 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

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Holly Taylor
Project Manager



Certificate of Analysis Summary 647496

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-26-19 01:35 pm
Report Date: 30-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647496-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-26-19 10:25					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-27-19 11:10 Analyzed: Dec-27-19 13:24 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0514 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0235 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.00934 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Holly Taylor
Project Manager



Certificate of Analysis Summary 647496

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Dec-26-19 01:35 pm
Report Date: 30-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647496-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Dec-26-19 10:25					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Dec-27-19 11:10 Analyzed: Dec-27-19 13:24 Units/RL: mg/L RL					
Toluene	0.112 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0672 0.00100					
1,3,5-Trimethylbenzene	0.0168 0.00100					
o-Xylene	0.0459 0.00100					
m,p-Xylenes	0.210 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.256 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-27-19 11:38 Units/RL: Deg C RL					
Temperature	24.4 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Dec-27-19 11:38 Units/RL: SU RL					
pH	6.44 K					

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Holly Taylor
Project Manager

Analytical Report 647496

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

30-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



30-DEC-19

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **647496**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647496. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647496 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 647496

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	12-26-19 10:25		647496-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 647496Report Date: 30-DEC-19
Date Received: 12/26/2019

Sample receipt non conformances and comments:None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3111878 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 647496-001.

Lab Sample ID 647496-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloroethane, Hexachlorobutadiene, n-Butylbenzene, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 647496-001. The Laboratory Control Sample for n-Butylbenzene, o-Xylene, Hexachlorobutadiene, Chloroethane is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 647496



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.26.19 13.35

Lab Sample Id: 647496-001

Date Collected: 12.26.19 10.25

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 12.27.19 10.11

Seq Number: 3111830

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1280	4.00	mg/L	12.27.19 11.07		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1280	4.00	mg/L	12.27.19 11.07		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	12.27.19 11.07	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	12.27.19 11.07	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: MAB

% Moisture:

Analyst: MAB

Seq Number: 3111969

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.30		%	12.30.19 11.12		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 12.27.19 10.28

Seq Number: 3111875

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	12.27.19 10.35	U	1
Chloride	16887-00-6	257	0.500	mg/L	12.27.19 10.35		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	12.27.19 10.35	U	1
Nitrate as N	14797-55-8	0.617	0.100	mg/L	12.27.19 10.35		1
Nitrite as N	14797-65-0	0.204	0.100	mg/L	12.27.19 10.35		1
Sulfate	14808-79-8	61.7	0.500	mg/L	12.27.19 10.35		1



Certificate of Analytical Results 647496



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.26.19 13.35

Lab Sample Id: 647496-001

Date Collected: 12.26.19 10.25

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3111833

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1760	5.00	mg/L	12.27.19 11.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3111844

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.44		SU	12.27.19 11.38	K	1
Temperature	TEMP	24.4		Deg C	12.27.19 11.38	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 12.27.19 09.15

Seq Number: 3111884

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	418	10.0	mg/L	12.27.19 14.51	D	50
Magnesium	7439-95-4	68.8	0.400	mg/L	12.27.19 14.47		1
Potassium	7440-09-7	5.82	0.500	mg/L	12.27.19 14.47		1
Silica	7631-86-9	70.2	1.07	mg/L	12.27.19 14.47		1
Sodium	7440-23-5	88.5	0.500	mg/L	12.27.19 14.47		1



Certificate of Analytical Results 647496



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.26.19 13.35

Lab Sample Id: 647496-001

Date Collected: 12.26.19 10.25

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.27.19 11.10

Seq Number: 3111878

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0167	0.00100	mg/L	12.27.19 13.24		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	12.27.19 13.24	U	1
n-Butylbenzene	104-51-8	0.00211	0.00100	mg/L	12.27.19 13.24		1
Sec-Butylbenzene	135-98-8	0.00320	0.00100	mg/L	12.27.19 13.24		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	12.27.19 13.24	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	12.27.19 13.24	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00183	0.00100	mg/L	12.27.19 13.24		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Ethylbenzene	100-41-4	0.0514	0.00100	mg/L	12.27.19 13.24		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1



Certificate of Analytical Results 647496



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 12.26.19 13.35

Lab Sample Id: 647496-001

Date Collected: 12.26.19 10.25

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 12.27.19 11.10

Seq Number: 3111878

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0235	0.00100	mg/L	12.27.19 13.24		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	12.27.19 13.24	U	1
n-Propylbenzene	103-65-1	0.00934	0.00100	mg/L	12.27.19 13.24		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Toluene	108-88-3	0.112	0.00100	mg/L	12.27.19 13.24		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	12.27.19 13.24	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	12.27.19 13.24	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0672	0.00100	mg/L	12.27.19 13.24		1
1,3,5-Trimethylbenzene	108-67-8	0.0168	0.00100	mg/L	12.27.19 13.24		1
o-Xylene	95-47-6	0.0459	0.00100	mg/L	12.27.19 13.24		1
m,p-Xylenes	179601-23-1	0.210	0.0100	mg/L	12.27.19 13.24		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	12.27.19 13.24	U	1
Total Xylenes	1330-20-7	0.256	0.00100	mg/L	12.27.19 13.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	94	%	75-131	12.27.19 13.24	
1,2-Dichloroethane-D4	17060-07-0	104	%	63-144	12.27.19 13.24	
Toluene-D8	2037-26-5	98	%	80-117	12.27.19 13.24	
4-Bromofluorobenzene	460-00-4	101	%	74-124	12.27.19 13.24	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111830

MB Sample Id: 7693356-1-BLK

Matrix: Water

LCS Sample Id: 7693356-1-BKS

Prep Method: SM2320P

Date Prep: 12.27.19

LCSD Sample Id: 7693356-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	252	101	260	104	80-120	3	20	mg/L	12.27.19 10:46	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111830

Matrix: Water

MB Sample Id: 7693356-1-BLK

Prep Method: SM2320P

Date Prep: 12.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	12.27.19 10:39	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	12.27.19 10:39	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	12.27.19 10:39	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3111830

Matrix: Ground Water

Parent Sample Id: 647496-001

MD Sample Id: 647496-001 D

Prep Method: SM2320P

Date Prep: 12.27.19

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1280	1280	0	20	mg/L	12.27.19 11:21	
Alkalinity, Bicarbonate (as CaCO3)	1280	1280	0	20	mg/L	12.27.19 11:21	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	12.27.19 11:21	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	12.27.19 11:21	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3111875

Matrix: Water

MB Sample Id: 7693357-1-BLK

LCS Sample Id: 7693357-1-BKS

Prep Method: E300P

Date Prep: 12.27.19

LCSD Sample Id: 7693357-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.4	104	90-110	1	20	mg/L	12.27.19 10:05	
Chloride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	12.27.19 10:05	
Fluoride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	12.27.19 10:05	
Nitrate as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	12.27.19 10:05	
Nitrite as N	<0.100	10.0	11.0	110	11.0	110	90-110	0	20	mg/L	12.27.19 10:05	
Sulfate	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	12.27.19 10:05	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3111875

Matrix: Water

Prep Method: E300P

Parent Sample Id: 647468-001

MS Sample Id: 647468-001 S

Date Prep: 12.27.19

MSD Sample Id: 647468-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.625	10.0	10.8	102	10.8	102	90-110	0	20	mg/L	12.27.19 11:04	
Chloride	188	10.0	195	70	195	70	90-110	0	20	mg/L	12.27.19 11:04	X
Fluoride	0.0381	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	12.27.19 11:04	
Nitrate as N	1.66	10.0	11.7	100	11.7	100	90-110	0	20	mg/L	12.27.19 11:04	
Nitrite as N	0.0476	10.0	10.6	106	10.7	107	90-110	1	20	mg/L	12.27.19 11:04	
Sulfate	1.45	10.0	11.5	101	11.6	102	90-110	1	20	mg/L	12.27.19 11:04	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3111875

Matrix: Surface Water

Prep Method: SW9056P

Parent Sample Id: 647480-023

MS Sample Id: 647480-023 S

Date Prep: 12.27.19

MSD Sample Id: 647480-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	12.27.19 14:11	
Chloride	3.52	10.0	13.0	95	13.0	95	90-110	0	20	mg/L	12.27.19 14:11	
Fluoride	0.123	10.0	10.6	105	10.7	106	90-110	1	20	mg/L	12.27.19 14:11	
Nitrate as N	1.04	10.0	11.4	104	11.4	104	90-110	0	20	mg/L	12.27.19 14:11	
Nitrite as N	0.0603	10.0	10.6	105	10.6	105	90-110	0	20	mg/L	12.27.19 14:11	
Sulfate	1.39	10.0	11.7	103	11.7	103	90-110	0	20	mg/L	12.27.19 14:11	

Analytical Method: TDS by SM2540C

Seq Number: 3111833

Matrix: Water

MB Sample Id: 3111833-1-BLK

LCS Sample Id: 3111833-1-BKS

LCSD Sample Id: 3111833-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	936	94	937	94	80-120	0	10	mg/L	12.27.19 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3111833

Matrix: Ground Water

Parent Sample Id: 647496-001

MD Sample Id: 647496-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1760	1760	0	10	mg/L	12.27.19 11:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

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Analytical Method: pH by SM4500-H

Seq Number: 3111844

Matrix: Ground Water

Parent Sample Id: 647496-001

MD Sample Id: 647496-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.44	6.45	0	20	SU	12.27.19 11:38	
Temperature	24.4	24.6	1	20	Deg C	12.27.19 11:38	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3111884

Matrix: Water

MB Sample Id: 7693370-1-BLK

LCS Sample Id: 7693370-1-BKS

Prep Method: E200.7P

Date Prep: 12.27.19

LCSD Sample Id: 7693370-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.0	100	25.0	100	85-115	0	20	mg/L	12.27.19 13:48	
Magnesium	<0.400	25.0	24.9	100	24.9	100	85-115	0	20	mg/L	12.27.19 13:48	
Potassium	<0.500	10.0	10.3	103	10.3	103	85-115	0	20	mg/L	12.27.19 13:48	
Silica	<1.07	21.4	21.9	102	22.0	103	85-115	0	20	mg/L	12.27.19 13:48	
Sodium	<0.500	25.0	25.1	100	25.1	100	85-115	0	20	mg/L	12.27.19 13:48	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3111884

Matrix: Waste Water

Parent Sample Id: 647126-001

MS Sample Id: 647126-001 S

Prep Method: E200.7P

Date Prep: 12.27.19

MSD Sample Id: 647126-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	200	25.0	224	96	223	92	70-130	0	20	mg/L	12.27.19 14:01	
Magnesium	18.6	25.0	41.6	92	41.4	91	70-130	0	20	mg/L	12.27.19 14:01	
Potassium	20.0	10.0	30.1	101	29.9	99	70-130	1	20	mg/L	12.27.19 14:01	
Silica	24.2	21.4	45.9	101	45.6	100	70-130	1	20	mg/L	12.27.19 14:01	
Sodium	122	25.0	147	100	146	96	70-130	1	20	mg/L	12.27.19 14:01	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3111884

Matrix: Water

Parent Sample Id: 646807-001

MS Sample Id: 646807-001 S

Prep Method: E200.7P

Date Prep: 12.27.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.1	92	70-130	mg/L	12.27.19 23:01	
Magnesium	<0.400	25.0	22.9	92	70-130	mg/L	12.27.19 23:01	
Potassium	<0.500	10.0	9.53	95	70-130	mg/L	12.27.19 23:01	
Silica	<1.07	21.4	20.5	96	70-130	mg/L	12.27.19 23:01	
Sodium	<0.500	25.0	23.1	92	70-130	mg/L	12.27.19 23:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111878

MB Sample Id: 7693404-1-BLK

Matrix: Water

LCS Sample Id: 7693404-1-BKS

Prep Method: SW5030B

Date Prep: 12.27.19

LCSD Sample Id: 7693404-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0488	98	0.0457	91	66-142	7	25	mg/L	12.27.19 10:52	
Bromobenzene	<0.00100	0.0500	0.0481	96	0.0515	103	75-125	7	25	mg/L	12.27.19 10:52	
Bromochloromethane	<0.00100	0.0500	0.0486	97	0.0506	101	60-140	4	25	mg/L	12.27.19 10:52	
Bromodichloromethane	<0.00100	0.0500	0.0490	98	0.0477	95	75-125	3	25	mg/L	12.27.19 10:52	
Bromoform	<0.00500	0.0500	0.0513	103	0.0546	109	75-125	6	25	mg/L	12.27.19 10:52	
Methyl bromide	<0.00500	0.0500	0.0405	81	0.0417	83	60-140	3	25	mg/L	12.27.19 10:52	
Methyl ethyl ketone	<0.0500	0.250	0.233	93	0.225	90	60-140	3	25	mg/L	12.27.19 10:52	
n-Butylbenzene	<0.00100	0.0500	0.0405	81	0.0474	95	75-125	16	25	mg/L	12.27.19 10:52	
Sec-Butylbenzene	<0.00100	0.0500	0.0472	94	0.0477	95	75-125	1	25	mg/L	12.27.19 10:52	
tert-Butylbenzene	<0.00100	0.0500	0.0506	101	0.0529	106	75-125	4	25	mg/L	12.27.19 10:52	
Carbon Tetrachloride	<0.00500	0.0500	0.0502	100	0.0527	105	62-125	5	25	mg/L	12.27.19 10:52	
Chlorobenzene	<0.00100	0.0500	0.0476	95	0.0500	100	60-133	5	25	mg/L	12.27.19 10:52	
Chloroethane	<0.0100	0.0500	0.0336	67	0.0375	75	60-140	11	25	mg/L	12.27.19 10:52	
Chloroform	<0.00100	0.0500	0.0480	96	0.0507	101	70-130	5	25	mg/L	12.27.19 10:52	
Methyl Chloride	<0.0100	0.0500	0.0378	76	0.0421	84	60-140	11	25	mg/L	12.27.19 10:52	
2-Chlorotoluene	<0.00100	0.0500	0.0485	97	0.0466	93	73-125	4	25	mg/L	12.27.19 10:52	
4-Chlorotoluene	<0.00100	0.0500	0.0493	99	0.0477	95	74-125	3	25	mg/L	12.27.19 10:52	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0467	93	0.0482	96	75-125	3	25	mg/L	12.27.19 10:52	
Dibromochloromethane	<0.00500	0.0500	0.0494	99	0.0494	99	73-125	0	25	mg/L	12.27.19 10:52	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0488	98	0.0502	100	59-125	3	25	mg/L	12.27.19 10:52	
1,2-Dibromoethane	<0.00500	0.0500	0.0495	99	0.0504	101	73-125	2	25	mg/L	12.27.19 10:52	
Methylene Bromide	<0.00100	0.0500	0.0503	101	0.0496	99	69-127	1	25	mg/L	12.27.19 10:52	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0414	83	0.0481	96	75-125	15	25	mg/L	12.27.19 10:52	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0482	96	0.0484	97	75-125	0	25	mg/L	12.27.19 10:52	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0485	97	0.0507	101	75-125	4	25	mg/L	12.27.19 10:52	
Dichlorodifluoromethane	<0.00100	0.0500	0.0702	140	0.0779	156	60-140	10	25	mg/L	12.27.19 10:52	H
1,1-Dichloroethane	<0.00100	0.0500	0.0505	101	0.0520	104	72-125	3	25	mg/L	12.27.19 10:52	
1,2-Dichloroethane	<0.00100	0.0500	0.0506	101	0.0507	101	68-127	0	25	mg/L	12.27.19 10:52	
1,1-Dichloroethene	<0.00100	0.0500	0.0521	104	0.0550	110	59-172	5	25	mg/L	12.27.19 10:52	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0489	98	0.0494	99	75-125	1	25	mg/L	12.27.19 10:52	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0497	99	0.0505	101	75-125	2	25	mg/L	12.27.19 10:52	
1,2-Dichloropropane	<0.00500	0.0500	0.0484	97	0.0443	89	74-125	9	25	mg/L	12.27.19 10:52	
1,3-Dichloropropane	<0.00500	0.0500	0.0497	99	0.0506	101	75-125	2	25	mg/L	12.27.19 10:52	
2,2-Dichloropropane	<0.00500	0.0500	0.0531	106	0.0559	112	75-125	5	25	mg/L	12.27.19 10:52	
1,1-Dichloropropene	<0.00500	0.0500	0.0520	104	0.0545	109	75-125	5	25	mg/L	12.27.19 10:52	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0518	104	0.0510	102	74-125	2	25	mg/L	12.27.19 10:52	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0513	103	0.0512	102	66-125	0	25	mg/L	12.27.19 10:52	
Ethylbenzene	<0.00100	0.0500	0.0485	97	0.0500	100	75-125	3	25	mg/L	12.27.19 10:52	
Hexachlorobutadiene	<0.00500	0.0500	0.0486	97	0.0530	106	75-125	9	25	mg/L	12.27.19 10:52	
Isopropylbenzene	<0.00100	0.0500	0.0513	103	0.0552	110	75-125	7	25	mg/L	12.27.19 10:52	
Methylene Chloride	<0.00191	0.0500	0.0481	96	0.0400	80	75-125	18	25	mg/L	12.27.19 10:52	
MTBE	<0.00500	0.0500	0.0531	106	0.0525	105	65-135	1	25	mg/L	12.27.19 10:52	
Naphthalene	<0.0100	0.0500	0.0532	106	0.0557	111	70-130	5	25	mg/L	12.27.19 10:52	
n-Propylbenzene	<0.00100	0.0500	0.0479	96	0.0530	106	75-125	10	25	mg/L	12.27.19 10:52	
Styrene	<0.00100	0.0500	0.0517	103	0.0502	100	75-125	3	25	mg/L	12.27.19 10:52	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0453	91	0.0508	102	72-125	11	25	mg/L	12.27.19 10:52	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0466	93	0.0467	93	74-125	0	25	mg/L	12.27.19 10:52	
Tetrachloroethylene	<0.00100	0.0500	0.0498	100	0.0545	109	71-125	9	25	mg/L	12.27.19 10:52	
Toluene	<0.00100	0.0500	0.0473	95	0.0449	90	59-139	5	25	mg/L	12.27.19 10:52	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111878

MB Sample Id: 7693404-1-BLK

Matrix: Water

LCS Sample Id: 7693404-1-BKS

Prep Method: SW5030B

Date Prep: 12.27.19

LCSD Sample Id: 7693404-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0505	101	0.0523	105	75-137	4	25	mg/L	12.27.19 10:52	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0510	102	0.0536	107	75-135	5	25	mg/L	12.27.19 10:52	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0495	99	0.0520	104	75-125	5	25	mg/L	12.27.19 10:52	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0498	100	0.0502	100	75-127	1	25	mg/L	12.27.19 10:52	
Trichloroethylene	<0.00500	0.0500	0.0450	90	0.0449	90	62-137	0	25	mg/L	12.27.19 10:52	
Trichlorofluoromethane	<0.00100	0.0500	0.0475	95	0.0550	110	60-140	15	25	mg/L	12.27.19 10:52	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0469	94	0.0475	95	75-125	1	25	mg/L	12.27.19 10:52	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0479	96	0.0486	97	75-125	1	25	mg/L	12.27.19 10:52	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0500	100	0.0483	97	70-125	3	25	mg/L	12.27.19 10:52	
o-Xylene	<0.00100	0.0500	0.0510	102	0.0497	99	75-125	3	25	mg/L	12.27.19 10:52	
m,p-Xylenes	<0.0100	0.100	0.0984	98	0.105	105	75-125	6	25	mg/L	12.27.19 10:52	
Vinyl Chloride	<0.00200	0.0500	0.0338	68	0.0411	82	60-140	19	25	mg/L	12.27.19 10:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	97		98		102		75-131	%	12.27.19 10:52
1,2-Dichloroethane-D4	93		100		92		63-144	%	12.27.19 10:52
Toluene-D8	93		100		96		80-117	%	12.27.19 10:52
4-Bromofluorobenzene	113		100		97		74-124	%	12.27.19 10:52

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111878

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 647496-001

MS Sample Id: 647496-001 S

Date Prep: 12.27.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.0167	0.0500	0.0591	85	66-142	mg/L	12.27.19 11:26	
Bromobenzene	<0.00100	0.0500	0.0415	83	75-125	mg/L	12.27.19 11:26	
Bromochloromethane	<0.00100	0.0500	0.0422	84	60-140	mg/L	12.27.19 11:26	
Bromodichloromethane	<0.00100	0.0500	0.0375	75	75-125	mg/L	12.27.19 11:26	
Bromoform	<0.00500	0.0500	0.0410	82	75-125	mg/L	12.27.19 11:26	
Methyl bromide	<0.00500	0.0500	0.0343	69	60-140	mg/L	12.27.19 11:26	
Methyl ethyl ketone	0.0122	0.250	0.212	80	60-140	mg/L	12.27.19 11:26	
n-Butylbenzene	0.00211	0.0500	0.0381	72	75-125	mg/L	12.27.19 11:26	X
Sec-Butylbenzene	0.00320	0.0500	0.0416	77	75-125	mg/L	12.27.19 11:26	
tert-Butylbenzene	<0.000195	0.0500	0.0428	86	75-125	mg/L	12.27.19 11:26	
Carbon Tetrachloride	<0.00500	0.0500	0.0433	87	62-125	mg/L	12.27.19 11:26	
Chlorobenzene	<0.00100	0.0500	0.0410	82	60-133	mg/L	12.27.19 11:26	
Chloroethane	<0.0100	0.0500	0.0290	58	60-140	mg/L	12.27.19 11:26	X
Chloroform	<0.00100	0.0500	0.0419	84	70-130	mg/L	12.27.19 11:26	
Methyl Chloride	<0.0100	0.0500	0.0317	63	60-140	mg/L	12.27.19 11:26	
2-Chlorotoluene	<0.00100	0.0500	0.0443	89	73-125	mg/L	12.27.19 11:26	
4-Chlorotoluene	<0.00100	0.0500	0.0432	86	74-125	mg/L	12.27.19 11:26	
p-Cymene (p-Isopropyltoluene)	0.00183	0.0500	0.0402	77	75-125	mg/L	12.27.19 11:26	
Dibromochloromethane	<0.00500	0.0500	0.0420	84	73-125	mg/L	12.27.19 11:26	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0417	83	59-125	mg/L	12.27.19 11:26	
1,2-Dibromoethane	<0.00500	0.0500	0.0431	86	73-125	mg/L	12.27.19 11:26	
Methylene Bromide	<0.00100	0.0500	0.0430	86	69-127	mg/L	12.27.19 11:26	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0393	79	75-125	mg/L	12.27.19 11:26	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0410	82	75-125	mg/L	12.27.19 11:26	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0397	79	75-125	mg/L	12.27.19 11:26	
Dichlorodifluoromethane	<0.00100	0.0500	0.0563	113	60-140	mg/L	12.27.19 11:26	
1,1-Dichloroethane	<0.00100	0.0500	0.0439	88	72-125	mg/L	12.27.19 11:26	
1,2-Dichloroethane	<0.00100	0.0500	0.0436	87	68-127	mg/L	12.27.19 11:26	
1,1-Dichloroethene	<0.00100	0.0500	0.0433	87	59-172	mg/L	12.27.19 11:26	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0426	85	75-125	mg/L	12.27.19 11:26	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0418	84	75-125	mg/L	12.27.19 11:26	
1,2-Dichloropropane	<0.00500	0.0500	0.0428	86	74-125	mg/L	12.27.19 11:26	
1,3-Dichloropropane	<0.00500	0.0500	0.0429	86	75-125	mg/L	12.27.19 11:26	
2,2-Dichloropropane	<0.00500	0.0500	0.0469	94	75-125	mg/L	12.27.19 11:26	
1,1-Dichloropropene	<0.00500	0.0500	0.0454	91	75-125	mg/L	12.27.19 11:26	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0421	84	74-125	mg/L	12.27.19 11:26	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0439	88	66-125	mg/L	12.27.19 11:26	
Ethylbenzene	0.0514	0.0500	0.0949	87	75-125	mg/L	12.27.19 11:26	
Hexachlorobutadiene	<0.00500	0.0500	0.0337	67	75-125	mg/L	12.27.19 11:26	X
Isopropylbenzene	0.0235	0.0500	0.0658	85	75-125	mg/L	12.27.19 11:26	
Methylene Chloride	<0.00500	0.0500	0.0412	82	75-125	mg/L	12.27.19 11:26	
MTBE	<0.00500	0.0500	0.0412	82	65-135	mg/L	12.27.19 11:26	
Naphthalene	<0.0100	0.0500	0.0472	94	70-130	mg/L	12.27.19 11:26	
n-Propylbenzene	0.00934	0.0500	0.0510	83	75-125	mg/L	12.27.19 11:26	
Styrene	<0.00100	0.0500	0.0400	80	75-125	mg/L	12.27.19 11:26	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0413	83	72-125	mg/L	12.27.19 11:26	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0412	82	74-125	mg/L	12.27.19 11:26	
Tetrachloroethylene	<0.00100	0.0500	0.0427	85	71-125	mg/L	12.27.19 11:26	
Toluene	0.112	0.0500	0.151	78	59-139	mg/L	12.27.19 11:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3111878

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 647496-001

MS Sample Id: 647496-001 S

Date Prep: 12.27.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0405	81	75-137	mg/L	12.27.19 11:26	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0424	85	75-135	mg/L	12.27.19 11:26	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0437	87	75-125	mg/L	12.27.19 11:26	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0445	89	75-127	mg/L	12.27.19 11:26	
Trichloroethylene	<0.00500	0.0500	0.0392	78	62-137	mg/L	12.27.19 11:26	
Trichlorofluoromethane	<0.00100	0.0500	0.0401	80	60-140	mg/L	12.27.19 11:26	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0413	83	75-125	mg/L	12.27.19 11:26	
1,2,4-Trimethylbenzene	0.0672	0.0500	0.106	78	75-125	mg/L	12.27.19 11:26	
1,3,5-Trimethylbenzene	0.0168	0.0500	0.0605	87	70-125	mg/L	12.27.19 11:26	
o-Xylene	0.0459	0.0500	0.0784	65	75-125	mg/L	12.27.19 11:26	X
m,p-Xylenes	0.210	0.100	0.311	101	75-125	mg/L	12.27.19 11:26	
Vinyl Chloride	<0.00200	0.0500	0.0325	65	60-140	mg/L	12.27.19 11:26	

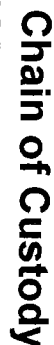
Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	12.27.19 11:26
1,2-Dichloroethane-D4	100		63-144	%	12.27.19 11:26
Toluene-D8	97		80-117	%	12.27.19 11:26
4-Bromofluorobenzene	100		74-124	%	12.27.19 11:26

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



1047694

Page 6 of 7

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

SAMPLE RECEIPT		Temp Blank:	Yes ³	No	Wet Ice:	Yes	No
Temperature (°C):	025		Yes	No			
Received Intact:	Yes	No				025	
Cooler Custody Seals:	Yes	No	N/A		Correction Factor:		
Sample Custody Seals:	Yes	No	N/A		Total Containers:		

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
Circle Method(s) and Meta(s) to be analyzed	8RCRA TCLP / SPLP 6010:	13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	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 sub-contractors. 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		Perez	12/06/19	2		
3				4		
5			7:35	6		

1631
Sample No.
CUSTOMER
Signature
Time Collected
Date Collected
Person Collecting Sample

Inter-Office Shipment

IOS Number : **55025**

Date/Time: 12.26.2019

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777342416597

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
647496-001	W	Levey Well	12.26.2019 10:25	E200.7	Recoverable Metals per ICP by EPA 200	12.27.2019	06.23.2020	JKR	CA K MG NA SI	
647496-001	W	Levey Well	12.26.2019 10:25	E300	Inorganic Anions by EPA 300/300.1	12.27.2019	12.28.2019 10:25	JKR	BR CL F NO2N NO3N S	
647496-001	W	Levey Well	12.26.2019 10:25	SM1030E	Cation-Anion Balance Calculation	12.27.2019	01.25.2020	JKR	Cation-Anion Balance	
647496-001	W	Levey Well	12.26.2019 10:25	SM2320B	Alkalinity by SM2320B	12.27.2019	01.09.2020	JKR	ALK ALKB ALKC	
647496-001	W	Levey Well	12.26.2019 10:25	SM2540C	TDS by SM2540C	12.27.2019	01.02.2020 10:25	JKR	TDS	
647496-001	W	Levey Well	12.26.2019 10:25	SM4500-H	pH by SM4500-H	12.27.2019	12.26.2019 10:40	JKR		
647496-001	W	Levey Well	12.26.2019 10:25	SW8260C	VOCs by SW-846 8260C	12.27.2019	01.09.2020	JKR	BDCME BRBZ BRCLME	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 12.26.2019

Received By:



Ashly Kowalski

Date Received: 12.27.2019

Cooler Temperature: 1.4



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 55025

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 12.26.2019 01.42 PM

Received By: Ashly Kowalski

Date Received: 12.27.2019 09.45 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Ashly Kowalski

Date: 12.27.2019



Client: Ensolum

Date/ Time Received: 12/26/2019 01:35:00 PM

Work Order #: 647496

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 12/26/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/27/2019



Certificate of Analysis Summary 647804

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Jan-02-20 01:40 pm
Report Date: 03-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647804-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-02-20 10:20					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Jan-03-20 11:05 Analyzed: Jan-03-20 12:12 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1150 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1150 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Jan-03-20 16:40 Units/RL: % RL					
Cation-Anion Balance	2.40					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Jan-03-20 10:50 Analyzed: Jan-03-20 11:38 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	302 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.331 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	60.6 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647804

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Jan-02-20 01:40 pm
Report Date: 03-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647804-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Jan-02-20 10:20					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Jan-03-20 10:00					
	Analyzed:	Jan-03-20 15:35					
	Units/RL:	mg/L RL					
Calcium		375 D 10.0					
Magnesium		70.5 0.400					
Potassium		5.96 0.500					
Silica		63.8 1.07					
Sodium		98.8 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Jan-03-20 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1630 5.00					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647804

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Jan-02-20 01:40 pm
Report Date: 03-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647804-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-02-20 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-03-20 11:50 Analyzed: Jan-03-20 14:04 Units/RL: mg/L RL					
Benzene	0.0116 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
Methyl ethyl ketone	<0.0500 0.0500					
n-Butylbenzene	0.00231 0.00100					
Sec-Butylbenzene	0.00164 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00127 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647804

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Jan-02-20 01:40 pm
Report Date: 03-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647804-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-02-20 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-03-20 11:50 Analyzed: Jan-03-20 14:04 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0551 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0107 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	0.0120 0.0100					
n-Propylbenzene	0.00544 0.00100					
Styrene	0.00243 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647804

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu Jan-02-20 01:40 pm
Report Date: 03-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 647804-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-02-20 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-03-20 11:50 Analyzed: Jan-03-20 14:04 Units/RL: mg/L RL					
Toluene	0.0644 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0377 0.00100					
1,3,5-Trimethylbenzene	0.0106 0.00100					
o-Xylene	0.0805 0.00100					
m,p-Xylenes	0.232 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.313 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-03-20 12:45 Units/RL: Deg C RL					
Temperature	23.1 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-03-20 12:45 Units/RL: SU RL					
pH	6.83 K					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Analytical Report 647804

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

03-JAN-20

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



03-JAN-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **647804**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647804. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647804 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 647804

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	01-02-20 10:20		647804-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 647804

Report Date: 03-JAN-20
Date Received: 01/02/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 647804



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.02.20 13.40

Lab Sample Id: 647804-001

Date Collected: 01.02.20 10.20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 01.03.20 11.05

Seq Number: 3112276

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1150	4.00	mg/L	01.03.20 12.12		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1150	4.00	mg/L	01.03.20 12.12		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	01.03.20 12.12	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	01.03.20 12.12	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3112330

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	2.40		%	01.03.20 16.40		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 01.03.20 10.50

Seq Number: 3112321

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	01.03.20 11.38	U	1
Chloride	16887-00-6	302	0.500	mg/L	01.03.20 11.38		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	01.03.20 11.38	U	1
Nitrate as N	14797-55-8	0.331	0.100	mg/L	01.03.20 11.38		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	01.03.20 11.38	U	1
Sulfate	14808-79-8	60.6	0.500	mg/L	01.03.20 11.38		1



Certificate of Analytical Results 647804



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.02.20 13.40

Lab Sample Id: 647804-001

Date Collected: 01.02.20 10.20

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3112284

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1630	5.00	mg/L	01.03.20 10.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3112279

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.83		SU	01.03.20 12.45	K	1
Temperature	TEMP	23.1		Deg C	01.03.20 12.45	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: ANJ

Date Prep: 01.03.20 10.00

Seq Number: 3112313

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	375	10.0	mg/L	01.03.20 15.43	D	50
Magnesium	7439-95-4	70.5	0.400	mg/L	01.03.20 15.35		1
Potassium	7440-09-7	5.96	0.500	mg/L	01.03.20 15.35		1
Silica	7631-86-9	63.8	1.07	mg/L	01.03.20 15.35		1
Sodium	7440-23-5	98.8	0.500	mg/L	01.03.20 15.35		1



Certificate of Analytical Results 647804

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.02.20 13.40

Lab Sample Id: 647804-001

Date Collected: 01.02.20 10.20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.03.20 11.50

Seq Number: 3112297

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0116	0.00100	mg/L	01.03.20 14.04		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	01.03.20 14.04	U	1
n-Butylbenzene	104-51-8	0.00231	0.00100	mg/L	01.03.20 14.04		1
Sec-Butylbenzene	135-98-8	0.00164	0.00100	mg/L	01.03.20 14.04		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	01.03.20 14.04	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	01.03.20 14.04	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00127	0.00100	mg/L	01.03.20 14.04		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Ethylbenzene	100-41-4	0.0551	0.00100	mg/L	01.03.20 14.04		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1



Certificate of Analytical Results 647804



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.02.20 13.40

Lab Sample Id: 647804-001

Date Collected: 01.02.20 10.20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.03.20 11.50

Seq Number: 3112297

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0107	0.00100	mg/L	01.03.20 14.04		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Naphthalene	91-20-3	0.0120	0.0100	mg/L	01.03.20 14.04		1
n-Propylbenzene	103-65-1	0.00544	0.00100	mg/L	01.03.20 14.04		1
Styrene	100-42-5	0.00243	0.00100	mg/L	01.03.20 14.04		1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Toluene	108-88-3	0.0644	0.00100	mg/L	01.03.20 14.04		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	01.03.20 14.04	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	01.03.20 14.04	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0377	0.00100	mg/L	01.03.20 14.04		1
1,3,5-Trimethylbenzene	108-67-8	0.0106	0.00100	mg/L	01.03.20 14.04		1
o-Xylene	95-47-6	0.0805	0.00100	mg/L	01.03.20 14.04		1
m,p-Xylenes	179601-23-1	0.232	0.0100	mg/L	01.03.20 14.04		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	01.03.20 14.04	U	1
Total Xylenes	1330-20-7	0.313	0.00100	mg/L	01.03.20 14.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	75-131	01.03.20 14.04	
1,2-Dichloroethane-D4	17060-07-0	103	%	63-144	01.03.20 14.04	
Toluene-D8	2037-26-5	102	%	80-117	01.03.20 14.04	
4-Bromofluorobenzene	460-00-4	104	%	74-124	01.03.20 14.04	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3112276

MB Sample Id: 7693654-1-BLK

Matrix: Water

LCS Sample Id: 7693654-1-BKS

Prep Method: SM2320P

Date Prep: 01.03.20

LCSD Sample Id: 7693654-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	258	103	264	106	80-120	2	20	mg/L	01.03.20 11:40	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3112276

Matrix: Water

MB Sample Id: 7693654-1-BLK

Prep Method: SM2320P

Date Prep: 01.03.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	01.03.20 11:33	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	01.03.20 11:33	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	01.03.20 11:33	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3112276

Matrix: Drinking Water

Parent Sample Id: 647770-001

MD Sample Id: 647770-001 D

Prep Method: SM2320P

Date Prep: 01.03.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	192	191	1	20	mg/L	01.03.20 11:59	
Alkalinity, Bicarbonate (as CaCO3)	192	191	1	20	mg/L	01.03.20 11:59	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	01.03.20 11:59	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	01.03.20 11:59	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3112321

Matrix: Water

MB Sample Id: 7693656-1-BLK

LCS Sample Id: 7693656-1-BKS

Prep Method: E300P

Date Prep: 01.03.20

LCSD Sample Id: 7693656-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	9.88	99	9.91	99	90-110	0	20	mg/L	01.03.20 10:41	
Chloride	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	01.03.20 10:41	
Fluoride	<0.0286	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	01.03.20 10:41	
Nitrate as N	<0.100	10.0	9.99	100	10.0	100	90-110	0	20	mg/L	01.03.20 10:41	
Nitrite as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	01.03.20 10:41	
Sulfate	<0.500	10.0	9.79	98	9.83	98	90-110	0	20	mg/L	01.03.20 10:41	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3112321

Matrix: Drinking Water

Prep Method: E300P

Parent Sample Id: 647770-001

MS Sample Id: 647770-001 S

Date Prep: 01.03.20

MSD Sample Id: 647770-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.178	10.0	10.2	100	10.2	100	90-110	0	20	mg/L	01.03.20 11:19	
Chloride	36.7	10.0	45.7	90	45.7	90	90-110	0	20	mg/L	01.03.20 11:19	
Fluoride	1.79	10.0	12.0	102	12.0	102	90-110	0	20	mg/L	01.03.20 11:19	
Nitrate as N	2.79	10.0	13.0	102	13.0	102	90-110	0	20	mg/L	01.03.20 11:19	
Nitrite as N	0.0814	10.0	10.2	101	10.3	102	90-110	1	20	mg/L	01.03.20 11:19	
Sulfate	35.0	10.0	44.3	93	44.3	93	90-110	0	20	mg/L	01.03.20 11:19	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3112321

Matrix: Drinking Water

Prep Method: E300P

Parent Sample Id: 647790-001

MS Sample Id: 647790-001 S

Date Prep: 01.03.20

MSD Sample Id: 647790-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	01.03.20 13:33	
Chloride	147	10.0	154	70	154	70	90-110	0	20	mg/L	01.03.20 13:33	X
Fluoride	1.91	10.0	11.6	97	11.5	96	90-110	1	20	mg/L	01.03.20 13:33	
Nitrate as N	3.07	10.0	13.2	101	13.2	101	90-110	0	20	mg/L	01.03.20 13:33	
Nitrite as N	<0.100	10.0	9.77	98	9.78	98	90-110	0	20	mg/L	01.03.20 13:33	
Sulfate	260	10.0	264	40	264	40	90-110	0	20	mg/L	01.03.20 13:33	X

Analytical Method: TDS by SM2540C

Seq Number: 3112284

Matrix: Water

MB Sample Id: 3112284-1-BLK

LCS Sample Id: 3112284-1-BKS

LCSD Sample Id: 3112284-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	981	98	982	98	80-120	0	10	mg/L	01.03.20 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3112284

Matrix: Drinking Water

Parent Sample Id: 647770-001

MD Sample Id: 647770-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	356	356	0	10	mg/L	01.03.20 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: pH by SM4500-H

Seq Number: 3112279

Matrix: Ground Water

Parent Sample Id: 647673-002

MD Sample Id: 647673-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.39	8.40	0	20	SU	01.03.20 12:45	
Temperature	22.5	23.1	3	20	Deg C	01.03.20 12:45	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3112313

Matrix: Water

Prep Method: E200.7P

Date Prep: 01.03.20

MB Sample Id: 7693662-1-BLK

LCS Sample Id: 7693662-1-BKS

LCSD Sample Id: 7693662-1-BS D

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.3	93	23.3	93	85-115	0	20	mg/L	01.03.20 14:49	
Magnesium	<0.400	25.0	23.1	92	23.1	92	85-115	0	20	mg/L	01.03.20 14:49	
Potassium	<0.500	10.0	9.87	99	9.85	99	85-115	0	20	mg/L	01.03.20 14:49	
Silica	<1.07	21.4	21.4	100	21.4	100	85-115	0	20	mg/L	01.03.20 14:49	
Sodium	<0.500	25.0	23.9	96	23.9	96	85-115	0	20	mg/L	01.03.20 14:49	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3112313

Matrix: Drinking Water

Prep Method: E200.7P

Date Prep: 01.03.20

Parent Sample Id: 647672-001

MS Sample Id: 647672-001 S

MSD Sample Id: 647672-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	2.38	25.0	25.1	91	24.9	90	70-130	1	20	mg/L	01.03.20 15:01	
Magnesium	0.696	25.0	23.3	90	23.1	90	70-130	1	20	mg/L	01.03.20 15:01	
Potassium	29.7	10.0	39.8	101	39.8	101	70-130	0	20	mg/L	01.03.20 15:01	
Silica	13.5	21.4	35.2	101	35.5	103	70-130	1	20	mg/L	01.03.20 15:01	
Sodium	464	25.0	486	88	484	80	70-130	0	20	mg/L	01.03.20 15:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

Matrix: Water

Prep Method: SW5030B

Date Prep: 01.03.20

MB Sample Id: 7693682-1-BLK

LCS Sample Id: 7693682-1-BKS

LCSD Sample Id: 7693682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0442	88	0.0436	87	66-142	1	25	mg/L	01.03.20 10:12	
Bromobenzene	<0.00100	0.0500	0.0431	86	0.0440	88	75-125	2	25	mg/L	01.03.20 10:12	
Bromochloromethane	<0.00100	0.0500	0.0466	93	0.0463	93	60-140	1	25	mg/L	01.03.20 10:12	
Bromodichloromethane	<0.00100	0.0500	0.0470	94	0.0467	93	75-125	1	25	mg/L	01.03.20 10:12	
Bromoform	<0.00500	0.0500	0.0479	96	0.0500	100	75-125	4	25	mg/L	01.03.20 10:12	
Methyl bromide	<0.00500	0.0500	0.0516	103	0.0519	104	60-140	1	25	mg/L	01.03.20 10:12	
Methyl ethyl ketone	<0.0500	0.250	0.238	95	0.255	102	60-140	7	25	mg/L	01.03.20 10:12	
n-Butylbenzene	<0.00100	0.0500	0.0460	92	0.0464	93	75-125	1	25	mg/L	01.03.20 10:12	
Sec-Butylbenzene	<0.00100	0.0500	0.0454	91	0.0455	91	75-125	0	25	mg/L	01.03.20 10:12	
tert-Butylbenzene	<0.00100	0.0500	0.0439	88	0.0450	90	75-125	2	25	mg/L	01.03.20 10:12	
Carbon Tetrachloride	<0.00500	0.0500	0.0478	96	0.0466	93	62-125	3	25	mg/L	01.03.20 10:12	
Chlorobenzene	<0.00100	0.0500	0.0449	90	0.0445	89	60-133	1	25	mg/L	01.03.20 10:12	
Chloroethane	<0.0100	0.0500	0.0456	91	0.0434	87	60-140	5	25	mg/L	01.03.20 10:12	
Chloroform	<0.00100	0.0500	0.0472	94	0.0461	92	70-130	2	25	mg/L	01.03.20 10:12	
Methyl Chloride	<0.0100	0.0500	0.0424	85	0.0409	82	60-140	4	25	mg/L	01.03.20 10:12	
2-Chlorotoluene	<0.00100	0.0500	0.0435	87	0.0436	87	73-125	0	25	mg/L	01.03.20 10:12	
4-Chlorotoluene	<0.00100	0.0500	0.0437	87	0.0435	87	74-125	0	25	mg/L	01.03.20 10:12	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0452	90	0.0453	91	75-125	0	25	mg/L	01.03.20 10:12	
Dibromochloromethane	<0.00500	0.0500	0.0470	94	0.0476	95	73-125	1	25	mg/L	01.03.20 10:12	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0426	85	0.0485	97	59-125	13	25	mg/L	01.03.20 10:12	
1,2-Dibromoethane	<0.00500	0.0500	0.0440	88	0.0457	91	73-125	4	25	mg/L	01.03.20 10:12	
Methylene Bromide	<0.00100	0.0500	0.0449	90	0.0457	91	69-127	2	25	mg/L	01.03.20 10:12	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0438	88	0.0452	90	75-125	3	25	mg/L	01.03.20 10:12	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0437	87	0.0443	89	75-125	1	25	mg/L	01.03.20 10:12	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0435	87	0.0444	89	75-125	2	25	mg/L	01.03.20 10:12	
Dichlorodifluoromethane	<0.00100	0.0500	0.0437	87	0.0413	83	60-140	6	25	mg/L	01.03.20 10:12	
1,1-Dichloroethane	<0.00100	0.0500	0.0459	92	0.0448	90	72-125	2	25	mg/L	01.03.20 10:12	
1,2-Dichloroethane	<0.00100	0.0500	0.0448	90	0.0453	91	68-127	1	25	mg/L	01.03.20 10:12	
1,1-Dichloroethene	<0.00100	0.0500	0.0467	93	0.0458	92	59-172	2	25	mg/L	01.03.20 10:12	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0456	91	0.0447	89	75-125	2	25	mg/L	01.03.20 10:12	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0458	92	0.0441	88	75-125	4	25	mg/L	01.03.20 10:12	
1,2-Dichloropropane	<0.00500	0.0500	0.0448	90	0.0449	90	74-125	0	25	mg/L	01.03.20 10:12	
1,3-Dichloropropane	<0.00500	0.0500	0.0445	89	0.0456	91	75-125	2	25	mg/L	01.03.20 10:12	
2,2-Dichloropropane	<0.000360	0.0500	0.0491	98	0.0467	93	75-125	5	25	mg/L	01.03.20 10:12	
1,1-Dichloropropene	<0.00500	0.0500	0.0456	91	0.0442	88	75-125	3	25	mg/L	01.03.20 10:12	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0453	91	0.0449	90	74-125	1	25	mg/L	01.03.20 10:12	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0450	90	0.0453	91	66-125	1	25	mg/L	01.03.20 10:12	
Ethylbenzene	<0.00100	0.0500	0.0443	89	0.0435	87	75-125	2	25	mg/L	01.03.20 10:12	
Hexachlorobutadiene	<0.00500	0.0500	0.0460	92	0.0540	108	75-125	16	25	mg/L	01.03.20 10:12	
Isopropylbenzene	<0.00100	0.0500	0.0459	92	0.0450	90	75-125	2	25	mg/L	01.03.20 10:12	
Methylene Chloride	0.00312	0.0500	0.0471	94	0.0468	94	75-125	1	25	mg/L	01.03.20 10:12	
MTBE	<0.00500	0.0500	0.0455	91	0.0465	93	65-135	2	25	mg/L	01.03.20 10:12	
Naphthalene	<0.0100	0.0500	0.0456	91	0.0561	112	70-130	21	25	mg/L	01.03.20 10:12	
n-Propylbenzene	<0.00100	0.0500	0.0450	90	0.0442	88	75-125	2	25	mg/L	01.03.20 10:12	
Styrene	<0.00100	0.0500	0.0450	90	0.0449	90	75-125	0	25	mg/L	01.03.20 10:12	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0461	92	0.0460	92	72-125	0	25	mg/L	01.03.20 10:12	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0437	87	0.0477	95	74-125	9	25	mg/L	01.03.20 10:12	
Tetrachloroethylene	<0.00100	0.0500	0.0457	91	0.0445	89	71-125	3	25	mg/L	01.03.20 10:12	
Toluene	<0.00100	0.0500	0.0440	88	0.0429	86	59-139	3	25	mg/L	01.03.20 10:12	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

MB Sample Id: 7693682-1-BLK

Matrix: Water

LCS Sample Id: 7693682-1-BKS

Prep Method: SW5030B

Date Prep: 01.03.20

LCSD Sample Id: 7693682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0465	93	0.0587	117	75-137	23	25	mg/L	01.03.20 10:12	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0460	92	0.0545	109	75-135	17	25	mg/L	01.03.20 10:12	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0470	94	0.0458	92	75-125	3	25	mg/L	01.03.20 10:12	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0450	90	0.0459	92	75-127	2	25	mg/L	01.03.20 10:12	
Trichloroethylene	<0.00500	0.0500	0.0450	90	0.0442	88	62-137	2	25	mg/L	01.03.20 10:12	
Trichlorofluoromethane	<0.00100	0.0500	0.0490	98	0.0472	94	60-140	4	25	mg/L	01.03.20 10:12	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0436	87	0.0472	94	75-125	8	25	mg/L	01.03.20 10:12	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0428	86	0.0430	86	75-125	0	25	mg/L	01.03.20 10:12	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0441	88	0.0437	87	70-125	1	25	mg/L	01.03.20 10:12	
o-Xylene	<0.00100	0.0500	0.0442	88	0.0433	87	75-125	2	25	mg/L	01.03.20 10:12	
m,p-Xylenes	<0.0100	0.100	0.0878	88	0.0864	86	75-125	2	25	mg/L	01.03.20 10:12	
Vinyl Chloride	<0.00200	0.0500	0.0448	90	0.0432	86	60-140	4	25	mg/L	01.03.20 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	106		108		107		75-131	%	01.03.20 10:12
1,2-Dichloroethane-D4	104		99		103		63-144	%	01.03.20 10:12
Toluene-D8	102		103		103		80-117	%	01.03.20 10:12
4-Bromofluorobenzene	104		103		104		74-124	%	01.03.20 10:12

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

Matrix: Water

Prep Method: SW5030B

Date Prep: 01.03.20

MB Sample Id: BLK

Parameter	MB Result	Units	Analysis Date	Flag
Benzene	<0.00500	mg/L	01.03.20 12:09	
Bromobenzene	<0.00500	mg/L	01.03.20 12:09	
Bromochloromethane	<0.00500	mg/L	01.03.20 12:09	
Bromodichloromethane	<0.00500	mg/L	01.03.20 12:09	
Bromoform	<0.0250	mg/L	01.03.20 12:09	
Methyl bromide	<0.0250	mg/L	01.03.20 12:09	
Methyl ethyl ketone	<0.250	mg/L	01.03.20 12:09	
n-Butylbenzene	<0.00500	mg/L	01.03.20 12:09	
Sec-Butylbenzene	<0.00500	mg/L	01.03.20 12:09	
tert-Butylbenzene	<0.00500	mg/L	01.03.20 12:09	
Carbon Tetrachloride	<0.0250	mg/L	01.03.20 12:09	
Chlorobenzene	<0.00500	mg/L	01.03.20 12:09	
Chloroethane	<0.0500	mg/L	01.03.20 12:09	
Chloroform	<0.00500	mg/L	01.03.20 12:09	
Methyl Chloride	<0.0500	mg/L	01.03.20 12:09	
2-Chlorotoluene	<0.00500	mg/L	01.03.20 12:09	
4-Chlorotoluene	<0.00500	mg/L	01.03.20 12:09	
p-Cymene (p-Isopropyltoluene)	<0.00500	mg/L	01.03.20 12:09	
Dibromochloromethane	<0.0250	mg/L	01.03.20 12:09	
1,2-Dibromo-3-Chloropropane	<0.00500	mg/L	01.03.20 12:09	
1,2-Dibromoethane	<0.0250	mg/L	01.03.20 12:09	
Methylene Bromide	<0.00500	mg/L	01.03.20 12:09	
1,2-Dichlorobenzene	<0.00500	mg/L	01.03.20 12:09	
1,3-Dichlorobenzene	<0.00500	mg/L	01.03.20 12:09	
1,4-Dichlorobenzene	<0.00500	mg/L	01.03.20 12:09	
Dichlorodifluoromethane	<0.00500	mg/L	01.03.20 12:09	
1,1-Dichloroethane	<0.00500	mg/L	01.03.20 12:09	
1,2-Dichloroethane	<0.00500	mg/L	01.03.20 12:09	
1,1-Dichloroethene	<0.00500	mg/L	01.03.20 12:09	
cis-1,2-Dichloroethylene	<0.00500	mg/L	01.03.20 12:09	
trans-1,2-dichloroethylene	<0.00500	mg/L	01.03.20 12:09	
1,2-Dichloropropane	<0.0250	mg/L	01.03.20 12:09	
1,3-Dichloropropane	<0.0250	mg/L	01.03.20 12:09	
2,2-Dichloropropane	<0.0250	mg/L	01.03.20 12:09	
1,1-Dichloropropene	<0.0250	mg/L	01.03.20 12:09	
cis-1,3-Dichloropropene	<0.0250	mg/L	01.03.20 12:09	
trans-1,3-dichloropropene	<0.0250	mg/L	01.03.20 12:09	
Ethylbenzene	<0.00500	mg/L	01.03.20 12:09	
Hexachlorobutadiene	<0.0250	mg/L	01.03.20 12:09	
Isopropylbenzene	<0.00500	mg/L	01.03.20 12:09	
Methylene Chloride	<0.0250	mg/L	01.03.20 12:09	
MTBE	<0.0250	mg/L	01.03.20 12:09	
Naphthalene	<0.0500	mg/L	01.03.20 12:09	
n-Propylbenzene	<0.00500	mg/L	01.03.20 12:09	
Styrene	<0.00500	mg/L	01.03.20 12:09	
1,1,1,2-Tetrachloroethane	<0.00500	mg/L	01.03.20 12:09	
1,1,2,2-Tetrachloroethane	<0.00500	mg/L	01.03.20 12:09	
Tetrachloroethylene	<0.00500	mg/L	01.03.20 12:09	
Toluene	<0.00500	mg/L	01.03.20 12:09	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

Matrix: Water

Prep Method: SW5030B

Date Prep: 01.03.20

MB Sample Id: BLK

Parameter	MB Result	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.0250	mg/L	01.03.20 12:09	
1,2,4-Trichlorobenzene	<0.0250	mg/L	01.03.20 12:09	
1,1,1-Trichloroethane	<0.0250	mg/L	01.03.20 12:09	
1,1,2-Trichloroethane	<0.00500	mg/L	01.03.20 12:09	
Trichloroethylene	<0.0250	mg/L	01.03.20 12:09	
Trichlorofluoromethane	<0.00500	mg/L	01.03.20 12:09	
1,2,3-Trichloropropane	<0.00500	mg/L	01.03.20 12:09	
1,2,4-Trimethylbenzene	<0.00500	mg/L	01.03.20 12:09	
1,3,5-Trimethylbenzene	<0.00500	mg/L	01.03.20 12:09	
o-Xylene	<0.00500	mg/L	01.03.20 12:09	
m,p-Xylenes	<0.0500	mg/L	01.03.20 12:09	
Vinyl Chloride	<0.0100	mg/L	01.03.20 12:09	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

Matrix: Water

Prep Method: SW5030B

Date Prep: 01.03.20

Parent Sample Id: 647722-001

MS Sample Id: 647722-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0477	95	66-142	mg/L	01.03.20 11:00	
Bromobenzene	<0.00100	0.0500	0.0510	102	75-125	mg/L	01.03.20 11:00	
Bromochloromethane	<0.00100	0.0500	0.0508	102	60-140	mg/L	01.03.20 11:00	
Bromodichloromethane	<0.00100	0.0500	0.0522	104	75-125	mg/L	01.03.20 11:00	
Bromoform	<0.00500	0.0500	0.0563	113	75-125	mg/L	01.03.20 11:00	
Methyl bromide	<0.00500	0.0500	0.0402	80	60-140	mg/L	01.03.20 11:00	
Methyl ethyl ketone	<0.0500	0.250	0.264	106	60-140	mg/L	01.03.20 11:00	
n-Butylbenzene	<0.00100	0.0500	0.0511	102	75-125	mg/L	01.03.20 11:00	
Sec-Butylbenzene	<0.00100	0.0500	0.0481	96	75-125	mg/L	01.03.20 11:00	
tert-Butylbenzene	<0.00100	0.0500	0.0515	103	75-125	mg/L	01.03.20 11:00	
Carbon Tetrachloride	<0.00500	0.0500	0.0496	99	62-125	mg/L	01.03.20 11:00	
Chlorobenzene	<0.00100	0.0500	0.0491	98	60-133	mg/L	01.03.20 11:00	
Chloroethane	<0.0100	0.0500	0.0423	85	60-140	mg/L	01.03.20 11:00	
Chloroform	<0.00100	0.0500	0.0519	104	70-130	mg/L	01.03.20 11:00	
Methyl Chloride	<0.0100	0.0500	0.0459	92	60-140	mg/L	01.03.20 11:00	
2-Chlorotoluene	<0.00100	0.0500	0.0509	102	73-125	mg/L	01.03.20 11:00	
4-Chlorotoluene	<0.00100	0.0500	0.0505	101	74-125	mg/L	01.03.20 11:00	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0471	94	75-125	mg/L	01.03.20 11:00	
Dibromochloromethane	<0.00500	0.0500	0.0533	107	73-125	mg/L	01.03.20 11:00	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0478	96	59-125	mg/L	01.03.20 11:00	
1,2-Dibromoethane	<0.00500	0.0500	0.0505	101	73-125	mg/L	01.03.20 11:00	
Methylene Bromide	<0.00100	0.0500	0.0506	101	69-127	mg/L	01.03.20 11:00	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0512	102	75-125	mg/L	01.03.20 11:00	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0508	102	75-125	mg/L	01.03.20 11:00	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0510	102	75-125	mg/L	01.03.20 11:00	
Dichlorodifluoromethane	<0.00100	0.0500	0.0556	111	60-140	mg/L	01.03.20 11:00	
1,1-Dichloroethane	<0.00100	0.0500	0.0530	106	72-125	mg/L	01.03.20 11:00	
1,2-Dichloroethane	<0.00100	0.0500	0.0503	101	68-127	mg/L	01.03.20 11:00	
1,1-Dichloroethene	<0.00100	0.0500	0.0495	99	59-172	mg/L	01.03.20 11:00	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0503	101	75-125	mg/L	01.03.20 11:00	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0489	98	75-125	mg/L	01.03.20 11:00	
1,2-Dichloropropane	<0.00500	0.0500	0.0506	101	74-125	mg/L	01.03.20 11:00	
1,3-Dichloropropane	<0.00500	0.0500	0.0517	103	75-125	mg/L	01.03.20 11:00	
2,2-Dichloropropane	<0.00500	0.0500	0.0537	107	75-125	mg/L	01.03.20 11:00	
1,1-Dichloropropene	<0.00500	0.0500	0.0499	100	75-125	mg/L	01.03.20 11:00	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0517	103	74-125	mg/L	01.03.20 11:00	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0512	102	66-125	mg/L	01.03.20 11:00	
Ethylbenzene	<0.000146	0.0500	0.0479	96	75-125	mg/L	01.03.20 11:00	
Hexachlorobutadiene	<0.00500	0.0500	0.0526	105	75-125	mg/L	01.03.20 11:00	
Isopropylbenzene	<0.00100	0.0500	0.0502	100	75-125	mg/L	01.03.20 11:00	
Methylene Chloride	<0.00500	0.0500	0.0492	98	75-125	mg/L	01.03.20 11:00	
MTBE	<0.00500	0.0500	0.0523	105	65-135	mg/L	01.03.20 11:00	
Naphthalene	<0.0100	0.0500	0.0512	102	70-130	mg/L	01.03.20 11:00	
n-Propylbenzene	<0.00100	0.0500	0.0512	102	75-125	mg/L	01.03.20 11:00	
Styrene	<0.00100	0.0500	0.0513	103	75-125	mg/L	01.03.20 11:00	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0507	101	72-125	mg/L	01.03.20 11:00	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0528	106	74-125	mg/L	01.03.20 11:00	
Tetrachloroethylene	<0.00100	0.0500	0.0488	98	71-125	mg/L	01.03.20 11:00	
Toluene	<0.000500	0.0500	0.0469	94	59-139	mg/L	01.03.20 11:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3112297

Matrix: Water

Prep Method: SW5030B

Date Prep: 01.03.20

Parent Sample Id: 647722-001

MS Sample Id: 647722-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0498	100	75-137	mg/L	01.03.20 11:00	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0513	103	75-135	mg/L	01.03.20 11:00	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0504	101	75-125	mg/L	01.03.20 11:00	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0520	104	75-127	mg/L	01.03.20 11:00	
Trichloroethylene	<0.00500	0.0500	0.0443	89	62-137	mg/L	01.03.20 11:00	
Trichlorofluoromethane	<0.00100	0.0500	0.0491	98	60-140	mg/L	01.03.20 11:00	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0517	103	75-125	mg/L	01.03.20 11:00	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0473	95	75-125	mg/L	01.03.20 11:00	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0506	101	70-125	mg/L	01.03.20 11:00	
o-Xylene	<0.000192	0.0500	0.0501	100	75-125	mg/L	01.03.20 11:00	
m,p-Xylenes	0.000370	0.100	0.0956	95	75-125	mg/L	01.03.20 11:00	
Vinyl Chloride	<0.00200	0.0500	0.0459	92	60-140	mg/L	01.03.20 11:00	

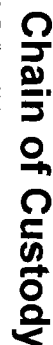
Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	107		75-131	%	01.03.20 11:00
1,2-Dichloroethane-D4	102		63-144	%	01.03.20 11:00
Toluene-D8	102		80-117	%	01.03.20 11:00
4-Bromofluorobenzene	105		74-124	%	01.03.20 11:00

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



100704

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

[illegible][illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/2/89			
		1340			

CUSTODY SEAL
Date 1-2-2024
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **55206**

Date/Time: 01.02.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777382067579

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
647804-001	W	Levey Well	01.02.2020 10:20	SW8260C	VOCs by SW-846 8260C	01.03.2020	01.16.2020	JKR	BDCME BRBZ BRCLME	
647804-001	W	Levey Well	01.02.2020 10:20	E200.7	Recoverable Metals per ICP by EPA 200	01.03.2020	06.30.2020	JKR	CA K MG NA SI	
647804-001	W	Levey Well	01.02.2020 10:20	E300	Inorganic Anions by EPA 300/300.1	01.03.2020	01.04.2020 10:20	JKR	BR CL F NO2N NO3N SC	
647804-001	W	Levey Well	01.02.2020 10:20	SM4500-H	pH by SM4500-H	01.03.2020	01.02.2020 10:35	JKR		
647804-001	W	Levey Well	01.02.2020 10:20	SM2540C	TDS by SM2540C	01.03.2020	01.09.2020	JKR	TDS	
647804-001	W	Levey Well	01.02.2020 10:20	SM2320B	Alkalinity by SM2320B	01.03.2020	01.16.2020	JKR	ALK ALKB ALKC	
647804-001	W	Levey Well	01.02.2020 10:20	SM1030E	Cation-Anion Balance Calculation	01.03.2020	02.01.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

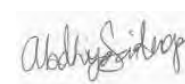
Relinquished By:



Brianna Teel

Date Relinquished: 01.02.2020

Received By:



Abdhija Saidurga

Date Received: 01.03.2020

Cooler Temperature: 3.0



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 55206

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 01.02.2020 01.44 PM

Received By: Abdhija Saidurga

Date Received: 01.03.2020 09.45 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Abdhija Saidurga

Date: 01.03.2020



Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 01/02/2020 01:40:00 PM

Work Order #: 647804

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 01/02/2020

Checklist reviewed by:

Holly Taylor

Date: 01/03/2020



Certificate of Analysis Summary 649205

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Jan-15-20 04:15 pm
Report Date: 17-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 649205-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Jan-15-20 09:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Jan-16-20 11:09 Analyzed: Jan-16-20 12:13 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1260 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1260 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Jan-16-20 16:50 Units/RL: % RL					
Cation-Anion Balance	0					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Jan-16-20 10:40 Analyzed: Jan-16-20 11:00 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	190 0.500					
Fluoride	0.559 0.500					
Nitrate as N	0.129 0.100					
Nitrite as N	0.930 0.100					
Sulfate	53.5 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 649205

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Jan-15-20 04:15 pm
Report Date: 17-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	649205-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	Jan-15-20 09:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Jan-16-20 09:30					
	Analyzed:	Jan-16-20 14:35					
	Units/RL:	mg/L RL					
Calcium		401 D 10.0					
Magnesium		66.8 0.400					
Potassium		4.82 0.500					
Silica		77.5 1.07					
Sodium		82.9 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Jan-16-20 11:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1570 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 649205

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Jan-15-20 04:15 pm
Report Date: 17-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 649205-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Jan-15-20 09:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-16-20 12:00 Analyzed: Jan-16-20 15:23 Units/RL: mg/L RL					
Benzene	0.00860 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
Methyl ethyl ketone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00259 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	<0.00100 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 649205

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Jan-15-20 04:15 pm
Report Date: 17-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 649205-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Jan-15-20 09:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-16-20 12:00 Analyzed: Jan-16-20 15:23 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0318 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0148 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0104 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 649205

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Jan-15-20 04:15 pm
Report Date: 17-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 649205-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: Jan-15-20 09:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-16-20 12:00 Analyzed: Jan-16-20 15:23 Units/RL: mg/L RL					
Toluene	0.0528 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0547 0.00100					
1,3,5-Trimethylbenzene	0.0172 0.00100					
o-Xylene	0.0219 0.00100					
m,p-Xylenes	0.119 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.141 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-16-20 12:09 Units/RL: Deg C RL					
Temperature	25.5 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-16-20 12:09 Units/RL: SU RL					
pH	6.35 K					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 649205

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

17-JAN-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



17-JAN-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **649205**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649205. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 649205 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 649205



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	01-15-20 09:30		649205-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 649205

Report Date: 17-JAN-20
Date Received: 01/15/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 649205



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 01.15.20 16.15

Lab Sample Id: 649205-001

Date Collected: 01.15.20 09.30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 01.16.20 11.09

Seq Number: 3113489

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1260	4.00	mg/L	01.16.20 12.13		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1260	4.00	mg/L	01.16.20 12.13		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	01.16.20 12.13	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	01.16.20 12.13	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3113531

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0		%	01.16.20 16.50	U	1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 01.16.20 10.40

Seq Number: 3113453

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	01.16.20 11.00	U	1
Chloride	16887-00-6	190	0.500	mg/L	01.16.20 11.00		1
Fluoride	16984-48-8	0.559	0.500	mg/L	01.16.20 11.00		1
Nitrate as N	14797-55-8	0.129	0.100	mg/L	01.16.20 11.00		1
Nitrite as N	14797-65-0	0.930	0.100	mg/L	01.16.20 11.00		1
Sulfate	14808-79-8	53.5	0.500	mg/L	01.16.20 11.00		1



Certificate of Analytical Results 649205



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 01.15.20 16.15

Lab Sample Id: 649205-001

Date Collected: 01.15.20 09.30

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3113508

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1570	5.00	mg/L	01.16.20 11.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3113492

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.35		SU	01.16.20 12.09	K	1
Temperature	TEMP	25.5		Deg C	01.16.20 12.09	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 01.16.20 09.30

Seq Number: 3113525

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	401	10.0	mg/L	01.16.20 14.47	D	50
Magnesium	7439-95-4	66.8	0.400	mg/L	01.16.20 14.35		1
Potassium	7440-09-7	4.82	0.500	mg/L	01.16.20 14.35		1
Silica	7631-86-9	77.5	1.07	mg/L	01.16.20 14.35		1
Sodium	7440-23-5	82.9	0.500	mg/L	01.16.20 14.35		1



Certificate of Analytical Results 649205

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 01.15.20 16.15

Lab Sample Id: 649205-001

Date Collected: 01.15.20 09.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.16.20 12.00

Seq Number: 3113515

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00860	0.00100	mg/L	01.16.20 15.23		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	01.16.20 15.23	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Sec-Butylbenzene	135-98-8	0.00259	0.00100	mg/L	01.16.20 15.23		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	01.16.20 15.23	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	01.16.20 15.23	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Ethylbenzene	100-41-4	0.0318	0.00100	mg/L	01.16.20 15.23		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1



Certificate of Analytical Results 649205



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 01.15.20 16.15

Lab Sample Id: 649205-001

Date Collected: 01.15.20 09.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.16.20 12.00

Seq Number: 3113515

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0148	0.00100	mg/L	01.16.20 15.23		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	01.16.20 15.23	U	1
n-Propylbenzene	103-65-1	0.0104	0.00100	mg/L	01.16.20 15.23		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Toluene	108-88-3	0.0528	0.00100	mg/L	01.16.20 15.23		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	01.16.20 15.23	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	01.16.20 15.23	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0547	0.00100	mg/L	01.16.20 15.23		1
1,3,5-Trimethylbenzene	108-67-8	0.0172	0.00100	mg/L	01.16.20 15.23		1
o-Xylene	95-47-6	0.0219	0.00100	mg/L	01.16.20 15.23		1
m,p-Xylenes	179601-23-1	0.119	0.0100	mg/L	01.16.20 15.23		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	01.16.20 15.23	U	1
Total Xylenes	1330-20-7	0.141	0.00100	mg/L	01.16.20 15.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	75-131	01.16.20 15.23	
1,2-Dichloroethane-D4	17060-07-0	106	%	63-144	01.16.20 15.23	
Toluene-D8	2037-26-5	102	%	80-117	01.16.20 15.23	
4-Bromofluorobenzene	460-00-4	105	%	74-124	01.16.20 15.23	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3113489

MB Sample Id: 7694495-1-BLK

Matrix: Water

LCS Sample Id: 7694495-1-BKS

Prep Method: SM2320P

Date Prep: 01.16.20

LCSD Sample Id: 7694495-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	257	103	260	104	80-120	1	20	mg/L	01.16.20 11:52	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3113489

Matrix: Water

MB Sample Id: 7694495-1-BLK

Prep Method: SM2320P

Date Prep: 01.16.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	01.16.20 11:46	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	01.16.20 11:46	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	01.16.20 11:46	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3113489

Matrix: Water

Parent Sample Id: 649205-001

MD Sample Id: 649205-001 D

Prep Method: SM2320P

Date Prep: 01.16.20

Parameter	Parent Result	MD Result	%RP D	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1260	1250	1	20	mg/L	01.16.20 12:27	
Alkalinity, Bicarbonate (as CaCO3)	1260	1250	1	20	mg/L	01.16.20 12:27	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	01.16.20 12:27	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	01.16.20 12:27	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3113453

Matrix: Water

MB Sample Id: 7694479-1-BLK

LCS Sample Id: 7694479-1-BKS

Prep Method: E300P

Date Prep: 01.16.20

LCSD Sample Id: 7694479-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	01.16.20 08:51	
Chloride	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	01.16.20 08:51	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	01.16.20 08:51	
Nitrate as N	<0.100	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	01.16.20 08:51	
Nitrite as N	<0.100	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	01.16.20 08:51	
Sulfate	<0.500	10.0	9.94	99	9.96	100	90-110	0	20	mg/L	01.16.20 08:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3113453

Matrix: Water

Prep Method: E300P

Date Prep: 01.16.20

Parent Sample Id: 648939-001

MS Sample Id: 648939-001 S

MSD Sample Id: 648939-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.8	108	10.7	107	90-110	1	20	mg/L	01.16.20 10:05	
Chloride	73.7	10.0	84.3	106	82.4	87	90-110	2	20	mg/L	01.16.20 10:05	X
Fluoride	0.621	10.0	11.7	111	11.4	108	90-110	3	20	mg/L	01.16.20 10:05	X
Nitrate as N	0.330	10.0	11.1	108	10.8	105	90-110	3	20	mg/L	01.16.20 10:05	
Nitrite as N	0.0916	10.0	10.1	100	9.94	98	90-110	2	20	mg/L	01.16.20 10:05	
Sulfate	127	10.0	136	90	134	70	90-110	1	20	mg/L	01.16.20 10:05	X

Analytical Method: TDS by SM2540C

Seq Number: 3113508

Matrix: Water

MB Sample Id: 3113508-1-BLK

LCS Sample Id: 3113508-1-BKS

LCSD Sample Id: 3113508-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	986	99	987	99	80-120	0	10	mg/L	01.16.20 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3113508

Matrix: Water

Parent Sample Id: 649205-001

MD Sample Id: 649205-001 D

Parameter	Parent Result	MD Result	%RP D	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1570	1570	0	10	mg/L	01.16.20 11:00	

Analytical Method: pH by SM4500-H

Seq Number: 3113492

Matrix: Water

Parent Sample Id: 649065-001

MD Sample Id: 649065-001 D

Parameter	Parent Result	MD Result	%RP D	RPD Limit	Units	Analysis Date	Flag
pH	6.61	6.62	0	20	SU	01.16.20 12:09	
Temperature	25.5	25.7	1	20	Deg C	01.16.20 12:09	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3113525

Matrix: Water

Prep Method: E200.7P

Date Prep: 01.16.20

MB Sample Id: 7694502-1-BLK

LCS Sample Id: 7694502-1-BKS

LCSD Sample Id: 7694502-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.6	94	23.6	94	85-115	0	20	mg/L	01.16.20 13:36	
Magnesium	<0.400	25.0	24.1	96	24.1	96	85-115	0	20	mg/L	01.16.20 13:36	
Potassium	<0.500	10.0	9.88	99	9.87	99	85-115	0	20	mg/L	01.16.20 13:36	
Silica	<1.07	21.4	21.2	99	21.2	99	85-115	0	20	mg/L	01.16.20 13:36	
Sodium	<0.500	25.0	24.2	97	24.2	97	85-115	0	20	mg/L	01.16.20 13:36	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3113525

Matrix: Waste Water

Prep Method: E200.7P

Date Prep: 01.16.20

Parent Sample Id: 649076-001

MS Sample Id: 649076-001 S

MSD Sample Id: 649076-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Calcium	0.783	25.0	23.8	92	23.8	92	70-130	0	20	mg/L	01.16.20 13:48	
Magnesium	<0.400	25.0	23.7	95	23.7	95	70-130	0	20	mg/L	01.16.20 13:48	
Potassium	55.8	10.0	64.8	90	65.0	92	70-130	0	20	mg/L	01.16.20 13:48	
Silica	17.1	21.4	38.5	100	38.5	100	70-130	0	20	mg/L	01.16.20 13:48	
Sodium	102	25.0	123	84	123	84	70-130	0	20	mg/L	01.16.20 13:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3113515

MB Sample Id: 7694544-1-BLK

Matrix: Water

LCS Sample Id: 7694544-1-BKS

Prep Method: SW5030B

Date Prep: 01.16.20

LCSD Sample Id: 7694544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS % Rec	LCSD Result	LCSD % Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0514	103	0.0491	98	66-142	5	25	mg/L	01.16.20 12:20	
Bromobenzene	<0.00100	0.0500	0.0500	100	0.0470	94	75-125	6	25	mg/L	01.16.20 12:20	
Bromochloromethane	<0.00100	0.0500	0.0558	112	0.0527	105	60-140	6	25	mg/L	01.16.20 12:20	
Bromodichloromethane	<0.00100	0.0500	0.0541	108	0.0521	104	75-125	4	25	mg/L	01.16.20 12:20	
Bromoform	<0.00500	0.0500	0.0501	100	0.0495	99	75-125	1	25	mg/L	01.16.20 12:20	
Methyl bromide	<0.00500	0.0500	0.0689	138	0.0679	136	60-140	1	25	mg/L	01.16.20 12:20	
Methyl ethyl ketone	<0.0500	0.250	0.276	110	0.269	108	60-140	3	25	mg/L	01.16.20 12:20	
n-Butylbenzene	<0.00100	0.0500	0.0521	104	0.0488	98	75-125	7	25	mg/L	01.16.20 12:20	
Sec-Butylbenzene	<0.00100	0.0500	0.0506	101	0.0471	94	75-125	7	25	mg/L	01.16.20 12:20	
tert-Butylbenzene	<0.00100	0.0500	0.0491	98	0.0460	92	75-125	7	25	mg/L	01.16.20 12:20	
Carbon Tetrachloride	<0.00500	0.0500	0.0546	109	0.0511	102	62-125	7	25	mg/L	01.16.20 12:20	
Chlorobenzene	<0.00100	0.0500	0.0504	101	0.0481	96	60-133	5	25	mg/L	01.16.20 12:20	
Chloroethane	<0.0100	0.0500	0.0534	107	0.0516	103	60-140	3	25	mg/L	01.16.20 12:20	
Chloroform	<0.00100	0.0500	0.0551	110	0.0528	106	70-130	4	25	mg/L	01.16.20 12:20	
Methyl Chloride	<0.0100	0.0500	0.0547	109	0.0516	103	60-140	6	25	mg/L	01.16.20 12:20	
2-Chlorotoluene	<0.00100	0.0500	0.0493	99	0.0468	94	73-125	5	25	mg/L	01.16.20 12:20	
4-Chlorotoluene	<0.00100	0.0500	0.0502	100	0.0472	94	74-125	6	25	mg/L	01.16.20 12:20	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0506	101	0.0475	95	75-125	6	25	mg/L	01.16.20 12:20	
Dibromochloromethane	<0.00500	0.0500	0.0511	102	0.0498	100	73-125	3	25	mg/L	01.16.20 12:20	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0448	90	0.0437	87	59-125	2	25	mg/L	01.16.20 12:20	
1,2-Dibromoethane	<0.00500	0.0500	0.0494	99	0.0490	98	73-125	1	25	mg/L	01.16.20 12:20	
Methylene Bromide	<0.00100	0.0500	0.0520	104	0.0511	102	69-127	2	25	mg/L	01.16.20 12:20	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0489	98	0.0466	93	75-125	5	25	mg/L	01.16.20 12:20	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0496	99	0.0472	94	75-125	5	25	mg/L	01.16.20 12:20	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0500	100	0.0473	95	75-125	6	25	mg/L	01.16.20 12:20	
Dichlorodifluoromethane	<0.00100	0.0500	0.0551	110	0.0508	102	60-140	8	25	mg/L	01.16.20 12:20	
1,1-Dichloroethane	<0.00100	0.0500	0.0544	109	0.0516	103	72-125	5	25	mg/L	01.16.20 12:20	
1,2-Dichloroethane	<0.00100	0.0500	0.0534	107	0.0510	102	68-127	5	25	mg/L	01.16.20 12:20	
1,1-Dichloroethene	<0.00100	0.0500	0.0554	111	0.0512	102	59-172	8	25	mg/L	01.16.20 12:20	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0541	108	0.0516	103	75-125	5	25	mg/L	01.16.20 12:20	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0546	109	0.0517	103	75-125	5	25	mg/L	01.16.20 12:20	
1,2-Dichloropropane	<0.00500	0.0500	0.0526	105	0.0502	100	74-125	5	25	mg/L	01.16.20 12:20	
1,3-Dichloropropane	<0.00500	0.0500	0.0494	99	0.0488	98	75-125	1	25	mg/L	01.16.20 12:20	
2,2-Dichloropropane	<0.00500	0.0500	0.0566	113	0.0532	106	75-125	6	25	mg/L	01.16.20 12:20	
1,1-Dichloropropene	<0.00500	0.0500	0.0540	108	0.0505	101	75-125	7	25	mg/L	01.16.20 12:20	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0535	107	0.0512	102	74-125	4	25	mg/L	01.16.20 12:20	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0518	104	0.0501	100	66-125	3	25	mg/L	01.16.20 12:20	
Ethylbenzene	<0.00100	0.0500	0.0497	99	0.0471	94	75-125	5	25	mg/L	01.16.20 12:20	
Hexachlorobutadiene	<0.00500	0.0500	0.0575	115	0.0534	107	75-125	7	25	mg/L	01.16.20 12:20	
Isopropylbenzene	<0.00100	0.0500	0.0502	100	0.0481	96	75-125	4	25	mg/L	01.16.20 12:20	
Methylene Chloride	<0.00500	0.0500	0.0536	107	0.0515	103	75-125	4	25	mg/L	01.16.20 12:20	
MTBE	<0.00500	0.0500	0.0539	108	0.0524	105	65-135	3	25	mg/L	01.16.20 12:20	
Naphthalene	<0.0100	0.0500	0.0483	97	0.0447	89	70-130	8	25	mg/L	01.16.20 12:20	
n-Propylbenzene	<0.00100	0.0500	0.0503	101	0.0472	94	75-125	6	25	mg/L	01.16.20 12:20	
Styrene	<0.00100	0.0500	0.0513	103	0.0489	98	75-125	5	25	mg/L	01.16.20 12:20	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0506	101	0.0487	97	72-125	4	25	mg/L	01.16.20 12:20	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0483	97	0.0477	95	74-125	1	25	mg/L	01.16.20 12:20	
Tetrachloroethylene	<0.00100	0.0500	0.0501	100	0.0478	96	71-125	5	25	mg/L	01.16.20 12:20	
Toluene	<0.00100	0.0500	0.0491	98	0.0469	94	59-139	5	25	mg/L	01.16.20 12:20	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3113515

MB Sample Id: 7694544-1-BLK

Matrix: Water

LCS Sample Id: 7694544-1-BKS

Prep Method: SW5030B

Date Prep: 01.16.20

LCSD Sample Id: 7694544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0478	96	0.0440	88	75-137	8	25	mg/L	01.16.20 12:20	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0520	104	0.0480	96	75-135	8	25	mg/L	01.16.20 12:20	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0545	109	0.0511	102	75-125	6	25	mg/L	01.16.20 12:20	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0493	99	0.0485	97	75-127	2	25	mg/L	01.16.20 12:20	
Trichloroethylene	<0.00500	0.0500	0.0512	102	0.0488	98	62-137	5	25	mg/L	01.16.20 12:20	
Trichlorofluoromethane	<0.00100	0.0500	0.0570	114	0.0531	106	60-140	7	25	mg/L	01.16.20 12:20	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0489	98	0.0476	95	75-125	3	25	mg/L	01.16.20 12:20	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0493	99	0.0460	92	75-125	7	25	mg/L	01.16.20 12:20	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0493	99	0.0463	93	70-125	6	25	mg/L	01.16.20 12:20	
o-Xylene	<0.00100	0.0500	0.0495	99	0.0472	94	75-125	5	25	mg/L	01.16.20 12:20	
m,p-Xylenes	<0.0100	0.100	0.0981	98	0.0937	94	75-125	5	25	mg/L	01.16.20 12:20	
Vinyl Chloride	<0.00200	0.0500	0.0536	107	0.0503	101	60-140	6	25	mg/L	01.16.20 12:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	106		109		110		75-131	%	01.16.20 12:20
1,2-Dichloroethane-D4	101		103		101		63-144	%	01.16.20 12:20
Toluene-D8	100		100		101		80-117	%	01.16.20 12:20
4-Bromofluorobenzene	104		104		103		74-124	%	01.16.20 12:20

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3113515

Parent Sample Id: 648199-027

Matrix: Product

MS Sample Id: 648199-027 S

Prep Method: SW5030B

Date Prep: 01.16.20

MSD Sample Id: 648199-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS % Rec	MSD Result	MSD % Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0500	2.50	2.41	96	2.31	92	66-142	4	25	mg/L	01.16.20 13:06	
Bromobenzene	<0.0500	2.50	2.37	95	2.29	92	75-125	3	25	mg/L	01.16.20 13:06	
Bromochloromethane	<0.0500	2.50	2.54	102	2.44	98	60-140	4	25	mg/L	01.16.20 13:06	
Bromodichloromethane	<0.0500	2.50	2.56	102	2.46	98	75-125	4	25	mg/L	01.16.20 13:06	
Bromoform	<0.250	2.50	2.52	101	2.46	98	75-125	2	25	mg/L	01.16.20 13:06	
Methyl bromide	<0.250	2.50	1.95	78	2.03	81	60-140	4	25	mg/L	01.16.20 13:06	
Methyl ethyl ketone	<2.50	12.5	12.3	98	12.2	98	60-140	1	25	mg/L	01.16.20 13:06	
n-Butylbenzene	<0.0500	2.50	2.43	97	2.27	91	75-125	7	25	mg/L	01.16.20 13:06	
Sec-Butylbenzene	<0.0500	2.50	2.31	92	2.12	85	75-125	9	25	mg/L	01.16.20 13:06	
tert-Butylbenzene	<0.0500	2.50	2.41	96	2.26	90	75-125	6	25	mg/L	01.16.20 13:06	
Carbon Tetrachloride	<0.250	2.50	2.53	101	2.33	93	62-125	8	25	mg/L	01.16.20 13:06	
Chlorobenzene	<0.0500	2.50	2.35	94	2.27	91	60-133	3	25	mg/L	01.16.20 13:06	
Chloroethane	<0.500	2.50	1.98	79	2.09	84	60-140	5	25	mg/L	01.16.20 13:06	
Chloroform	<0.0500	2.50	2.63	105	2.49	100	70-130	5	25	mg/L	01.16.20 13:06	
Methyl Chloride	<0.500	2.50	2.19	88	2.32	93	60-140	6	25	mg/L	01.16.20 13:06	
2-Chlorotoluene	<0.0500	2.50	2.39	96	2.24	90	73-125	6	25	mg/L	01.16.20 13:06	
4-Chlorotoluene	<0.0500	2.50	2.42	97	2.30	92	74-125	5	25	mg/L	01.16.20 13:06	
p-Cymene (p-Isopropyltoluene)	<0.0500	2.50	2.23	89	2.06	82	75-125	8	25	mg/L	01.16.20 13:06	
Dibromochloromethane	<0.250	2.50	2.47	99	2.42	97	73-125	2	25	mg/L	01.16.20 13:06	
1,2-Dibromo-3-Chloropropane	<0.0500	2.50	2.18	87	2.35	94	59-125	8	25	mg/L	01.16.20 13:06	
1,2-Dibromoethane	<0.250	2.50	2.38	95	2.31	92	73-125	3	25	mg/L	01.16.20 13:06	
Methylene Bromide	<0.0500	2.50	2.50	100	2.37	95	69-127	5	25	mg/L	01.16.20 13:06	
1,2-Dichlorobenzene	<0.0500	2.50	2.39	96	2.31	92	75-125	3	25	mg/L	01.16.20 13:06	
1,3-Dichlorobenzene	<0.0500	2.50	2.38	95	2.28	91	75-125	4	25	mg/L	01.16.20 13:06	
1,4-Dichlorobenzene	<0.0500	2.50	2.40	96	2.29	92	75-125	5	25	mg/L	01.16.20 13:06	
Dichlorodifluoromethane	<0.0500	2.50	2.52	101	2.55	102	60-140	1	25	mg/L	01.16.20 13:06	
1,1-Dichloroethane	<0.0500	2.50	2.68	107	2.57	103	72-125	4	25	mg/L	01.16.20 13:06	
1,2-Dichloroethane	<0.0500	2.50	2.51	100	2.41	96	68-127	4	25	mg/L	01.16.20 13:06	
1,1-Dichloroethene	<0.0500	2.50	2.51	100	2.33	93	59-172	7	25	mg/L	01.16.20 13:06	
cis-1,2-Dichloroethylene	<0.0500	2.50	2.48	99	2.37	95	75-125	5	25	mg/L	01.16.20 13:06	
trans-1,2-dichloroethylene	<0.0500	2.50	2.49	100	2.35	94	75-125	6	25	mg/L	01.16.20 13:06	
1,2-Dichloropropane	<0.250	2.50	2.52	101	2.42	97	74-125	4	25	mg/L	01.16.20 13:06	
1,3-Dichloropropane	<0.250	2.50	2.49	100	2.41	96	75-125	3	25	mg/L	01.16.20 13:06	
2,2-Dichloropropane	<0.250	2.50	2.71	108	2.52	101	75-125	7	25	mg/L	01.16.20 13:06	
1,1-Dichloropropene	<0.250	2.50	2.54	102	2.41	96	75-125	5	25	mg/L	01.16.20 13:06	
cis-1,3-Dichloropropene	<0.250	2.50	2.57	103	2.47	99	74-125	4	25	mg/L	01.16.20 13:06	
trans-1,3-dichloropropene	<0.250	2.50	2.49	100	2.41	96	66-125	3	25	mg/L	01.16.20 13:06	
Ethylbenzene	0.0175	2.50	2.35	93	2.24	89	75-125	5	25	mg/L	01.16.20 13:06	
Hexachlorobutadiene	<0.250	2.50	2.86	114	2.92	117	75-125	2	25	mg/L	01.16.20 13:06	
Isopropylbenzene	<0.0500	2.50	2.41	96	2.29	92	75-125	5	25	mg/L	01.16.20 13:06	
Methylene Chloride	<0.250	2.50	2.48	99	2.33	93	75-125	6	25	mg/L	01.16.20 13:06	
MTBE	<0.250	2.50	2.58	103	2.49	100	65-135	4	25	mg/L	01.16.20 13:06	
Naphthalene	<0.500	2.50	2.17	87	2.48	99	70-130	13	25	mg/L	01.16.20 13:06	
n-Propylbenzene	<0.0500	2.50	2.62	105	2.40	96	75-125	9	25	mg/L	01.16.20 13:06	
Styrene	<0.0500	2.50	2.47	99	2.38	95	75-125	4	25	mg/L	01.16.20 13:06	
1,1,1,2-Tetrachloroethane	<0.0500	2.50	2.39	96	2.32	93	72-125	3	25	mg/L	01.16.20 13:06	
1,1,2,2-Tetrachloroethane	<0.0500	2.50	2.52	101	2.44	98	74-125	3	25	mg/L	01.16.20 13:06	
Tetrachloroethylene	<0.0500	2.50	2.37	95	2.25	90	71-125	5	25	mg/L	01.16.20 13:06	
Toluene	0.0980	2.50	2.36	90	2.28	87	59-139	3	25	mg/L	01.16.20 13:06	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3113515

Parent Sample Id: 648199-027

Matrix: Product

MS Sample Id: 648199-027 S

Prep Method: SW5030B

Date Prep: 01.16.20

MSD Sample Id: 648199-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.250	2.50	2.07	83	2.31	92	75-137	11	25	mg/L	01.16.20 13:06	
1,2,4-Trichlorobenzene	<0.250	2.50	2.30	92	2.44	98	75-135	6	25	mg/L	01.16.20 13:06	
1,1,1-Trichloroethane	<0.250	2.50	2.57	103	2.44	98	75-125	5	25	mg/L	01.16.20 13:06	
1,1,2-Trichloroethane	<0.0500	2.50	2.46	98	2.41	96	75-127	2	25	mg/L	01.16.20 13:06	
Trichloroethylene	<0.250	2.50	2.22	89	2.12	85	62-137	5	25	mg/L	01.16.20 13:06	
Trichlorofluoromethane	<0.0500	2.50	2.28	91	2.33	93	60-140	2	25	mg/L	01.16.20 13:06	
1,2,3-Trichloropropane	<0.0500	2.50	2.46	98	2.41	96	75-125	2	25	mg/L	01.16.20 13:06	
1,2,4-Trimethylbenzene	<0.0500	2.50	2.25	90	2.15	86	75-125	5	25	mg/L	01.16.20 13:06	
1,3,5-Trimethylbenzene	<0.0500	2.50	2.39	96	2.25	90	70-125	6	25	mg/L	01.16.20 13:06	
o-Xylene	0.0250	2.50	2.40	95	2.30	91	75-125	4	25	mg/L	01.16.20 13:06	
m,p-Xylenes	0.0630	5.00	4.62	91	4.45	88	75-125	4	25	mg/L	01.16.20 13:06	
Vinyl Chloride	<0.100	2.50	2.13	85	2.21	88	60-140	4	25	mg/L	01.16.20 13:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	109		109		75-131	%	01.16.20 13:06
1,2-Dichloroethane-D4	101		97		63-144	%	01.16.20 13:06
Toluene-D8	99		101		80-117	%	01.16.20 13:06
4-Bromofluorobenzene	105		103		74-124	%	01.16.20 13:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

U49205

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 Crasibad, NM (432) 704-5440

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 1

of

Project Manager:	Bruce Jennings	Bill to: (if different)	
Company Name:	Engelwood	Company Name:	
Address:	705 W. Valley Ave Ste. 210	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	210-212-8858	Email:	bjennings@engelwood.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Levy Well	Turn Around
Project Number:	0361417001	Routine ☐
Project Location	5385 14th St NW	Rsn: 241hr
Sampler's Name:	Frank Scrimings	Due Date:
PO #:	0361417001	Quote #:

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	16.6			Thermometer ID		
Received intact:	Yes	No				
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:		
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

ANALYSIS REQUEST		Preservative Codes
Pres. Code		
	SC's	MeOH: Me
	ions: F, Cl, SO ₄ , B	None: NO
	ions: Ca, K, Mg, Na, Si	HNO ₃ : HN
	Kalinity	H ₂ SO ₄ : H2
	DS	HCL: HL
		NaOH: Na
		Zn Acetate+ NaOH: Zn
		TAT starts the day received by the lab, it received by 4:00pm

[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and reimbursement of samples constitutes a valid purchase order from client company to Xencio, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencio 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 Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, 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
		11/18/2016			

Inter-Office Shipment

IOS Number : **56212**

Date/Time: 01.15.2020

Created by: Jessica Kramer

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777491269140

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
649205-001	W	Levey Well	01.15.2020 09:30	E200.7	Recoverable Metals per ICP by EPA 200	01.16.2020	07.13.2020	JKR	CA K MG NA SI	
649205-001	W	Levey Well	01.15.2020 09:30	E300	Inorganic Anions by EPA 300/300.1	01.16.2020	01.17.2020 09:30	JKR	BR CL F NO2N NO3N S	
649205-001	W	Levey Well	01.15.2020 09:30	SM1030E	Cation-Anion Balance Calculation	01.16.2020	02.14.2020	JKR	Cation-Anion Balance	
649205-001	W	Levey Well	01.15.2020 09:30	SM2320B	Alkalinity by SM2320B	01.16.2020	01.29.2020	JKR	ALK ALKB ALKC	
649205-001	W	Levey Well	01.15.2020 09:30	SM2540C	TDS by SM2540C	01.16.2020	01.22.2020	JKR	TDS	
649205-001	W	Levey Well	01.15.2020 09:30	SM4500-H	pH by SM4500-H	01.16.2020	01.15.2020 09:45	JKR		
649205-001	W	Levey Well	01.15.2020 09:30	SW8260C	VOCs by SW-846 8260C	01.16.2020	01.29.2020	JKR	BDCME BRBZ BRCLME	

Inter Office Shipment or Sample Comments:

Relinquished By:



Jessica Kramer

Date Relinquished: 01.15.2020

Received By:



Abdhija Saidurga

Date Received: 01.16.2020

Cooler Temperature: 1.1



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 56212

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Jessica Kramer

Date Sent: 01.15.2020 06.22 PM

Received By: Abdhija Saidurga

Date Received: 01.16.2020 10.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Abdhija Saidurga

Date: 01.16.2020



Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 01/15/2020 04:15:37 PM

Work Order #: 649205

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	6.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Date: 01/16/2020

Checklist reviewed by:

Jessica Kramer

Date: 01/16/2020



Certificate of Analysis Summary 650091

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Jan-23-20 03:10 pm
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650091-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-23-20 12:15					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Jan-24-20 15:00 Analyzed: Jan-24-20 17:15 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1230 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1230 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Jan-24-20 18:10 Units/RL: % RL					
Cation-Anion Balance	1.60					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Jan-24-20 10:05 Analyzed: Jan-24-20 10:32 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	195 0.500					
Fluoride	0.617 0.500					
Nitrate as N	0.126 0.100					
Nitrite as N	0.128 0.100					
Sulfate	46.2 0.500					

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650091

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Jan-23-20 03:10 pm
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	650091-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Jan-23-20 12:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Jan-24-20 10:30					
	Analyzed:	Jan-24-20 15:17					
	Units/RL:	mg/L RL					
Calcium		426 D 10.0					
Magnesium		76.3 0.400					
Potassium		8.84 0.500					
Silica		148 1.07					
Sodium		86.4 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Jan-24-20 11:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1530 5.00					

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650091

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Jan-23-20 03:10 pm
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650091-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-23-20 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-24-20 10:45 Analyzed: Jan-24-20 13:00 Units/RL: mg/L RL					
Benzene	0.00757 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
Methyl ethyl ketone	<0.0500 0.0500					
n-Butylbenzene	0.00233 0.00100					
Sec-Butylbenzene	0.00295 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00180 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650091

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Jan-23-20 03:10 pm
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650091-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-23-20 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-24-20 10:45 Analyzed: Jan-24-20 13:00 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0318 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0158 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0166 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650091

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Jan-23-20 03:10 pm
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650091-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-23-20 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Jan-24-20 10:45 Analyzed: Jan-24-20 13:00 Units/RL: mg/L RL					
Toluene	0.0462 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.103 0.00100					
1,3,5-Trimethylbenzene	0.0300 0.00100					
o-Xylene	0.0224 0.00100					
m,p-Xylenes	0.119 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.141 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-24-20 16:44 Units/RL: Deg C RL					
Temperature	19.6 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Jan-24-20 16:44 Units/RL: SU RL					
pH	6.21 K					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 650091

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

27-JAN-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



27-JAN-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **650091**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650091. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650091 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 650091



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	01-23-20 12:15		650091-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 650091Report Date: 27-JAN-20
Date Received: 01/23/2020

Sample receipt non conformances and comments:None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114375 VOCs by SW-846 8260C

Lab Sample ID 650091-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Methylene Chloride, Sec-Butylbenzene, p-Cymene (p-Isopropyltoluene) recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650091-001.

The Laboratory Control Sample for Methylene Chloride, Sec-Butylbenzene, p-Cymene (p-Isopropyltoluene) is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 650091



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.23.20 15.10

Lab Sample Id: 650091-001

Date Collected: 01.23.20 12.15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 01.24.20 15.00

Seq Number: 3114396

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1230	4.00	mg/L	01.24.20 17.15		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1230	4.00	mg/L	01.24.20 17.15		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	01.24.20 17.15	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	01.24.20 17.15	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3114397

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.60		%	01.24.20 18.10		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 01.24.20 10.05

Seq Number: 3114340

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	01.24.20 10.32	U	1
Chloride	16887-00-6	195	0.500	mg/L	01.24.20 10.32		1
Fluoride	16984-48-8	0.617	0.500	mg/L	01.24.20 10.32		1
Nitrate as N	14797-55-8	0.126	0.100	mg/L	01.24.20 10.32		1
Nitrite as N	14797-65-0	0.128	0.100	mg/L	01.24.20 10.32		1
Sulfate	14808-79-8	46.2	0.500	mg/L	01.24.20 10.32		1



Certificate of Analytical Results 650091



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.23.20 15.10

Lab Sample Id: 650091-001

Date Collected: 01.23.20 12.15

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3114395

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1530	5.00	mg/L	01.24.20 11.00		1

Analytical Method: pH by SM4500-H

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3114378

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.21		SU	01.24.20 16.44	K	1
Temperature	TEMP	19.6		Deg C	01.24.20 16.44	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 01.24.20 10.30

Seq Number: 3114364

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	426	10.0	mg/L	01.24.20 15.21	D	50
Magnesium	7439-95-4	76.3	0.400	mg/L	01.24.20 15.17		1
Potassium	7440-09-7	8.84	0.500	mg/L	01.24.20 15.17		1
Silica	7631-86-9	148	1.07	mg/L	01.24.20 15.17		1
Sodium	7440-23-5	86.4	0.500	mg/L	01.24.20 15.17		1



Certificate of Analytical Results 650091

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.23.20 15.10

Lab Sample Id: 650091-001

Date Collected: 01.23.20 12.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.24.20 10.45

Seq Number: 3114375

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00757	0.00100	mg/L	01.24.20 13.00		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	01.24.20 13.00	U	1
n-Butylbenzene	104-51-8	0.00233	0.00100	mg/L	01.24.20 13.00		1
Sec-Butylbenzene	135-98-8	0.00295	0.00100	mg/L	01.24.20 13.00		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	01.24.20 13.00	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	01.24.20 13.00	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00180	0.00100	mg/L	01.24.20 13.00		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Ethylbenzene	100-41-4	0.0318	0.00100	mg/L	01.24.20 13.00		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1



Certificate of Analytical Results 650091



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.23.20 15.10

Lab Sample Id: 650091-001

Date Collected: 01.23.20 12.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: KRP

% Moisture:

Analyst: KRP

Date Prep: 01.24.20 10.45

Seq Number: 3114375

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0158	0.00100	mg/L	01.24.20 13.00		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	01.24.20 13.00	U	1
n-Propylbenzene	103-65-1	0.0166	0.00100	mg/L	01.24.20 13.00		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Toluene	108-88-3	0.0462	0.00100	mg/L	01.24.20 13.00		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	01.24.20 13.00	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	01.24.20 13.00	U	1
1,2,4-Trimethylbenzene	95-63-6	0.103	0.00100	mg/L	01.24.20 13.00		1
1,3,5-Trimethylbenzene	108-67-8	0.0300	0.00100	mg/L	01.24.20 13.00		1
o-Xylene	95-47-6	0.0224	0.00100	mg/L	01.24.20 13.00		1
m,p-Xylenes	179601-23-1	0.119	0.0100	mg/L	01.24.20 13.00		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	01.24.20 13.00	U	1
Total Xylenes	1330-20-7	0.141	0.00100	mg/L	01.24.20 13.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	75-131	01.24.20 13.00	
1,2-Dichloroethane-D4	17060-07-0	103	%	63-144	01.24.20 13.00	
Toluene-D8	2037-26-5	101	%	80-117	01.24.20 13.00	
4-Bromofluorobenzene	460-00-4	99	%	74-124	01.24.20 13.00	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3114396

MB Sample Id: 7695140-1-BLK

Matrix: Water

LCS Sample Id: 7695140-1-BKS

Prep Method: SM2320P

Date Prep: 01.24.20

LCSD Sample Id: 7695140-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	258	103	262	105	80-120	2	20	mg/L	01.24.20 16:54	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3114396

Matrix: Water

MB Sample Id: 7695140-1-BLK

Prep Method: SM2320P

Date Prep: 01.24.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	01.24.20 16:47	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	01.24.20 16:47	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	01.24.20 16:47	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3114396

Matrix: Ground Water

Parent Sample Id: 650091-001

MD Sample Id: 650091-001 D

Prep Method: SM2320P

Date Prep: 01.24.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1230	1230	0	20	mg/L	01.24.20 17:29	
Alkalinity, Bicarbonate (as CaCO ₃)	1230	1230	0	20	mg/L	01.24.20 17:29	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	01.24.20 17:29	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	01.24.20 17:29	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3114340

Matrix: Water

MB Sample Id: 7695094-1-BLK

LCS Sample Id: 7695094-1-BKS

Prep Method: E300P

Date Prep: 01.24.20

LCSD Sample Id: 7695094-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	01.24.20 09:30	
Chloride	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	01.24.20 09:30	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	01.24.20 09:30	
Nitrate as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	01.24.20 09:30	
Nitrite as N	<0.100	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	01.24.20 09:30	
Sulfate	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	01.24.20 09:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: TDS by SM2540C

Seq Number: 3114395

Matrix: Water

MB Sample Id: 3114395-1-BLK

LCS Sample Id: 3114395-1-BKS

LCSD Sample Id: 3114395-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	926	93	926	93	80-120	0	10	mg/L	01.24.20 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3114395

Matrix: Ground Water

Parent Sample Id: 650091-001

MD Sample Id: 650091-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1530	1530	0	10	mg/L	01.24.20 11:00	

Analytical Method: pH by SM4500-H

Seq Number: 3114378

Matrix: Ground Water

Parent Sample Id: 650091-001

MD Sample Id: 650091-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.21	6.20	0	20	SU	01.24.20 16:44	
Temperature	19.6	19.6	0	20	Deg C	01.24.20 16:44	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3114364

Matrix: Water

MB Sample Id: 7695119-1-BLK

LCS Sample Id: 7695119-1-BKS

Prep Method: E200.7P

Date Prep: 01.24.20

LCSD Sample Id: 7695119-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.4	102	25.4	102	85-115	0	20	mg/L	01.24.20 14:39	
Magnesium	<0.400	25.0	24.9	100	24.8	99	85-115	0	20	mg/L	01.24.20 14:39	
Potassium	<0.500	10.0	10.5	105	10.5	105	85-115	0	20	mg/L	01.24.20 14:39	
Silica	<1.07	21.4	22.3	104	22.2	104	85-115	0	20	mg/L	01.24.20 14:39	
Sodium	<0.500	25.0	25.8	103	25.7	103	85-115	0	20	mg/L	01.24.20 14:39	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3114364

Matrix: Waste Water

Prep Method: E200.7P

Date Prep: 01.24.20

Parent Sample Id: 649859-001

MS Sample Id: 649859-001 S

MSD Sample Id: 649859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Calcium	210	25.0	226	64	224	56	70-130	1	20		mg/L	01.24.20 14:52	X
Magnesium	64.6	25.0	86.9	89	86.3	87	70-130	1	20		mg/L	01.24.20 14:52	
Potassium	17.1	10.0	27.4	103	27.3	102	70-130	0	20		mg/L	01.24.20 14:52	
Silica	18.1	21.4	40.9	107	40.6	105	70-130	1	20		mg/L	01.24.20 14:52	
Sodium	461	25.0	471	40	465	16	70-130	1	20		mg/L	01.24.20 14:52	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3114375

MB Sample Id: 7695160-1-BLK

Matrix: Water

LCS Sample Id: 7695160-1-BKS

Prep Method: SW5030B

Date Prep: 01.24.20

LCSD Sample Id: 7695160-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0473	95	0.0486	97	66-142	3	25	mg/L	01.24.20 09:54	
Bromobenzene	<0.00100	0.0500	0.0489	98	0.0498	100	75-125	2	25	mg/L	01.24.20 09:54	
Bromochloromethane	<0.00100	0.0500	0.0467	93	0.0478	96	60-140	2	25	mg/L	01.24.20 09:54	
Bromodichloromethane	<0.00100	0.0500	0.0471	94	0.0479	96	75-125	2	25	mg/L	01.24.20 09:54	
Bromoform	<0.00500	0.0500	0.0475	95	0.0497	99	75-125	5	25	mg/L	01.24.20 09:54	
Methyl bromide	<0.00500	0.0500	0.0485	97	0.0489	98	60-140	1	25	mg/L	01.24.20 09:54	
Methyl ethyl ketone	<0.0500	0.250	0.240	96	0.256	102	60-140	6	25	mg/L	01.24.20 09:54	
n-Butylbenzene	<0.00100	0.0500	0.0489	98	0.0489	98	75-125	0	25	mg/L	01.24.20 09:54	
Sec-Butylbenzene	<0.00100	0.0500	0.0461	92	0.0464	93	75-125	1	25	mg/L	01.24.20 09:54	
tert-Butylbenzene	<0.00100	0.0500	0.0491	98	0.0493	99	75-125	0	25	mg/L	01.24.20 09:54	
Carbon Tetrachloride	<0.00500	0.0500	0.0489	98	0.0490	98	62-125	0	25	mg/L	01.24.20 09:54	
Chlorobenzene	<0.00100	0.0500	0.0478	96	0.0487	97	60-133	2	25	mg/L	01.24.20 09:54	
Chloroethane	<0.0100	0.0500	0.0398	80	0.0398	80	60-140	0	25	mg/L	01.24.20 09:54	
Chloroform	<0.00100	0.0500	0.0481	96	0.0484	97	70-130	1	25	mg/L	01.24.20 09:54	
Methyl Chloride	<0.0100	0.0500	0.0380	76	0.0379	76	60-140	0	25	mg/L	01.24.20 09:54	
2-Chlorotoluene	<0.00100	0.0500	0.0487	97	0.0490	98	73-125	1	25	mg/L	01.24.20 09:54	
4-Chlorotoluene	<0.00100	0.0500	0.0485	97	0.0490	98	74-125	1	25	mg/L	01.24.20 09:54	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0449	90	0.0452	90	75-125	1	25	mg/L	01.24.20 09:54	
Dibromochloromethane	<0.00500	0.0500	0.0471	94	0.0485	97	73-125	3	25	mg/L	01.24.20 09:54	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0480	96	0.0512	102	59-125	6	25	mg/L	01.24.20 09:54	
1,2-Dibromoethane	<0.00500	0.0500	0.0489	98	0.0511	102	73-125	4	25	mg/L	01.24.20 09:54	
Methylene Bromide	<0.00100	0.0500	0.0479	96	0.0498	100	69-127	4	25	mg/L	01.24.20 09:54	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0487	97	0.0492	98	75-125	1	25	mg/L	01.24.20 09:54	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0485	97	0.0491	98	75-125	1	25	mg/L	01.24.20 09:54	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0485	97	75-125	1	25	mg/L	01.24.20 09:54	
Dichlorodifluoromethane	<0.00100	0.0500	0.0462	92	0.0452	90	60-140	2	25	mg/L	01.24.20 09:54	
1,1-Dichloroethane	<0.00100	0.0500	0.0500	100	0.0504	101	72-125	1	25	mg/L	01.24.20 09:54	
1,2-Dichloroethane	<0.00100	0.0500	0.0481	96	0.0495	99	68-127	3	25	mg/L	01.24.20 09:54	
1,1-Dichloroethene	<0.00100	0.0500	0.0496	99	0.0498	100	59-172	0	25	mg/L	01.24.20 09:54	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0476	95	0.0480	96	75-125	1	25	mg/L	01.24.20 09:54	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0488	98	0.0484	97	75-125	1	25	mg/L	01.24.20 09:54	
1,2-Dichloropropane	<0.00500	0.0500	0.0482	96	0.0494	99	74-125	2	25	mg/L	01.24.20 09:54	
1,3-Dichloropropane	<0.00500	0.0500	0.0497	99	0.0512	102	75-125	3	25	mg/L	01.24.20 09:54	
2,2-Dichloropropane	<0.00500	0.0500	0.0506	101	0.0501	100	75-125	1	25	mg/L	01.24.20 09:54	
1,1-Dichloropropene	<0.00500	0.0500	0.0514	103	0.0513	103	75-125	0	25	mg/L	01.24.20 09:54	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0486	97	0.0502	100	74-125	3	25	mg/L	01.24.20 09:54	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0489	98	0.0505	101	66-125	3	25	mg/L	01.24.20 09:54	
Ethylbenzene	<0.00100	0.0500	0.0484	97	0.0492	98	75-125	2	25	mg/L	01.24.20 09:54	
Hexachlorobutadiene	<0.00500	0.0500	0.0522	104	0.0524	105	75-125	0	25	mg/L	01.24.20 09:54	
Isopropylbenzene	<0.00100	0.0500	0.0491	98	0.0504	101	75-125	3	25	mg/L	01.24.20 09:54	
Methylene Chloride	<0.00500	0.0500	0.0449	90	0.0451	90	75-125	0	25	mg/L	01.24.20 09:54	
MTBE	<0.00500	0.0500	0.0493	99	0.0510	102	65-135	3	25	mg/L	01.24.20 09:54	
Naphthalene	<0.0100	0.0500	0.0531	106	0.0562	112	70-130	6	25	mg/L	01.24.20 09:54	
n-Propylbenzene	<0.00100	0.0500	0.0486	97	0.0491	98	75-125	1	25	mg/L	01.24.20 09:54	
Styrene	<0.00100	0.0500	0.0493	99	0.0505	101	75-125	2	25	mg/L	01.24.20 09:54	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0470	94	0.0492	98	72-125	5	25	mg/L	01.24.20 09:54	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0491	98	0.0522	104	74-125	6	25	mg/L	01.24.20 09:54	
Tetrachloroethylene	<0.00100	0.0500	0.0510	102	0.0518	104	71-125	2	25	mg/L	01.24.20 09:54	
Toluene	<0.00100	0.0500	0.0474	95	0.0483	97	59-139	2	25	mg/L	01.24.20 09:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3114375

MB Sample Id: 7695160-1-BLK

Matrix: Water

LCS Sample Id: 7695160-1-BKS

Prep Method: SW5030B

Date Prep: 01.24.20

LCSD Sample Id: 7695160-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0512	102	0.0539	108	75-137	5	25	mg/L	01.24.20 09:54	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0515	103	0.0528	106	75-135	2	25	mg/L	01.24.20 09:54	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0494	99	0.0496	99	75-125	0	25	mg/L	01.24.20 09:54	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0478	96	0.0494	99	75-127	3	25	mg/L	01.24.20 09:54	
Trichloroethylene	<0.00500	0.0500	0.0442	88	0.0452	90	62-137	2	25	mg/L	01.24.20 09:54	
Trichlorofluoromethane	<0.00100	0.0500	0.0476	95	0.0471	94	60-140	1	25	mg/L	01.24.20 09:54	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0476	95	0.0500	100	75-125	5	25	mg/L	01.24.20 09:54	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0458	92	0.0461	92	75-125	1	25	mg/L	01.24.20 09:54	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0485	97	0.0486	97	70-125	0	25	mg/L	01.24.20 09:54	
o-Xylene	<0.00100	0.0500	0.0492	98	0.0504	101	75-125	2	25	mg/L	01.24.20 09:54	
m,p-Xylenes	<0.0100	0.100	0.0962	96	0.0983	98	75-125	2	25	mg/L	01.24.20 09:54	
Vinyl Chloride	<0.00200	0.0500	0.0437	87	0.0430	86	60-140	2	25	mg/L	01.24.20 09:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		99		98		75-131	%	01.24.20 09:54
1,2-Dichloroethane-D4	103		101		101		63-144	%	01.24.20 09:54
Toluene-D8	104		102		102		80-117	%	01.24.20 09:54
4-Bromofluorobenzene	103		97		96		74-124	%	01.24.20 09:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3114375

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 01.24.20

Parent Sample Id: 650091-001

MS Sample Id: 650091-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00757	0.0500	0.0476	80	66-142	mg/L	01.24.20 11:02	
Bromobenzene	<0.00100	0.0500	0.0413	83	75-125	mg/L	01.24.20 11:02	
Bromochloromethane	<0.00100	0.0500	0.0387	77	60-140	mg/L	01.24.20 11:02	
Bromodichloromethane	<0.00100	0.0500	0.0383	77	75-125	mg/L	01.24.20 11:02	
Bromoform	<0.00500	0.0500	0.0410	82	75-125	mg/L	01.24.20 11:02	
Methyl bromide	<0.00500	0.0500	0.0391	78	60-140	mg/L	01.24.20 11:02	
Methyl ethyl ketone	0.0146	0.250	0.244	92	60-140	mg/L	01.24.20 11:02	
n-Butylbenzene	0.00233	0.0500	0.0412	78	75-125	mg/L	01.24.20 11:02	
Sec-Butylbenzene	0.00295	0.0500	0.0401	74	75-125	mg/L	01.24.20 11:02	X
tert-Butylbenzene	<0.000195	0.0500	0.0398	80	75-125	mg/L	01.24.20 11:02	
Carbon Tetrachloride	<0.00500	0.0500	0.0388	78	62-125	mg/L	01.24.20 11:02	
Chlorobenzene	<0.00100	0.0500	0.0387	77	60-133	mg/L	01.24.20 11:02	
Chloroethane	<0.0100	0.0500	0.0336	67	60-140	mg/L	01.24.20 11:02	
Chloroform	<0.00100	0.0500	0.0381	76	70-130	mg/L	01.24.20 11:02	
Methyl Chloride	<0.0100	0.0500	0.0305	61	60-140	mg/L	01.24.20 11:02	
2-Chlorotoluene	<0.00100	0.0500	0.0401	80	73-125	mg/L	01.24.20 11:02	
4-Chlorotoluene	<0.00100	0.0500	0.0439	88	74-125	mg/L	01.24.20 11:02	
p-Cymene (p-Isopropyltoluene)	0.00180	0.0500	0.0379	72	75-125	mg/L	01.24.20 11:02	X
Dibromochloromethane	<0.00500	0.0500	0.0397	79	73-125	mg/L	01.24.20 11:02	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0463	93	59-125	mg/L	01.24.20 11:02	
1,2-Dibromoethane	<0.00500	0.0500	0.0424	85	73-125	mg/L	01.24.20 11:02	
Methylene Bromide	<0.00100	0.0500	0.0410	82	69-127	mg/L	01.24.20 11:02	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0409	82	75-125	mg/L	01.24.20 11:02	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0403	81	75-125	mg/L	01.24.20 11:02	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0404	81	75-125	mg/L	01.24.20 11:02	
Dichlorodifluoromethane	<0.00100	0.0500	0.0351	70	60-140	mg/L	01.24.20 11:02	
1,1-Dichloroethane	<0.00100	0.0500	0.0399	80	72-125	mg/L	01.24.20 11:02	
1,2-Dichloroethane	<0.00100	0.0500	0.0404	81	68-127	mg/L	01.24.20 11:02	
1,1-Dichloroethene	<0.00100	0.0500	0.0398	80	59-172	mg/L	01.24.20 11:02	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0382	76	75-125	mg/L	01.24.20 11:02	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0387	77	75-125	mg/L	01.24.20 11:02	
1,2-Dichloropropane	<0.00500	0.0500	0.0401	80	74-125	mg/L	01.24.20 11:02	
1,3-Dichloropropane	<0.00500	0.0500	0.0423	85	75-125	mg/L	01.24.20 11:02	
2,2-Dichloropropane	<0.00500	0.0500	0.0401	80	75-125	mg/L	01.24.20 11:02	
1,1-Dichloropropene	<0.00500	0.0500	0.0411	82	75-125	mg/L	01.24.20 11:02	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0403	81	74-125	mg/L	01.24.20 11:02	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0411	82	66-125	mg/L	01.24.20 11:02	
Ethylbenzene	0.0318	0.0500	0.0753	87	75-125	mg/L	01.24.20 11:02	
Hexachlorobutadiene	<0.00500	0.0500	0.0386	77	75-125	mg/L	01.24.20 11:02	
Isopropylbenzene	0.0158	0.0500	0.0573	83	75-125	mg/L	01.24.20 11:02	
Methylene Chloride	<0.00500	0.0500	0.0348	70	75-125	mg/L	01.24.20 11:02	X
MTBE	<0.00500	0.0500	0.0412	82	65-135	mg/L	01.24.20 11:02	
Naphthalene	<0.00200	0.0500	0.0488	98	70-130	mg/L	01.24.20 11:02	
n-Propylbenzene	0.0166	0.0500	0.0600	87	75-125	mg/L	01.24.20 11:02	
Styrene	0.000710	0.0500	0.0406	80	75-125	mg/L	01.24.20 11:02	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0390	78	72-125	mg/L	01.24.20 11:02	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0459	92	74-125	mg/L	01.24.20 11:02	
Tetrachloroethylene	<0.00100	0.0500	0.0407	81	71-125	mg/L	01.24.20 11:02	
Toluene	0.0462	0.0500	0.0922	92	59-139	mg/L	01.24.20 11:02	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3114375

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 650091-001

MS Sample Id: 650091-001 S

Date Prep: 01.24.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0431	86	75-137	mg/L	01.24.20 11:02	
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0424	85	75-135	mg/L	01.24.20 11:02	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0393	79	75-125	mg/L	01.24.20 11:02	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0432	86	75-127	mg/L	01.24.20 11:02	
Trichloroethylene	<0.00500	0.0500	0.0350	70	62-137	mg/L	01.24.20 11:02	
Trichlorofluoromethane	<0.00100	0.0500	0.0373	75	60-140	mg/L	01.24.20 11:02	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0436	87	75-125	mg/L	01.24.20 11:02	
1,2,4-Trimethylbenzene	0.103	0.0500	0.161	116	75-125	mg/L	01.24.20 11:02	
1,3,5-Trimethylbenzene	0.0300	0.0500	0.0754	91	70-125	mg/L	01.24.20 11:02	
o-Xylene	0.0224	0.0500	0.0654	86	75-125	mg/L	01.24.20 11:02	
m,p-Xylenes	0.119	0.100	0.215	96	75-125	mg/L	01.24.20 11:02	
Vinyl Chloride	<0.00200	0.0500	0.0338	68	60-140	mg/L	01.24.20 11:02	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		75-131	%	01.24.20 11:02
1,2-Dichloroethane-D4	103		63-144	%	01.24.20 11:02
Toluene-D8	103		80-117	%	01.24.20 11:02
4-Bromofluorobenzene	99		74-124	%	01.24.20 11:02

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	biennings@ensolum.com

Project Name:	Levey Well	Hobbs NM	ANALYSIS REQ				
Project Number:	03B1417001	Routine ☐					
P.O. Number:	03B1417001	Rush: <i>24 hr</i>					
Sampler's Name:	Shane Diller	Due Date:					

SAMPLE RECEIPT		Temp Blank:	Yes	Wet Ice:	Yes	No
Temperature (°C):	3.1	Thermometer ID				
Received intact:	(Yes) No	B				
Cooler Custody Seals:	Yes No ~~NA~~	Correction Factor:		0		
Sample Custody Seals:	Yes No ~~NA~~	Total Containers:				

[illegible]

						✓	Number of Containers
						X	VOCs
						X	Anions: F, Cl, SO ₄ , B
						X	Cations: Ca, K, Mg, Na, Si
						X	pH
						X	Alkalinity
						X	TDS

ANALYSIS REQUEST

Imaging: 1/2/2024 3:27:58 PM

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Final 1000

State or Project

Reporting: Level II

Deliverables: EDD

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

Notices: 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 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 its control. A minimum charge of \$15.00 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 negated by Xenco. A minimum charge of \$15.00 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 negated by Xenco.

CUSTODY SEAL
Date 1-23-26
Signature [Signature]

Therm
SCIENTIFIC

Inter-Office Shipment

IOS Number : **56703**

Date/Time: 01.23.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777571971092

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
650091-001	W	Levey Well	01.23.2020 12:15	SW8260C	VOCs by SW-846 8260C	01.24.2020	02.06.2020	JKR	BDCME BRBZ BRCLME	
650091-001	W	Levey Well	01.23.2020 12:15	E200.7	Recoverable Metals per ICP by EPA 200	01.24.2020	07.21.2020	JKR	CA K MG NA SI	
650091-001	W	Levey Well	01.23.2020 12:15	E300	Inorganic Anions by EPA 300/300.1	01.24.2020	01.25.2020 12:15	JKR	BR CL F NO2N NO3N SC	
650091-001	W	Levey Well	01.23.2020 12:15	SM4500-H	pH by SM4500-H	01.24.2020	01.23.2020 12:30	JKR		
650091-001	W	Levey Well	01.23.2020 12:15	SM2540C	TDS by SM2540C	01.24.2020	01.30.2020	JKR	TDS	
650091-001	W	Levey Well	01.23.2020 12:15	SM2320B	Alkalinity by SM2320B	01.24.2020	02.06.2020	JKR	ALK ALKB ALKC	
650091-001	W	Levey Well	01.23.2020 12:15	SM1030E	Cation-Anion Balance Calculation	01.24.2020	02.22.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

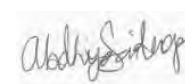
Relinquished By:



Brianna Teel

Date Relinquished: 01.23.2020

Received By:



Abdhija Saidurga

Date Received: 01.24.2020

Cooler Temperature: 1.2



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 56703

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : Hou-068

Sent By: Brianna Teel

Date Sent: 01.23.2020 03.15 PM

Received By: Abdhija Saidurga

Date Received: 01.24.2020 09.20 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Abdhija Saidurga

Date: 01.24.2020



Client: Ensolum

Date/ Time Received: 01/23/2020 03:10:00 PM

Work Order #: 650091

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.1	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 01/23/2020

Checklist reviewed by:

Jessica Kramer

Date: 01/24/2020



Certificate of Analysis Summary 650991

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Jan-31-20 01:07 pm
Report Date: 04-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650991-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-31-20 10:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Feb-03-20 13:40 Analyzed: Feb-03-20 14:50 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1230 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1230 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Feb-03-20 17:45 Units/RL: % RL					
Cation-Anion Balance	3.20					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Feb-01-20 09:58 Analyzed: Feb-01-20 12:38 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	197 D 5.00					
Fluoride	0.616 0.500					
Nitrate as N	0.129 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	48.5 D 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650991

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Jan-31-20 01:07 pm
Report Date: 04-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	650991-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Jan-31-20 10:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Feb-03-20 08:30					
	Analyzed:	Feb-03-20 15:30					
	Units/RL:	mg/L RL					
Calcium		446 D 10.0					
Magnesium		79.1 0.400					
Potassium		7.43 0.500					
Silica		154 1.07					
Sodium		89.5 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Feb-03-20 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1440 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650991

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Jan-31-20 01:07 pm
Report Date: 04-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650991-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-31-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-03-20 13:33 Analyzed: Feb-03-20 21:24 Units/RL: mg/L RL					
Benzene	0.0101 0.0100					
Bromobenzene	<0.0100 0.0100					
Bromochloromethane	<0.0100 0.0100					
Bromodichloromethane	<0.0100 0.0100					
Bromoform	<0.0500 0.0500					
Methyl bromide	<0.0500 0.0500					
Methyl ethyl ketone	<0.500 0.500					
n-Butylbenzene	<0.0100 0.0100					
Sec-Butylbenzene	<0.0100 0.0100					
tert-Butylbenzene	0.0438 0.0100					
Carbon Tetrachloride	<0.0500 0.0500					
Chlorobenzene	<0.0100 0.0100					
Chloroethane	<0.100 0.100					
Chloroform	<0.0100 0.0100					
Methyl Chloride	<0.100 0.100					
2-Chlorotoluene	0.0343 0.0100					
4-Chlorotoluene	0.0344 0.0100					
p-Cymene (p-Isopropyltoluene)	<0.0100 0.0100					
Dibromochloromethane	<0.0500 0.0500					
1,2-Dibromo-3-Chloropropane	<0.0100 0.0100					
1,2-Dibromoethane	<0.0500 0.0500					
Methylene Bromide	<0.0100 0.0100					
1,2-Dichlorobenzene	<0.0100 0.0100					
1,3-Dichlorobenzene	<0.0100 0.0100					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650991

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Jan-31-20 01:07 pm
Report Date: 04-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650991-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-31-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-03-20 13:33 Analyzed: Feb-03-20 21:24 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.0100 0.0100					
Dichlorodifluoromethane	<0.0100 0.0100					
1,1-Dichloroethane	<0.0100 0.0100					
1,2-Dichloroethane	<0.0100 0.0100					
1,1-Dichloroethene	<0.0100 0.0100					
cis-1,2-Dichloroethylene	<0.0100 0.0100					
trans-1,2-dichloroethylene	<0.0100 0.0100					
1,2-Dichloropropane	<0.0500 0.0500					
1,3-Dichloropropane	<0.0500 0.0500					
2,2-Dichloropropane	<0.0500 0.0500					
1,1-Dichloropropene	0.0584 0.0500					
cis-1,3-Dichloropropene	<0.0500 0.0500					
trans-1,3-dichloropropene	<0.0500 0.0500					
Ethylbenzene	0.0462 0.0100					
Hexachlorobutadiene	<0.0500 0.0500					
Isopropylbenzene	0.0262 0.0100					
Methylene Chloride	<0.0500 0.0500					
MTBE	<0.0500 0.0500					
Naphthalene	<0.100 0.100					
n-Propylbenzene	0.0458 0.0100					
Styrene	<0.0100 0.0100					
1,1,1,2-Tetrachloroethane	<0.0100 0.0100					
1,1,2,2-Tetrachloroethane	<0.0100 0.0100					
Tetrachloroethylene	<0.0100 0.0100					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 650991

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Jan-31-20 01:07 pm
Report Date: 04-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 650991-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Jan-31-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-03-20 13:33 Analyzed: Feb-03-20 21:24 Units/RL: mg/L RL					
Toluene	0.0567 0.0100					
1,2,3-Trichlorobenzene	<0.0500 0.0500					
1,2,4-Trichlorobenzene	<0.0500 0.0500					
1,1,1-Trichloroethane	<0.0500 0.0500					
1,1,2-Trichloroethane	<0.0100 0.0100					
Trichloroethylene	<0.0500 0.0500					
Trichlorofluoromethane	<0.0100 0.0100					
1,2,3-Trichloropropane	<0.0100 0.0100					
1,2,4-Trimethylbenzene	0.323 0.0100					
1,3,5-Trimethylbenzene	0.0847 0.0100					
o-Xylene	0.0385 0.0100					
m,p-Xylenes	0.166 0.100					
Vinyl Chloride	<0.0200 0.0200					
Total Xylenes	0.205 0.0100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-03-20 12:20 Units/RL: Deg C RL					
Temperature	23.9 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-03-20 12:20 Units/RL: SU RL					
pH	6.15 K					

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Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 650991

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

04-FEB-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



04-FEB-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **650991**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650991. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650991 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

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Sample Cross Reference 650991



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	01-31-20 10:30		650991-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 650991

Report Date: 04-FEB-20
Date Received: 01/31/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115379 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 650991-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike. Silica recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650991-001. The Laboratory Control Sample for Silica, Calcium is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3115420 VOCs by SW8260C (DCRP List)

Dilution due to high concentration on non target compound.



Certificate of Analytical Results 650991



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.31.20 13.07

Lab Sample Id: 650991-001

Date Collected: 01.31.20 10.30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 02.03.20 13.40

Seq Number: 3115384

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1230	4.00	mg/L	02.03.20 14.50		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1230	4.00	mg/L	02.03.20 14.50		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	02.03.20 14.50	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	02.03.20 14.50	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3115386

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.20		%	02.03.20 17.45		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 02.01.20 09.58

Seq Number: 3115253

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	02.01.20 12.38	U	1
Chloride	16887-00-6	197	5.00	mg/L	02.01.20 13.04	D	10
Fluoride	16984-48-8	0.616	0.500	mg/L	02.01.20 12.38		1
Nitrate as N	14797-55-8	0.129	0.100	mg/L	02.01.20 12.38		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	02.01.20 12.38	U	1
Sulfate	14808-79-8	48.5	5.00	mg/L	02.01.20 13.04	D	10



Certificate of Analytical Results 650991



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.31.20 13.07

Lab Sample Id: 650991-001

Date Collected: 01.31.20 10.30

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3115373

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1440	5.00	mg/L	02.03.20 10.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3115359

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.15		SU	02.03.20 12.20	K	1
Temperature	TEMP	23.9		Deg C	02.03.20 12.20	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 02.03.20 08.30

Seq Number: 3115379

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	446	10.0	mg/L	02.03.20 15.38	D	50
Magnesium	7439-95-4	79.1	0.400	mg/L	02.03.20 15.30		1
Potassium	7440-09-7	7.43	0.500	mg/L	02.03.20 15.30		1
Silica	7631-86-9	154	1.07	mg/L	02.03.20 15.30		1
Sodium	7440-23-5	89.5	0.500	mg/L	02.03.20 15.30		1



Certificate of Analytical Results 650991

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.31.20 13.07

Lab Sample Id: 650991-001

Date Collected: 01.31.20 10.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.03.20 13.33

Seq Number: 3115420

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0101	0.0100	mg/L	02.03.20 21.24		10
Bromobenzene	108-86-1	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Bromochloromethane	74-97-5	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Bromodichloromethane	75-27-4	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Bromoform	75-25-2	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Methyl bromide	74-83-9	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Methyl ethyl ketone	78-93-3	<0.500	0.500	mg/L	02.03.20 21.24	U	10
n-Butylbenzene	104-51-8	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Sec-Butylbenzene	135-98-8	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
tert-Butylbenzene	98-06-6	0.0438	0.0100	mg/L	02.03.20 21.24		10
Carbon Tetrachloride	56-23-5	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Chlorobenzene	108-90-7	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Chloroethane	75-00-3	<0.100	0.100	mg/L	02.03.20 21.24	U	10
Chloroform	67-66-3	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Methyl Chloride	74-87-3	<0.100	0.100	mg/L	02.03.20 21.24	U	10
2-Chlorotoluene	95-49-8	0.0343	0.0100	mg/L	02.03.20 21.24		10
4-Chlorotoluene	106-43-4	0.0344	0.0100	mg/L	02.03.20 21.24		10
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Dibromochloromethane	124-48-1	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,2-Dibromo-3-Chloropropane	96-12-8	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2-Dibromoethane	106-93-4	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Methylene Bromide	74-95-3	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2-Dichlorobenzene	95-50-1	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,3-Dichlorobenzene	541-73-1	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,4-Dichlorobenzene	106-46-7	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Dichlorodifluoromethane	75-71-8	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,1-Dichloroethane	75-34-3	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2-Dichloroethane	107-06-2	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,1-Dichloroethene	75-35-4	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
cis-1,2-Dichloroethylene	156-59-2	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
trans-1,2-dichloroethylene	156-60-5	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2-Dichloropropane	78-87-5	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,3-Dichloropropane	142-28-9	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
2,2-Dichloropropane	594-20-7	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,1-Dichloropropene	563-58-6	0.0584	0.0500	mg/L	02.03.20 21.24		10
cis-1,3-Dichloropropene	10061-01-5	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
trans-1,3-dichloropropene	10061-02-6	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Ethylbenzene	100-41-4	0.0462	0.0100	mg/L	02.03.20 21.24		10
Hexachlorobutadiene	87-68-3	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10



Certificate of Analytical Results 650991



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 01.31.20 13.07

Lab Sample Id: 650991-001

Date Collected: 01.31.20 10.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.03.20 13.33

Seq Number: 3115420

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0262	0.0100	mg/L	02.03.20 21.24		10
Methylene Chloride	75-09-2	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
MTBE	1634-04-4	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Naphthalene	91-20-3	<0.100	0.100	mg/L	02.03.20 21.24	U	10
n-Propylbenzene	103-65-1	0.0458	0.0100	mg/L	02.03.20 21.24		10
Styrene	100-42-5	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,1,1,2-Tetrachloroethane	630-20-6	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,1,2,2-Tetrachloroethane	79-34-5	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Tetrachloroethylene	127-18-4	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Toluene	108-88-3	0.0567	0.0100	mg/L	02.03.20 21.24		10
1,2,3-Trichlorobenzene	87-61-6	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,2,4-Trichlorobenzene	120-82-1	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,1,1-Trichloroethane	71-55-6	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
1,1,2-Trichloroethane	79-00-5	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
Trichloroethylene	79-01-6	<0.0500	0.0500	mg/L	02.03.20 21.24	U	10
Trichlorofluoromethane	75-69-4	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2,3-Trichloropropane	96-18-4	<0.0100	0.0100	mg/L	02.03.20 21.24	U	10
1,2,4-Trimethylbenzene	95-63-6	0.323	0.0100	mg/L	02.03.20 21.24		10
1,3,5-Trimethylbenzene	108-67-8	0.0847	0.0100	mg/L	02.03.20 21.24		10
o-Xylene	95-47-6	0.0385	0.0100	mg/L	02.03.20 21.24		10
m,p-Xylenes	179601-23-1	0.166	0.100	mg/L	02.03.20 21.24		10
Vinyl Chloride	75-01-4	<0.0200	0.0200	mg/L	02.03.20 21.24	U	10
Total Xylenes	1330-20-7	0.205	0.0100	mg/L	02.03.20 21.24		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	75-131	02.03.20 21.24	
1,2-Dichloroethane-D4	17060-07-0	110	%	63-144	02.03.20 21.24	
Toluene-D8	2037-26-5	98	%	80-117	02.03.20 21.24	
4-Bromofluorobenzene	460-00-4	104	%	74-124	02.03.20 21.24	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115384

MB Sample Id: 7695828-1-BLK

Matrix: Water

LCS Sample Id: 7695828-1-BKS

Prep Method: SM2320P

Date Prep: 02.03.20

LCSD Sample Id: 7695828-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	255	102	260	104	85-115	2	20	mg/L	02.03.20 14:30	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115384

Matrix: Water

MB Sample Id: 7695828-1-BLK

Prep Method: SM2320P

Date Prep: 02.03.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	02.03.20 14:23	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	02.03.20 14:23	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	02.03.20 14:23	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115384

Matrix: Drinking Water

Parent Sample Id: 650983-001

MD Sample Id: 650983-001 D

Prep Method: SM2320P

Date Prep: 02.03.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	296	297	0	20	mg/L	02.03.20 16:28	
Alkalinity, Bicarbonate (as CaCO3)	296	297	0	20	mg/L	02.03.20 16:28	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.03.20 16:28	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.03.20 16:28	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115384

Matrix: Ground Water

Parent Sample Id: 650991-001

MD Sample Id: 650991-001 D

Prep Method: SM2320P

Date Prep: 02.03.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1230	1230	0	20	mg/L	02.03.20 15:05	
Alkalinity, Bicarbonate (as CaCO3)	1230	1230	0	20	mg/L	02.03.20 15:05	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.03.20 15:05	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.03.20 15:05	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3115253

Matrix: Water

Prep Method: E300P

MB Sample Id: 7695779-1-BLK

LCS Sample Id: 7695779-1-BKS

Date Prep: 02.01.20

LCSD Sample Id: 7695779-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	9.99	100	10.0	100	90-110	0	20	mg/L	02.01.20 10:29	
Chloride	<0.500	10.0	9.59	96	9.58	96	90-110	0	20	mg/L	02.01.20 10:29	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	02.01.20 10:29	
Nitrate as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	02.01.20 10:29	
Nitrite as N	<0.100	10.0	9.99	100	9.98	100	90-110	0	20	mg/L	02.01.20 10:29	
Sulfate	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.01.20 10:29	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3115253

Matrix: Drinking Water

Prep Method: E300P

Parent Sample Id: 650983-001

MS Sample Id: 650983-001 S

Date Prep: 02.01.20

MSD Sample Id: 650983-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.975	10.0	10.4	94	10.4	94	90-110	0	20	mg/L	02.01.20 11:53	
Fluoride	3.73	10.0	12.6	89	12.5	88	90-110	1	20	mg/L	02.01.20 11:53	X
Nitrate as N	8.11	10.0	17.8	97	17.8	97	90-110	0	20	mg/L	02.01.20 11:53	
Nitrite as N	<0.100	10.0	8.76	88	8.75	88	90-110	0	20	mg/L	02.01.20 11:53	X

Analytical Method: TDS by SM2540C

Seq Number: 3115373

Matrix: Water

MB Sample Id: 3115373-1-BLK

LCS Sample Id: 3115373-1-BKS

LCSD Sample Id: 3115373-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	946	95	946	95	80-120	0	10	mg/L	02.03.20 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3115373

Matrix: Ground Water

Parent Sample Id: 650991-001

MD Sample Id: 650991-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1440	1440	0	10	mg/L	02.03.20 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3115359

Matrix: Ground Water

Parent Sample Id: 650991-001

MD Sample Id: 650991-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.15	6.16	0	20	SU	02.03.20 12:20	
Temperature	23.9	23.9	0	20	Deg C	02.03.20 12:20	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115379

Matrix: Water

MB Sample Id: 7695818-1-BLK

LCS Sample Id: 7695818-1-BKS

Prep Method: E200.7P

Date Prep: 02.03.20

LCSD Sample Id: 7695818-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.8	95	23.9	96	85-115	0	20	mg/L	02.03.20 14:27	
Magnesium	<0.400	25.0	23.7	95	23.7	95	85-115	0	20	mg/L	02.03.20 14:27	
Potassium	<0.500	10.0	9.71	97	9.70	97	85-115	0	20	mg/L	02.03.20 14:27	
Silica	<1.07	21.4	20.8	97	20.9	98	85-115	0	20	mg/L	02.03.20 14:27	
Sodium	<0.500	25.0	23.7	95	23.8	95	85-115	0	20	mg/L	02.03.20 14:27	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115379

Matrix: Water

Parent Sample Id: 650537-001

MS Sample Id: 650537-001 S

Prep Method: E200.7P

Date Prep: 02.03.20

MSD Sample Id: 650537-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	54.8	25.0	78.3	94	78.1	93	70-130	0	20	mg/L	02.03.20 14:40	
Magnesium	23.3	25.0	47.9	98	47.7	98	70-130	0	20	mg/L	02.03.20 14:40	
Potassium	1.96	10.0	12.3	103	12.3	103	70-130	0	20	mg/L	02.03.20 14:40	
Silica	43.8	21.4	65.1	100	65.2	100	70-130	0	20	mg/L	02.03.20 14:40	
Sodium	20.4	25.0	45.3	100	45.3	100	70-130	0	20	mg/L	02.03.20 14:40	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115379

Matrix: Ground Water

Parent Sample Id: 650991-001

MS Sample Id: 650991-001 S

Prep Method: E200.7P

Date Prep: 02.03.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	436	25.0	431	0	70-130	mg/L	02.03.20 15:34	X
Magnesium	79.1	25.0	102	92	70-130	mg/L	02.03.20 15:34	
Potassium	7.43	10.0	17.9	105	70-130	mg/L	02.03.20 15:34	
Silica	154	21.4	232	364	70-130	mg/L	02.03.20 15:34	X
Sodium	89.5	25.0	108	74	70-130	mg/L	02.03.20 15:34	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115420

MB Sample Id: 7695872-1-BLK

Matrix: Water

LCS Sample Id: 7695872-1-BKS

Prep Method: SW5030B

Date Prep: 02.03.20

LCSD Sample Id: 7695872-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0530	106	0.0527	105	66-142	1	25	mg/L	02.03.20 17:28	
Bromobenzene	<0.00100	0.0500	0.0473	95	0.0541	108	75-125	13	25	mg/L	02.03.20 17:28	
Bromochloromethane	<0.00100	0.0500	0.0519	104	0.0484	97	60-140	7	25	mg/L	02.03.20 17:28	
Bromodichloromethane	<0.00100	0.0500	0.0530	106	0.0527	105	75-125	1	25	mg/L	02.03.20 17:28	
Bromoform	<0.00500	0.0500	0.0507	101	0.0535	107	75-125	5	25	mg/L	02.03.20 17:28	
Methyl bromide	<0.00500	0.0500	0.0505	101	0.0452	90	60-140	11	25	mg/L	02.03.20 17:28	
Methyl ethyl ketone	<0.0500	0.250	0.253	101	0.252	101	60-140	0	25	mg/L	02.03.20 17:28	
n-Butylbenzene	<0.000286	0.0500	0.0500	100	0.0572	114	75-125	13	25	mg/L	02.03.20 17:28	
Sec-Butylbenzene	<0.00100	0.0500	0.0519	104	0.0584	117	75-125	12	25	mg/L	02.03.20 17:28	
tert-Butylbenzene	<0.00100	0.0500	0.0509	102	0.0574	115	75-125	12	25	mg/L	02.03.20 17:28	
Carbon Tetrachloride	<0.00500	0.0500	0.0517	103	0.0482	96	62-125	7	25	mg/L	02.03.20 17:28	
Chlorobenzene	<0.00100	0.0500	0.0497	99	0.0516	103	60-133	4	25	mg/L	02.03.20 17:28	
Chloroethane	<0.0100	0.0500	0.0482	96	0.0442	88	60-140	9	25	mg/L	02.03.20 17:28	
Chloroform	<0.00100	0.0500	0.0521	104	0.0496	99	70-130	5	25	mg/L	02.03.20 17:28	
Methyl Chloride	<0.0100	0.0500	0.0477	95	0.0443	89	60-140	7	25	mg/L	02.03.20 17:28	
2-Chlorotoluene	<0.00100	0.0500	0.0494	99	0.0554	111	73-125	11	25	mg/L	02.03.20 17:28	
4-Chlorotoluene	<0.00100	0.0500	0.0501	100	0.0560	112	74-125	11	25	mg/L	02.03.20 17:28	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0521	104	0.0592	118	75-125	13	25	mg/L	02.03.20 17:28	
Dibromochloromethane	<0.00500	0.0500	0.0551	110	0.0571	114	73-125	4	25	mg/L	02.03.20 17:28	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0487	97	0.0562	112	59-125	14	25	mg/L	02.03.20 17:28	
1,2-Dibromoethane	<0.00500	0.0500	0.0547	109	0.0567	113	73-125	4	25	mg/L	02.03.20 17:28	
Methylene Bromide	<0.00100	0.0500	0.0482	96	0.0475	95	69-127	1	25	mg/L	02.03.20 17:28	
1,2-Dichlorobenzene	<0.000236	0.0500	0.0496	99	0.0554	111	75-125	11	25	mg/L	02.03.20 17:28	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0496	99	0.0560	112	75-125	12	25	mg/L	02.03.20 17:28	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0489	98	0.0542	108	75-125	10	25	mg/L	02.03.20 17:28	
Dichlorodifluoromethane	<0.00100	0.0500	0.0488	98	0.0440	88	60-140	10	25	mg/L	02.03.20 17:28	
1,1-Dichloroethane	<0.00100	0.0500	0.0521	104	0.0487	97	72-125	7	25	mg/L	02.03.20 17:28	
1,2-Dichloroethane	<0.00100	0.0500	0.0483	97	0.0487	97	68-127	1	25	mg/L	02.03.20 17:28	
1,1-Dichloroethene	<0.00100	0.0500	0.0518	104	0.0481	96	59-172	7	25	mg/L	02.03.20 17:28	
cis-1,2-Dichloroethylene	<0.000174	0.0500	0.0538	108	0.0505	101	75-125	6	25	mg/L	02.03.20 17:28	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0535	107	0.0501	100	75-125	7	25	mg/L	02.03.20 17:28	
1,2-Dichloropropane	<0.00500	0.0500	0.0543	109	0.0535	107	74-125	1	25	mg/L	02.03.20 17:28	
1,3-Dichloropropane	<0.00500	0.0500	0.0555	111	0.0563	113	75-125	1	25	mg/L	02.03.20 17:28	
2,2-Dichloropropane	<0.00500	0.0500	0.0545	109	0.0509	102	75-125	7	25	mg/L	02.03.20 17:28	
1,1-Dichloropropene	<0.00500	0.0500	0.0516	103	0.0495	99	75-125	4	25	mg/L	02.03.20 17:28	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0526	105	0.0527	105	74-125	0	25	mg/L	02.03.20 17:28	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0543	109	0.0561	112	66-125	3	25	mg/L	02.03.20 17:28	
Ethylbenzene	<0.00100	0.0500	0.0504	101	0.0527	105	75-125	4	25	mg/L	02.03.20 17:28	
Hexachlorobutadiene	<0.00200	0.0500	0.0477	95	0.0554	111	75-125	15	25	mg/L	02.03.20 17:28	
Isopropylbenzene	<0.00100	0.0500	0.0517	103	0.0535	107	75-125	3	25	mg/L	02.03.20 17:28	
Methylene Chloride	<0.00191	0.0500	0.0490	98	0.0462	92	75-125	6	25	mg/L	02.03.20 17:28	
MTBE	<0.00500	0.0500	0.0510	102	0.0508	102	65-135	0	25	mg/L	02.03.20 17:28	
Naphthalene	<0.00200	0.0500	0.0518	104	0.0632	126	70-130	20	25	mg/L	02.03.20 17:28	
n-Propylbenzene	<0.00100	0.0500	0.0509	102	0.0567	113	75-125	11	25	mg/L	02.03.20 17:28	
Styrene	<0.00100	0.0500	0.0533	107	0.0547	109	75-125	3	25	mg/L	02.03.20 17:28	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0527	105	0.0555	111	72-125	5	25	mg/L	02.03.20 17:28	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0462	92	0.0554	111	74-125	18	25	mg/L	02.03.20 17:28	
Tetrachloroethylene	<0.00100	0.0500	0.0507	101	0.0542	108	71-125	7	25	mg/L	02.03.20 17:28	
Toluene	<0.000500	0.0500	0.0494	99	0.0515	103	59-139	4	25	mg/L	02.03.20 17:28	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115420

MB Sample Id: 7695872-1-BLK

Matrix: Water

LCS Sample Id: 7695872-1-BKS

Prep Method: SW5030B

Date Prep: 02.03.20

LCSD Sample Id: 7695872-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00200	0.0500	0.0518	104	0.0615	123	75-137	17	25	mg/L	02.03.20 17:28	
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0525	105	0.0599	120	75-135	13	25	mg/L	02.03.20 17:28	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0512	102	0.0485	97	75-125	5	25	mg/L	02.03.20 17:28	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0561	112	0.0569	114	75-127	1	25	mg/L	02.03.20 17:28	
Trichloroethylene	<0.00500	0.0500	0.0547	109	0.0536	107	62-137	2	25	mg/L	02.03.20 17:28	
Trichlorofluoromethane	<0.00100	0.0500	0.0494	99	0.0454	91	60-140	8	25	mg/L	02.03.20 17:28	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0464	93	0.0557	111	75-125	18	25	mg/L	02.03.20 17:28	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0513	103	0.0586	117	75-125	13	25	mg/L	02.03.20 17:28	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0521	104	0.0596	119	70-125	13	25	mg/L	02.03.20 17:28	
o-Xylene	<0.00100	0.0500	0.0523	105	0.0536	107	75-125	2	25	mg/L	02.03.20 17:28	
m,p-Xylenes	<0.0100	0.100	0.104	104	0.106	106	75-125	2	25	mg/L	02.03.20 17:28	
Vinyl Chloride	<0.00200	0.0500	0.0516	103	0.0474	95	60-140	8	25	mg/L	02.03.20 17:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	88		105		98		75-131	%	02.03.20 17:28
1,2-Dichloroethane-D4	99		98		96		63-144	%	02.03.20 17:28
Toluene-D8	96		100		102		80-117	%	02.03.20 17:28
4-Bromofluorobenzene	108		97		104		74-124	%	02.03.20 17:28

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115420

Parent Sample Id: 650772-001

Matrix: Ground Water

MS Sample Id: 650772-001 S

Prep Method: SW5030B

Date Prep: 02.03.20

MSD Sample Id: 650772-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00350	0.500	0.524	104	0.527	105	66-142	1	25	mg/L	02.03.20 18:15	
Bromobenzene	<0.0100	0.500	0.483	97	0.485	97	75-125	0	25	mg/L	02.03.20 18:15	
Bromochloromethane	<0.0100	0.500	0.490	98	0.507	101	60-140	3	25	mg/L	02.03.20 18:15	
Bromodichloromethane	<0.0100	0.500	0.532	106	0.536	107	75-125	1	25	mg/L	02.03.20 18:15	
Bromoform	<0.0500	0.500	0.512	102	0.530	106	75-125	3	25	mg/L	02.03.20 18:15	
Methyl bromide	<0.0500	0.500	0.471	94	0.475	95	60-140	1	25	mg/L	02.03.20 18:15	
Methyl ethyl ketone	<0.0270	2.50	2.61	104	2.64	106	60-140	1	25	mg/L	02.03.20 18:15	
n-Butylbenzene	<0.00286	0.500	0.511	102	0.522	104	75-125	2	25	mg/L	02.03.20 18:15	
Sec-Butylbenzene	<0.0100	0.500	0.523	105	0.526	105	75-125	1	25	mg/L	02.03.20 18:15	
tert-Butylbenzene	<0.0100	0.500	0.526	105	0.526	105	75-125	0	25	mg/L	02.03.20 18:15	
Carbon Tetrachloride	0.00930	0.500	0.514	101	0.523	103	62-125	2	25	mg/L	02.03.20 18:15	
Chlorobenzene	<0.0100	0.500	0.490	98	0.494	99	60-133	1	25	mg/L	02.03.20 18:15	
Chloroethane	0.0406	0.500	0.457	83	0.453	82	60-140	1	25	mg/L	02.03.20 18:15	
Chloroform	<0.0100	0.500	0.501	100	0.518	104	70-130	3	25	mg/L	02.03.20 18:15	
Methyl Chloride	0.00470	0.500	0.452	89	0.453	90	60-140	0	25	mg/L	02.03.20 18:15	
2-Chlorotoluene	<0.0100	0.500	0.492	98	0.496	99	73-125	1	25	mg/L	02.03.20 18:15	
4-Chlorotoluene	<0.00183	0.500	0.502	100	0.504	101	74-125	0	25	mg/L	02.03.20 18:15	
p-Cymene (p-Isopropyltoluene)	<0.00233	0.500	0.529	106	0.537	107	75-125	2	25	mg/L	02.03.20 18:15	
Dibromochloromethane	<0.0500	0.500	0.534	107	0.566	113	73-125	6	25	mg/L	02.03.20 18:15	
1,2-Dibromo-3-Chloropropane	<0.00319	0.500	0.486	97	0.512	102	59-125	5	25	mg/L	02.03.20 18:15	
1,2-Dibromoethane	<0.0500	0.500	0.524	105	0.549	110	73-125	5	25	mg/L	02.03.20 18:15	
Methylene Bromide	<0.0100	0.500	0.483	97	0.477	95	69-127	1	25	mg/L	02.03.20 18:15	
1,2-Dichlorobenzene	<0.0100	0.500	0.494	99	0.504	101	75-125	2	25	mg/L	02.03.20 18:15	
1,3-Dichlorobenzene	<0.00197	0.500	0.506	101	0.510	102	75-125	1	25	mg/L	02.03.20 18:15	
1,4-Dichlorobenzene	<0.00199	0.500	0.487	97	0.496	99	75-125	2	25	mg/L	02.03.20 18:15	
Dichlorodifluoromethane	<0.0100	0.500	0.499	100	0.467	93	60-140	7	25	mg/L	02.03.20 18:15	
1,1-Dichloroethane	<0.0100	0.500	0.500	100	0.511	102	72-125	2	25	mg/L	02.03.20 18:15	
1,2-Dichloroethane	<0.0100	0.500	0.488	98	0.485	97	68-127	1	25	mg/L	02.03.20 18:15	
1,1-Dichloroethene	0.00370	0.500	0.512	102	0.515	102	59-172	1	25	mg/L	02.03.20 18:15	
cis-1,2-Dichloroethylene	2.14	0.500	2.75	122	2.90	152	75-125	5	25	mg/L	02.03.20 18:15	X
trans-1,2-dichloroethylene	0.0146	0.500	0.530	103	0.546	106	75-125	3	25	mg/L	02.03.20 18:15	
1,2-Dichloropropane	<0.0500	0.500	0.544	109	0.543	109	74-125	0	25	mg/L	02.03.20 18:15	
1,3-Dichloropropane	<0.0500	0.500	0.537	107	0.556	111	75-125	3	25	mg/L	02.03.20 18:15	
2,2-Dichloropropane	<0.0500	0.500	0.539	108	0.559	112	75-125	4	25	mg/L	02.03.20 18:15	
1,1-Dichloropropene	0.0573	0.500	0.501	89	0.522	93	75-125	4	25	mg/L	02.03.20 18:15	
cis-1,3-Dichloropropene	<0.0500	0.500	0.523	105	0.529	106	74-125	1	25	mg/L	02.03.20 18:15	
trans-1,3-dichloropropene	<0.0500	0.500	0.533	107	0.559	112	66-125	5	25	mg/L	02.03.20 18:15	
Ethylbenzene	<0.0100	0.500	0.511	102	0.503	101	75-125	2	25	mg/L	02.03.20 18:15	
Hexachlorobutadiene	<0.0200	0.500	0.494	99	0.519	104	75-125	5	25	mg/L	02.03.20 18:15	
Isopropylbenzene	<0.0100	0.500	0.522	104	0.513	103	75-125	2	25	mg/L	02.03.20 18:15	
Methylene Chloride	<0.0191	0.500	0.473	95	0.483	97	75-125	2	25	mg/L	02.03.20 18:15	
MTBE	1.27	0.500	1.95	136	2.09	164	65-135	7	25	mg/L	02.03.20 18:15	X
Naphthalene	<0.0200	0.500	0.559	112	0.575	115	70-130	3	25	mg/L	02.03.20 18:15	
n-Propylbenzene	<0.0100	0.500	0.513	103	0.514	103	75-125	0	25	mg/L	02.03.20 18:15	
Styrene	<0.0100	0.500	0.528	106	0.529	106	75-125	0	25	mg/L	02.03.20 18:15	
1,1,1,2-Tetrachloroethane	<0.0100	0.500	0.514	103	0.536	107	72-125	4	25	mg/L	02.03.20 18:15	
1,1,2,2-Tetrachloroethane	<0.0100	0.500	0.490	98	0.491	98	74-125	0	25	mg/L	02.03.20 18:15	
Tetrachloroethylene	0.137	0.500	0.660	105	0.669	106	71-125	1	25	mg/L	02.03.20 18:15	
Toluene	<0.00500	0.500	0.486	97	0.492	98	59-139	1	25	mg/L	02.03.20 18:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115420

Parent Sample Id: 650772-001

Matrix: Ground Water

MS Sample Id: 650772-001 S

Prep Method: SW5030B

Date Prep: 02.03.20

MSD Sample Id: 650772-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.0200	0.500	0.553	111	0.567	113	75-137	3	25	mg/L	02.03.20 18:15	
1,2,4-Trichlorobenzene	<0.0200	0.500	0.535	107	0.560	112	75-135	5	25	mg/L	02.03.20 18:15	
1,1,1-Trichloroethane	0.00590	0.500	0.507	100	0.521	103	75-125	3	25	mg/L	02.03.20 18:15	
1,1,2-Trichloroethane	0.00390	0.500	0.547	109	0.574	114	75-127	5	25	mg/L	02.03.20 18:15	
Trichloroethylene	0.313	0.500	0.919	121	0.951	128	62-137	3	25	mg/L	02.03.20 18:15	
Trichlorofluoromethane	<0.0100	0.500	0.492	98	0.488	98	60-140	1	25	mg/L	02.03.20 18:15	
1,2,3-Trichloropropane	<0.0100	0.500	0.485	97	0.481	96	75-125	1	25	mg/L	02.03.20 18:15	
1,2,4-Trimethylbenzene	<0.00252	0.500	0.517	103	0.530	106	75-125	2	25	mg/L	02.03.20 18:15	
1,3,5-Trimethylbenzene	<0.0100	0.500	0.521	104	0.530	106	70-125	2	25	mg/L	02.03.20 18:15	
o-Xylene	<0.0100	0.500	0.521	104	0.518	104	75-125	1	25	mg/L	02.03.20 18:15	
m,p-Xylenes	<0.00330	1.00	1.04	104	1.03	103	75-125	1	25	mg/L	02.03.20 18:15	
Vinyl Chloride	0.600	0.500	1.10	100	1.13	106	60-140	3	25	mg/L	02.03.20 18:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		104		75-131	%	02.03.20 18:15
1,2-Dichloroethane-D4	99		102		63-144	%	02.03.20 18:15
Toluene-D8	99		100		80-117	%	02.03.20 18:15
4-Bromofluorobenzene	99		97		74-124	%	02.03.20 18:15

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

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

Work Order No:

1050991

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjenning@ensolum.com

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

Project Name:	Levey Well	Hobbs NM	Turn Around	ANALYSIS REQUEST		Work Order Notes
Project Number:	03B1417001		Routine ☐			
P.O. Number:	03B1417001		Rush: 24 Hr			
Sampler's Name:	Shane Diller		Due Date:			
SAMPLE RECEIPT						
Temperature (°C):	1.0	Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No	
Received Intact:	☒ Yes ☐ No	Thermometer ID	22			
Cooler Custody Seals:	☒ Yes ☐ No	Correction Factor:	0			
Sample Custody Seals:	☒ Yes ☐ No	Total Containers:				
Sample Identification						
Levey Well	GW	Matrix	1-31-20	Date Sampled	1030	Time Sampled
Number of Containers						
VOCs						
Anions: F, Cl, SO4, B						
Cations: Ca, K, Mg, Na, Si						
pH						
Alkalinity						
TDS						
TAT starts the day received by the lab, if received by 4:30pm						
Sample Comments						
24 Hr.						

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [Signature]	1 [Signature]	1/31/20	2 [Signature]	2 [Signature]	2/1/20
3 [Signature]	3 [Signature]	3/1/20	4 [Signature]	4 [Signature]	4/1/20
5 [Signature]	5 [Signature]	5/1/20	6 [Signature]	6 [Signature]	6/1/20

Inter-Office Shipment

IOS Number : **57256**

Date/Time: 01.31.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777662909029

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
650991-001	W	Levey Well	01.31.2020 10:30	SW8260C	VOCs by SW-846 8260C	02.03.2020	02.14.2020	JKR	BDCME BRBZ BRCLME	
650991-001	W	Levey Well	01.31.2020 10:30	E200.7	Recoverable Metals per ICP by EPA 200	02.03.2020	07.29.2020	JKR	CA K MG NA SI	
650991-001	W	Levey Well	01.31.2020 10:30	E300	Inorganic Anions by EPA 300/300.1	02.03.2020	02.02.2020 10:30	JKR	BR CL F NO2N NO3N SC	
650991-001	W	Levey Well	01.31.2020 10:30	SM4500-H	pH by SM4500-H	02.03.2020	01.31.2020 10:45	JKR		
650991-001	W	Levey Well	01.31.2020 10:30	SM2540C	TDS by SM2540C	02.03.2020	02.07.2020	JKR	TDS	
650991-001	W	Levey Well	01.31.2020 10:30	SM2320B	Alkalinity by SM2320B	02.03.2020	02.14.2020	JKR	ALK ALKB ALKC	
650991-001	W	Levey Well	01.31.2020 10:30	SM1030E	Cation-Anion Balance Calculation	02.03.2020	03.01.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

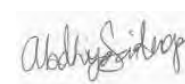
Relinquished By:



Brianna Teel

Date Relinquished: 01.31.2020

Received By:



Abdhija Saidurga

Date Received: 02.01.2020

Cooler Temperature: 2.9



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 57256

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 01.31.2020 01.10 PM

Received By: Abdhija Saidurga

Date Received: 02.01.2020 09.34 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Abdhija Saidurga

Date: 02.01.2020



Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 01/31/2020 01:07:00 PM

Work Order #: 650991

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 01/31/2020

Checklist reviewed by:

Jessica Kramer

Date: 01/31/2020



Certificate of Analysis Summary 651624

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-06-20 04:20 pm
Report Date: 10-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 651624-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-06-20 14:15					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Feb-07-20 10:27 Analyzed: Feb-07-20 11:33 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1180 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1180 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Feb-10-20 12:14 Units/RL: % RL					
Cation-Anion Balance	1.10					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Feb-07-20 10:36 Analyzed: Feb-07-20 11:34 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	316 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.179 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	64.2 D 5.00					

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 651624

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-06-20 04:20 pm
Report Date: 10-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	651624-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Feb-06-20 14:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Feb-07-20 10:35					
	Analyzed:	Feb-08-20 17:41					
	Units/RL:	mg/L RL					
Calcium		430 D 10.0					
Magnesium		76.0 0.400					
Potassium		7.60 0.500					
Silica		79.5 1.07					
Sodium		101 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Feb-07-20 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1100 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 651624

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-06-20 04:20 pm
Report Date: 10-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	651624-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Feb-06-20 14:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	Feb-07-20 12:18					
	Analyzed:	Feb-07-20 13:35					
	Units/RL:	mg/L RL					
Benzene		0.00758 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
Methyl ethyl ketone		<0.0500 0.0500					
n-Butylbenzene		0.00234 0.00100					
Sec-Butylbenzene		0.00299 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00165 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 651624

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-06-20 04:20 pm
Report Date: 10-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 651624-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-06-20 14:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-07-20 12:18 Analyzed: Feb-07-20 13:35 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0306 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0174 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0237 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 651624

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-06-20 04:20 pm
Report Date: 10-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 651624-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-06-20 14:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-07-20 12:18 Analyzed: Feb-07-20 13:35 Units/RL: mg/L RL					
Toluene	0.0489 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.285 D 0.0100					
1,3,5-Trimethylbenzene	0.0451 0.00100					
o-Xylene	0.0242 0.00100					
m,p-Xylenes	0.116 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.140 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-07-20 11:15 Units/RL: Deg C RL					
Temperature	25.5 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-07-20 11:15 Units/RL: SU RL					
pH	6.07 K					

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Version: 1.0%

Jessica Kramer
Project Assistant

Analytical Report 651624

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

10-FEB-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-FEB-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **651624**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 651624. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651624 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 651624

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	02-06-20 14:15		651624-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 651624

Report Date: 10-FEB-20
Date Received: 02/06/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 651624



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.06.20 16.20

Lab Sample Id: 651624-001

Date Collected: 02.06.20 14.15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 02.07.20 10.27

Seq Number: 3115908

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1180	4.00	mg/L	02.07.20 11.33		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1180	4.00	mg/L	02.07.20 11.33		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	02.07.20 11.33	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	02.07.20 11.33	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3116026

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.10		%	02.10.20 12.14		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 02.07.20 10.36

Seq Number: 3115889

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	02.07.20 11.16	U	1
Chloride	16887-00-6	316	0.500	mg/L	02.07.20 11.16		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	02.07.20 11.16	U	1
Nitrate as N	14797-55-8	0.179	0.100	mg/L	02.07.20 11.16		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	02.07.20 11.16	U	1
Sulfate	14808-79-8	64.2	5.00	mg/L	02.07.20 11.25	D	10



Certificate of Analytical Results 651624



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.06.20 16.20

Lab Sample Id: 651624-001

Date Collected: 02.06.20 14.15

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3115893

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1100	5.00	mg/L	02.07.20 10.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3115901

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.07		SU	02.07.20 11.15	K	1
Temperature	TEMP	25.5		Deg C	02.07.20 11.15	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 02.07.20 10.35

Seq Number: 3115967

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	430	10.0	mg/L	02.08.20 17.45	D	50
Magnesium	7439-95-4	76.0	0.400	mg/L	02.08.20 17.41		1
Potassium	7440-09-7	7.60	0.500	mg/L	02.08.20 17.41		1
Silica	7631-86-9	79.5	1.07	mg/L	02.08.20 17.41		1
Sodium	7440-23-5	101	0.500	mg/L	02.08.20 17.41		1



Certificate of Analytical Results 651624



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.06.20 16.20

Lab Sample Id: 651624-001

Date Collected: 02.06.20 14.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.07.20 12.18

Seq Number: 3115940

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00758	0.00100	mg/L	02.07.20 13.35		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Methyl ethyl ketone	78-93-3	<0.0500	0.0500	mg/L	02.07.20 13.35	U	1
n-Butylbenzene	104-51-8	0.00234	0.00100	mg/L	02.07.20 13.35		1
Sec-Butylbenzene	135-98-8	0.00299	0.00100	mg/L	02.07.20 13.35		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	02.07.20 13.35	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	02.07.20 13.35	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00165	0.00100	mg/L	02.07.20 13.35		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Ethylbenzene	100-41-4	0.0306	0.00100	mg/L	02.07.20 13.35		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1



Certificate of Analytical Results 651624



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.06.20 16.20

Lab Sample Id: 651624-001

Date Collected: 02.06.20 14.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.07.20 12.18

Seq Number: 3115940

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0174	0.00100	mg/L	02.07.20 13.35		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	02.07.20 13.35	U	1
n-Propylbenzene	103-65-1	0.0237	0.00100	mg/L	02.07.20 13.35		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Toluene	108-88-3	0.0489	0.00100	mg/L	02.07.20 13.35		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	02.07.20 13.35	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	02.07.20 13.35	U	1
1,2,4-Trimethylbenzene	95-63-6	0.285	0.0100	mg/L	02.07.20 14.23	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0451	0.00100	mg/L	02.07.20 13.35		1
o-Xylene	95-47-6	0.0242	0.00100	mg/L	02.07.20 13.35		1
m,p-Xylenes	179601-23-1	0.116	0.0100	mg/L	02.07.20 13.35		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	02.07.20 13.35	U	1
Total Xylenes	1330-20-7	0.140	0.00100	mg/L	02.07.20 13.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	75-131	02.07.20 13.35	
1,2-Dichloroethane-D4	17060-07-0	107	%	63-144	02.07.20 13.35	
Toluene-D8	2037-26-5	100	%	80-117	02.07.20 13.35	
4-Bromofluorobenzene	460-00-4	98	%	74-124	02.07.20 13.35	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115908

MB Sample Id: 7696200-1-BLK

Matrix: Water

LCS Sample Id: 7696200-1-BKS

Prep Method: SM2320P

Date Prep: 02.07.20

LCSD Sample Id: 7696200-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	259	104	257	103	85-115	1	20	mg/L	02.07.20 11:12	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115908

Matrix: Water

MB Sample Id: 7696200-1-BLK

Prep Method: SM2320P

Date Prep: 02.07.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	02.07.20 11:05	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	02.07.20 11:05	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	02.07.20 11:05	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115908

Matrix: Drinking Water

Parent Sample Id: 651383-002

MD Sample Id: 651383-002 D

Prep Method: SM2320P

Date Prep: 02.07.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	322	318	1	20	mg/L	02.07.20 13:04	
Alkalinity, Bicarbonate (as CaCO ₃)	322	318	1	20	mg/L	02.07.20 13:04	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	02.07.20 13:04	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	02.07.20 13:04	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3115908

Matrix: Ground Water

Parent Sample Id: 651624-001

MD Sample Id: 651624-001 D

Prep Method: SM2320P

Date Prep: 02.07.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1180	1180	0	20	mg/L	02.07.20 11:46	
Alkalinity, Bicarbonate (as CaCO ₃)	1180	1180	0	20	mg/L	02.07.20 11:46	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	02.07.20 11:46	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	02.07.20 11:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3115889

Matrix: Water

Prep Method: E300P

Date Prep: 02.07.20

MB Sample Id: 7696202-1-BLK

LCS Sample Id: 7696202-1-BKS

LCSD Sample Id: 7696202-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.1	101	90-110	3	20	mg/L	02.07.20 10:59	
Chloride	<0.500	10.0	10.4	104	10.1	101	90-110	3	20	mg/L	02.07.20 10:59	
Fluoride	<0.500	10.0	10.7	107	10.4	104	90-110	3	20	mg/L	02.07.20 10:59	
Nitrate as N	<0.100	10.0	10.4	104	10.2	102	90-110	2	20	mg/L	02.07.20 10:59	
Nitrite as N	<0.100	10.0	10.2	102	9.97	100	90-110	2	20	mg/L	02.07.20 10:59	
Sulfate	<0.500	10.0	10.4	104	10.1	101	90-110	3	20	mg/L	02.07.20 10:59	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3115889

Matrix: Ground Water

Prep Method: E300P

Date Prep: 02.07.20

Parent Sample Id: 651624-001

MS Sample Id: 651624-001 S

MSD Sample Id: 651624-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<10.0	200	198	99	199	100	90-110	1	20	mg/L	02.07.20 11:43	
Chloride	316	200	508	96	508	96	90-110	0	20	mg/L	02.07.20 11:43	
Fluoride	<10.0	200	208	104	208	104	90-110	0	20	mg/L	02.07.20 11:43	
Nitrate as N	0.179	200	203	101	203	101	90-110	0	20	mg/L	02.07.20 11:43	
Nitrite as N	<2.00	200	196	98	197	99	90-110	1	20	mg/L	02.07.20 11:43	
Sulfate	64.2	200	259	97	260	98	90-110	0	20	mg/L	02.07.20 11:43	

Analytical Method: TDS by SM2540C

Seq Number: 3115893

Matrix: Water

MB Sample Id: 3115893-1-BLK

LCS Sample Id: 3115893-1-BKS

LCSD Sample Id: 3115893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	965	97	966	97	80-120	0	10	mg/L	02.07.20 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3115893

Matrix: Waste Water

Parent Sample Id: 651412-001

MD Sample Id: 651412-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	5500	5500	0	10	mg/L	02.07.20 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3115901

Matrix: Ground Water

Parent Sample Id: 651624-001

MD Sample Id: 651624-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.07	6.07	0	20	SU	02.07.20 11:15	
Temperature	25.5	25.6	0	20	Deg C	02.07.20 11:15	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115967

Matrix: Water

MB Sample Id: 7696214-1-BLK

LCS Sample Id: 7696214-1-BKS

Prep Method: E200.7P

Date Prep: 02.07.20

LCSD Sample Id: 7696214-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.9	100	24.9	100	85-115	0	20	mg/L	02.08.20 17:03	
Magnesium	<0.400	25.0	24.2	97	24.2	97	85-115	0	20	mg/L	02.08.20 17:03	
Potassium	<0.500	10.0	9.81	98	9.78	98	85-115	0	20	mg/L	02.08.20 17:03	
Silica	<1.07	21.4	21.5	100	21.6	101	85-115	0	20	mg/L	02.08.20 17:03	
Sodium	<0.500	25.0	24.7	99	24.7	99	85-115	0	20	mg/L	02.08.20 17:03	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115967

Matrix: Waste Water

Parent Sample Id: 651125-001

MS Sample Id: 651125-001 S

Prep Method: E200.7P

Date Prep: 02.07.20

MSD Sample Id: 651125-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	226	25.0	250	96	250	96	70-130	0	20	mg/L	02.08.20 17:16	
Magnesium	68.9	25.0	93.8	100	93.8	100	70-130	0	20	mg/L	02.08.20 17:16	
Potassium	18.5	10.0	29.0	105	29.1	106	70-130	0	20	mg/L	02.08.20 17:16	
Silica	18.8	21.4	42.7	112	42.9	113	70-130	0	20	mg/L	02.08.20 17:16	
Sodium	480	25.0	508	112	509	116	70-130	0	20	mg/L	02.08.20 17:16	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3115967

Matrix: Water

Parent Sample Id: 651365-001

MS Sample Id: 651365-001 S

Prep Method: E200.7P

Date Prep: 02.07.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	39.0	25.0	66.9	112	70-130	mg/L	02.08.20 19:01	
Magnesium	13.6	25.0	39.6	104	70-130	mg/L	02.08.20 19:01	
Potassium	3.57	10.0	14.1	105	70-130	mg/L	02.08.20 19:01	
Silica	4.54	21.4	28.2	111	70-130	mg/L	02.08.20 19:01	
Sodium	185	25.0	222	148	70-130	mg/L	02.08.20 19:01	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115940

MB Sample Id: 7696253-1-BLK

Matrix: Water

LCS Sample Id: 7696253-1-BKS

Prep Method: SW5030B

Date Prep: 02.07.20

LCSD Sample Id: 7696253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0515	103	0.0519	104	66-142	1	25	mg/L	02.07.20 09:25	
Bromobenzene	<0.00100	0.0500	0.0489	98	0.0493	99	75-125	1	25	mg/L	02.07.20 09:25	
Bromochloromethane	<0.00100	0.0500	0.0499	100	0.0504	101	60-140	1	25	mg/L	02.07.20 09:25	
Bromodichloromethane	<0.00100	0.0500	0.0519	104	0.0517	103	75-125	0	25	mg/L	02.07.20 09:25	
Bromoform	<0.00500	0.0500	0.0502	100	0.0506	101	75-125	1	25	mg/L	02.07.20 09:25	
Methyl bromide	<0.00500	0.0500	0.0482	96	0.0461	92	60-140	4	25	mg/L	02.07.20 09:25	
Methyl ethyl ketone	<0.0500	0.250	0.233	93	0.239	96	60-140	3	25	mg/L	02.07.20 09:25	
n-Butylbenzene	<0.00100	0.0500	0.0509	102	0.0517	103	75-125	2	25	mg/L	02.07.20 09:25	
Sec-Butylbenzene	<0.00100	0.0500	0.0483	97	0.0491	98	75-125	2	25	mg/L	02.07.20 09:25	
tert-Butylbenzene	<0.00100	0.0500	0.0518	104	0.0524	105	75-125	1	25	mg/L	02.07.20 09:25	
Carbon Tetrachloride	<0.00500	0.0500	0.0534	107	0.0520	104	62-125	3	25	mg/L	02.07.20 09:25	
Chlorobenzene	<0.00100	0.0500	0.0494	99	0.0493	99	60-133	0	25	mg/L	02.07.20 09:25	
Chloroethane	<0.0100	0.0500	0.0429	86	0.0436	87	60-140	2	25	mg/L	02.07.20 09:25	
Chloroform	<0.00100	0.0500	0.0521	104	0.0519	104	70-130	0	25	mg/L	02.07.20 09:25	
Methyl Chloride	<0.0100	0.0500	0.0483	97	0.0480	96	60-140	1	25	mg/L	02.07.20 09:25	
2-Chlorotoluene	<0.00100	0.0500	0.0501	100	0.0511	102	73-125	2	25	mg/L	02.07.20 09:25	
4-Chlorotoluene	<0.00100	0.0500	0.0509	102	0.0513	103	74-125	1	25	mg/L	02.07.20 09:25	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0471	94	0.0478	96	75-125	1	25	mg/L	02.07.20 09:25	
Dibromochloromethane	<0.00500	0.0500	0.0506	101	0.0508	102	73-125	0	25	mg/L	02.07.20 09:25	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0482	96	0.0499	100	59-125	3	25	mg/L	02.07.20 09:25	
1,2-Dibromoethane	<0.00500	0.0500	0.0489	98	0.0500	100	73-125	2	25	mg/L	02.07.20 09:25	
Methylene Bromide	<0.00100	0.0500	0.0498	100	0.0502	100	69-127	1	25	mg/L	02.07.20 09:25	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0499	100	0.0512	102	75-125	3	25	mg/L	02.07.20 09:25	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0507	101	0.0508	102	75-125	0	25	mg/L	02.07.20 09:25	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0494	99	0.0501	100	75-125	1	25	mg/L	02.07.20 09:25	
Dichlorodifluoromethane	<0.00100	0.0500	0.0571	114	0.0557	111	60-140	2	25	mg/L	02.07.20 09:25	
1,1-Dichloroethane	<0.00100	0.0500	0.0562	112	0.0561	112	72-125	0	25	mg/L	02.07.20 09:25	
1,2-Dichloroethane	<0.00100	0.0500	0.0513	103	0.0515	103	68-127	0	25	mg/L	02.07.20 09:25	
1,1-Dichloroethene	<0.00100	0.0500	0.0527	105	0.0520	104	59-172	1	25	mg/L	02.07.20 09:25	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0521	104	0.0520	104	75-125	0	25	mg/L	02.07.20 09:25	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0528	106	0.0524	105	75-125	1	25	mg/L	02.07.20 09:25	
1,2-Dichloropropane	<0.00500	0.0500	0.0527	105	0.0535	107	74-125	2	25	mg/L	02.07.20 09:25	
1,3-Dichloropropane	<0.00500	0.0500	0.0522	104	0.0531	106	75-125	2	25	mg/L	02.07.20 09:25	
2,2-Dichloropropane	<0.00500	0.0500	0.0554	111	0.0545	109	75-125	2	25	mg/L	02.07.20 09:25	
1,1-Dichloropropene	<0.00500	0.0500	0.0554	111	0.0550	110	75-125	1	25	mg/L	02.07.20 09:25	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0525	105	0.0528	106	74-125	1	25	mg/L	02.07.20 09:25	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0514	103	0.0523	105	66-125	2	25	mg/L	02.07.20 09:25	
Ethylbenzene	<0.00100	0.0500	0.0502	100	0.0499	100	75-125	1	25	mg/L	02.07.20 09:25	
Hexachlorobutadiene	<0.00500	0.0500	0.0517	103	0.0538	108	75-125	4	25	mg/L	02.07.20 09:25	
Isopropylbenzene	<0.00100	0.0500	0.0517	103	0.0519	104	75-125	0	25	mg/L	02.07.20 09:25	
Methylene Chloride	<0.00500	0.0500	0.0452	90	0.0456	91	75-125	1	25	mg/L	02.07.20 09:25	
MTBE	<0.00500	0.0500	0.0524	105	0.0529	106	65-135	1	25	mg/L	02.07.20 09:25	
Naphthalene	<0.0100	0.0500	0.0513	103	0.0544	109	70-130	6	25	mg/L	02.07.20 09:25	
n-Propylbenzene	<0.00100	0.0500	0.0516	103	0.0515	103	75-125	0	25	mg/L	02.07.20 09:25	
Styrene	<0.00100	0.0500	0.0516	103	0.0520	104	75-125	1	25	mg/L	02.07.20 09:25	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0506	101	0.0512	102	72-125	1	25	mg/L	02.07.20 09:25	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0505	101	0.0523	105	74-125	4	25	mg/L	02.07.20 09:25	
Tetrachloroethylene	<0.00100	0.0500	0.0493	99	0.0497	99	71-125	1	25	mg/L	02.07.20 09:25	
Toluene	<0.00100	0.0500	0.0489	98	0.0493	99	59-139	1	25	mg/L	02.07.20 09:25	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115940

MB Sample Id: 7696253-1-BLK

Matrix: Water

LCS Sample Id: 7696253-1-BKS

Prep Method: SW5030B

Date Prep: 02.07.20

LCSD Sample Id: 7696253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0496	99	0.0530	106	75-137	7	25	mg/L	02.07.20 09:25	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0501	100	0.0529	106	75-135	5	25	mg/L	02.07.20 09:25	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0521	104	0.0518	104	75-125	1	25	mg/L	02.07.20 09:25	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0500	100	0.0512	102	75-127	2	25	mg/L	02.07.20 09:25	
Trichloroethylene	<0.00500	0.0500	0.0464	93	0.0457	91	62-137	2	25	mg/L	02.07.20 09:25	
Trichlorofluoromethane	<0.00100	0.0500	0.0490	98	0.0484	97	60-140	1	25	mg/L	02.07.20 09:25	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0479	96	0.0486	97	75-125	1	25	mg/L	02.07.20 09:25	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0487	97	0.0491	98	75-125	1	25	mg/L	02.07.20 09:25	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0514	103	0.0522	104	70-125	2	25	mg/L	02.07.20 09:25	
o-Xylene	<0.00100	0.0500	0.0514	103	0.0511	102	75-125	1	25	mg/L	02.07.20 09:25	
m,p-Xylenes	<0.0100	0.100	0.101	101	0.101	101	75-125	0	25	mg/L	02.07.20 09:25	
Vinyl Chloride	<0.00200	0.0500	0.0479	96	0.0470	94	60-140	2	25	mg/L	02.07.20 09:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		105		103		75-131	%	02.07.20 09:25
1,2-Dichloroethane-D4	99		100		100		63-144	%	02.07.20 09:25
Toluene-D8	99		100		99		80-117	%	02.07.20 09:25
4-Bromofluorobenzene	106		99		99		74-124	%	02.07.20 09:25

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115940

Parent Sample Id: 651579-002

Matrix: Aqueous

MS Sample Id: 651579-002 S

Prep Method: SW5030B

Date Prep: 02.07.20

MSD Sample Id: 651579-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0493	99	0.0512	102	66-142	4	25	mg/L	02.07.20 10:27	
Bromobenzene	<0.00100	0.0500	0.0492	98	0.0471	94	75-125	4	25	mg/L	02.07.20 10:27	
Bromochloromethane	<0.00100	0.0500	0.0485	97	0.0498	100	60-140	3	25	mg/L	02.07.20 10:27	
Bromodichloromethane	<0.00100	0.0500	0.0503	101	0.0514	103	75-125	2	25	mg/L	02.07.20 10:27	
Bromoform	<0.00500	0.0500	0.0481	96	0.0512	102	75-125	6	25	mg/L	02.07.20 10:27	
Methyl bromide	<0.00500	0.0500	0.0455	91	0.0476	95	60-140	5	25	mg/L	02.07.20 10:27	
Methyl ethyl ketone	<0.0500	0.250	0.210	84	0.244	98	60-140	15	25	mg/L	02.07.20 10:27	
n-Butylbenzene	<0.00100	0.0500	0.0523	105	0.0497	99	75-125	5	25	mg/L	02.07.20 10:27	
Sec-Butylbenzene	<0.00100	0.0500	0.0492	98	0.0474	95	75-125	4	25	mg/L	02.07.20 10:27	
tert-Butylbenzene	<0.00100	0.0500	0.0528	106	0.0504	101	75-125	5	25	mg/L	02.07.20 10:27	
Carbon Tetrachloride	<0.00500	0.0500	0.0504	101	0.0524	105	62-125	4	25	mg/L	02.07.20 10:27	
Chlorobenzene	<0.00100	0.0500	0.0484	97	0.0489	98	60-133	1	25	mg/L	02.07.20 10:27	
Chloroethane	<0.0100	0.0500	0.0426	85	0.0430	86	60-140	1	25	mg/L	02.07.20 10:27	
Chloroform	<0.00100	0.0500	0.0505	101	0.0519	104	70-130	3	25	mg/L	02.07.20 10:27	
Methyl Chloride	<0.0100	0.0500	0.0474	95	0.0480	96	60-140	1	25	mg/L	02.07.20 10:27	
2-Chlorotoluene	<0.00100	0.0500	0.0514	103	0.0483	97	73-125	6	25	mg/L	02.07.20 10:27	
4-Chlorotoluene	<0.00100	0.0500	0.0516	103	0.0493	99	74-125	5	25	mg/L	02.07.20 10:27	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0479	96	0.0460	92	75-125	4	25	mg/L	02.07.20 10:27	
Dibromochloromethane	<0.00500	0.0500	0.0491	98	0.0506	101	73-125	3	25	mg/L	02.07.20 10:27	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0463	93	0.0485	97	59-125	5	25	mg/L	02.07.20 10:27	
1,2-Dibromoethane	<0.00500	0.0500	0.0476	95	0.0497	99	73-125	4	25	mg/L	02.07.20 10:27	
Methylene Bromide	<0.00100	0.0500	0.0479	96	0.0500	100	69-127	4	25	mg/L	02.07.20 10:27	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0506	101	0.0491	98	75-125	3	25	mg/L	02.07.20 10:27	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0512	102	0.0490	98	75-125	4	25	mg/L	02.07.20 10:27	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0506	101	0.0487	97	75-125	4	25	mg/L	02.07.20 10:27	
Dichlorodifluoromethane	<0.00100	0.0500	0.0530	106	0.0547	109	60-140	3	25	mg/L	02.07.20 10:27	
1,1-Dichloroethane	<0.00100	0.0500	0.0538	108	0.0553	111	72-125	3	25	mg/L	02.07.20 10:27	
1,2-Dichloroethane	<0.00100	0.0500	0.0488	98	0.0507	101	68-127	4	25	mg/L	02.07.20 10:27	
1,1-Dichloroethene	<0.00100	0.0500	0.0510	102	0.0531	106	59-172	4	25	mg/L	02.07.20 10:27	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0504	101	0.0518	104	75-125	3	25	mg/L	02.07.20 10:27	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0507	101	0.0523	105	75-125	3	25	mg/L	02.07.20 10:27	
1,2-Dichloropropane	<0.00500	0.0500	0.0509	102	0.0526	105	74-125	3	25	mg/L	02.07.20 10:27	
1,3-Dichloropropane	<0.00500	0.0500	0.0510	102	0.0522	104	75-125	2	25	mg/L	02.07.20 10:27	
2,2-Dichloropropane	<0.00500	0.0500	0.0533	107	0.0551	110	75-125	3	25	mg/L	02.07.20 10:27	
1,1-Dichloropropene	<0.00500	0.0500	0.0533	107	0.0550	110	75-125	3	25	mg/L	02.07.20 10:27	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0506	101	0.0523	105	74-125	3	25	mg/L	02.07.20 10:27	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0503	101	0.0519	104	66-125	3	25	mg/L	02.07.20 10:27	
Ethylbenzene	<0.00100	0.0500	0.0492	98	0.0500	100	75-125	2	25	mg/L	02.07.20 10:27	
Hexachlorobutadiene	<0.00500	0.0500	0.0530	106	0.0530	106	75-125	0	25	mg/L	02.07.20 10:27	
Isopropylbenzene	<0.00100	0.0500	0.0512	102	0.0518	104	75-125	1	25	mg/L	02.07.20 10:27	
Methylene Chloride	<0.00500	0.0500	0.0434	87	0.0442	88	75-125	2	25	mg/L	02.07.20 10:27	
MTBE	<0.00500	0.0500	0.0498	100	0.0533	107	65-135	7	25	mg/L	02.07.20 10:27	
Naphthalene	<0.0100	0.0500	0.0490	98	0.0534	107	70-130	9	25	mg/L	02.07.20 10:27	
n-Propylbenzene	<0.00100	0.0500	0.0520	104	0.0496	99	75-125	5	25	mg/L	02.07.20 10:27	
Styrene	<0.00100	0.0500	0.0511	102	0.0518	104	75-125	1	25	mg/L	02.07.20 10:27	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0502	100	0.0506	101	72-125	1	25	mg/L	02.07.20 10:27	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0505	101	0.0519	104	74-125	3	25	mg/L	02.07.20 10:27	
Tetrachloroethylene	<0.00100	0.0500	0.0482	96	0.0493	99	71-125	2	25	mg/L	02.07.20 10:27	
Toluene	<0.00100	0.0500	0.0483	97	0.0489	98	59-139	1	25	mg/L	02.07.20 10:27	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3115940

Parent Sample Id: 651579-002

Matrix: Aqueous

MS Sample Id: 651579-002 S

Prep Method: SW5030B

Date Prep: 02.07.20

MSD Sample Id: 651579-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0485	97	0.0521	104	75-137	7	25	mg/L	02.07.20 10:27	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0511	102	0.0510	102	75-135	0	25	mg/L	02.07.20 10:27	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0504	101	0.0518	104	75-125	3	25	mg/L	02.07.20 10:27	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0486	97	0.0511	102	75-127	5	25	mg/L	02.07.20 10:27	
Trichloroethylene	<0.00500	0.0500	0.0440	88	0.0456	91	62-137	4	25	mg/L	02.07.20 10:27	
Trichlorofluoromethane	<0.00100	0.0500	0.0479	96	0.0497	99	60-140	4	25	mg/L	02.07.20 10:27	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0461	92	0.0475	95	75-125	3	25	mg/L	02.07.20 10:27	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0489	98	0.0473	95	75-125	3	25	mg/L	02.07.20 10:27	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0525	105	0.0500	100	70-125	5	25	mg/L	02.07.20 10:27	
o-Xylene	<0.00100	0.0500	0.0502	100	0.0514	103	75-125	2	25	mg/L	02.07.20 10:27	
m,p-Xylenes	<0.0100	0.100	0.0994	99	0.101	101	75-125	2	25	mg/L	02.07.20 10:27	
Vinyl Chloride	<0.00200	0.0500	0.0465	93	0.0475	95	60-140	2	25	mg/L	02.07.20 10:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		104		75-131	%	02.07.20 10:27
1,2-Dichloroethane-D4	97		99		63-144	%	02.07.20 10:27
Toluene-D8	100		99		80-117	%	02.07.20 10:27
4-Bromofluorobenzene	100		97		74-124	%	02.07.20 10:27

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

1924

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Page 1 of 1
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Project Manager:	Steve Jennings		Bill to: (if different)	
Company Name:	Easler LLC		Company Name:	
Address:	225 W. 11th Ave		Address:	
City, State ZIP:	Midland TX 79705		City, State ZIP:	
Phone:	432.230.3344	Email:	jennings@easler.com	

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

Project Name:	Levey Hall	Turn Around
Project Number:	038-417001	Routine ☐
P.O. Number:	038417001	Rush: ☒
Sampler's Name:	Shane D. Hill	Due Date:

SAMPLE RECEIPT		Temp Blank:	Yes	No	Well Ice:	Yes	No
Temperature (°C):	5.5						
Received Intact:	Yes	No					
Cooler Custody Seals:	Yes	No	MA		Correction Factor:		
Sample Custody Seals:	Yes	No	N/A		Total Containers:		

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:	
<i>Circle Method(s) and Metal(s) to be analyzed</i>	8RCRA TCLP / SPLP 6010:	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	SiO ₂ Na Sr Ti Sn U V Zn Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xerco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xerco 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 Xerco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xerco, 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
		2/10/20			

Inter-Office Shipment

IOS Number : **57636**

Date/Time: 02.06.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777709434083

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
651624-001	W	Levey Well	02.06.2020 14:15	SW8260C	VOCs by SW-846 8260C	02.07.2020	02.20.2020	JKR	BDCME BRBZ BRCLME	
651624-001	W	Levey Well	02.06.2020 14:15	E200.7	Recoverable Metals per ICP by EPA 200	02.07.2020	08.04.2020	JKR	CA K MG NA SI	
651624-001	W	Levey Well	02.06.2020 14:15	E300	Inorganic Anions by EPA 300/300.1	02.07.2020	02.08.2020 14:15	JKR	BR CL F NO2N NO3N SC	
651624-001	W	Levey Well	02.06.2020 14:15	SM4500-H	pH by SM4500-H	02.07.2020	02.06.2020 14:30	JKR		
651624-001	W	Levey Well	02.06.2020 14:15	SM2540C	TDS by SM2540C	02.07.2020	02.13.2020	JKR	TDS	
651624-001	W	Levey Well	02.06.2020 14:15	SM2320B	Alkalinity by SM2320B	02.07.2020	02.20.2020	JKR	ALK ALKB ALKC	
651624-001	W	Levey Well	02.06.2020 14:15	SM1030E	Cation-Anion Balance Calculation	02.07.2020	03.07.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Lourdes Arevalo

Date Relinquished: 02.06.2020

Received By:



Shadi Alshrouf

Date Received: 02.07.2020

Cooler Temperature: 3.3



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 57636

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou068

Sent By: Brianna Teel

Date Sent: 02.06.2020 04.24 PM

Received By: Shadi Alshrouf

Date Received: 02.07.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Shadi Alshrouf

Date: 02.07.2020



Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 02/06/2020 04:20:00 PM

Work Order #: 651624

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	5.5	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 02/06/2020

Checklist reviewed by:

Jessica Kramer

Date: 02/07/2020



Certificate of Analysis Summary 652331

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-13-20 02:52 pm
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 652331-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-13-20 11:40					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Feb-14-20 11:56 Analyzed: Feb-14-20 12:59 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1200 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1200 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Feb-14-20 17:22 Units/RL: % RL					
Cation-Anion Balance	0.300					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Feb-14-20 11:13 Analyzed: Feb-14-20 12:11 Units/RL: mg/L RL					
Bromide	<2.50 2.50					
Chloride	293 2.50					
Fluoride	0.623 0.500					
Nitrate as N	0.178 0.100					
Nitrite as N	<0.500 0.500					
Sulfate	57.3 2.50					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 652331

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-13-20 02:52 pm
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	652331-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Feb-13-20 11:40					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Feb-14-20 09:30					
	Analyzed:	Feb-14-20 14:10					
	Units/RL:	mg/L RL					
Calcium		409 D 10.0					
Magnesium		74.5 0.400					
Potassium		6.80 0.500					
Silica		70.9 1.07					
Sodium		95.7 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Feb-14-20 09:55					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1640 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 652331

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-13-20 02:52 pm
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 652331-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-13-20 11:40					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-14-20 12:00 Analyzed: Feb-14-20 13:42 Units/RL: mg/L RL					
Benzene	0.00949 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	<0.00100 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00251 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 652331

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-13-20 02:52 pm
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 652331-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-13-20 11:40					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-14-20 12:00 Analyzed: Feb-14-20 13:42 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0397 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0251 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0450 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 652331

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-13-20 02:52 pm
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 652331-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-13-20 11:40					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-14-20 12:00 Analyzed: Feb-14-20 13:42 Units/RL: mg/L RL					
Toluene	0.0498 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.349 D 0.00500					
1,3,5-Trimethylbenzene	0.0898 0.00100					
o-Xylene	0.0337 0.00100					
m,p-Xylenes	0.145 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.179 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-14-20 11:54 Units/RL: Deg C RL					
Temperature	20.8 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-14-20 11:54 Units/RL: SU RL					
pH	6.04 K					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 652331

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

17-FEB-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



17-FEB-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **652331**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 652331. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 652331 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 652331



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id

Levey Well

Matrix

W

Date Collected

02-13-20 11:40

Sample Depth

Lab Sample Id

652331-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 652331

Report Date: 17-FEB-20
Date Received: 02/13/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116579 VOCs by SW-846 8260C

Bromoform, Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate.

Samples in the analytical batch are: 652331-001.



Certificate of Analytical Results 652331



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.13.20 14.52

Lab Sample Id: 652331-001

Date Collected: 02.13.20 11.40

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 02.14.20 11.56

Seq Number: 3116593

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1200	4.00	mg/L	02.14.20 12.59		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1200	4.00	mg/L	02.14.20 12.59		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	02.14.20 12.59	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	02.14.20 12.59	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3116618

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.300		%	02.14.20 17.22		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: ALA

% Moisture:

Analyst: ALA

Date Prep: 02.14.20 11.13

Seq Number: 3116606

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<2.50	2.50	mg/L	02.14.20 12.11	U	5
Chloride	16887-00-6	293	2.50	mg/L	02.14.20 12.11		5
Fluoride	16984-48-8	0.623	0.500	mg/L	02.14.20 12.37		1
Nitrate as N	14797-55-8	0.178	0.100	mg/L	02.14.20 12.37		1
Nitrite as N	14797-65-0	<0.500	0.500	mg/L	02.14.20 12.11	U	5
Sulfate	14808-79-8	57.3	2.50	mg/L	02.14.20 12.11		5



Certificate of Analytical Results 652331



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.13.20 14.52

Lab Sample Id: 652331-001

Date Collected: 02.13.20 11.40

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3116491

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1640	5.00	mg/L	02.14.20 09.55		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3116560

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.04		SU	02.14.20 11.54	K	1
Temperature	TEMP	20.8		Deg C	02.14.20 11.54	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: ANJ

Date Prep: 02.14.20 09.30

Seq Number: 3116612

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	409	10.0	mg/L	02.14.20 15.58	D	50
Magnesium	7439-95-4	74.5	0.400	mg/L	02.14.20 14.10		1
Potassium	7440-09-7	6.80	0.500	mg/L	02.14.20 14.10		1
Silica	7631-86-9	70.9	1.07	mg/L	02.14.20 14.10		1
Sodium	7440-23-5	95.7	0.500	mg/L	02.14.20 14.10		1



Certificate of Analytical Results 652331



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.13.20 14.52

Lab Sample Id: 652331-001

Date Collected: 02.13.20 11.40

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 02.14.20 12.00

Seq Number: 3116579

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00949	0.00100	mg/L	02.14.20 13.42		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	02.14.20 13.42	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	02.14.20 13.42	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	02.14.20 13.42	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00251	0.00100	mg/L	02.14.20 13.42		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Ethylbenzene	100-41-4	0.0397	0.00100	mg/L	02.14.20 13.42		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1



Certificate of Analytical Results 652331



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.13.20 14.52

Lab Sample Id: 652331-001

Date Collected: 02.13.20 11.40

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 02.14.20 12.00

Seq Number: 3116579

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0251	0.00100	mg/L	02.14.20 13.42		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	02.14.20 13.42	U	1
n-Propylbenzene	103-65-1	0.0450	0.00100	mg/L	02.14.20 13.42		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Toluene	108-88-3	0.0498	0.00100	mg/L	02.14.20 13.42		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	02.14.20 13.42	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	02.14.20 13.42	U	1
1,2,4-Trimethylbenzene	95-63-6	0.349	0.00500	mg/L	02.14.20 14.45	D	5
1,3,5-Trimethylbenzene	108-67-8	0.0898	0.00100	mg/L	02.14.20 13.42		1
o-Xylene	95-47-6	0.0337	0.00100	mg/L	02.14.20 13.42		1
m,p-Xylenes	179601-23-1	0.145	0.0100	mg/L	02.14.20 13.42		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	02.14.20 13.42	U	1
Total Xylenes	1330-20-7	0.179	0.00100	mg/L	02.14.20 13.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	75-131	02.14.20 13.42	
1,2-Dichloroethane-D4	17060-07-0	103	%	63-144	02.14.20 13.42	
Toluene-D8	2037-26-5	100	%	80-117	02.14.20 13.42	
4-Bromofluorobenzene	460-00-4	96	%	74-124	02.14.20 13.42	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3116593

MB Sample Id: 7696680-1-BLK

Matrix: Water

LCS Sample Id: 7696680-1-BKS

Prep Method: SM2320P

Date Prep: 02.14.20

LCSD Sample Id: 7696680-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	257	103	261	104	85-115	2	20	mg/L	02.14.20 12:39	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3116593

Matrix: Water

MB Sample Id: 7696680-1-BLK

Prep Method: SM2320P

Date Prep: 02.14.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	02.14.20 12:33	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	02.14.20 12:33	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	02.14.20 12:33	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3116593

Matrix: Liquid

Parent Sample Id: 652280-001

MD Sample Id: 652280-001 D

Prep Method: SM2320P

Date Prep: 02.14.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	327	329	1	20	mg/L	02.14.20 14:36	
Alkalinity, Bicarbonate (as CaCO3)	327	329	1	20	mg/L	02.14.20 14:36	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.14.20 14:36	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.14.20 14:36	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3116593

Matrix: Ground Water

Parent Sample Id: 652331-001

MD Sample Id: 652331-001 D

Prep Method: SM2320P

Date Prep: 02.14.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1200	1200	0	20	mg/L	02.14.20 13:13	
Alkalinity, Bicarbonate (as CaCO3)	1200	1200	0	20	mg/L	02.14.20 13:13	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.14.20 13:13	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.14.20 13:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3116606

Matrix: Water

Prep Method: E300P

MB Sample Id: 7696710-1-BLK

LCS Sample Id: 7696710-1-BKS

Date Prep: 02.14.20

LCSD Sample Id: 7696710-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	02.14.20 09:24	
Chloride	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.14.20 09:24	
Fluoride	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	02.14.20 09:24	
Nitrate as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	02.14.20 09:24	
Nitrite as N	<0.100	10.0	9.99	100	10.0	100	90-110	0	20	mg/L	02.14.20 09:24	
Sulfate	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.14.20 09:24	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3116606

Matrix: Ground Water

Prep Method: E300P

Parent Sample Id: 652331-001

MS Sample Id: 652331-001 S

Date Prep: 02.14.20

MSD Sample Id: 652331-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<2.50	50.0	50.8	102	51.0	102	90-110	0	20	mg/L	02.14.20 12:20	
Chloride	293	50.0	338	90	338	90	90-110	0	20	mg/L	02.14.20 12:20	
Fluoride	0.623	50.0	53.9	107	53.9	107	90-110	0	20	mg/L	02.14.20 12:20	
Nitrate as N	0.178	50.0	52.2	104	52.3	104	90-110	0	20	mg/L	02.14.20 12:20	
Nitrite as N	<0.500	50.0	48.2	96	48.4	97	90-110	0	20	mg/L	02.14.20 12:20	
Sulfate	57.3	50.0	109	103	109	103	90-110	0	20	mg/L	02.14.20 12:20	

Analytical Method: TDS by SM2540C

Seq Number: 3116491

Matrix: Water

MB Sample Id: 3116491-1-BLK

LCS Sample Id: 3116491-1-BKS

LCSD Sample Id: 3116491-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	978	98	978	98	80-120	0	10	mg/L	02.14.20 09:55	

Analytical Method: TDS by SM2540C

Seq Number: 3116491

Matrix: Water

Parent Sample Id: 651853-001

MD Sample Id: 651853-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1290	1290	0	10	mg/L	02.14.20 09:55	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3116560

Matrix: Drinking Water

Parent Sample Id: 651906-001

MD Sample Id: 651906-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.03	7.03	0	20	SU	02.14.20 11:54	
Temperature	22.2	22.1	0	20	Deg C	02.14.20 11:54	

Analytical Method: pH by SM4500-H

Seq Number: 3116560

Matrix: Water

Parent Sample Id: 652150-002

MD Sample Id: 652150-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.96	7.97	0	20	SU	02.14.20 11:54	
Temperature	21.8	22.0	1	20	Deg C	02.14.20 11:54	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3116612

Matrix: Water

MB Sample Id: 7696675-1-BLK

LCS Sample Id: 7696675-1-BKS

Prep Method: E200.7P

Date Prep: 02.14.20

LCSD Sample Id: 7696675-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.0	100	25.0	100	85-115	0	20	mg/L	02.14.20 13:41	
Magnesium	<0.400	25.0	24.9	100	24.9	100	85-115	0	20	mg/L	02.14.20 13:41	
Potassium	<0.500	10.0	10.1	101	10.1	101	85-115	0	20	mg/L	02.14.20 13:41	
Silica	<1.07	21.4	21.3	100	21.4	100	85-115	0	20	mg/L	02.14.20 13:41	
Sodium	<0.500	25.0	24.5	98	24.5	98	85-115	0	20	mg/L	02.14.20 13:41	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3116612

Matrix: Drinking Water

Parent Sample Id: 651906-001

MS Sample Id: 651906-001 S

Prep Method: E200.7P

Date Prep: 02.14.20

MSD Sample Id: 651906-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	619	25.0	654	140	660	164	70-130	1	20	mg/L	02.14.20 13:53	X
Magnesium	282	25.0	315	132	317	140	70-130	1	20	mg/L	02.14.20 13:53	X
Potassium	30.4	10.0	42.7	123	43.1	127	70-130	1	20	mg/L	02.14.20 13:53	
Silica	73.8	21.4	100	122	101	127	70-130	1	20	mg/L	02.14.20 13:53	
Sodium	325	25.0	358	132	362	148	70-130	1	20	mg/L	02.14.20 13:53	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3116579

MB Sample Id: 7696697-1-BLK

Matrix: Water

LCS Sample Id: 7696697-1-BKS

Prep Method: SW5030B

Date Prep: 02.14.20

LCSD Sample Id: 7696697-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0547	109	0.0527	105	66-142	4	25	mg/L	02.14.20 10:57	
Bromobenzene	<0.00100	0.0500	0.0505	101	0.0475	95	75-125	6	25	mg/L	02.14.20 10:57	
Bromochloromethane	<0.00100	0.0500	0.0533	107	0.0527	105	60-140	1	25	mg/L	02.14.20 10:57	
Bromodichloromethane	<0.00100	0.0500	0.0562	112	0.0545	109	75-125	3	25	mg/L	02.14.20 10:57	
Bromoform	<0.00500	0.0500	0.0653	131	0.0635	127	75-125	3	25	mg/L	02.14.20 10:57	H
Methyl bromide	<0.00500	0.0500	0.0540	108	0.0517	103	60-140	4	25	mg/L	02.14.20 10:57	
2-Butanone	<0.0500	0.250	0.258	103	0.263	105	60-140	2	25	mg/L	02.14.20 10:57	
n-Butylbenzene	<0.00100	0.0500	0.0531	106	0.0491	98	75-125	8	25	mg/L	02.14.20 10:57	
Sec-Butylbenzene	<0.00100	0.0500	0.0503	101	0.0464	93	75-125	8	25	mg/L	02.14.20 10:57	
tert-Butylbenzene	<0.00100	0.0500	0.0534	107	0.0499	100	75-125	7	25	mg/L	02.14.20 10:57	
Carbon Tetrachloride	<0.00500	0.0500	0.0583	117	0.0552	110	62-125	5	25	mg/L	02.14.20 10:57	
Chlorobenzene	<0.00100	0.0500	0.0522	104	0.0496	99	60-133	5	25	mg/L	02.14.20 10:57	
Chloroethane	<0.0100	0.0500	0.0507	101	0.0485	97	60-140	4	25	mg/L	02.14.20 10:57	
Chloroform	<0.00100	0.0500	0.0545	109	0.0524	105	70-130	4	25	mg/L	02.14.20 10:57	
Methyl Chloride	<0.0100	0.0500	0.0599	120	0.0565	113	60-140	6	25	mg/L	02.14.20 10:57	
2-Chlorotoluene	<0.00100	0.0500	0.0525	105	0.0484	97	73-125	8	25	mg/L	02.14.20 10:57	
4-Chlorotoluene	<0.00100	0.0500	0.0526	105	0.0488	98	74-125	7	25	mg/L	02.14.20 10:57	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0492	98	0.0457	91	75-125	7	25	mg/L	02.14.20 10:57	
Dibromochloromethane	<0.00500	0.0500	0.0588	118	0.0568	114	73-125	3	25	mg/L	02.14.20 10:57	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0572	114	0.0554	111	59-125	3	25	mg/L	02.14.20 10:57	
1,2-Dibromoethane	<0.00500	0.0500	0.0532	106	0.0514	103	73-125	3	25	mg/L	02.14.20 10:57	
Methylene Bromide	<0.00100	0.0500	0.0534	107	0.0524	105	69-127	2	25	mg/L	02.14.20 10:57	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0527	105	0.0497	99	75-125	6	25	mg/L	02.14.20 10:57	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0527	105	0.0492	98	75-125	7	25	mg/L	02.14.20 10:57	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0523	105	0.0485	97	75-125	8	25	mg/L	02.14.20 10:57	
Dichlorodifluoromethane	<0.00100	0.0500	0.0804	161	0.0747	149	60-140	7	25	mg/L	02.14.20 10:57	H
1,1-Dichloroethane	<0.00100	0.0500	0.0587	117	0.0564	113	72-125	4	25	mg/L	02.14.20 10:57	
1,2-Dichloroethane	<0.00100	0.0500	0.0532	106	0.0522	104	68-127	2	25	mg/L	02.14.20 10:57	
1,1-Dichloroethene	<0.00100	0.0500	0.0575	115	0.0549	110	59-172	5	25	mg/L	02.14.20 10:57	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0550	110	0.0530	106	75-125	4	25	mg/L	02.14.20 10:57	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0569	114	0.0546	109	75-125	4	25	mg/L	02.14.20 10:57	
1,2-Dichloropropane	<0.00500	0.0500	0.0556	111	0.0538	108	74-125	3	25	mg/L	02.14.20 10:57	
1,3-Dichloropropane	<0.00500	0.0500	0.0563	113	0.0534	107	75-125	5	25	mg/L	02.14.20 10:57	
2,2-Dichloropropane	<0.00500	0.0500	0.0573	115	0.0543	109	75-125	5	25	mg/L	02.14.20 10:57	
1,1-Dichloropropene	<0.00500	0.0500	0.0593	119	0.0564	113	75-125	5	25	mg/L	02.14.20 10:57	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0553	111	0.0541	108	74-125	2	25	mg/L	02.14.20 10:57	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0552	110	0.0532	106	66-125	4	25	mg/L	02.14.20 10:57	
Ethylbenzene	<0.00100	0.0500	0.0537	107	0.0503	101	75-125	7	25	mg/L	02.14.20 10:57	
Hexachlorobutadiene	<0.00500	0.0500	0.0592	118	0.0557	111	75-125	6	25	mg/L	02.14.20 10:57	
Isopropylbenzene	<0.00100	0.0500	0.0554	111	0.0523	105	75-125	6	25	mg/L	02.14.20 10:57	
Methylene Chloride	<0.00500	0.0500	0.0471	94	0.0455	91	75-125	3	25	mg/L	02.14.20 10:57	
MTBE	<0.00500	0.0500	0.0561	112	0.0550	110	65-135	2	25	mg/L	02.14.20 10:57	
Naphthalene	<0.0100	0.0500	0.0587	117	0.0584	117	70-130	1	25	mg/L	02.14.20 10:57	
n-Propylbenzene	<0.00100	0.0500	0.0530	106	0.0491	98	75-125	8	25	mg/L	02.14.20 10:57	
Styrene	<0.00100	0.0500	0.0557	111	0.0528	106	75-125	5	25	mg/L	02.14.20 10:57	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0549	110	0.0515	103	72-125	6	25	mg/L	02.14.20 10:57	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0561	112	0.0537	107	74-125	4	25	mg/L	02.14.20 10:57	
Tetrachloroethylene	<0.00100	0.0500	0.0537	107	0.0499	100	71-125	7	25	mg/L	02.14.20 10:57	
Toluene	<0.00100	0.0500	0.0524	105	0.0498	100	59-139	5	25	mg/L	02.14.20 10:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3116579

MB Sample Id: 7696697-1-BLK

Matrix: Water

LCS Sample Id: 7696697-1-BKS

Prep Method: SW5030B

Date Prep: 02.14.20

LCSD Sample Id: 7696697-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0566	113	0.0559	112	75-137	1	25	mg/L	02.14.20 10:57	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0555	111	0.0538	108	75-135	3	25	mg/L	02.14.20 10:57	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0548	110	0.0524	105	75-125	4	25	mg/L	02.14.20 10:57	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0540	108	0.0525	105	75-127	3	25	mg/L	02.14.20 10:57	
Trichloroethylene	<0.00500	0.0500	0.0481	96	0.0463	93	62-137	4	25	mg/L	02.14.20 10:57	
Trichlorofluoromethane	<0.00100	0.0500	0.0580	116	0.0544	109	60-140	6	25	mg/L	02.14.20 10:57	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0510	102	0.0489	98	75-125	4	25	mg/L	02.14.20 10:57	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0503	101	0.0469	94	75-125	7	25	mg/L	02.14.20 10:57	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0536	107	0.0499	100	70-125	7	25	mg/L	02.14.20 10:57	
o-Xylene	<0.00100	0.0500	0.0551	110	0.0515	103	75-125	7	25	mg/L	02.14.20 10:57	
m,p-Xylenes	<0.0100	0.100	0.109	109	0.101	101	75-125	8	25	mg/L	02.14.20 10:57	
Vinyl Chloride	<0.00200	0.0500	0.0586	117	0.0553	111	60-140	6	25	mg/L	02.14.20 10:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		106		104		75-131	%	02.14.20 10:57
1,2-Dichloroethane-D4	98		101		101		63-144	%	02.14.20 10:57
Toluene-D8	98		100		97		80-117	%	02.14.20 10:57
4-Bromofluorobenzene	103		96		96		74-124	%	02.14.20 10:57

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3116579

Matrix: Water

Prep Method: SW5030B

Date Prep: 02.14.20

Parent Sample Id: 652016-001

MS Sample Id: 652016-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0548	110	66-142	mg/L	02.14.20 11:44	
Bromobenzene	<0.00100	0.0500	0.0523	105	75-125	mg/L	02.14.20 11:44	
Bromochloromethane	<0.00100	0.0500	0.0542	108	60-140	mg/L	02.14.20 11:44	
Bromodichloromethane	<0.00100	0.0500	0.0563	113	75-125	mg/L	02.14.20 11:44	
Bromoform	<0.00500	0.0500	0.0662	132	75-125	mg/L	02.14.20 11:44	X
Methyl bromide	<0.00500	0.0500	0.0544	109	60-140	mg/L	02.14.20 11:44	
2-Butanone	<0.0500	0.250	0.265	106	60-140	mg/L	02.14.20 11:44	
n-Butylbenzene	<0.00100	0.0500	0.0552	110	75-125	mg/L	02.14.20 11:44	
Sec-Butylbenzene	<0.00100	0.0500	0.0521	104	75-125	mg/L	02.14.20 11:44	
tert-Butylbenzene	<0.00100	0.0500	0.0555	111	75-125	mg/L	02.14.20 11:44	
Carbon Tetrachloride	<0.00500	0.0500	0.0585	117	62-125	mg/L	02.14.20 11:44	
Chlorobenzene	<0.00100	0.0500	0.0528	106	60-133	mg/L	02.14.20 11:44	
Chloroethane	<0.0100	0.0500	0.0502	100	60-140	mg/L	02.14.20 11:44	
Chloroform	<0.00100	0.0500	0.0554	111	70-130	mg/L	02.14.20 11:44	
Methyl Chloride	<0.0100	0.0500	0.0598	120	60-140	mg/L	02.14.20 11:44	
2-Chlorotoluene	<0.00100	0.0500	0.0538	108	73-125	mg/L	02.14.20 11:44	
4-Chlorotoluene	<0.00100	0.0500	0.0542	108	74-125	mg/L	02.14.20 11:44	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0510	102	75-125	mg/L	02.14.20 11:44	
Dibromochloromethane	<0.00500	0.0500	0.0595	119	73-125	mg/L	02.14.20 11:44	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0591	118	59-125	mg/L	02.14.20 11:44	
1,2-Dibromoethane	<0.00500	0.0500	0.0537	107	73-125	mg/L	02.14.20 11:44	
Methylene Bromide	<0.00100	0.0500	0.0535	107	69-127	mg/L	02.14.20 11:44	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0547	109	75-125	mg/L	02.14.20 11:44	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0547	109	75-125	mg/L	02.14.20 11:44	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0539	108	75-125	mg/L	02.14.20 11:44	
Dichlorodifluoromethane	<0.00100	0.0500	0.0777	155	60-140	mg/L	02.14.20 11:44	X
1,1-Dichloroethane	<0.00100	0.0500	0.0592	118	72-125	mg/L	02.14.20 11:44	
1,2-Dichloroethane	<0.00100	0.0500	0.0532	106	68-127	mg/L	02.14.20 11:44	
1,1-Dichloroethene	<0.00100	0.0500	0.0572	114	59-172	mg/L	02.14.20 11:44	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0558	112	75-125	mg/L	02.14.20 11:44	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0578	116	75-125	mg/L	02.14.20 11:44	
1,2-Dichloropropane	<0.00500	0.0500	0.0558	112	74-125	mg/L	02.14.20 11:44	
1,3-Dichloropropane	<0.00500	0.0500	0.0566	113	75-125	mg/L	02.14.20 11:44	
2,2-Dichloropropane	<0.00500	0.0500	0.0580	116	75-125	mg/L	02.14.20 11:44	
1,1-Dichloropropene	<0.00500	0.0500	0.0596	119	75-125	mg/L	02.14.20 11:44	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0555	111	74-125	mg/L	02.14.20 11:44	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0556	111	66-125	mg/L	02.14.20 11:44	
Ethylbenzene	<0.00100	0.0500	0.0538	108	75-125	mg/L	02.14.20 11:44	
Hexachlorobutadiene	<0.00500	0.0500	0.0630	126	75-125	mg/L	02.14.20 11:44	X
Isopropylbenzene	<0.00100	0.0500	0.0561	112	75-125	mg/L	02.14.20 11:44	
Methylene Chloride	<0.00500	0.0500	0.0480	96	75-125	mg/L	02.14.20 11:44	
MTBE	<0.00500	0.0500	0.0576	115	65-135	mg/L	02.14.20 11:44	
Naphthalene	<0.0100	0.0500	0.0624	125	70-130	mg/L	02.14.20 11:44	
n-Propylbenzene	<0.00100	0.0500	0.0552	110	75-125	mg/L	02.14.20 11:44	
Styrene	<0.00100	0.0500	0.0562	112	75-125	mg/L	02.14.20 11:44	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0544	109	72-125	mg/L	02.14.20 11:44	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0581	116	74-125	mg/L	02.14.20 11:44	
Tetrachloroethylene	<0.00100	0.0500	0.0539	108	71-125	mg/L	02.14.20 11:44	
Toluene	<0.00100	0.0500	0.0525	105	59-139	mg/L	02.14.20 11:44	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3116579

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 652016-001

MS Sample Id: 652016-001 S

Date Prep: 02.14.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0612	122	75-137	mg/L	02.14.20 11:44	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0587	117	75-135	mg/L	02.14.20 11:44	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0554	111	75-125	mg/L	02.14.20 11:44	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0549	110	75-127	mg/L	02.14.20 11:44	
Trichloroethylene	<0.00500	0.0500	0.0483	97	62-137	mg/L	02.14.20 11:44	
Trichlorofluoromethane	<0.00100	0.0500	0.0564	113	60-140	mg/L	02.14.20 11:44	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0536	107	75-125	mg/L	02.14.20 11:44	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0522	104	75-125	mg/L	02.14.20 11:44	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0554	111	70-125	mg/L	02.14.20 11:44	
o-Xylene	<0.00100	0.0500	0.0557	111	75-125	mg/L	02.14.20 11:44	
m,p-Xylenes	<0.0100	0.100	0.109	109	75-125	mg/L	02.14.20 11:44	
Vinyl Chloride	<0.00200	0.0500	0.0565	113	60-140	mg/L	02.14.20 11:44	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	107		75-131	%	02.14.20 11:44
1,2-Dichloroethane-D4	100		63-144	%	02.14.20 11:44
Toluene-D8	99		80-117	%	02.14.20 11:44
4-Bromofluorobenzene	97		74-124	%	02.14.20 11:44

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

1025

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
Phoenix, AZ (480-355-0900) Atlanta, GA (770-448-8800) Tampa, FL (813) 251-1111
Hobbs, NM (575-392-7550)

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Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

SAMPLE RECEIPT	Temp Blank:	Yes	☒ No	Wet Ice:	Yes	☒ No
Temperature (°C):	1.10	Thermometer ID				
Received Intact:	☒ Yes ☐ No					
Cooler Custody Seals:	☒ Yes ☐ No	N/A	Correction Factor:			
Sample Custody Seals:	☒ Yes ☐ No	N/A	Total Containers:			

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed																											
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 ₂	Na	Sr	Ti	Sn	U	V	Zn
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																											

of service, Xorco 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 Xorco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xorco, 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
		2/13/20			
		2			
		4			
		6			

CUSTODY SEAL
Date 2-13-20
Signature [Handwritten Signature]

Thermo
SCIENTIFIC

60006

Inter-Office Shipment

IOS Number : **58090**

Date/Time: 02.13.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777768311387

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
652331-001	W	Levey Well	02.13.2020 11:40	SW8260C	VOCs by SW-846 8260C	02.14.2020	02.27.2020	JKR	BDCME BRBZ BRCLME	
652331-001	W	Levey Well	02.13.2020 11:40	E200.7	Recoverable Metals per ICP by EPA 200	02.14.2020	08.11.2020	JKR	CA K MG NA SI	
652331-001	W	Levey Well	02.13.2020 11:40	E300	Inorganic Anions by EPA 300/300.1	02.14.2020	02.15.2020 11:40	JKR	BR CL F NO2N NO3N SC	
652331-001	W	Levey Well	02.13.2020 11:40	SM4500-H	pH by SM4500-H	02.14.2020	02.13.2020 11:55	JKR		
652331-001	W	Levey Well	02.13.2020 11:40	SM2540C	TDS by SM2540C	02.14.2020	02.20.2020	JKR	TDS	
652331-001	W	Levey Well	02.13.2020 11:40	SM2320B	Alkalinity by SM2320B	02.14.2020	02.27.2020	JKR	ALK ALKB ALKC	
652331-001	W	Levey Well	02.13.2020 11:40	SM1030E	Cation-Anion Balance Calculation	02.14.2020	03.14.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 02.13.2020

Received By:



Lourdes Arevalo

Date Received: 02.14.2020

Cooler Temperature: 3.5



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 58090

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 02.13.2020 02:58 PM

Received By: Lourdes Arevalo

Date Received: 02.14.2020 09:15 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Lourdes Arevalo

Date: 02.14.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 02.13.2020 02:52.00 PM

Work Order #: 652331

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 02.13.2020

Checklist reviewed by:



Jessica Kramer

Date: 02.14.2020



Certificate of Analysis Summary 653182

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-20-20 03:47 pm
Report Date: 25-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 653182-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-20-20 12:10					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Feb-21-20 11:57 Analyzed: Feb-21-20 13:00 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1220 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1220 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Feb-21-20 17:29 Units/RL: % RL					
Cation-Anion Balance	0.300					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Feb-21-20 10:42 Analyzed: Feb-21-20 12:05 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	272 0.500					
Fluoride	0.586 0.500					
Nitrate as N	0.157 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	49.6 0.500					

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 653182

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-20-20 03:47 pm
Report Date: 25-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	653182-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Feb-20-20 12:10					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Feb-21-20 11:00					
	Analyzed:	Feb-21-20 15:18					
	Units/RL:	mg/L RL					
Calcium		421 D 10.0					
Magnesium		71.4 0.400					
Potassium		6.38 0.500					
Silica		80.6 1.07					
Sodium		91.4 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Feb-21-20 11:30					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1690 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 653182

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-20-20 03:47 pm
Report Date: 25-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 653182-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-20-20 12:10					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-21-20 11:14 Analyzed: Feb-21-20 13:50 Units/RL: mg/L RL					
Benzene	0.00846 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00407 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00229 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 653182

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-20-20 03:47 pm
Report Date: 25-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 653182-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-20-20 12:10					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-21-20 11:14 Analyzed: Feb-21-20 13:50 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0313 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0208 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0431 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 653182

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu Feb-20-20 03:47 pm
Report Date: 25-FEB-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 653182-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-20-20 12:10					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Feb-21-20 11:14 Analyzed: Feb-21-20 13:50 Units/RL: mg/L RL					
Toluene	0.0326 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.363 D 0.0100					
1,3,5-Trimethylbenzene	0.0918 0.00100					
o-Xylene	0.0248 0.00100					
m,p-Xylenes	0.113 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.138 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-21-20 11:49 Units/RL: Deg C RL					
Temperature	23.2 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Feb-21-20 11:49 Units/RL: SU RL					
pH	5.93 K					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 653182

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

25-FEB-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



25-FEB-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **653182**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 653182. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 653182 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 653182

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	02-20-20 12:10		653182-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 653182

Report Date: 25-FEB-20
Date Received: 02/20/2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117278 VOCs by SW-846 8260C

SW8260C

Batch 3117278,

Dichlorodifluoromethane recovered above QC limits in the laboratory control sample. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 653182-001.



Certificate of Analytical Results 653182



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.20.20 15.47

Lab Sample Id: 653182-001

Date Collected: 02.20.20 12.10

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 02.21.20 11.57

Seq Number: 3117244

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1220	4.00	mg/L	02.21.20 13.00		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1220	4.00	mg/L	02.21.20 13.00		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	02.21.20 13.00	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	02.21.20 13.00	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3117300

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.300		%	02.21.20 17.29		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 02.21.20 10.42

Seq Number: 3117282

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	02.21.20 12.05	U	1
Chloride	16887-00-6	272	0.500	mg/L	02.21.20 12.05		1
Fluoride	16984-48-8	0.586	0.500	mg/L	02.21.20 12.05		1
Nitrate as N	14797-55-8	0.157	0.100	mg/L	02.21.20 12.05		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	02.21.20 12.05	U	1
Sulfate	14808-79-8	49.6	0.500	mg/L	02.21.20 12.05		1



Certificate of Analytical Results 653182



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.20.20 15.47

Lab Sample Id: 653182-001

Date Collected: 02.20.20 12.10

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3117293

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1690	5.00	mg/L	02.21.20 11.30		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3117248

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	5.93		SU	02.21.20 11.49	K	1
Temperature	TEMP	23.2		Deg C	02.21.20 11.49	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: ANJ

Date Prep: 02.21.20 11.00

Seq Number: 3117283

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	421	10.0	mg/L	02.21.20 15.22	D	50
Magnesium	7439-95-4	71.4	0.400	mg/L	02.21.20 15.18		1
Potassium	7440-09-7	6.38	0.500	mg/L	02.21.20 15.18		1
Silica	7631-86-9	80.6	1.07	mg/L	02.21.20 15.18		1
Sodium	7440-23-5	91.4	0.500	mg/L	02.21.20 15.18		1



Certificate of Analytical Results 653182

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.20.20 15.47

Lab Sample Id: 653182-001

Date Collected: 02.20.20 12.10

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.21.20 11.14

Seq Number: 3117278

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00846	0.00100	mg/L	02.21.20 13.50		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	02.21.20 13.50	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Sec-Butylbenzene	135-98-8	0.00407	0.00100	mg/L	02.21.20 13.50		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	02.21.20 13.50	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	02.21.20 13.50	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00229	0.00100	mg/L	02.21.20 13.50		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	02.21.20 13.50	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Ethylbenzene	100-41-4	0.0313	0.00100	mg/L	02.21.20 13.50		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1



Certificate of Analytical Results 653182



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.20.20 15.47

Lab Sample Id: 653182-001

Date Collected: 02.20.20 12.10

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 02.21.20 11.14

Seq Number: 3117278

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0208	0.00100	mg/L	02.21.20 13.50		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	02.21.20 13.50	U	1
n-Propylbenzene	103-65-1	0.0431	0.00100	mg/L	02.21.20 13.50		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Toluene	108-88-3	0.0326	0.00100	mg/L	02.21.20 13.50		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	02.21.20 13.50	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	02.21.20 13.50	U	1
1,2,4-Trimethylbenzene	95-63-6	0.363	0.0100	mg/L	02.24.20 13.57	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0918	0.00100	mg/L	02.21.20 13.50		1
o-Xylene	95-47-6	0.0248	0.00100	mg/L	02.21.20 13.50		1
m,p-Xylenes	179601-23-1	0.113	0.0100	mg/L	02.21.20 13.50		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	02.21.20 13.50	U	1
Total Xylenes	1330-20-7	0.138	0.00100	mg/L	02.21.20 13.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	75-131	02.21.20 13.50	
1,2-Dichloroethane-D4	17060-07-0	105	%	63-144	02.21.20 13.50	
Toluene-D8	2037-26-5	98	%	80-117	02.21.20 13.50	
4-Bromofluorobenzene	460-00-4	94	%	74-124	02.21.20 13.50	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3117244

MB Sample Id: 7697189-1-BLK

Matrix: Water

LCS Sample Id: 7697189-1-BKS

Prep Method: SM2320P

Date Prep: 02.21.20

LCSD Sample Id: 7697189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	260	104	260	104	85-115	0	20	mg/L	02.21.20 12:39	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3117244

Matrix: Water

MB Sample Id: 7697189-1-BLK

Prep Method: SM2320P

Date Prep: 02.21.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	02.21.20 12:32	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	02.21.20 12:32	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	02.21.20 12:32	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3117244

Matrix: Ground Water

Parent Sample Id: 653182-001

MD Sample Id: 653182-001 D

Prep Method: SM2320P

Date Prep: 02.21.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1220	1210	1	20	mg/L	02.21.20 13:13	
Alkalinity, Bicarbonate (as CaCO3)	1220	1210	1	20	mg/L	02.21.20 13:13	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.21.20 13:13	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	02.21.20 13:13	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3117282

Matrix: Water

MB Sample Id: 7697174-1-BLK

LCS Sample Id: 7697174-1-BKS

Prep Method: E300P

Date Prep: 02.21.20

LCSD Sample Id: 7697174-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	02.21.20 10:32	
Chloride	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	02.21.20 10:32	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	02.21.20 10:32	
Nitrate as N	<0.100	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	02.21.20 10:32	
Nitrite as N	<0.100	10.0	9.92	99	9.93	99	90-110	0	20	mg/L	02.21.20 10:32	
Sulfate	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	02.21.20 10:32	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3117282

Matrix: Water

Prep Method: E300P

Date Prep: 02.21.20

Parent Sample Id: 653036-001

MS Sample Id: 653036-001 S

MSD Sample Id: 653036-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	9.98	100	90-110	1	20	mg/L	02.21.20 11:23	
Chloride	128	10.0	137	90	136	80	90-110	1	20	mg/L	02.21.20 11:23	X
Fluoride	<0.500	10.0	11.2	112	11.0	110	90-110	2	20	mg/L	02.21.20 11:23	X
Nitrate as N	0.199	10.0	10.3	101	10.2	100	90-110	1	20	mg/L	02.21.20 11:23	
Nitrite as N	0.185	10.0	9.39	92	9.27	91	90-110	1	20	mg/L	02.21.20 11:23	
Sulfate	3.36	10.0	13.5	101	13.4	100	90-110	1	20	mg/L	02.21.20 11:23	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3117282

Matrix: Water

Prep Method: E300P

Date Prep: 02.21.20

Parent Sample Id: 653193-001

MS Sample Id: 653193-001 S

MSD Sample Id: 653193-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.21.20 10:57	
Chloride	3.79	10.0	13.5	97	13.5	97	90-110	0	20	mg/L	02.21.20 10:57	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	02.21.20 10:57	
Nitrate as N	0.183	10.0	10.2	100	10.2	100	90-110	0	20	mg/L	02.21.20 10:57	
Nitrite as N	<0.100	10.0	9.87	99	9.87	99	90-110	0	20	mg/L	02.21.20 10:57	
Sulfate	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.21.20 10:57	

Analytical Method: TDS by SM2540C

Seq Number: 3117293

Matrix: Water

MB Sample Id: 3117293-1-BLK

LCS Sample Id: 3117293-1-BKS

LCSD Sample Id: 3117293-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	938	94	938	94	80-120	0	10	mg/L	02.21.20 11:30	

Analytical Method: TDS by SM2540C

Seq Number: 3117293

Matrix: Ground Water

Parent Sample Id: 653182-001

MD Sample Id: 653182-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1690	1690	0	10	mg/L	02.21.20 11:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3117248

Parent Sample Id: 653182-001

Matrix: Ground Water

MD Sample Id: 653182-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	5.93	5.94	0	20	SU	02.21.20 11:49	
Temperature	23.2	23.1	0	20	Deg C	02.21.20 11:49	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3117283

MB Sample Id: 7697188-1-BLK

Matrix: Water

LCS Sample Id: 7697188-1-BKS

Prep Method: E200.7P

Date Prep: 02.21.20

LCSD Sample Id: 7697188-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.1	100	25.1	100	85-115	0	20	mg/L	02.21.20 14:48	
Magnesium	<0.400	25.0	24.4	98	24.4	98	85-115	0	20	mg/L	02.21.20 14:48	
Potassium	<0.500	10.0	10.1	101	10.1	101	85-115	0	20	mg/L	02.21.20 14:48	
Silica	<1.07	21.4	22.0	103	22.1	103	85-115	0	20	mg/L	02.21.20 14:48	
Sodium	<0.500	25.0	24.2	97	24.3	97	85-115	0	20	mg/L	02.21.20 14:48	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3117283

Parent Sample Id: 652624-001

Matrix: Drinking Water

MS Sample Id: 652624-001 S

Prep Method: E200.7P

Date Prep: 02.21.20

MSD Sample Id: 652624-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	137	25.0	161	96	161	96	70-130	0	20	mg/L	02.21.20 15:01	
Magnesium	72.3	25.0	97.2	100	97.2	100	70-130	0	20	mg/L	02.21.20 15:01	
Potassium	20.2	10.0	30.7	105	30.8	106	70-130	0	20	mg/L	02.21.20 15:01	
Silica	54.6	21.4	77.0	105	77.2	106	70-130	0	20	mg/L	02.21.20 15:01	
Sodium	195	25.0	217	88	218	92	70-130	0	20	mg/L	02.21.20 15:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117278

MB Sample Id: 7697215-1-BLK

Matrix: Water

LCS Sample Id: 7697215-1-BKS

Prep Method: SW5030B

Date Prep: 02.21.20

LCSD Sample Id: 7697215-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0532	106	0.0533	107	66-142	0	25	mg/L	02.21.20 10:22	
Bromobenzene	<0.00100	0.0500	0.0469	94	0.0512	102	75-125	9	25	mg/L	02.21.20 10:22	
Bromochloromethane	<0.00100	0.0500	0.0542	108	0.0535	107	60-140	1	25	mg/L	02.21.20 10:22	
Bromodichloromethane	<0.00100	0.0500	0.0487	97	0.0504	101	75-125	3	25	mg/L	02.21.20 10:22	
Bromoform	<0.00500	0.0500	0.0491	98	0.0530	106	75-125	8	25	mg/L	02.21.20 10:22	
Methyl bromide	<0.00500	0.0500	0.0488	98	0.0461	92	60-140	6	25	mg/L	02.21.20 10:22	
2-Butanone	<0.0500	0.250	0.252	101	0.253	101	60-140	0	25	mg/L	02.21.20 10:22	
n-Butylbenzene	<0.00100	0.0500	0.0486	97	0.0512	102	75-125	5	25	mg/L	02.21.20 10:22	
Sec-Butylbenzene	<0.00100	0.0500	0.0482	96	0.0512	102	75-125	6	25	mg/L	02.21.20 10:22	
tert-Butylbenzene	<0.00100	0.0500	0.0512	102	0.0545	109	75-125	6	25	mg/L	02.21.20 10:22	
Carbon Tetrachloride	<0.00500	0.0500	0.0518	104	0.0492	98	62-125	5	25	mg/L	02.21.20 10:22	
Chlorobenzene	<0.00100	0.0500	0.0488	98	0.0502	100	60-133	3	25	mg/L	02.21.20 10:22	
Chloroethane	<0.0100	0.0500	0.0427	85	0.0401	80	60-140	6	25	mg/L	02.21.20 10:22	
Chloroform	<0.00100	0.0500	0.0536	107	0.0524	105	70-130	2	25	mg/L	02.21.20 10:22	
Methyl Chloride	<0.0100	0.0500	0.0515	103	0.0491	98	60-140	5	25	mg/L	02.21.20 10:22	
2-Chlorotoluene	<0.00100	0.0500	0.0484	97	0.0514	103	73-125	6	25	mg/L	02.21.20 10:22	
4-Chlorotoluene	<0.00100	0.0500	0.0496	99	0.0531	106	74-125	7	25	mg/L	02.21.20 10:22	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0483	97	0.0518	104	75-125	7	25	mg/L	02.21.20 10:22	
Dibromochloromethane	<0.00500	0.0500	0.0529	106	0.0558	112	73-125	5	25	mg/L	02.21.20 10:22	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0454	91	0.0498	100	59-125	9	25	mg/L	02.21.20 10:22	
1,2-Dibromoethane	<0.00500	0.0500	0.0529	106	0.0559	112	73-125	6	25	mg/L	02.21.20 10:22	
Methylene Bromide	<0.00100	0.0500	0.0472	94	0.0480	96	69-127	2	25	mg/L	02.21.20 10:22	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0489	98	0.0529	106	75-125	8	25	mg/L	02.21.20 10:22	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0503	101	0.0533	107	75-125	6	25	mg/L	02.21.20 10:22	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0492	98	0.0523	105	75-125	6	25	mg/L	02.21.20 10:22	
Dichlorodifluoromethane	<0.00100	0.0500	0.0741	148	0.0688	138	60-140	7	25	mg/L	02.21.20 10:22	H
1,1-Dichloroethane	<0.00100	0.0500	0.0576	115	0.0552	110	72-125	4	25	mg/L	02.21.20 10:22	
1,2-Dichloroethane	<0.00100	0.0500	0.0441	88	0.0451	90	68-127	2	25	mg/L	02.21.20 10:22	
1,1-Dichloroethene	<0.00100	0.0500	0.0587	117	0.0550	110	59-172	7	25	mg/L	02.21.20 10:22	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0568	114	0.0550	110	75-125	3	25	mg/L	02.21.20 10:22	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0581	116	0.0554	111	75-125	5	25	mg/L	02.21.20 10:22	
1,2-Dichloropropane	<0.00500	0.0500	0.0537	107	0.0547	109	74-125	2	25	mg/L	02.21.20 10:22	
1,3-Dichloropropane	<0.00500	0.0500	0.0545	109	0.0580	116	75-125	6	25	mg/L	02.21.20 10:22	
2,2-Dichloropropane	<0.00500	0.0500	0.0601	120	0.0567	113	75-125	6	25	mg/L	02.21.20 10:22	
1,1-Dichloropropene	<0.00500	0.0500	0.0534	107	0.0515	103	75-125	4	25	mg/L	02.21.20 10:22	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0501	100	0.0517	103	74-125	3	25	mg/L	02.21.20 10:22	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0513	103	0.0540	108	66-125	5	25	mg/L	02.21.20 10:22	
Ethylbenzene	<0.00100	0.0500	0.0492	98	0.0499	100	75-125	1	25	mg/L	02.21.20 10:22	
Hexachlorobutadiene	<0.00500	0.0500	0.0437	87	0.0514	103	75-125	16	25	mg/L	02.21.20 10:22	
Isopropylbenzene	<0.00100	0.0500	0.0512	102	0.0516	103	75-125	1	25	mg/L	02.21.20 10:22	
Methylene Chloride	<0.00500	0.0500	0.0516	103	0.0483	97	75-125	7	25	mg/L	02.21.20 10:22	
MTBE	<0.00500	0.0500	0.0491	98	0.0513	103	65-135	4	25	mg/L	02.21.20 10:22	
Naphthalene	<0.0100	0.0500	0.0501	100	0.0593	119	70-130	17	25	mg/L	02.21.20 10:22	
n-Propylbenzene	<0.00100	0.0500	0.0498	100	0.0526	105	75-125	5	25	mg/L	02.21.20 10:22	
Styrene	<0.00100	0.0500	0.0540	108	0.0557	111	75-125	3	25	mg/L	02.21.20 10:22	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0472	94	0.0519	104	72-125	9	25	mg/L	02.21.20 10:22	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0429	86	0.0483	97	74-125	12	25	mg/L	02.21.20 10:22	
Tetrachloroethylene	<0.00100	0.0500	0.0525	105	0.0538	108	71-125	2	25	mg/L	02.21.20 10:22	
Toluene	<0.00100	0.0500	0.0492	98	0.0496	99	59-139	1	25	mg/L	02.21.20 10:22	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117278

MB Sample Id: 7697215-1-BLK

Matrix: Water

LCS Sample Id: 7697215-1-BKS

Prep Method: SW5030B

Date Prep: 02.21.20

LCSD Sample Id: 7697215-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0466	93	0.0564	113	75-137	19	25	mg/L	02.21.20 10:22	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0479	96	0.0561	112	75-135	16	25	mg/L	02.21.20 10:22	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0520	104	0.0503	101	75-125	3	25	mg/L	02.21.20 10:22	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0548	110	0.0579	116	75-127	6	25	mg/L	02.21.20 10:22	
Trichloroethylene	<0.00500	0.0500	0.0498	100	0.0500	100	62-137	0	25	mg/L	02.21.20 10:22	
Trichlorofluoromethane	<0.00100	0.0500	0.0540	108	0.0504	101	60-140	7	25	mg/L	02.21.20 10:22	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0432	86	0.0480	96	75-125	11	25	mg/L	02.21.20 10:22	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0486	97	0.0515	103	75-125	6	25	mg/L	02.21.20 10:22	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0531	106	0.0562	112	70-125	6	25	mg/L	02.21.20 10:22	
o-Xylene	<0.00100	0.0500	0.0541	108	0.0532	106	75-125	2	25	mg/L	02.21.20 10:22	
m,p-Xylenes	<0.0100	0.100	0.105	105	0.105	105	75-125	0	25	mg/L	02.21.20 10:22	
Vinyl Chloride	<0.00200	0.0500	0.0540	108	0.0494	99	60-140	9	25	mg/L	02.21.20 10:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	94		111		106		75-131	%	02.21.20 10:22
1,2-Dichloroethane-D4	104		100		99		63-144	%	02.21.20 10:22
Toluene-D8	93		98		100		80-117	%	02.21.20 10:22
4-Bromofluorobenzene	99		94		96		74-124	%	02.21.20 10:22

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117449

MB Sample Id: 7697346-1-BLK

Matrix: Water

LCS Sample Id: 7697346-1-BKS

Prep Method: SW5030B

Date Prep: 02.24.20

LCSD Sample Id: 7697346-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0510	102	0.0486	97	75-125	5	25	mg/L	02.24.20 10:47	
o-Xylene	<0.00100	0.0500	0.0531	106	0.0496	99	75-125	7	25	mg/L	02.24.20 10:47	
m,p-Xylenes	<0.0100	0.100	0.104	104	0.0968	97	75-125	7	25	mg/L	02.24.20 10:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		108		106		75-131	%	02.24.20 10:47
1,2-Dichloroethane-D4	99		106		104		63-144	%	02.24.20 10:47
Toluene-D8	100		101		101		80-117	%	02.24.20 10:47
4-Bromofluorobenzene	101		98		98		74-124	%	02.24.20 10:47

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117278

Parent Sample Id: 652223-003

Matrix: Water

MS Sample Id: 652223-003 S

Prep Method: SW5030B

Date Prep: 02.21.20

MSD Sample Id: 652223-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.200	10.0	10.5	105	10.3	103	66-142	2	25	mg/L	02.21.20 11:29	
Bromobenzene	<0.200	10.0	9.39	94	9.81	98	75-125	4	25	mg/L	02.21.20 11:29	
Bromochloromethane	<0.200	10.0	10.6	106	9.95	100	60-140	6	25	mg/L	02.21.20 11:29	
Bromodichloromethane	<0.200	10.0	9.69	97	9.55	96	75-125	1	25	mg/L	02.21.20 11:29	
Bromoform	<1.00	10.0	10.3	103	10.7	107	75-125	4	25	mg/L	02.21.20 11:29	
Methyl bromide	<1.00	10.0	9.22	92	8.62	86	60-140	7	25	mg/L	02.21.20 11:29	
2-Butanone	<10.0	50.0	59.1	118	62.7	125	60-140	6	25	mg/L	02.21.20 11:29	
n-Butylbenzene	0.496	10.0	10.6	101	11.0	105	75-125	4	25	mg/L	02.21.20 11:29	
Sec-Butylbenzene	0.344	10.0	9.77	94	9.97	96	75-125	2	25	mg/L	02.21.20 11:29	
tert-Butylbenzene	<0.200	10.0	10.3	103	10.5	105	75-125	2	25	mg/L	02.21.20 11:29	
Carbon Tetrachloride	<1.00	10.0	9.94	99	9.56	96	62-125	4	25	mg/L	02.21.20 11:29	
Chlorobenzene	<0.200	10.0	9.63	96	9.69	97	60-133	1	25	mg/L	02.21.20 11:29	
Chloroethane	<2.00	10.0	8.23	82	7.50	75	60-140	9	25	mg/L	02.21.20 11:29	
Chloroform	<0.200	10.0	10.6	106	10.0	100	70-130	6	25	mg/L	02.21.20 11:29	
Methyl Chloride	<2.00	10.0	9.74	97	9.10	91	60-140	7	25	mg/L	02.21.20 11:29	
2-Chlorotoluene	<0.200	10.0	12.9	129	13.1	131	73-125	2	25	mg/L	02.21.20 11:29	X
4-Chlorotoluene	<0.200	10.0	10.7	107	10.9	109	74-125	2	25	mg/L	02.21.20 11:29	
p-Cymene (p-Isopropyltoluene)	0.236	10.0	10.1	99	10.2	100	75-125	1	25	mg/L	02.21.20 11:29	
Dibromochloromethane	<1.00	10.0	11.7	117	11.9	119	73-125	2	25	mg/L	02.21.20 11:29	
1,2-Dibromo-3-Chloropropane	<0.200	10.0	8.66	87	9.51	95	59-125	9	25	mg/L	02.21.20 11:29	
1,2-Dibromoethane	<1.00	10.0	10.8	108	11.1	111	73-125	3	25	mg/L	02.21.20 11:29	
Methylene Bromide	<0.200	10.0	8.62	86	8.52	85	69-127	1	25	mg/L	02.21.20 11:29	
1,2-Dichlorobenzene	<0.200	10.0	9.61	96	9.91	99	75-125	3	25	mg/L	02.21.20 11:29	
1,3-Dichlorobenzene	<0.200	10.0	9.91	99	10.1	101	75-125	2	25	mg/L	02.21.20 11:29	
1,4-Dichlorobenzene	<0.200	10.0	9.61	96	9.92	99	75-125	3	25	mg/L	02.21.20 11:29	
Dichlorodifluoromethane	<0.200	10.0	12.8	128	11.8	118	60-140	8	25	mg/L	02.21.20 11:29	
1,1-Dichloroethane	<0.200	10.0	11.1	111	10.5	105	72-125	6	25	mg/L	02.21.20 11:29	
1,2-Dichloroethane	<0.200	10.0	8.12	81	8.15	82	68-127	0	25	mg/L	02.21.20 11:29	
1,1-Dichloroethene	<0.200	10.0	10.8	108	10.0	100	59-172	8	25	mg/L	02.21.20 11:29	
cis-1,2-Dichloroethylene	<0.200	10.0	11.1	111	10.5	105	75-125	6	25	mg/L	02.21.20 11:29	
trans-1,2-dichloroethylene	<0.200	10.0	11.1	111	10.5	105	75-125	6	25	mg/L	02.21.20 11:29	
1,2-Dichloropropane	<1.00	10.0	11.2	112	11.0	110	74-125	2	25	mg/L	02.21.20 11:29	
1,3-Dichloropropane	<1.00	10.0	11.8	118	12.1	121	75-125	3	25	mg/L	02.21.20 11:29	
2,2-Dichloropropane	<1.00	10.0	11.5	115	10.8	108	75-125	6	25	mg/L	02.21.20 11:29	
1,1-Dichloropropene	<1.00	10.0	11.3	113	10.8	108	75-125	5	25	mg/L	02.21.20 11:29	
cis-1,3-Dichloropropene	<1.00	10.0	10.5	105	10.4	104	74-125	1	25	mg/L	02.21.20 11:29	
trans-1,3-dichloropropene	<1.00	10.0	10.9	109	11.1	111	66-125	2	25	mg/L	02.21.20 11:29	
Ethylbenzene	19.9	10.0	28.6	87	29.0	91	75-125	1	25	mg/L	02.21.20 11:29	
Hexachlorobutadiene	<1.00	10.0	8.46	85	9.84	98	75-125	15	25	mg/L	02.21.20 11:29	
Isopropylbenzene	1.93	10.0	11.6	97	11.7	98	75-125	1	25	mg/L	02.21.20 11:29	
Methylene Chloride	<1.00	10.0	9.81	98	9.15	92	75-125	7	25	mg/L	02.21.20 11:29	
MTBE	<1.00	10.0	11.5	115	11.5	115	65-135	0	25	mg/L	02.21.20 11:29	
Naphthalene	<2.00	10.0	10.7	107	12.7	127	70-130	17	25	mg/L	02.21.20 11:29	
n-Propylbenzene	5.21	10.0	14.9	97	15.2	100	75-125	2	25	mg/L	02.21.20 11:29	
Styrene	<0.200	10.0	12.1	121	12.2	122	75-125	1	25	mg/L	02.21.20 11:29	
1,1,1,2-Tetrachloroethane	<0.200	10.0	11.4	114	11.6	116	72-125	2	25	mg/L	02.21.20 11:29	
1,1,2,2-Tetrachloroethane	<0.200	10.0	8.75	88	9.54	95	74-125	9	25	mg/L	02.21.20 11:29	
Tetrachloroethylene	<0.200	10.0	10.6	106	10.6	106	71-125	0	25	mg/L	02.21.20 11:29	
Toluene	0.284	10.0	9.95	97	9.92	96	59-139	0	25	mg/L	02.21.20 11:29	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117278

Parent Sample Id: 652223-003

Matrix: Water

MS Sample Id: 652223-003 S

Prep Method: SW5030B

Date Prep: 02.21.20

MSD Sample Id: 652223-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<1.00	10.0	9.52	95	11.2	112	75-137	16	25	mg/L	02.21.20 11:29	
1,2,4-Trichlorobenzene	<1.00	10.0	9.88	99	11.0	110	75-135	11	25	mg/L	02.21.20 11:29	
1,1,1-Trichloroethane	<1.00	10.0	10.1	101	9.52	95	75-125	6	25	mg/L	02.21.20 11:29	
1,1,2-Trichloroethane	<0.200	10.0	29.6	296	31.4	314	75-127	6	25	mg/L	02.21.20 11:29	X
Trichloroethylene	<1.00	10.0	10.1	101	9.80	98	62-137	3	25	mg/L	02.21.20 11:29	
Trichlorofluoromethane	<0.200	10.0	9.57	96	8.72	87	60-140	9	25	mg/L	02.21.20 11:29	
1,2,3-Trichloropropane	<0.200	10.0	11.5	115	13.3	133	75-125	15	25	mg/L	02.21.20 11:29	X
1,2,4-Trimethylbenzene	38.7	10.0	48.7	100	50.5	118	75-125	4	25	mg/L	02.21.20 11:29	
1,3,5-Trimethylbenzene	9.03	10.0	20.0	110	20.5	115	70-125	2	25	mg/L	02.21.20 11:29	
o-Xylene	62.4	10.0	68.0	56	68.9	65	75-125	1	25	mg/L	02.21.20 11:29	X
m,p-Xylenes	101	20.0	112	55	114	65	75-125	2	25	mg/L	02.21.20 11:29	X
Vinyl Chloride	<0.400	10.0	9.83	98	9.05	91	60-140	8	25	mg/L	02.21.20 11:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	107		105		75-131	%	02.21.20 11:29
1,2-Dichloroethane-D4	95		97		63-144	%	02.21.20 11:29
Toluene-D8	101		103		80-117	%	02.21.20 11:29
4-Bromofluorobenzene	93		95		74-124	%	02.21.20 11:29

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3117449

Parent Sample Id: 653344-002

Matrix: Liquid

MS Sample Id: 653344-002 S

Prep Method: SW5030B

Date Prep: 02.24.20

MSD Sample Id: 653344-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trimethylbenzene	<0.0200	1.00	0.968	97	0.991	99	75-125	2	25	mg/L	02.24.20 16:50	
o-Xylene	<0.0200	1.00	0.918	92	0.921	92	75-125	0	25	mg/L	02.24.20 16:50	
m,p-Xylenes	<0.200	2.00	1.78	89	1.79	90	75-125	1	25	mg/L	02.24.20 16:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		103		75-131	%	02.24.20 16:50
1,2-Dichloroethane-D4	103		102		63-144	%	02.24.20 16:50
Toluene-D8	100		100		80-117	%	02.24.20 16:50
4-Bromofluorobenzene	94		95		74-124	%	02.24.20 16:50

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 653182

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) 784-1296
Phoenix, AZ (480-335-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3827
Hobbs, NM (575-382-7550)

www.xenco.com Page 1 of 1

Project Manager:	Breaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	5.5			Thermometer ID		
Received intact:	(Yes) No			B2		
Cooler Custody Seals:	Yes No			Correction Factor:		
Sample Custody Seals:	Yes No N/A			Total Containers:		

Number of Containers

F, Cl, SO₄, B

: Ca, K, Mg, Na, Si

ty

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>		TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U													
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$75.00 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																	
1631 / 245.1 / 7470 / 7471 : Hg																																	

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		2/20/2020 1542			

CUSTODY SEAL

Date

2-20-24

Signature



Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **58620**

Date/Time: 02.20.2020

Created by: Alexis Jaime

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 526MAF45734975

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
653182-001	W	Levey Well	02.20.2020 12:10	E200.7	Recoverable Metals per ICP by EPA 200	02.21.2020	08.18.2020	JKR	CA K MG NA SI	
653182-001	W	Levey Well	02.20.2020 12:10	E300	Inorganic Anions by EPA 300/300.1	02.21.2020	02.22.2020 12:10	JKR	BR CL F NO2N NO3N S	
653182-001	W	Levey Well	02.20.2020 12:10	SM1030E	Cation-Anion Balance Calculation	02.21.2020	03.21.2020	JKR	Cation-Anion Balance	
653182-001	W	Levey Well	02.20.2020 12:10	SM2320B	Alkalinity by SM2320B	02.21.2020	03.05.2020	JKR	ALK ALKB ALKC	
653182-001	W	Levey Well	02.20.2020 12:10	SM2540C	TDS by SM2540C	02.21.2020	02.27.2020	JKR	TDS	
653182-001	W	Levey Well	02.20.2020 12:10	SM4500-H	pH by SM4500-H	02.21.2020	02.20.2020 12:25	JKR		
653182-001	W	Levey Well	02.20.2020 12:10	SW8260C	VOCs by SW-846 8260C	02.21.2020	03.05.2020	JKR	BDCME BRBZ BRCLME	

Inter Office Shipment or Sample Comments:

Relinquished By:



Alexis Jaime

Date Relinquished: 02.20.2020

Received By:



Jose Londono

Date Received: 02.21.2020

Cooler Temperature: 1.3



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 58620

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Alexis Jaime

Date Sent: 02.20.2020 04.01 PM

Received By: Jose Londono

Date Received: 02.21.2020 09.11 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jose Londono

Date: 02.21.2020



Certificate of Analysis Summary 654116

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Feb-28-20 01:23 pm
Report Date: 03-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654116-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-28-20 10:45					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Mar-02-20 10:15 Analyzed: Mar-02-20 11:17 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1230 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1230 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Mar-03-20 10:22 Units/RL: % RL					
Cation-Anion Balance	0.400					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Feb-29-20 09:06 Analyzed: Feb-29-20 13:04 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	307 D 5.00					
Fluoride	<0.500 0.500					
Nitrate as N	1.05 D 1.00					
Nitrite as N	1.35 D 1.00					
Sulfate	56.6 0.500					

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 654116

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Feb-28-20 01:23 pm
Report Date: 03-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654116-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Feb-28-20 10:45					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Mar-02-20 09:45					
	Analyzed:	Mar-02-20 17:09					
	Units/RL:	mg/L RL					
Calcium		438 D 10.0					
Magnesium		74.0 0.400					
Potassium		5.98 0.500					
Silica		78.4 X 1.07					
Sodium		97.4 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Mar-02-20 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1620 5.00					

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 654116

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Feb-28-20 01:23 pm
Report Date: 03-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654116-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-28-20 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-02-20 16:30 Analyzed: Mar-02-20 22:19 Units/RL: mg/L RL					
Benzene	0.00895 0.00500					
Bromobenzene	<0.00500 0.00500					
Bromochloromethane	<0.00500 0.00500					
Bromodichloromethane	<0.00500 0.00500					
Bromoform	<0.0250 0.0250					
Methyl bromide	<0.0250 0.0250					
2-Butanone	<0.250 0.250					
n-Butylbenzene	<0.00500 0.00500					
Sec-Butylbenzene	<0.00500 0.00500					
tert-Butylbenzene	<0.00500 0.00500					
Carbon Tetrachloride	<0.0250 0.0250					
Chlorobenzene	<0.00500 0.00500					
Chloroethane	<0.0500 0.0500					
Chloroform	<0.00500 0.00500					
Methyl Chloride	<0.0500 0.0500					
2-Chlorotoluene	<0.00500 0.00500					
4-Chlorotoluene	<0.00500 0.00500					
p-Cymene (p-Isopropyltoluene)	<0.00500 0.00500					
Dibromochloromethane	<0.0250 0.0250					
1,2-Dibromo-3-Chloropropane	<0.00500 0.00500					
1,2-Dibromoethane	<0.0250 0.0250					
Methylene Bromide	<0.00500 0.00500					
1,2-Dichlorobenzene	<0.00500 0.00500					
1,3-Dichlorobenzene	<0.00500 0.00500					

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 654116

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Feb-28-20 01:23 pm
Report Date: 03-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654116-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-28-20 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-02-20 16:30 Analyzed: Mar-02-20 22:19 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00500 0.00500					
Dichlorodifluoromethane	<0.00500 0.00500					
1,1-Dichloroethane	<0.00500 0.00500					
1,2-Dichloroethane	<0.00500 0.00500					
1,1-Dichloroethene	<0.00500 0.00500					
cis-1,2-Dichloroethylene	<0.00500 0.00500					
trans-1,2-dichloroethylene	<0.00500 0.00500					
1,2-Dichloropropane	<0.0250 0.0250					
1,3-Dichloropropane	<0.0250 0.0250					
2,2-Dichloropropane	<0.0250 0.0250					
1,1-Dichloropropene	<0.0250 0.0250					
cis-1,3-Dichloropropene	<0.0250 0.0250					
trans-1,3-dichloropropene	<0.0250 0.0250					
Ethylbenzene	0.0374 0.00500					
Hexachlorobutadiene	<0.0250 0.0250					
Isopropylbenzene	0.0249 0.00500					
Methylene Chloride	<0.0250 0.0250					
MTBE	<0.0250 0.0250					
Naphthalene	<0.0500 0.0500					
n-Propylbenzene	0.0488 0.00500					
Styrene	<0.00500 0.00500					
1,1,1,2-Tetrachloroethane	<0.00500 0.00500					
1,1,2,2-Tetrachloroethane	<0.00500 0.00500					
Tetrachloroethylene	<0.00500 0.00500					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 654116

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Feb-28-20 01:23 pm
Report Date: 03-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654116-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Feb-28-20 10:45					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-02-20 16:30 Analyzed: Mar-02-20 22:19 Units/RL: mg/L RL					
Toluene	0.0351 0.00500					
1,2,3-Trichlorobenzene	<0.0250 0.0250					
1,2,4-Trichlorobenzene	<0.0250 0.0250					
1,1,1-Trichloroethane	<0.0250 0.0250					
1,1,2-Trichloroethane	<0.00500 0.00500					
Trichloroethylene	<0.0250 0.0250					
Trichlorofluoromethane	<0.00500 0.00500					
1,2,3-Trichloropropane	<0.00500 0.00500					
1,2,4-Trimethylbenzene	0.358 0.00500					
1,3,5-Trimethylbenzene	0.0989 0.00500					
o-Xylene	0.0251 0.00500					
m,p-Xylenes	0.124 0.0500					
Vinyl Chloride	<0.0100 0.0100					
Total Xylenes	0.149 0.00500					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-02-20 14:42 Units/RL: Deg C RL					
Temperature	22.9 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-02-20 14:42 Units/RL: SU RL					
pH	6.12 K					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 654116

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

03-MAR-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



03-MAR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **654116**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 654116. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 654116 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 654116



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id

Levey Well

Matrix

W

Date Collected

02-28-20 10:45

Sample Depth

Lab Sample Id

654116-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 654116

Report Date: 03-MAR-20
Date Received: 02/28/2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118260 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 654116-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 654116-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 654116



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.28.20 13.23

Lab Sample Id: 654116-001

Date Collected: 02.28.20 10.45

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 03.02.20 10.15

Seq Number: 3118210

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1230	4.00	mg/L	03.02.20 11.17		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1230	4.00	mg/L	03.02.20 11.17		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	03.02.20 11.17	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	03.02.20 11.17	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3118293

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.400		%	03.03.20 10.22		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 02.29.20 09.06

Seq Number: 3118125

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	02.29.20 13.04	U	1
Chloride	16887-00-6	307	5.00	mg/L	03.02.20 12.03	D	10
Fluoride	16984-48-8	<0.500	0.500	mg/L	02.29.20 13.04	U	1
Nitrate as N	14797-55-8	1.05	1.00	mg/L	02.29.20 13.12	D	10
Nitrite as N	14797-65-0	1.35	1.00	mg/L	02.29.20 13.12	D	10
Sulfate	14808-79-8	56.6	0.500	mg/L	02.29.20 13.04		1



Certificate of Analytical Results 654116



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.28.20 13.23

Lab Sample Id: 654116-001

Date Collected: 02.28.20 10.45

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3118157

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1620	5.00	mg/L	03.02.20 10.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3118221

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.12		SU	03.02.20 14.42	K	1
Temperature	TEMP	22.9		Deg C	03.02.20 14.42	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: ANJ

Date Prep: 03.02.20 09.45

Seq Number: 3118260

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	438	10.0	mg/L	03.02.20 17.30	D	50
Magnesium	7439-95-4	74.0	0.400	mg/L	03.02.20 17.09		1
Potassium	7440-09-7	5.98	0.500	mg/L	03.02.20 17.09		1
Silica	7631-86-9	78.4	1.07	mg/L	03.02.20 17.09	X	1
Sodium	7440-23-5	97.4	0.500	mg/L	03.02.20 17.09		1



Certificate of Analytical Results 654116

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.28.20 13.23

Lab Sample Id: 654116-001

Date Collected: 02.28.20 10.45

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 03.02.20 16.30

Seq Number: 3118351

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00895	0.00500	mg/L	03.02.20 22.19		5
Bromobenzene	108-86-1	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Bromochloromethane	74-97-5	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Bromodichloromethane	75-27-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Bromoform	75-25-2	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Methyl bromide	74-83-9	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
2-Butanone	78-93-3	<0.250	0.250	mg/L	03.02.20 22.19	U	5
n-Butylbenzene	104-51-8	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Sec-Butylbenzene	135-98-8	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
tert-Butylbenzene	98-06-6	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Carbon Tetrachloride	56-23-5	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Chlorobenzene	108-90-7	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Chloroethane	75-00-3	<0.0500	0.0500	mg/L	03.02.20 22.19	U	5
Chloroform	67-66-3	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Methyl Chloride	74-87-3	<0.0500	0.0500	mg/L	03.02.20 22.19	U	5
2-Chlorotoluene	95-49-8	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
4-Chlorotoluene	106-43-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Dibromochloromethane	124-48-1	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2-Dibromoethane	106-93-4	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Methylene Bromide	74-95-3	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2-Dichlorobenzene	95-50-1	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,3-Dichlorobenzene	541-73-1	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,4-Dichlorobenzene	106-46-7	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Dichlorodifluoromethane	75-71-8	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,1-Dichloroethane	75-34-3	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2-Dichloroethane	107-06-2	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,1-Dichloroethene	75-35-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
cis-1,2-Dichloroethylene	156-59-2	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
trans-1,2-dichloroethylene	156-60-5	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2-Dichloropropane	78-87-5	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,3-Dichloropropane	142-28-9	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
2,2-Dichloropropane	594-20-7	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,1-Dichloropropene	563-58-6	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
cis-1,3-Dichloropropene	10061-01-5	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
trans-1,3-dichloropropene	10061-02-6	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Ethylbenzene	100-41-4	0.0374	0.00500	mg/L	03.02.20 22.19		5
Hexachlorobutadiene	87-68-3	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5



Certificate of Analytical Results 654116



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 02.28.20 13.23

Lab Sample Id: 654116-001

Date Collected: 02.28.20 10.45

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 03.02.20 16.30

Seq Number: 3118351

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0249	0.00500	mg/L	03.02.20 22.19		5
Methylene Chloride	75-09-2	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
MTBE	1634-04-4	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Naphthalene	91-20-3	<0.0500	0.0500	mg/L	03.02.20 22.19	U	5
n-Propylbenzene	103-65-1	0.0488	0.00500	mg/L	03.02.20 22.19		5
Styrene	100-42-5	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,1,1,2-Tetrachloroethane	630-20-6	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,1,2,2-Tetrachloroethane	79-34-5	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Tetrachloroethylene	127-18-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Toluene	108-88-3	0.0351	0.00500	mg/L	03.02.20 22.19		5
1,2,3-Trichlorobenzene	87-61-6	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,2,4-Trichlorobenzene	120-82-1	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,1,1-Trichloroethane	71-55-6	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
1,1,2-Trichloroethane	79-00-5	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
Trichloroethylene	79-01-6	<0.0250	0.0250	mg/L	03.02.20 22.19	U	5
Trichlorofluoromethane	75-69-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2,3-Trichloropropane	96-18-4	<0.00500	0.00500	mg/L	03.02.20 22.19	U	5
1,2,4-Trimethylbenzene	95-63-6	0.358	0.00500	mg/L	03.02.20 22.19		5
1,3,5-Trimethylbenzene	108-67-8	0.0989	0.00500	mg/L	03.02.20 22.19		5
o-Xylene	95-47-6	0.0251	0.00500	mg/L	03.02.20 22.19		5
m,p-Xylenes	179601-23-1	0.124	0.0500	mg/L	03.02.20 22.19		5
Vinyl Chloride	75-01-4	<0.0100	0.0100	mg/L	03.02.20 22.19	U	5
Total Xylenes	1330-20-7	0.149	0.00500	mg/L	03.02.20 22.19		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	75-131	03.02.20 22.19	
1,2-Dichloroethane-D4	17060-07-0	99	%	63-144	03.02.20 22.19	
Toluene-D8	2037-26-5	101	%	80-117	03.02.20 22.19	
4-Bromofluorobenzene	460-00-4	97	%	74-124	03.02.20 22.19	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118210

MB Sample Id: 7697803-1-BLK

Matrix: Water

LCS Sample Id: 7697803-1-BKS

Prep Method: SM2320P

Date Prep: 03.02.20

LCSD Sample Id: 7697803-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	258	103	262	105	85-115	2	20	mg/L	03.02.20 10:56	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118210

Matrix: Water

MB Sample Id: 7697803-1-BLK

Prep Method: SM2320P

Date Prep: 03.02.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	03.02.20 10:49	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	03.02.20 10:49	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	03.02.20 10:49	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118210

Matrix: Ground Water

Parent Sample Id: 654116-001

MD Sample Id: 654116-001 D

Prep Method: SM2320P

Date Prep: 03.02.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1230	1210	2	20	mg/L	03.02.20 11:30	
Alkalinity, Bicarbonate (as CaCO ₃)	1230	1210	2	20	mg/L	03.02.20 11:30	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.02.20 11:30	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.02.20 11:30	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118210

Matrix: Water

Parent Sample Id: 654161-001

MD Sample Id: 654161-001 D

Prep Method: SM2320P

Date Prep: 03.02.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	259	260	0	20	mg/L	03.02.20 12:47	
Alkalinity, Bicarbonate (as CaCO ₃)	259	260	0	20	mg/L	03.02.20 12:47	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.02.20 12:47	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.02.20 12:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3118125

Matrix: Water

Prep Method: E300P

MB Sample Id: 7697787-1-BLK

LCS Sample Id: 7697787-1-BKS

Date Prep: 02.29.20

LCSD Sample Id: 7697787-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	02.29.20 09:37	
Chloride	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	02.29.20 09:37	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	02.29.20 09:37	
Nitrate as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	02.29.20 09:37	
Nitrite as N	<0.100	10.0	9.92	99	9.95	100	90-110	0	20	mg/L	02.29.20 09:37	
Sulfate	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	02.29.20 09:37	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3118125

Matrix: Water

Prep Method: E300P

Parent Sample Id: 654088-001

MS Sample Id: 654088-001 S

Date Prep: 02.29.20

MSD Sample Id: 654088-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<10.0	200	204	102	207	104	90-110	1	20	mg/L	02.29.20 12:13	
Fluoride	<10.0	200	210	105	212	106	90-110	1	20	mg/L	02.29.20 12:13	
Sulfate	<10.0	200	202	101	205	103	90-110	1	20	mg/L	02.29.20 12:13	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3118125

Matrix: Water

Prep Method: E300P

Parent Sample Id: 654161-003

MS Sample Id: 654161-003 S

Date Prep: 02.29.20

MSD Sample Id: 654161-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	7.03	200	230	112	229	111	90-110	0	20	mg/L	02.29.20 16:28	X
Fluoride	3.59	10.0	11.7	81	11.7	81	90-110	0	20	mg/L	02.29.20 15:46	X
Nitrate as N	14.0	10.0	24.1	101	24.1	101	90-110	0	20	mg/L	02.29.20 15:46	
Sulfate	983	200	1210	114	1210	114	90-110	0	20	mg/L	02.29.20 16:28	X

Analytical Method: TDS by SM2540C

Seq Number: 3118157

Matrix: Water

MB Sample Id: 3118157-1-BLK

LCS Sample Id: 3118157-1-BKS

LCSD Sample Id: 3118157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	976	98	975	98	80-120	0	10	mg/L	03.02.20 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: TDS by SM2540C

Seq Number: 3118157

Matrix: Liquid

Parent Sample Id: 653590-001

MD Sample Id: 653590-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	729	728	0	10	mg/L	03.02.20 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3118221

Matrix: Ground Water

Parent Sample Id: 654116-001

MD Sample Id: 654116-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.12	6.12	0	20	SU	03.02.20 14:42	
Temperature	22.9	23.1	1	20	Deg C	03.02.20 14:42	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3118260

Matrix: Water

MB Sample Id: 7697835-1-BLK

LCS Sample Id: 7697835-1-BKS

Prep Method: E200.7P

Date Prep: 03.02.20

LCSD Sample Id: 7697835-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.9	100	24.9	100	85-115	0	20	mg/L	03.02.20 17:00	
Magnesium	<0.400	25.0	24.8	99	24.7	99	85-115	0	20	mg/L	03.02.20 17:00	
Potassium	<0.500	10.0	10.1	101	9.73	97	85-115	4	20	mg/L	03.02.20 17:00	
Silica	<1.07	21.4	21.1	99	21.1	99	85-115	0	20	mg/L	03.02.20 17:00	
Sodium	<0.500	25.0	24.6	98	24.6	98	85-115	0	20	mg/L	03.02.20 17:00	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3118260

Matrix: Ground Water

Parent Sample Id: 654116-001

MS Sample Id: 654116-001 S

Prep Method: E200.7P

Date Prep: 03.02.20

MSD Sample Id: 654116-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	421	25.0	439	72	442	84	70-130	1	20	mg/L	03.02.20 17:13	
Magnesium	74.0	25.0	99.2	101	99.8	103	70-130	1	20	mg/L	03.02.20 17:13	
Potassium	5.98	10.0	16.5	105	16.5	105	70-130	0	20	mg/L	03.02.20 17:13	
Silica	78.4	21.4	129	236	129	236	70-130	0	20	mg/L	03.02.20 17:13	X
Sodium	97.4	25.0	122	98	122	98	70-130	0	20	mg/L	03.02.20 17:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118351

MB Sample Id: 7697949-1-BLK

Matrix: Water

LCS Sample Id: 7697949-1-BKS

Prep Method: SW5030B

Date Prep: 03.02.20

LCSD Sample Id: 7697949-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0508	102	0.0474	95	66-142	7	25	mg/L	03.02.20 14:51	
Bromobenzene	<0.00100	0.0500	0.0498	100	0.0505	101	75-125	1	25	mg/L	03.02.20 14:51	
Bromochloromethane	<0.00100	0.0500	0.0512	102	0.0490	98	60-140	4	25	mg/L	03.02.20 14:51	
Bromodichloromethane	<0.00100	0.0500	0.0524	105	0.0498	100	75-125	5	25	mg/L	03.02.20 14:51	
Bromoform	<0.00500	0.0500	0.0529	106	0.0537	107	75-125	2	25	mg/L	03.02.20 14:51	
Methyl bromide	<0.00105	0.0500	0.0535	107	0.0467	93	60-140	14	25	mg/L	03.02.20 14:51	
2-Butanone	<0.0500	0.250	0.262	105	0.270	108	60-140	3	25	mg/L	03.02.20 14:51	
n-Butylbenzene	<0.000286	0.0500	0.0509	102	0.0530	106	75-125	4	25	mg/L	03.02.20 14:51	
Sec-Butylbenzene	<0.00100	0.0500	0.0499	100	0.0512	102	75-125	3	25	mg/L	03.02.20 14:51	
tert-Butylbenzene	<0.00100	0.0500	0.0501	100	0.0515	103	75-125	3	25	mg/L	03.02.20 14:51	
Carbon Tetrachloride	<0.00500	0.0500	0.0503	101	0.0461	92	62-125	9	25	mg/L	03.02.20 14:51	
Chlorobenzene	<0.00100	0.0500	0.0508	102	0.0489	98	60-133	4	25	mg/L	03.02.20 14:51	
Chloroethane	<0.0100	0.0500	0.0487	97	0.0442	88	60-140	10	25	mg/L	03.02.20 14:51	
Chloroform	<0.00100	0.0500	0.0512	102	0.0479	96	70-130	7	25	mg/L	03.02.20 14:51	
Methyl Chloride	<0.0100	0.0500	0.0468	94	0.0421	84	60-140	11	25	mg/L	03.02.20 14:51	
2-Chlorotoluene	<0.00100	0.0500	0.0493	99	0.0505	101	73-125	2	25	mg/L	03.02.20 14:51	
4-Chlorotoluene	<0.000183	0.0500	0.0501	100	0.0505	101	74-125	1	25	mg/L	03.02.20 14:51	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0509	102	0.0523	105	75-125	3	25	mg/L	03.02.20 14:51	
Dibromochloromethane	<0.00500	0.0500	0.0524	105	0.0523	105	73-125	0	25	mg/L	03.02.20 14:51	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0466	93	0.0539	108	59-125	15	25	mg/L	03.02.20 14:51	
1,2-Dibromoethane	<0.00500	0.0500	0.0517	103	0.0514	103	73-125	1	25	mg/L	03.02.20 14:51	
Methylene Bromide	<0.00100	0.0500	0.0508	102	0.0490	98	69-127	4	25	mg/L	03.02.20 14:51	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0498	100	0.0513	103	75-125	3	25	mg/L	03.02.20 14:51	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0505	101	0.0513	103	75-125	2	25	mg/L	03.02.20 14:51	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0499	100	0.0508	102	75-125	2	25	mg/L	03.02.20 14:51	
Dichlorodifluoromethane	<0.00100	0.0500	0.0486	97	0.0439	88	60-140	10	25	mg/L	03.02.20 14:51	
1,1-Dichloroethane	<0.00100	0.0500	0.0505	101	0.0468	94	72-125	8	25	mg/L	03.02.20 14:51	
1,2-Dichloroethane	<0.00100	0.0500	0.0506	101	0.0483	97	68-127	5	25	mg/L	03.02.20 14:51	
1,1-Dichloroethene	<0.00100	0.0500	0.0492	98	0.0452	90	59-172	8	25	mg/L	03.02.20 14:51	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0513	103	0.0483	97	75-125	6	25	mg/L	03.02.20 14:51	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0498	100	0.0467	93	75-125	6	25	mg/L	03.02.20 14:51	
1,2-Dichloropropane	<0.00500	0.0500	0.0520	104	0.0494	99	74-125	5	25	mg/L	03.02.20 14:51	
1,3-Dichloropropane	<0.00500	0.0500	0.0513	103	0.0512	102	75-125	0	25	mg/L	03.02.20 14:51	
2,2-Dichloropropane	<0.00500	0.0500	0.0525	105	0.0476	95	75-125	10	25	mg/L	03.02.20 14:51	
1,1-Dichloropropene	<0.00500	0.0500	0.0506	101	0.0460	92	75-125	10	25	mg/L	03.02.20 14:51	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0531	106	0.0506	101	74-125	5	25	mg/L	03.02.20 14:51	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0526	105	0.0524	105	66-125	0	25	mg/L	03.02.20 14:51	
Ethylbenzene	<0.00100	0.0500	0.0506	101	0.0485	97	75-125	4	25	mg/L	03.02.20 14:51	
Hexachlorobutadiene	<0.00200	0.0500	0.0501	100	0.0549	110	75-125	9	25	mg/L	03.02.20 14:51	
Isopropylbenzene	<0.00100	0.0500	0.0512	102	0.0498	100	75-125	3	25	mg/L	03.02.20 14:51	
Methylene Chloride	<0.00191	0.0500	0.0473	95	0.0440	88	75-125	7	25	mg/L	03.02.20 14:51	
MTBE	<0.00500	0.0500	0.0523	105	0.0509	102	65-135	3	25	mg/L	03.02.20 14:51	
Naphthalene	<0.00200	0.0500	0.0507	101	0.0585	117	70-130	14	25	mg/L	03.02.20 14:51	
n-Propylbenzene	<0.00100	0.0500	0.0494	99	0.0503	101	75-125	2	25	mg/L	03.02.20 14:51	
Styrene	<0.00100	0.0500	0.0524	105	0.0510	102	75-125	3	25	mg/L	03.02.20 14:51	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0524	105	0.0507	101	72-125	3	25	mg/L	03.02.20 14:51	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0522	104	0.0563	113	74-125	8	25	mg/L	03.02.20 14:51	
Tetrachloroethylene	<0.00100	0.0500	0.0497	99	0.0485	97	71-125	2	25	mg/L	03.02.20 14:51	
Toluene	<0.00100	0.0500	0.0508	102	0.0484	97	59-139	5	25	mg/L	03.02.20 14:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118351

MB Sample Id: 7697949-1-BLK

Matrix: Water

LCS Sample Id: 7697949-1-BKS

Prep Method: SW5030B

Date Prep: 03.02.20

LCSD Sample Id: 7697949-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00200	0.0500	0.0501	100	0.0572	114	75-137	13	25	mg/L	03.02.20 14:51	
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0524	105	0.0569	114	75-135	8	25	mg/L	03.02.20 14:51	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0505	101	0.0462	92	75-125	9	25	mg/L	03.02.20 14:51	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0515	103	0.0515	103	75-127	0	25	mg/L	03.02.20 14:51	
Trichloroethylene	<0.00500	0.0500	0.0497	99	0.0466	93	62-137	6	25	mg/L	03.02.20 14:51	
Trichlorofluoromethane	<0.00100	0.0500	0.0497	99	0.0454	91	60-140	9	25	mg/L	03.02.20 14:51	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0478	96	0.0516	103	75-125	8	25	mg/L	03.02.20 14:51	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0503	101	0.0515	103	75-125	2	25	mg/L	03.02.20 14:51	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0504	101	0.0509	102	70-125	1	25	mg/L	03.02.20 14:51	
o-Xylene	<0.00100	0.0500	0.0514	103	0.0498	100	75-125	3	25	mg/L	03.02.20 14:51	
m,p-Xylenes	<0.000330	0.100	0.102	102	0.0984	98	75-125	4	25	mg/L	03.02.20 14:51	
Vinyl Chloride	<0.00200	0.0500	0.0482	96	0.0440	88	60-140	9	25	mg/L	03.02.20 14:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		102		102		75-131	%	03.02.20 14:51
1,2-Dichloroethane-D4	100		98		99		63-144	%	03.02.20 14:51
Toluene-D8	100		99		101		80-117	%	03.02.20 14:51
4-Bromofluorobenzene	104		97		100		74-124	%	03.02.20 14:51

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118351

Matrix: Water

Prep Method: SW5030B

Date Prep: 03.02.20

Parent Sample Id: 654018-016

MS Sample Id: 654018-016 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0504	101	66-142	mg/L	03.02.20 15:38	
Bromobenzene	<0.00100	0.0500	0.0513	103	75-125	mg/L	03.02.20 15:38	
Bromochloromethane	<0.00100	0.0500	0.0511	102	60-140	mg/L	03.02.20 15:38	
Bromodichloromethane	<0.00100	0.0500	0.0521	104	75-125	mg/L	03.02.20 15:38	
Bromoform	<0.00500	0.0500	0.0532	106	75-125	mg/L	03.02.20 15:38	
Methyl bromide	<0.00500	0.0500	0.0480	96	60-140	mg/L	03.02.20 15:38	
2-Butanone	<0.0500	0.250	0.232	93	60-140	mg/L	03.02.20 15:38	
n-Butylbenzene	<0.00100	0.0500	0.0542	108	75-125	mg/L	03.02.20 15:38	
Sec-Butylbenzene	<0.00100	0.0500	0.0531	106	75-125	mg/L	03.02.20 15:38	
tert-Butylbenzene	<0.00100	0.0500	0.0538	108	75-125	mg/L	03.02.20 15:38	
Carbon Tetrachloride	<0.00500	0.0500	0.0502	100	62-125	mg/L	03.02.20 15:38	
Chlorobenzene	<0.00100	0.0500	0.0518	104	60-133	mg/L	03.02.20 15:38	
Chloroethane	<0.0100	0.0500	0.0475	95	60-140	mg/L	03.02.20 15:38	
Chloroform	<0.00100	0.0500	0.0512	102	70-130	mg/L	03.02.20 15:38	
Methyl Chloride	<0.0100	0.0500	0.0445	89	60-140	mg/L	03.02.20 15:38	
2-Chlorotoluene	<0.00100	0.0500	0.0522	104	73-125	mg/L	03.02.20 15:38	
4-Chlorotoluene	<0.00100	0.0500	0.0522	104	74-125	mg/L	03.02.20 15:38	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0543	109	75-125	mg/L	03.02.20 15:38	
Dibromochloromethane	<0.00500	0.0500	0.0533	107	73-125	mg/L	03.02.20 15:38	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0482	96	59-125	mg/L	03.02.20 15:38	
1,2-Dibromoethane	<0.00500	0.0500	0.0510	102	73-125	mg/L	03.02.20 15:38	
Methylene Bromide	<0.00100	0.0500	0.0493	99	69-127	mg/L	03.02.20 15:38	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0525	105	75-125	mg/L	03.02.20 15:38	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0526	105	75-125	mg/L	03.02.20 15:38	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0520	104	75-125	mg/L	03.02.20 15:38	
Dichlorodifluoromethane	<0.00100	0.0500	0.0473	95	60-140	mg/L	03.02.20 15:38	
1,1-Dichloroethane	<0.00100	0.0500	0.0502	100	72-125	mg/L	03.02.20 15:38	
1,2-Dichloroethane	<0.00100	0.0500	0.0499	100	68-127	mg/L	03.02.20 15:38	
1,1-Dichloroethene	<0.00100	0.0500	0.0489	98	59-172	mg/L	03.02.20 15:38	
cis-1,2-Dichloroethylene	0.0572	0.0500	0.112	110	75-125	mg/L	03.02.20 15:38	
trans-1,2-dichloroethylene	0.00663	0.0500	0.0570	101	75-125	mg/L	03.02.20 15:38	
1,2-Dichloropropane	<0.00500	0.0500	0.0517	103	74-125	mg/L	03.02.20 15:38	
1,3-Dichloropropane	<0.00500	0.0500	0.0513	103	75-125	mg/L	03.02.20 15:38	
2,2-Dichloropropane	<0.00500	0.0500	0.0525	105	75-125	mg/L	03.02.20 15:38	
1,1-Dichloropropene	<0.00500	0.0500	0.0505	101	75-125	mg/L	03.02.20 15:38	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0523	105	74-125	mg/L	03.02.20 15:38	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0533	107	66-125	mg/L	03.02.20 15:38	
Ethylbenzene	<0.00100	0.0500	0.0520	104	75-125	mg/L	03.02.20 15:38	
Hexachlorobutadiene	<0.00500	0.0500	0.0546	109	75-125	mg/L	03.02.20 15:38	
Isopropylbenzene	<0.00100	0.0500	0.0536	107	75-125	mg/L	03.02.20 15:38	
Methylene Chloride	<0.00500	0.0500	0.0460	92	75-125	mg/L	03.02.20 15:38	
MTBE	<0.00500	0.0500	0.0511	102	65-135	mg/L	03.02.20 15:38	
Naphthalene	<0.0100	0.0500	0.0533	107	70-130	mg/L	03.02.20 15:38	
n-Propylbenzene	<0.00100	0.0500	0.0533	107	75-125	mg/L	03.02.20 15:38	
Styrene	<0.00100	0.0500	0.0532	106	75-125	mg/L	03.02.20 15:38	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0537	107	72-125	mg/L	03.02.20 15:38	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0564	113	74-125	mg/L	03.02.20 15:38	
Tetrachloroethylene	<0.00100	0.0500	0.0522	104	71-125	mg/L	03.02.20 15:38	
Toluene	<0.00100	0.0500	0.0517	103	59-139	mg/L	03.02.20 15:38	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118351

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 654018-016

MS Sample Id: 654018-016 S

Date Prep: 03.02.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0539	108	75-137	mg/L	03.02.20 15:38	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0554	111	75-135	mg/L	03.02.20 15:38	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0510	102	75-125	mg/L	03.02.20 15:38	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0521	104	75-127	mg/L	03.02.20 15:38	
Trichloroethylene	0.0500	0.0500	0.105	110	62-137	mg/L	03.02.20 15:38	
Trichlorofluoromethane	<0.00100	0.0500	0.0494	99	60-140	mg/L	03.02.20 15:38	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0498	100	75-125	mg/L	03.02.20 15:38	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0531	106	75-125	mg/L	03.02.20 15:38	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0527	105	70-125	mg/L	03.02.20 15:38	
o-Xylene	<0.00100	0.0500	0.0525	105	75-125	mg/L	03.02.20 15:38	
m,p-Xylenes	<0.0100	0.100	0.105	105	75-125	mg/L	03.02.20 15:38	
Vinyl Chloride	<0.00200	0.0500	0.0481	96	60-140	mg/L	03.02.20 15:38	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	103		75-131	%	03.02.20 15:38
1,2-Dichloroethane-D4	99		63-144	%	03.02.20 15:38
Toluene-D8	101		80-117	%	03.02.20 15:38
4-Bromofluorobenzene	98		74-124	%	03.02.20 15:38

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 10541114

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Page 1 of 1

Project Manager:	Brae Jennings	Bill to (if different):	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W. Medley 210	Address:	
City, State ZIP:	Midland TX 79705	City, State ZIP:	
Phone:	432 230 3344	Email:	b.jennings@ensolum.com

Project Name:	Levery Well	Turn Around	
Project Number:	0381417001	Routine	☐
Project Location:	Hobbs Alm	Rush:	24hr
Sampler's Name:	Shane D. Hester	Due Date:	
PO #:	0381417001	Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.4					
Received Intact:	Yes	No		Thermometer ID	08	
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	0	
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
Levery Well	W	2-28-20	1045	-	7	X	VOC		
					X	X	Anions - F, Cl, SO4, NO3		
					X	X	Cations - Ca, K, Mg, Na, Sr		
					X	X	pH		
					X	X	Alkalinity		
					X	X	TP5		24hr

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2/28/20			

CUSTODY SEAL

Date 2-28-24

Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **59194**

Date/Time: 02.28.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777896977265

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
654116-001	W	Levey Well	02.28.2020 10:45	SW8260C	VOCs by SW-846 8260C	03.02.2020	03.13.2020	JKR	BDCME BRBZ BRCLME	
654116-001	W	Levey Well	02.28.2020 10:45	E200.7	Recoverable Metals per ICP by EPA 200	03.02.2020	08.26.2020	JKR	CA K MG NA SI	
654116-001	W	Levey Well	02.28.2020 10:45	E300	Inorganic Anions by EPA 300/300.1	03.02.2020	03.01.2020 10:45	JKR	BR CL F NO2N NO3N SC	
654116-001	W	Levey Well	02.28.2020 10:45	SM4500-H	pH by SM4500-H	03.02.2020	02.28.2020 11:00	JKR		
654116-001	W	Levey Well	02.28.2020 10:45	SM2540C	TDS by SM2540C	03.02.2020	03.06.2020	JKR	TDS	
654116-001	W	Levey Well	02.28.2020 10:45	SM2320B	Alkalinity by SM2320B	03.02.2020	03.13.2020	JKR	ALK ALKB ALKC	
654116-001	W	Levey Well	02.28.2020 10:45	SM1030E	Cation-Anion Balance Calculation	03.02.2020	03.29.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

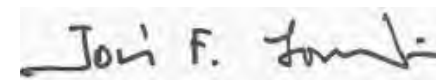
Relinquished By:



Brianna Teel

Date Relinquished: 02.28.2020

Received By:



Jose Londono

Date Received: 02.29.2020

Cooler Temperature: 3.5



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 59194

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 02.28.2020 01.36 PM

Received By: Jose Londono

Date Received: 02.29.2020 09.34 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jose Londono

Date: 02.29.2020



Client: Ensolum

Date/ Time Received: 02/28/2020 01:23:00 PM

Work Order #: 654116

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	N/A	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 02/28/2020

Checklist reviewed by:

Jessica Kramer

Date: 02/28/2020



Certificate of Analysis Summary 654798

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-06-20 10:00 am
Report Date: 09-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654798-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-06-20 07:00					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Mar-09-20 11:35 Analyzed: Mar-09-20 12:35 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1230 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1230 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Mar-09-20 17:47 Units/RL: % RL					
Cation-Anion Balance	0.800					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Mar-07-20 08:45 Analyzed: Mar-07-20 14:41 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	284 D 5.00					
Fluoride	0.621 0.500					
Nitrate as N	0.107 0.100					
Nitrite as N	1.27 D 1.00					
Sulfate	56.2 D 5.00					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654798

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-06-20 10:00 am
Report Date: 09-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654798-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Mar-06-20 07:00					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Mar-09-20 08:30					
	Analyzed:	Mar-09-20 14:07					
	Units/RL:	mg/L RL					
Calcium		418 DX 10.0					
Magnesium		67.9 0.400					
Potassium		5.60 0.500					
Silica		66.8 X 1.07					
Sodium		92.7 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Mar-09-20 08:30					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1880 5.00					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654798

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-06-20 10:00 am
Report Date: 09-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654798-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-06-20 07:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-07-20 15:00 Analyzed: Mar-07-20 18:01 Units/RL: mg/L RL					
Benzene	0.00830 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00374 0.00100					
Sec-Butylbenzene	0.00467 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00254 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654798

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-06-20 10:00 am
Report Date: 09-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654798-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-06-20 07:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-07-20 15:00 Analyzed: Mar-07-20 18:01 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0346 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0231 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0472 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654798

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-06-20 10:00 am
Report Date: 09-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 654798-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-06-20 07:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-07-20 15:00 Analyzed: Mar-07-20 18:01 Units/RL: mg/L RL					
Toluene	0.0313 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.378 D 0.00500					
1,3,5-Trimethylbenzene	0.0948 0.00100					
o-Xylene	0.0228 0.00100					
m,p-Xylenes	0.114 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.137 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-09-20 13:51 Units/RL: Deg C RL					
Temperature	21.4 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-09-20 13:51 Units/RL: SU RL					
pH	6.26 K					

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Jessica Kramer

Jessica Kramer
Project Manager

Analytical Report 654798

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

09-MAR-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



09-MAR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **654798**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 654798. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 654798 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 654798



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	03-06-20 07:00		654798-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 654798

Report Date: 09-MAR-20
Date Received: 03/06/2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118986 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 654798-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike. Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 654798-001.

The Laboratory Control Sample for Silica, Calcium is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 654798



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.06.20 10.00

Lab Sample Id: 654798-001

Date Collected: 03.06.20 07.00

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 03.09.20 11.35

Seq Number: 3118970

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1230	4.00	mg/L	03.09.20 12.35		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1230	4.00	mg/L	03.09.20 12.35		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	03.09.20 12.35	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	03.09.20 12.35	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3118989

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.800		%	03.09.20 17.47		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 03.07.20 08.45

Seq Number: 3118849

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	03.07.20 14.41	U	1
Chloride	16887-00-6	284	5.00	mg/L	03.07.20 14.50	D	10
Fluoride	16984-48-8	0.621	0.500	mg/L	03.07.20 14.41		1
Nitrate as N	14797-55-8	0.107	0.100	mg/L	03.07.20 14.41		1
Nitrite as N	14797-65-0	1.27	1.00	mg/L	03.07.20 14.50	D	10
Sulfate	14808-79-8	56.2	5.00	mg/L	03.07.20 14.50	D	10



Certificate of Analytical Results 654798



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.06.20 10.00

Lab Sample Id: 654798-001

Date Collected: 03.06.20 07.00

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3118929

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1880	5.00	mg/L	03.09.20 08.30		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3118971

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.26		SU	03.09.20 13.51	K	1
Temperature	TEMP	21.4		Deg C	03.09.20 13.51	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: ANJ

Date Prep: 03.09.20 08.30

Seq Number: 3118986

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	418	10.0	mg/L	03.09.20 14.28	DX	50
Magnesium	7439-95-4	67.9	0.400	mg/L	03.09.20 14.07		1
Potassium	7440-09-7	5.60	0.500	mg/L	03.09.20 14.07		1
Silica	7631-86-9	66.8	1.07	mg/L	03.09.20 14.07	X	1
Sodium	7440-23-5	92.7	0.500	mg/L	03.09.20 14.07		1



Certificate of Analytical Results 654798



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.06.20 10.00

Lab Sample Id: 654798-001

Date Collected: 03.06.20 07.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 03.07.20 15.00

Seq Number: 3118936

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00830	0.00100	mg/L	03.07.20 18.01		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	03.07.20 18.01	U	1
n-Butylbenzene	104-51-8	0.00374	0.00100	mg/L	03.07.20 18.01		1
Sec-Butylbenzene	135-98-8	0.00467	0.00100	mg/L	03.07.20 18.01		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	03.07.20 18.01	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	03.07.20 18.01	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00254	0.00100	mg/L	03.07.20 18.01		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Ethylbenzene	100-41-4	0.0346	0.00100	mg/L	03.07.20 18.01		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1



Certificate of Analytical Results 654798



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.06.20 10.00

Lab Sample Id: 654798-001

Date Collected: 03.06.20 07.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 03.07.20 15.00

Seq Number: 3118936

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0231	0.00100	mg/L	03.07.20 18.01		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	03.07.20 18.01	U	1
n-Propylbenzene	103-65-1	0.0472	0.00100	mg/L	03.07.20 18.01		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Toluene	108-88-3	0.0313	0.00100	mg/L	03.07.20 18.01		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	03.07.20 18.01	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	03.07.20 18.01	U	1
1,2,4-Trimethylbenzene	95-63-6	0.378	0.00500	mg/L	03.07.20 18.21	D	5
1,3,5-Trimethylbenzene	108-67-8	0.0948	0.00100	mg/L	03.07.20 18.01		1
o-Xylene	95-47-6	0.0228	0.00100	mg/L	03.07.20 18.01		1
m,p-Xylenes	179601-23-1	0.114	0.0100	mg/L	03.07.20 18.01		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	03.07.20 18.01	U	1
Total Xylenes	1330-20-7	0.137	0.00100	mg/L	03.07.20 18.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	75-131	03.07.20 18.01	
1,2-Dichloroethane-D4	17060-07-0	99	%	63-144	03.07.20 18.01	
Toluene-D8	2037-26-5	100	%	80-117	03.07.20 18.01	
4-Bromofluorobenzene	460-00-4	97	%	74-124	03.07.20 18.01	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118970

MB Sample Id: 7698367-1-BLK

Matrix: Water

LCS Sample Id: 7698367-1-BKS

Prep Method: SM2320P

Date Prep: 03.09.20

LCSD Sample Id: 7698367-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	262	105	264	106	85-115	1	20	mg/L	03.09.20 12:15	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118970

Matrix: Water

MB Sample Id: 7698367-1-BLK

Prep Method: SM2320P

Date Prep: 03.09.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	03.09.20 12:08	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	03.09.20 12:08	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	03.09.20 12:08	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3118970

Matrix: Ground Water

Parent Sample Id: 654798-001

MD Sample Id: 654798-001 D

Prep Method: SM2320P

Date Prep: 03.09.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1230	1230	0	20	mg/L	03.09.20 12:50	
Alkalinity, Bicarbonate (as CaCO3)	1230	1230	0	20	mg/L	03.09.20 12:50	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.09.20 12:50	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.09.20 12:50	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3118849

Matrix: Water

MB Sample Id: 7698310-1-BLK

LCS Sample Id: 7698310-1-BKS

Prep Method: E300P

Date Prep: 03.07.20

LCSD Sample Id: 7698310-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	03.07.20 10:51	
Chloride	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	03.07.20 10:51	
Fluoride	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	03.07.20 10:51	
Nitrate as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	03.07.20 10:51	
Nitrite as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	03.07.20 10:51	
Sulfate	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	03.07.20 10:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3118849

Matrix: Drinking Water

Prep Method: E300P

Parent Sample Id: 654792-001

MS Sample Id: 654792-001 S

Date Prep: 03.07.20

MSD Sample Id: 654792-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	9.98	100	9.99	100	90-110	0	20	mg/L	03.07.20 13:08	
Chloride	43.8	10.0	53.0	92	53.1	93	90-110	0	20	mg/L	03.07.20 13:08	
Fluoride	0.268	10.0	11.0	107	11.0	107	90-110	0	20	mg/L	03.07.20 13:08	
Nitrate as N	0.0958	10.0	10.4	103	10.4	103	90-110	0	20	mg/L	03.07.20 13:08	
Nitrite as N	<0.100	10.0	9.56	96	9.58	96	90-110	0	20	mg/L	03.07.20 13:08	
Sulfate	88.1	10.0	97.1	90	96.9	88	90-110	0	20	mg/L	03.07.20 13:08	X

Analytical Method: TDS by SM2540C

Seq Number: 3118929

Matrix: Water

MB Sample Id: 3118929-1-BLK

LCS Sample Id: 3118929-1-BKS

LCSD Sample Id: 3118929-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	953	95	954	95	80-120	0	10	mg/L	03.09.20 08:30	

Analytical Method: TDS by SM2540C

Seq Number: 3118929

Matrix: Ground Water

Parent Sample Id: 654295-001

MD Sample Id: 654295-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9760	9160	6	10	mg/L	03.09.20 08:30	

Analytical Method: TDS by SM2540C

Seq Number: 3118929

Matrix: Waste Water

Parent Sample Id: 654478-001

MD Sample Id: 654478-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1290	1290	0	10	mg/L	03.09.20 08:30	

Analytical Method: pH by SM4500-H

Seq Number: 3118971

Matrix: Waste Water

Parent Sample Id: 654091-001

MD Sample Id: 654091-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.43	7.44	0	20	SU	03.09.20 13:51	
Temperature	24.4	24.3	0	20	Deg C	03.09.20 13:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3118971

Matrix: Drinking Water

Parent Sample Id: 654407-001

MD Sample Id: 654407-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.87	7.88	0	20	SU	03.09.20 13:51	
Temperature	23.0	23.2	1	20	Deg C	03.09.20 13:51	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3118986

Matrix: Water

Prep Method: E200.7P

Date Prep: 03.09.20

MB Sample Id: 7698353-1-BLK

LCS Sample Id: 7698353-1-BKS

LCSD Sample Id: 7698353-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.7	99	24.7	99	85-115	0	20	mg/L	03.09.20 13:59	
Magnesium	<0.400	25.0	24.4	98	24.4	98	85-115	0	20	mg/L	03.09.20 13:59	
Potassium	<0.500	10.0	9.85	99	9.86	99	85-115	0	20	mg/L	03.09.20 13:59	
Silica	<1.07	21.4	21.2	99	21.3	100	85-115	0	20	mg/L	03.09.20 13:59	
Sodium	<0.500	25.0	24.5	98	24.6	98	85-115	0	20	mg/L	03.09.20 13:59	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3118986

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 03.09.20

Parent Sample Id: 654798-001

MS Sample Id: 654798-001 S

MSD Sample Id: 654798-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	389	25.0	402	52	410	84	70-130	2	20	mg/L	03.09.20 14:11	X
Magnesium	67.9	25.0	89.8	88	91.3	94	70-130	2	20	mg/L	03.09.20 14:11	
Potassium	5.60	10.0	15.2	96	15.5	99	70-130	2	20	mg/L	03.09.20 14:11	
Silica	66.8	21.4	101	160	102	164	70-130	1	20	mg/L	03.09.20 14:11	X
Sodium	92.7	25.0	113	81	116	93	70-130	3	20	mg/L	03.09.20 14:11	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118936

Matrix: Water

Prep Method: SW5030B

Date Prep: 03.07.20

MB Sample Id: 7698391-1-BLK

LCS Sample Id: 7698391-1-BKS

LCSD Sample Id: 7698391-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0473	95	0.0490	98	66-142	4	25	mg/L	03.07.20 13:10	
Bromobenzene	<0.00100	0.0500	0.0482	96	0.0539	108	75-125	11	25	mg/L	03.07.20 13:10	
Bromochloromethane	<0.00100	0.0500	0.0467	93	0.0491	98	60-140	5	25	mg/L	03.07.20 13:10	
Bromodichloromethane	<0.00100	0.0500	0.0476	95	0.0497	99	75-125	4	25	mg/L	03.07.20 13:10	
Bromoform	<0.00500	0.0500	0.0529	106	0.0545	109	75-125	3	25	mg/L	03.07.20 13:10	
Methyl bromide	<0.00500	0.0500	0.0417	83	0.0474	95	60-140	13	25	mg/L	03.07.20 13:10	
2-Butanone	<0.0500	0.250	0.272	109	0.288	115	60-140	6	25	mg/L	03.07.20 13:10	
n-Butylbenzene	<0.00100	0.0500	0.0482	96	0.0522	104	75-125	8	25	mg/L	03.07.20 13:10	
Sec-Butylbenzene	<0.00100	0.0500	0.0462	92	0.0507	101	75-125	9	25	mg/L	03.07.20 13:10	
tert-Butylbenzene	<0.00100	0.0500	0.0503	101	0.0548	110	75-125	9	25	mg/L	03.07.20 13:10	
Carbon Tetrachloride	<0.00500	0.0500	0.0492	98	0.0520	104	62-125	6	25	mg/L	03.07.20 13:10	
Chlorobenzene	<0.00100	0.0500	0.0473	95	0.0488	98	60-133	3	25	mg/L	03.07.20 13:10	
Chloroethane	<0.0100	0.0500	0.0367	73	0.0388	78	60-140	6	25	mg/L	03.07.20 13:10	
Chloroform	<0.00100	0.0500	0.0470	94	0.0488	98	70-130	4	25	mg/L	03.07.20 13:10	
Methyl Chloride	<0.0100	0.0500	0.0424	85	0.0437	87	60-140	3	25	mg/L	03.07.20 13:10	
2-Chlorotoluene	<0.00100	0.0500	0.0490	98	0.0532	106	73-125	8	25	mg/L	03.07.20 13:10	
4-Chlorotoluene	<0.00100	0.0500	0.0497	99	0.0544	109	74-125	9	25	mg/L	03.07.20 13:10	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0449	90	0.0487	97	75-125	8	25	mg/L	03.07.20 13:10	
Dibromochloromethane	<0.00500	0.0500	0.0504	101	0.0529	106	73-125	5	25	mg/L	03.07.20 13:10	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0528	106	0.0571	114	59-125	8	25	mg/L	03.07.20 13:10	
1,2-Dibromoethane	<0.00500	0.0500	0.0512	102	0.0538	108	73-125	5	25	mg/L	03.07.20 13:10	
Methylene Bromide	<0.00100	0.0500	0.0460	92	0.0484	97	69-127	5	25	mg/L	03.07.20 13:10	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0484	97	0.0536	107	75-125	10	25	mg/L	03.07.20 13:10	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0476	95	0.0525	105	75-125	10	25	mg/L	03.07.20 13:10	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0479	96	0.0524	105	75-125	9	25	mg/L	03.07.20 13:10	
Dichlorodifluoromethane	<0.00100	0.0500	0.0559	112	0.0597	119	60-140	7	25	mg/L	03.07.20 13:10	
1,1-Dichloroethane	<0.00100	0.0500	0.0490	98	0.0515	103	72-125	5	25	mg/L	03.07.20 13:10	
1,2-Dichloroethane	<0.00100	0.0500	0.0480	96	0.0500	100	68-127	4	25	mg/L	03.07.20 13:10	
1,1-Dichloroethene	<0.00100	0.0500	0.0472	94	0.0494	99	59-172	5	25	mg/L	03.07.20 13:10	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0458	92	0.0481	96	75-125	5	25	mg/L	03.07.20 13:10	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0470	94	0.0491	98	75-125	4	25	mg/L	03.07.20 13:10	
1,2-Dichloropropane	<0.00500	0.0500	0.0489	98	0.0506	101	74-125	3	25	mg/L	03.07.20 13:10	
1,3-Dichloropropane	<0.00500	0.0500	0.0527	105	0.0553	111	75-125	5	25	mg/L	03.07.20 13:10	
2,2-Dichloropropane	<0.00500	0.0500	0.0493	99	0.0524	105	75-125	6	25	mg/L	03.07.20 13:10	
1,1-Dichloropropene	<0.00500	0.0500	0.0522	104	0.0539	108	75-125	3	25	mg/L	03.07.20 13:10	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0497	99	0.0519	104	74-125	4	25	mg/L	03.07.20 13:10	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0525	105	0.0544	109	66-125	4	25	mg/L	03.07.20 13:10	
Ethylbenzene	<0.00100	0.0500	0.0480	96	0.0499	100	75-125	4	25	mg/L	03.07.20 13:10	
Hexachlorobutadiene	<0.00500	0.0500	0.0484	97	0.0525	105	75-125	8	25	mg/L	03.07.20 13:10	
Isopropylbenzene	<0.00100	0.0500	0.0487	97	0.0509	102	75-125	4	25	mg/L	03.07.20 13:10	
Methylene Chloride	<0.00500	0.0500	0.0440	88	0.0465	93	75-125	6	25	mg/L	03.07.20 13:10	
MTBE	<0.00500	0.0500	0.0536	107	0.0552	110	65-135	3	25	mg/L	03.07.20 13:10	
Naphthalene	<0.0100	0.0500	0.0523	105	0.0577	115	70-130	10	25	mg/L	03.07.20 13:10	
n-Propylbenzene	<0.00100	0.0500	0.0489	98	0.0534	107	75-125	9	25	mg/L	03.07.20 13:10	
Styrene	<0.00100	0.0500	0.0493	99	0.0512	102	75-125	4	25	mg/L	03.07.20 13:10	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0499	100	0.0510	102	72-125	2	25	mg/L	03.07.20 13:10	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0502	100	0.0567	113	74-125	12	25	mg/L	03.07.20 13:10	
Tetrachloroethylene	<0.00100	0.0500	0.0503	101	0.0513	103	71-125	2	25	mg/L	03.07.20 13:10	
Toluene	<0.00100	0.0500	0.0471	94	0.0488	98	59-139	4	25	mg/L	03.07.20 13:10	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118936

MB Sample Id: 7698391-1-BLK

Matrix: Water

LCS Sample Id: 7698391-1-BKS

Prep Method: SW5030B

Date Prep: 03.07.20

LCSD Sample Id: 7698391-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0492	98	0.0543	109	75-137	10	25	mg/L	03.07.20 13:10	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0485	97	0.0534	107	75-135	10	25	mg/L	03.07.20 13:10	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0485	97	0.0509	102	75-125	5	25	mg/L	03.07.20 13:10	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0514	103	0.0535	107	75-127	4	25	mg/L	03.07.20 13:10	
Trichloroethylene	<0.00500	0.0500	0.0443	89	0.0466	93	62-137	5	25	mg/L	03.07.20 13:10	
Trichlorofluoromethane	<0.00100	0.0500	0.0523	105	0.0549	110	60-140	5	25	mg/L	03.07.20 13:10	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0521	104	0.0573	115	75-125	10	25	mg/L	03.07.20 13:10	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0465	93	0.0506	101	75-125	8	25	mg/L	03.07.20 13:10	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0495	99	0.0543	109	70-125	9	25	mg/L	03.07.20 13:10	
o-Xylene	<0.00100	0.0500	0.0491	98	0.0512	102	75-125	4	25	mg/L	03.07.20 13:10	
m,p-Xylenes	<0.0100	0.100	0.0956	96	0.0990	99	75-125	3	25	mg/L	03.07.20 13:10	
Vinyl Chloride	<0.00200	0.0500	0.0468	94	0.0487	97	60-140	4	25	mg/L	03.07.20 13:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		99		101		75-131	%	03.07.20 13:10
1,2-Dichloroethane-D4	103		96		102		63-144	%	03.07.20 13:10
Toluene-D8	100		101		102		80-117	%	03.07.20 13:10
4-Bromofluorobenzene	98		101		105		74-124	%	03.07.20 13:10

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118936

Matrix: Water

Prep Method: SW5030B

Date Prep: 03.07.20

Parent Sample Id: 654596-001

MS Sample Id: 654596-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00172	0.0500	0.0497	96	66-142	mg/L	03.07.20 13:39	
Bromobenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	03.07.20 13:39	
Bromochloromethane	<0.00100	0.0500	0.0471	94	60-140	mg/L	03.07.20 13:39	
Bromodichloromethane	<0.00100	0.0500	0.0486	97	75-125	mg/L	03.07.20 13:39	
Bromoform	<0.00500	0.0500	0.0547	109	75-125	mg/L	03.07.20 13:39	
Methyl bromide	<0.00500	0.0500	0.0422	84	60-140	mg/L	03.07.20 13:39	
2-Butanone	<0.0500	0.250	0.272	109	60-140	mg/L	03.07.20 13:39	
n-Butylbenzene	<0.00100	0.0500	0.0488	98	75-125	mg/L	03.07.20 13:39	
Sec-Butylbenzene	<0.00100	0.0500	0.0476	95	75-125	mg/L	03.07.20 13:39	
tert-Butylbenzene	<0.00100	0.0500	0.0517	103	75-125	mg/L	03.07.20 13:39	
Carbon Tetrachloride	<0.00500	0.0500	0.0503	101	62-125	mg/L	03.07.20 13:39	
Chlorobenzene	<0.00100	0.0500	0.0478	96	60-133	mg/L	03.07.20 13:39	
Chloroethane	<0.0100	0.0500	0.0384	77	60-140	mg/L	03.07.20 13:39	
Chloroform	<0.00100	0.0500	0.0479	96	70-130	mg/L	03.07.20 13:39	
Methyl Chloride	<0.0100	0.0500	0.0432	86	60-140	mg/L	03.07.20 13:39	
2-Chlorotoluene	<0.00100	0.0500	0.0504	101	73-125	mg/L	03.07.20 13:39	
4-Chlorotoluene	<0.00100	0.0500	0.0508	102	74-125	mg/L	03.07.20 13:39	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0458	92	75-125	mg/L	03.07.20 13:39	
Dibromochloromethane	<0.00500	0.0500	0.0533	107	73-125	mg/L	03.07.20 13:39	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0589	118	59-125	mg/L	03.07.20 13:39	
1,2-Dibromoethane	<0.00500	0.0500	0.0534	107	73-125	mg/L	03.07.20 13:39	
Methylene Bromide	<0.00100	0.0500	0.0457	91	69-127	mg/L	03.07.20 13:39	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0499	100	75-125	mg/L	03.07.20 13:39	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0490	98	75-125	mg/L	03.07.20 13:39	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0491	98	75-125	mg/L	03.07.20 13:39	
Dichlorodifluoromethane	<0.00100	0.0500	0.0588	118	60-140	mg/L	03.07.20 13:39	
1,1-Dichloroethane	<0.00100	0.0500	0.0501	100	72-125	mg/L	03.07.20 13:39	
1,2-Dichloroethane	<0.00100	0.0500	0.0482	96	68-127	mg/L	03.07.20 13:39	
1,1-Dichloroethene	<0.00100	0.0500	0.0491	98	59-172	mg/L	03.07.20 13:39	
cis-1,2-Dichloroethylene	0.159	0.0500	0.205	92	75-125	mg/L	03.07.20 13:39	
trans-1,2-dichloroethylene	0.00153	0.0500	0.0495	96	75-125	mg/L	03.07.20 13:39	
1,2-Dichloropropane	<0.00500	0.0500	0.0493	99	74-125	mg/L	03.07.20 13:39	
1,3-Dichloropropane	<0.00500	0.0500	0.0532	106	75-125	mg/L	03.07.20 13:39	
2,2-Dichloropropane	<0.00500	0.0500	0.0517	103	75-125	mg/L	03.07.20 13:39	
1,1-Dichloropropene	<0.00500	0.0500	0.0535	107	75-125	mg/L	03.07.20 13:39	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0508	102	74-125	mg/L	03.07.20 13:39	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0533	107	66-125	mg/L	03.07.20 13:39	
Ethylbenzene	<0.00100	0.0500	0.0481	96	75-125	mg/L	03.07.20 13:39	
Hexachlorobutadiene	<0.00500	0.0500	0.0481	96	75-125	mg/L	03.07.20 13:39	
Isopropylbenzene	<0.00100	0.0500	0.0488	98	75-125	mg/L	03.07.20 13:39	
Methylene Chloride	<0.00500	0.0500	0.0444	89	75-125	mg/L	03.07.20 13:39	
MTBE	0.0167	0.0500	0.0739	114	65-135	mg/L	03.07.20 13:39	
Naphthalene	<0.0100	0.0500	0.0638	128	70-130	mg/L	03.07.20 13:39	
n-Propylbenzene	<0.00100	0.0500	0.0506	101	75-125	mg/L	03.07.20 13:39	
Styrene	<0.00100	0.0500	0.0495	99	75-125	mg/L	03.07.20 13:39	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0513	103	72-125	mg/L	03.07.20 13:39	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0560	112	74-125	mg/L	03.07.20 13:39	
Tetrachloroethylene	0.0806	0.0500	0.131	101	71-125	mg/L	03.07.20 13:39	
Toluene	<0.00100	0.0500	0.0473	95	59-139	mg/L	03.07.20 13:39	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3118936

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 654596-001

MS Sample Id: 654596-001 S

Date Prep: 03.07.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0548	110	75-137	mg/L	03.07.20 13:39	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0503	101	75-135	mg/L	03.07.20 13:39	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0498	100	75-125	mg/L	03.07.20 13:39	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0522	104	75-127	mg/L	03.07.20 13:39	
Trichloroethylene	0.0346	0.0500	0.0828	96	62-137	mg/L	03.07.20 13:39	
Trichlorofluoromethane	<0.00100	0.0500	0.0548	110	60-140	mg/L	03.07.20 13:39	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0562	112	75-125	mg/L	03.07.20 13:39	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0485	97	75-125	mg/L	03.07.20 13:39	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0515	103	70-125	mg/L	03.07.20 13:39	
o-Xylene	<0.00100	0.0500	0.0493	99	75-125	mg/L	03.07.20 13:39	
m,p-Xylenes	<0.0100	0.100	0.0954	95	75-125	mg/L	03.07.20 13:39	
Vinyl Chloride	0.0155	0.0500	0.0650	99	60-140	mg/L	03.07.20 13:39	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	03.07.20 13:39
1,2-Dichloroethane-D4	98		63-144	%	03.07.20 13:39
Toluene-D8	102		80-117	%	03.07.20 13:39
4-Bromofluorobenzene	104		74-124	%	03.07.20 13:39

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No

05798

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
(575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8600) Tampa, FL (813-291-1111)

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

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

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		7.8 Thermometer ID					
Received intact:		Yes No KA					
Cooler Custody Seals:		Yes No N/A		Correction Factor:		-0.3	
Sample Custody Seals:		Yes No N/A		Total Containers:			

Number of Containers

F, Cl, SO₄, B

: Ca, K, Mg, Na, Si

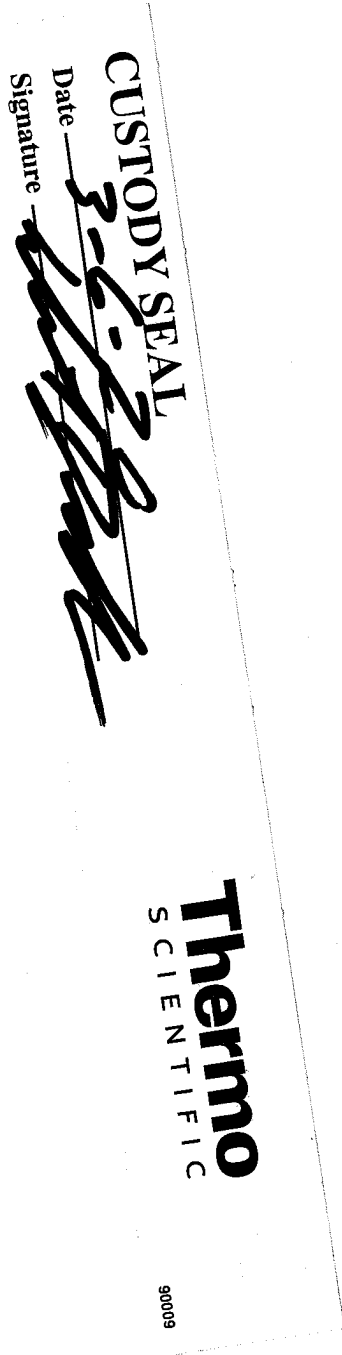
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TAT starts the day received by the lab, if received by 4:30pm

[illegible][illegible]

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
		3/10/2020 10:00			
3		4			
5		6			



Inter-Office Shipment

IOS Number : **59660**

Date/Time: 03.06.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 777958769686

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
654798-001	W	Levey Well	03.06.2020 07:00	SW8260C	VOCs by SW-846 8260C	03.09.2020	03.20.2020	JKR	BDCME BRBZ BRCLME	
654798-001	W	Levey Well	03.06.2020 07:00	E200.7	Recoverable Metals per ICP by EPA 200	03.09.2020	09.02.2020	JKR	CA K MG NA SI	
654798-001	W	Levey Well	03.06.2020 07:00	E300	Inorganic Anions by EPA 300/300.1	03.09.2020	03.08.2020 07:00	JKR	BR CL F NO2N NO3N SC	
654798-001	W	Levey Well	03.06.2020 07:00	SM4500-H	pH by SM4500-H	03.09.2020	03.06.2020 07:15	JKR		
654798-001	W	Levey Well	03.06.2020 07:00	SM2540C	TDS by SM2540C	03.09.2020	03.13.2020	JKR	TDS	
654798-001	W	Levey Well	03.06.2020 07:00	SM2320B	Alkalinity by SM2320B	03.09.2020	03.20.2020	JKR	ALK ALKB ALKC	
654798-001	W	Levey Well	03.06.2020 07:00	SM1030E	Cation-Anion Balance Calculation	03.09.2020	04.05.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 03.06.2020

Received By:



Monica Shakhshir

Date Received: 03.07.2020

Cooler Temperature: 1.9



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 59660

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 03.06.2020 11.42 AM

Received By: Monica Shakhshir

Date Received: 03.07.2020 09.45 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Shakhshir

Date: 03.07.2020



Client: Ensolum

Date/ Time Received: 03/06/2020 10:00:00 AM

Work Order #: 654798

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	7.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Cooling in progress

Xenco Stafford

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 03/06/2020

Checklist reviewed by:

Jessica Kramer

Date: 03/09/2020



Certificate of Analysis Summary 655685

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-13-20 04:01 pm
Report Date: 17-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 655685-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-13-20 12:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Mar-16-20 11:08 Analyzed: Mar-16-20 11:56 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO ₃)	1200 4.00					
Alkalinity, Bicarbonate (as CaCO ₃)	1200 4.00					
Alkalinity, Carbonate (as CaCO ₃)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO ₃)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Mar-16-20 18:00 Units/RL: % RL					
Cation-Anion Balance	4.30					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Mar-16-20 10:04 Analyzed: Mar-16-20 14:50 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	316 0.500					
Fluoride	0.629 0.500					
Nitrate as N	<0.100 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	59.3 0.500					

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Version: 1.0%

Jessica Kramer
Project Manager



Certificate of Analysis Summary 655685

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-13-20 04:01 pm
Report Date: 17-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	655685-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Mar-13-20 12:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Mar-16-20 10:35					
	Analyzed:	Mar-16-20 16:42					
	Units/RL:	mg/L RL					
Calcium		393 D 10.0					
Magnesium		63.3 0.400					
Potassium		5.32 0.500					
Silica		63.1 1.07					
Sodium		91.2 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Mar-16-20 11:03					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1770 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 655685

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-13-20 04:01 pm
Report Date: 17-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	655685-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Mar-13-20 12:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	Mar-16-20 12:40					
	Analyzed:	Mar-16-20 13:16					
	Units/RL:	mg/L RL					
Benzene		0.00781 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		0.00153 0.00100					
Sec-Butylbenzene		<0.00100 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00247 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 655685

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-13-20 04:01 pm
Report Date: 17-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 655685-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-13-20 12:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-16-20 12:40 Analyzed: Mar-16-20 13:16 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0330 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0224 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0428 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 655685

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-13-20 04:01 pm
Report Date: 17-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 655685-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-13-20 12:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-16-20 12:40 Analyzed: Mar-16-20 13:16 Units/RL: mg/L RL					
Toluene	0.0302 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.277 D 0.00500					
1,3,5-Trimethylbenzene	0.0875 0.00100					
o-Xylene	0.0203 0.00100					
m,p-Xylenes	0.109 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.129 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-17-20 11:50 Units/RL: Deg C RL					
Temperature	25.2 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-17-20 11:50 Units/RL: SU RL					
pH	6.23 K					

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Jessica Kramer

Jessica Kramer
Project Manager

Analytical Report 655685

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

17-MAR-20

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



17-MAR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **655685**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655685. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 655685 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 655685



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id

Levey Well

Matrix

W

Date Collected

03-13-20 12:30

Sample Depth

Lab Sample Id

655685-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 655685Report Date: 17-MAR-20
Date Received: 03/13/2020

Sample receipt non conformances and comments:V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119766 VOCs by SW-846 8260C

Lab Sample ID 655685-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 2-Chlorotoluene, Dichlorodifluoromethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 655685-001.

The Laboratory Control Sample for 2-Chlorotoluene is within laboratory Control Limits, therefore the data was accepted.

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 655685-001.



Certificate of Analytical Results 655685



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.13.20 16.01

Lab Sample Id: 655685-001

Date Collected: 03.13.20 12.30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: YAV

% Moisture:

Analyst: YAV

Date Prep: 03.16.20 11.08

Seq Number: 3119759

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1200	4.00	mg/L	03.16.20 11.56		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1200	4.00	mg/L	03.16.20 11.56		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	03.16.20 11.56	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	03.16.20 11.56	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3119819

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	4.30		%	03.16.20 18.00		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 03.16.20 10.04

Seq Number: 3119790

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	03.16.20 14.50	UK	1
Chloride	16887-00-6	316	0.500	mg/L	03.16.20 14.50		1
Fluoride	16984-48-8	0.629	0.500	mg/L	03.16.20 14.50		1
Nitrate as N	14797-55-8	<0.100	0.100	mg/L	03.16.20 14.50	UK	1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	03.16.20 14.50	UK	1
Sulfate	14808-79-8	59.3	0.500	mg/L	03.16.20 14.50		1



Certificate of Analytical Results 655685



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.13.20 16.01

Lab Sample Id: 655685-001

Date Collected: 03.13.20 12.30

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3119802

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1770	5.00	mg/L	03.16.20 11.03		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3119872

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.23		SU	03.17.20 11.50	K	1
Temperature	TEMP	25.2		Deg C	03.17.20 11.50	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 03.16.20 10.35

Seq Number: 3119814

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	393	10.0	mg/L	03.16.20 16.47	D	50
Magnesium	7439-95-4	63.3	0.400	mg/L	03.16.20 16.42		1
Potassium	7440-09-7	5.32	0.500	mg/L	03.16.20 16.42		1
Silica	7631-86-9	63.1	1.07	mg/L	03.16.20 16.42		1
Sodium	7440-23-5	91.2	0.500	mg/L	03.16.20 16.42		1



Certificate of Analytical Results 655685

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.13.20 16.01

Lab Sample Id: 655685-001

Date Collected: 03.13.20 12.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 03.16.20 12.40

Seq Number: 3119766

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00781	0.00100	mg/L	03.16.20 13.16		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	03.16.20 13.16	U	1
n-Butylbenzene	104-51-8	0.00153	0.00100	mg/L	03.16.20 13.16		1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	03.16.20 13.16	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	03.16.20 13.16	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	03.16.20 13.16	UX	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00247	0.00100	mg/L	03.16.20 13.16		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	03.16.20 13.16	UHX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Ethylbenzene	100-41-4	0.0330	0.00100	mg/L	03.16.20 13.16		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1



Certificate of Analytical Results 655685



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.13.20 16.01

Lab Sample Id: 655685-001

Date Collected: 03.13.20 12.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 03.16.20 12.40

Seq Number: 3119766

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0224	0.00100	mg/L	03.16.20 13.16		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	03.16.20 13.16	U	1
n-Propylbenzene	103-65-1	0.0428	0.00100	mg/L	03.16.20 13.16		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Toluene	108-88-3	0.0302	0.00100	mg/L	03.16.20 13.16		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	03.16.20 13.16	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	03.16.20 13.16	U	1
1,2,4-Trimethylbenzene	95-63-6	0.277	0.00500	mg/L	03.16.20 13.36	D	5
1,3,5-Trimethylbenzene	108-67-8	0.0875	0.00100	mg/L	03.16.20 13.16		1
o-Xylene	95-47-6	0.0203	0.00100	mg/L	03.16.20 13.16		1
m,p-Xylenes	179601-23-1	0.109	0.0100	mg/L	03.16.20 13.16		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	03.16.20 13.16	U	1
Total Xylenes	1330-20-7	0.129	0.00100	mg/L	03.16.20 13.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	75-131	03.16.20 13.16	
1,2-Dichloroethane-D4	17060-07-0	100	%	63-144	03.16.20 13.16	
Toluene-D8	2037-26-5	101	%	80-117	03.16.20 13.16	
4-Bromofluorobenzene	460-00-4	96	%	74-124	03.16.20 13.16	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3119759

MB Sample Id: 7698935-1-BLK

Matrix: Water

LCS Sample Id: 7698935-1-BKS

Prep Method: SM2320P

Date Prep: 03.16.20

LCSD Sample Id: 7698935-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	260	104	265	106	85-115	2	20	mg/L	03.16.20 11:35	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3119759

Matrix: Water

MB Sample Id: 7698935-1-BLK

Prep Method: SM2320P

Date Prep: 03.16.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	03.16.20 11:28	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	03.16.20 11:28	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	03.16.20 11:28	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3119759

Matrix: Ground Water

Parent Sample Id: 655685-001

MD Sample Id: 655685-001 D

Prep Method: SM2320P

Date Prep: 03.16.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1200	1200	0	20	mg/L	03.16.20 12:09	
Alkalinity, Bicarbonate (as CaCO3)	1200	1200	0	20	mg/L	03.16.20 12:09	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.16.20 12:09	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.16.20 12:09	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3119790

Matrix: Water

MB Sample Id: 7698915-1-BLK

LCS Sample Id: 7698915-1-BKS

Prep Method: E300P

Date Prep: 03.16.20

LCSD Sample Id: 7698915-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	03.16.20 11:08	
Chloride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	03.16.20 11:08	
Fluoride	<0.500	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	03.16.20 11:08	
Nitrate as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	03.16.20 11:08	
Nitrite as N	<0.100	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	03.16.20 11:08	
Sulfate	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	03.16.20 11:08	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3119790

Matrix: Water

Prep Method: E300P

Date Prep: 03.16.20

Parent Sample Id: 655694-001

MS Sample Id: 655694-001 S

MSD Sample Id: 655694-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.519	10.0	10.7	102	10.7	102	90-110	0	20	mg/L	03.16.20 11:45	
Chloride	107	10.0	114	70	114	70	90-110	0	20	mg/L	03.16.20 11:45	X
Fluoride	0.236	10.0	10.6	104	10.6	104	90-110	0	20	mg/L	03.16.20 11:45	
Nitrate as N	0.0994	10.0	10.3	102	10.3	102	90-110	0	20	mg/L	03.16.20 11:45	
Nitrite as N	<0.100	10.0	9.87	99	9.88	99	90-110	0	20	mg/L	03.16.20 11:45	
Sulfate	0.222	10.0	9.73	95	9.71	95	90-110	0	20	mg/L	03.16.20 11:45	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3119790

Matrix: Water

Prep Method: E300P

Date Prep: 03.16.20

Parent Sample Id: 655694-002

MS Sample Id: 655694-002 S

MSD Sample Id: 655694-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	03.16.20 12:22	
Chloride	9.01	10.0	18.9	99	18.9	99	90-110	0	20	mg/L	03.16.20 12:22	
Fluoride	0.246	10.0	10.6	104	10.7	105	90-110	1	20	mg/L	03.16.20 12:22	
Nitrate as N	0.0937	10.0	10.2	101	10.3	102	90-110	1	20	mg/L	03.16.20 12:22	
Nitrite as N	<0.100	10.0	9.82	98	9.83	98	90-110	0	20	mg/L	03.16.20 12:22	
Sulfate	24.4	10.0	33.6	92	33.6	92	90-110	0	20	mg/L	03.16.20 12:22	

Analytical Method: TDS by SM2540C

Seq Number: 3119802

Matrix: Water

MB Sample Id: 3119802-1-BLK

LCS Sample Id: 3119802-1-BKS

LCSD Sample Id: 3119802-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	952	95	952	95	80-120	0	10	mg/L	03.16.20 11:03	

Analytical Method: TDS by SM2540C

Seq Number: 3119802

Matrix: Ground Water

Parent Sample Id: 655685-001

MD Sample Id: 655685-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1770	1770	0	10	mg/L	03.16.20 11:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3119872

Matrix: Water

Parent Sample Id: 655290-001

MD Sample Id: 655290-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.09	8.10	0	20	SU	03.17.20 11:50	
Temperature	25.3	25.6	1	20	Deg C	03.17.20 11:50	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3119814

Matrix: Water

MB Sample Id: 7698946-1-BLK

LCS Sample Id: 7698946-1-BKS

Prep Method: E200.7P

Date Prep: 03.16.20

LCSD Sample Id: 7698946-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.9	100	24.8	99	85-115	0	20	mg/L	03.16.20 15:56	
Magnesium	<0.400	25.0	24.9	100	24.7	99	85-115	1	20	mg/L	03.16.20 15:56	
Potassium	<0.500	10.0	9.88	99	9.89	99	85-115	0	20	mg/L	03.16.20 15:56	
Silica	<1.07	21.4	22.3	104	22.3	104	85-115	0	20	mg/L	03.16.20 15:56	
Sodium	<0.500	25.0	25.1	100	25.0	100	85-115	0	20	mg/L	03.16.20 15:56	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3119814

Matrix: Water

Parent Sample Id: 655107-001

MS Sample Id: 655107-001 S

Prep Method: E200.7P

Date Prep: 03.16.20

MSD Sample Id: 655107-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	38.1	25.0	57.8	79	57.6	78	70-130	0	20	mg/L	03.16.20 16:09	
Magnesium	4.54	25.0	24.5	80	24.5	80	70-130	0	20	mg/L	03.16.20 16:09	
Potassium	3.41	10.0	11.6	82	11.6	82	70-130	0	20	mg/L	03.16.20 16:09	
Silica	3.93	21.4	22.7	88	22.6	87	70-130	0	20	mg/L	03.16.20 16:09	
Sodium	15.5	25.0	36.1	82	36.0	82	70-130	0	20	mg/L	03.16.20 16:09	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3119814

Matrix: Ground Water

Parent Sample Id: 655438-001

MS Sample Id: 655438-001 S

Prep Method: E200.7P

Date Prep: 03.16.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	59.2	25.0	81.6	90	70-130	mg/L	03.16.20 22:18	
Magnesium	45.3	25.0	67.9	90	70-130	mg/L	03.16.20 22:18	
Potassium	6.52	10.0	16.0	95	70-130	mg/L	03.16.20 22:18	
Silica	15.8	21.4	37.0	99	70-130	mg/L	03.16.20 22:18	
Sodium	147	25.0	170	92	70-130	mg/L	03.16.20 22:18	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3119766

MB Sample Id: 7698959-1-BLK

Matrix: Water

LCS Sample Id: 7698959-1-BKS

Prep Method: SW5030B

Date Prep: 03.16.20

LCSD Sample Id: 7698959-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0527	105	0.0498	100	66-142	6	25	mg/L	03.16.20 10:07	
Bromobenzene	<0.00100	0.0500	0.0524	105	0.0501	100	75-125	4	25	mg/L	03.16.20 10:07	
Bromochloromethane	<0.00100	0.0500	0.0524	105	0.0517	103	60-140	1	25	mg/L	03.16.20 10:07	
Bromodichloromethane	<0.00100	0.0500	0.0524	105	0.0508	102	75-125	3	25	mg/L	03.16.20 10:07	
Bromoform	<0.00500	0.0500	0.0590	118	0.0588	118	75-125	0	25	mg/L	03.16.20 10:07	
Methyl bromide	<0.00500	0.0500	0.0413	83	0.0405	81	60-140	2	25	mg/L	03.16.20 10:07	
2-Butanone	<0.0500	0.250	0.267	107	0.284	114	60-140	6	25	mg/L	03.16.20 10:07	
n-Butylbenzene	<0.00100	0.0500	0.0505	101	0.0476	95	75-125	6	25	mg/L	03.16.20 10:07	
Sec-Butylbenzene	<0.00100	0.0500	0.0505	101	0.0481	96	75-125	5	25	mg/L	03.16.20 10:07	
tert-Butylbenzene	<0.00100	0.0500	0.0552	110	0.0520	104	75-125	6	25	mg/L	03.16.20 10:07	
Carbon Tetrachloride	<0.00500	0.0500	0.0559	112	0.0529	106	62-125	6	25	mg/L	03.16.20 10:07	
Chlorobenzene	<0.00100	0.0500	0.0509	102	0.0492	98	60-133	3	25	mg/L	03.16.20 10:07	
Chloroethane	<0.0100	0.0500	0.0440	88	0.0428	86	60-140	3	25	mg/L	03.16.20 10:07	
Chloroform	<0.00100	0.0500	0.0512	102	0.0498	100	70-130	3	25	mg/L	03.16.20 10:07	
Methyl Chloride	<0.0100	0.0500	0.0513	103	0.0513	103	60-140	0	25	mg/L	03.16.20 10:07	
2-Chlorotoluene	<0.00100	0.0500	0.0531	106	0.0501	100	73-125	6	25	mg/L	03.16.20 10:07	
4-Chlorotoluene	<0.00100	0.0500	0.0529	106	0.0502	100	74-125	5	25	mg/L	03.16.20 10:07	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0486	97	0.0458	92	75-125	6	25	mg/L	03.16.20 10:07	
Dibromochloromethane	<0.00500	0.0500	0.0553	111	0.0547	109	73-125	1	25	mg/L	03.16.20 10:07	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0514	103	0.0540	108	59-125	5	25	mg/L	03.16.20 10:07	
1,2-Dibromoethane	<0.00500	0.0500	0.0559	112	0.0560	112	73-125	0	25	mg/L	03.16.20 10:07	
Methylene Bromide	<0.00100	0.0500	0.0521	104	0.0507	101	69-127	3	25	mg/L	03.16.20 10:07	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0517	103	0.0497	99	75-125	4	25	mg/L	03.16.20 10:07	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0524	105	0.0493	99	75-125	6	25	mg/L	03.16.20 10:07	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0510	102	0.0487	97	75-125	5	25	mg/L	03.16.20 10:07	
Dichlorodifluoromethane	<0.00100	0.0500	0.0835	167	0.0813	163	60-140	3	25	mg/L	03.16.20 10:07	H
1,1-Dichloroethane	<0.00100	0.0500	0.0541	108	0.0524	105	72-125	3	25	mg/L	03.16.20 10:07	
1,2-Dichloroethane	<0.00100	0.0500	0.0511	102	0.0500	100	68-127	2	25	mg/L	03.16.20 10:07	
1,1-Dichloroethene	<0.00100	0.0500	0.0553	111	0.0529	106	59-172	4	25	mg/L	03.16.20 10:07	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0512	102	0.0496	99	75-125	3	25	mg/L	03.16.20 10:07	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0529	106	0.0504	101	75-125	5	25	mg/L	03.16.20 10:07	
1,2-Dichloropropane	<0.00500	0.0500	0.0535	107	0.0513	103	74-125	4	25	mg/L	03.16.20 10:07	
1,3-Dichloropropane	<0.00500	0.0500	0.0568	114	0.0560	112	75-125	1	25	mg/L	03.16.20 10:07	
2,2-Dichloropropane	<0.00500	0.0500	0.0555	111	0.0530	106	75-125	5	25	mg/L	03.16.20 10:07	
1,1-Dichloropropene	<0.00500	0.0500	0.0577	115	0.0555	111	75-125	4	25	mg/L	03.16.20 10:07	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0548	110	0.0524	105	74-125	4	25	mg/L	03.16.20 10:07	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0552	110	0.0550	110	66-125	0	25	mg/L	03.16.20 10:07	
Ethylbenzene	<0.00100	0.0500	0.0523	105	0.0505	101	75-125	4	25	mg/L	03.16.20 10:07	
Hexachlorobutadiene	<0.00500	0.0500	0.0489	98	0.0483	97	75-125	1	25	mg/L	03.16.20 10:07	
Isopropylbenzene	<0.00100	0.0500	0.0539	108	0.0521	104	75-125	3	25	mg/L	03.16.20 10:07	
Methylene Chloride	<0.00500	0.0500	0.0515	103	0.0498	100	75-125	3	25	mg/L	03.16.20 10:07	
MTBE	<0.00500	0.0500	0.0569	114	0.0577	115	65-135	1	25	mg/L	03.16.20 10:07	
Naphthalene	<0.0100	0.0500	0.0526	105	0.0554	111	70-130	5	25	mg/L	03.16.20 10:07	
n-Propylbenzene	<0.00100	0.0500	0.0537	107	0.0507	101	75-125	6	25	mg/L	03.16.20 10:07	
Styrene	<0.00100	0.0500	0.0542	108	0.0517	103	75-125	5	25	mg/L	03.16.20 10:07	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0542	108	0.0527	105	72-125	3	25	mg/L	03.16.20 10:07	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0521	104	0.0524	105	74-125	1	25	mg/L	03.16.20 10:07	
Tetrachloroethylene	<0.00100	0.0500	0.0553	111	0.0522	104	71-125	6	25	mg/L	03.16.20 10:07	
Toluene	<0.00100	0.0500	0.0513	103	0.0494	99	59-139	4	25	mg/L	03.16.20 10:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3119766

MB Sample Id: 7698959-1-BLK

Matrix: Water

LCS Sample Id: 7698959-1-BKS

Prep Method: SW5030B

Date Prep: 03.16.20

LCSD Sample Id: 7698959-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0483	97	0.0505	101	75-137	4	25	mg/L	03.16.20 10:07	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0485	97	0.0489	98	75-135	1	25	mg/L	03.16.20 10:07	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0531	106	0.0508	102	75-125	4	25	mg/L	03.16.20 10:07	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0553	111	0.0554	111	75-127	0	25	mg/L	03.16.20 10:07	
Trichloroethylene	<0.00500	0.0500	0.0497	99	0.0470	94	62-137	6	25	mg/L	03.16.20 10:07	
Trichlorofluoromethane	<0.00100	0.0500	0.0627	125	0.0598	120	60-140	5	25	mg/L	03.16.20 10:07	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0546	109	0.0548	110	75-125	0	25	mg/L	03.16.20 10:07	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0501	100	0.0476	95	75-125	5	25	mg/L	03.16.20 10:07	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0536	107	0.0507	101	70-125	6	25	mg/L	03.16.20 10:07	
o-Xylene	<0.00100	0.0500	0.0541	108	0.0522	104	75-125	4	25	mg/L	03.16.20 10:07	
m,p-Xylenes	<0.0100	0.100	0.107	107	0.102	102	75-125	5	25	mg/L	03.16.20 10:07	
Vinyl Chloride	<0.00200	0.0500	0.0577	115	0.0552	110	60-140	4	25	mg/L	03.16.20 10:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		100		99		75-131	%	03.16.20 10:07
1,2-Dichloroethane-D4	100		96		96		63-144	%	03.16.20 10:07
Toluene-D8	99		99		100		80-117	%	03.16.20 10:07
4-Bromofluorobenzene	103		100		100		74-124	%	03.16.20 10:07

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3119766

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 03.16.20

Parent Sample Id: 655685-001

MS Sample Id: 655685-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00781	0.0500	0.0591	103	66-142	mg/L	03.16.20 11:15	
Bromobenzene	<0.00100	0.0500	0.0486	97	75-125	mg/L	03.16.20 11:15	
Bromochloromethane	<0.00100	0.0500	0.0512	102	60-140	mg/L	03.16.20 11:15	
Bromodichloromethane	<0.00100	0.0500	0.0509	102	75-125	mg/L	03.16.20 11:15	
Bromoform	<0.00500	0.0500	0.0586	117	75-125	mg/L	03.16.20 11:15	
Methyl bromide	<0.00500	0.0500	0.0320	64	60-140	mg/L	03.16.20 11:15	
2-Butanone	<0.0500	0.250	0.300	120	60-140	mg/L	03.16.20 11:15	
n-Butylbenzene	0.00153	0.0500	0.0514	100	75-125	mg/L	03.16.20 11:15	
Sec-Butylbenzene	<0.00100	0.0500	0.0520	104	75-125	mg/L	03.16.20 11:15	
tert-Butylbenzene	<0.00100	0.0500	0.0508	102	75-125	mg/L	03.16.20 11:15	
Carbon Tetrachloride	<0.00500	0.0500	0.0525	105	62-125	mg/L	03.16.20 11:15	
Chlorobenzene	<0.00100	0.0500	0.0496	99	60-133	mg/L	03.16.20 11:15	
Chloroethane	<0.0100	0.0500	0.0533	107	60-140	mg/L	03.16.20 11:15	
Chloroform	<0.00100	0.0500	0.0512	102	70-130	mg/L	03.16.20 11:15	
Methyl Chloride	<0.0100	0.0500	0.0642	128	60-140	mg/L	03.16.20 11:15	
2-Chlorotoluene	<0.00100	0.0500	0.0852	170	73-125	mg/L	03.16.20 11:15	X
4-Chlorotoluene	<0.00100	0.0500	0.0596	119	74-125	mg/L	03.16.20 11:15	
p-Cymene (p-Isopropyltoluene)	0.00247	0.0500	0.0489	93	75-125	mg/L	03.16.20 11:15	
Dibromochloromethane	<0.00500	0.0500	0.0549	110	73-125	mg/L	03.16.20 11:15	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0522	104	59-125	mg/L	03.16.20 11:15	
1,2-Dibromoethane	<0.00500	0.0500	0.0567	113	73-125	mg/L	03.16.20 11:15	
Methylene Bromide	<0.00100	0.0500	0.0504	101	69-127	mg/L	03.16.20 11:15	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	03.16.20 11:15	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0501	100	75-125	mg/L	03.16.20 11:15	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0492	98	75-125	mg/L	03.16.20 11:15	
Dichlorodifluoromethane	<0.00100	0.0500	0.0812	162	60-140	mg/L	03.16.20 11:15	X
1,1-Dichloroethane	<0.00100	0.0500	0.0531	106	72-125	mg/L	03.16.20 11:15	
1,2-Dichloroethane	<0.00100	0.0500	0.0507	101	68-127	mg/L	03.16.20 11:15	
1,1-Dichloroethene	<0.00100	0.0500	0.0526	105	59-172	mg/L	03.16.20 11:15	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0503	101	75-125	mg/L	03.16.20 11:15	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0512	102	75-125	mg/L	03.16.20 11:15	
1,2-Dichloropropane	<0.00500	0.0500	0.0537	107	74-125	mg/L	03.16.20 11:15	
1,3-Dichloropropane	<0.00500	0.0500	0.0579	116	75-125	mg/L	03.16.20 11:15	
2,2-Dichloropropane	<0.00500	0.0500	0.0541	108	75-125	mg/L	03.16.20 11:15	
1,1-Dichloropropene	<0.00500	0.0500	0.0559	112	75-125	mg/L	03.16.20 11:15	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0535	107	74-125	mg/L	03.16.20 11:15	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0562	112	66-125	mg/L	03.16.20 11:15	
Ethylbenzene	0.0330	0.0500	0.0854	105	75-125	mg/L	03.16.20 11:15	
Hexachlorobutadiene	<0.00500	0.0500	0.0434	87	75-125	mg/L	03.16.20 11:15	
Isopropylbenzene	0.0224	0.0500	0.0760	107	75-125	mg/L	03.16.20 11:15	
Methylene Chloride	<0.00500	0.0500	0.0516	103	75-125	mg/L	03.16.20 11:15	
MTBE	<0.00500	0.0500	0.0595	119	65-135	mg/L	03.16.20 11:15	
Naphthalene	<0.0100	0.0500	0.0572	114	70-130	mg/L	03.16.20 11:15	
n-Propylbenzene	0.0428	0.0500	0.0943	103	75-125	mg/L	03.16.20 11:15	
Styrene	<0.00100	0.0500	0.0539	108	75-125	mg/L	03.16.20 11:15	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0529	106	72-125	mg/L	03.16.20 11:15	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0518	104	74-125	mg/L	03.16.20 11:15	
Tetrachloroethylene	<0.00100	0.0500	0.0520	104	71-125	mg/L	03.16.20 11:15	
Toluene	0.0302	0.0500	0.0833	106	59-139	mg/L	03.16.20 11:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3119766

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 655685-001

MS Sample Id: 655685-001 S

Date Prep: 03.16.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0500	100	75-137	mg/L	03.16.20 11:15	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0485	97	75-135	mg/L	03.16.20 11:15	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0514	103	75-125	mg/L	03.16.20 11:15	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0575	115	75-127	mg/L	03.16.20 11:15	
Trichloroethylene	<0.00500	0.0500	0.0478	96	62-137	mg/L	03.16.20 11:15	
Trichlorofluoromethane	<0.00100	0.0500	0.0604	121	60-140	mg/L	03.16.20 11:15	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0525	105	75-125	mg/L	03.16.20 11:15	
1,2,4-Trimethylbenzene	0.309	0.0500	0.358	98	75-125	mg/L	03.16.20 11:15	
1,3,5-Trimethylbenzene	0.0875	0.0500	0.143	111	70-125	mg/L	03.16.20 11:15	
o-Xylene	0.0203	0.0500	0.0749	109	75-125	mg/L	03.16.20 11:15	
m,p-Xylenes	0.109	0.100	0.220	111	75-125	mg/L	03.16.20 11:15	
Vinyl Chloride	<0.00200	0.0500	0.0676	135	60-140	mg/L	03.16.20 11:15	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		75-131	%	03.16.20 11:15
1,2-Dichloroethane-D4	96		63-144	%	03.16.20 11:15
Toluene-D8	101		80-117	%	03.16.20 11:15
4-Bromofluorobenzene	96		74-124	%	03.16.20 11:15

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 291-1111

Page 1 of 1

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

[illegible][illegible]

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>[Signature]</i>	<i>[Signature]</i>	01/15/00	2		
3			4		
5		1/20/01	6		

Inter-Office Shipment

IOS Number : **60257**

Date/Time: 03.13.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770020053402

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
655685-001	W	Levey Well	03.13.2020 12:30	SW8260C	VOCs by SW-846 8260C	03.16.2020	03.27.2020	JKR	BDCME BRBZ BRCLME	
655685-001	W	Levey Well	03.13.2020 12:30	E200.7	Recoverable Metals per ICP by EPA 200	03.16.2020	09.09.2020	JKR	CA K MG NA SI	
655685-001	W	Levey Well	03.13.2020 12:30	E300	Inorganic Anions by EPA 300/300.1	03.16.2020	03.15.2020 12:30	JKR	BR CL F NO2N NO3N SC	
655685-001	W	Levey Well	03.13.2020 12:30	SM4500-H	pH by SM4500-H	03.16.2020	03.13.2020 12:45	JKR		
655685-001	W	Levey Well	03.13.2020 12:30	SM2540C	TDS by SM2540C	03.16.2020	03.20.2020	JKR	TDS	
655685-001	W	Levey Well	03.13.2020 12:30	SM2320B	Alkalinity by SM2320B	03.16.2020	03.27.2020	JKR	ALK ALKB ALKC	
655685-001	W	Levey Well	03.13.2020 12:30	SM1030E	Cation-Anion Balance Calculation	03.16.2020	04.12.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

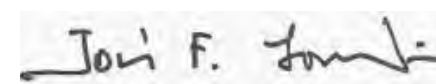
Relinquished By:



Brianna Teel

Date Relinquished: 03.13.2020

Received By:



Jose Londono

Date Received: 03.14.2020

Cooler Temperature: 3.1



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 60257

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 03.13.2020 04.04 PM

Received By: Jose Londono

Date Received: 03.14.2020 09.35 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jose Londono

Date: 03.14.2020



Client: Ensolum

Date/ Time Received: 03/13/2020 04:01:00 PM

Work Order #: 655685

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:

Brianna Teel

Date: 03/13/2020

Checklist reviewed by:

Jessica Kramer

Date: 03/16/2020



Certificate of Analysis Summary 656160

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Mar-18-20 04:59 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 656160-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-18-20 12:00					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Mar-20-20 10:11 Analyzed: Mar-20-20 11:29 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO ₃)	1180 4.00					
Alkalinity, Bicarbonate (as CaCO ₃)	1180 4.00					
Alkalinity, Carbonate (as CaCO ₃)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO ₃)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Mar-20-20 17:04 Units/RL: % RL					
Cation-Anion Balance	3.80					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Mar-20-20 08:58 Analyzed: Mar-20-20 10:34 Units/RL: mg/L RL					
Bromide	0.533 0.500					
Chloride	332 0.500					
Fluoride	0.642 0.500					
Nitrate as N	0.128 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	63.5 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 656160

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Mar-18-20 04:59 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656160-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Mar-18-20 12:00					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Mar-20-20 10:45					
	Analyzed:	Mar-20-20 16:28					
	Units/RL:	mg/L RL					
Calcium		391 D 10.0					
Magnesium		67.4 0.400					
Potassium		5.56 0.500					
Silica		63.4 1.07					
Sodium		95.7 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Mar-20-20 12:30					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1680 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656160

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Mar-18-20 04:59 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 656160-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-18-20 12:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-20-20 10:50 Analyzed: Mar-20-20 13:06 Units/RL: mg/L RL					
Benzene	0.00746 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00311 0.00100					
Sec-Butylbenzene	0.00400 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00224 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 656160

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Mar-18-20 04:59 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 656160-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-18-20 12:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-20-20 10:50 Analyzed: Mar-20-20 13:06 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0304 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0199 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0365 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 656160

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Wed Mar-18-20 04:59 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 656160-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-18-20 12:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-20-20 10:50 Analyzed: Mar-20-20 13:06 Units/RL: mg/L RL					
Toluene	0.0279 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.275 D 0.0100					
1,3,5-Trimethylbenzene	0.0777 0.00100					
o-Xylene	0.0174 0.00100					
m,p-Xylenes	0.0981 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.116 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-20-20 10:50 Units/RL: Deg C RL					
Temperature	22.2 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-20-20 10:50 Units/RL: SU RL					
pH	6.44 K					

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Jessica Kramer

Jessica Kramer
Project Manager

Analytical Report 656160

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

20-MAR-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



20-MAR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **656160**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 656160. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 656160 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 656160



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	03-18-20 12:00		656160-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 656160

Report Date: 20-MAR-20
Date Received: 03/18/2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120441 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 656160-001.



Certificate of Analytical Results 656160



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.18.20 16.59

Lab Sample Id: 656160-001

Date Collected: 03.18.20 12.00

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 03.20.20 10.11

Seq Number: 3120396

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1180	4.00	mg/L	03.20.20 11.29		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1180	4.00	mg/L	03.20.20 11.29		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	03.20.20 11.29	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	03.20.20 11.29	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3120460

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.80		%	03.20.20 17.04		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 03.20.20 08.58

Seq Number: 3120452

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.533	0.500	mg/L	03.20.20 10.34		1
Chloride	16887-00-6	332	0.500	mg/L	03.20.20 10.34		1
Fluoride	16984-48-8	0.642	0.500	mg/L	03.20.20 10.34		1
Nitrate as N	14797-55-8	0.128	0.100	mg/L	03.20.20 10.34		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	03.20.20 10.34	U	1
Sulfate	14808-79-8	63.5	0.500	mg/L	03.20.20 10.34		1



Certificate of Analytical Results 656160



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.18.20 16.59

Lab Sample Id: 656160-001

Date Collected: 03.18.20 12.00

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3120447

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1680	5.00	mg/L	03.20.20 12.30		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3120398

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.44		SU	03.20.20 10.50	K	1
Temperature	TEMP	22.2		Deg C	03.20.20 10.50	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: ADS

% Moisture:

Analyst: DEP

Date Prep: 03.20.20 10.45

Seq Number: 3120450

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	391	10.0	mg/L	03.20.20 15.26	D	50
Magnesium	7439-95-4	67.4	0.400	mg/L	03.20.20 16.28		1
Potassium	7440-09-7	5.56	0.500	mg/L	03.20.20 16.28		1
Silica	7631-86-9	63.4	1.07	mg/L	03.20.20 16.28		1
Sodium	7440-23-5	95.7	0.500	mg/L	03.20.20 16.28		1



Certificate of Analytical Results 656160

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.18.20 16.59

Lab Sample Id: 656160-001

Date Collected: 03.18.20 12.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 03.20.20 10.50

Seq Number: 3120441

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00746	0.00100	mg/L	03.20.20 13.06		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	03.20.20 13.06	U	1
n-Butylbenzene	104-51-8	0.00311	0.00100	mg/L	03.20.20 13.06		1
Sec-Butylbenzene	135-98-8	0.00400	0.00100	mg/L	03.20.20 13.06		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	03.20.20 13.06	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	03.20.20 13.06	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00224	0.00100	mg/L	03.20.20 13.06		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	03.20.20 13.06	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Ethylbenzene	100-41-4	0.0304	0.00100	mg/L	03.20.20 13.06		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1



Certificate of Analytical Results 656160



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.18.20 16.59

Lab Sample Id: 656160-001

Date Collected: 03.18.20 12.00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 03.20.20 10.50

Seq Number: 3120441

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0199	0.00100	mg/L	03.20.20 13.06		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	03.20.20 13.06	U	1
n-Propylbenzene	103-65-1	0.0365	0.00100	mg/L	03.20.20 13.06		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Toluene	108-88-3	0.0279	0.00100	mg/L	03.20.20 13.06		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	03.20.20 13.06	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	03.20.20 13.06	U	1
1,2,4-Trimethylbenzene	95-63-6	0.275	0.0100	mg/L	03.20.20 14.04	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0777	0.00100	mg/L	03.20.20 13.06		1
o-Xylene	95-47-6	0.0174	0.00100	mg/L	03.20.20 13.06		1
m,p-Xylenes	179601-23-1	0.0981	0.0100	mg/L	03.20.20 13.06		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	03.20.20 13.06	U	1
Total Xylenes	1330-20-7	0.116	0.00100	mg/L	03.20.20 13.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	75-131	03.20.20 13.06	
1,2-Dichloroethane-D4	17060-07-0	97	%	63-144	03.20.20 13.06	
Toluene-D8	2037-26-5	101	%	80-117	03.20.20 13.06	
4-Bromofluorobenzene	460-00-4	93	%	74-124	03.20.20 13.06	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3120396

MB Sample Id: 7699360-1-BLK

Matrix: Water

LCS Sample Id: 7699360-1-BKS

Prep Method: SM2320P

Date Prep: 03.20.20

LCSD Sample Id: 7699360-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	255	102	260	104	85-115	2	20	mg/L	03.20.20 10:57	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3120396

Matrix: Water

MB Sample Id: 7699360-1-BLK

Prep Method: SM2320P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	03.20.20 10:50	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	03.20.20 10:50	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	03.20.20 10:50	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3120396

Matrix: Surface Water

Parent Sample Id: 655337-001

MD Sample Id: 655337-001 D

Prep Method: SM2320P

Date Prep: 03.20.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	59.1	58.4	1	20	mg/L	03.20.20 12:37	
Alkalinity, Bicarbonate (as CaCO3)	59.1	58.4	1	20	mg/L	03.20.20 12:37	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.20.20 12:37	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.20.20 12:37	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3120396

Matrix: Water

Parent Sample Id: 656036-001

MD Sample Id: 656036-001 D

Prep Method: SM2320P

Date Prep: 03.20.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	191	190	1	20	mg/L	03.20.20 11:15	
Alkalinity, Bicarbonate (as CaCO3)	191	190	1	20	mg/L	03.20.20 11:15	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.20.20 11:15	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	03.20.20 11:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3120452

Matrix: Water

Prep Method: E300P

MB Sample Id: 7699348-1-BLK

LCS Sample Id: 7699348-1-BKS

Date Prep: 03.20.20

LCSD Sample Id: 7699348-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	03.20.20 09:20	
Chloride	<0.500	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	03.20.20 09:20	
Fluoride	<0.500	10.0	10.6	106	10.7	107	90-110	1	20	mg/L	03.20.20 09:20	
Nitrate as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	03.20.20 09:20	
Nitrite as N	<0.100	10.0	10.4	104	10.3	103	90-110	1	20	mg/L	03.20.20 09:20	
Sulfate	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	03.20.20 09:20	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3120452

Matrix: Ground Water

Prep Method: E300P

Parent Sample Id: 656043-001

MS Sample Id: 656043-001 S

Date Prep: 03.20.20

MSD Sample Id: 656043-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	03.20.20 09:57	
Chloride	2.36	10.0	12.4	100	12.4	100	90-110	0	20	mg/L	03.20.20 09:57	
Fluoride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	03.20.20 09:57	
Nitrate as N	0.102	10.0	10.5	104	10.5	104	90-110	0	20	mg/L	03.20.20 09:57	
Nitrite as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	03.20.20 09:57	
Sulfate	10.6	10.0	21.4	108	21.4	108	90-110	0	20	mg/L	03.20.20 09:57	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3120452

Matrix: Ground Water

Prep Method: E300P

Parent Sample Id: 656043-002

MS Sample Id: 656043-002 S

Date Prep: 03.20.20

MSD Sample Id: 656043-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	11.1	111	10.7	107	90-110	4	20	mg/L	03.20.20 12:00	X
Chloride	15.1	10.0	25.3	102	25.3	102	90-110	0	20	mg/L	03.20.20 12:00	
Fluoride	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	03.20.20 12:00	
Nitrate as N	0.114	10.0	10.3	102	10.3	102	90-110	0	20	mg/L	03.20.20 12:00	
Nitrite as N	<0.100	10.0	10.2	102	10.1	101	90-110	1	20	mg/L	03.20.20 12:00	
Sulfate	0.706	10.0	11.2	105	11.2	105	90-110	0	20	mg/L	03.20.20 12:00	

Analytical Method: TDS by SM2540C

Seq Number: 3120447

Matrix: Water

MB Sample Id: 3120447-1-BLK

LCS Sample Id: 3120447-1-BKS

LCSD Sample Id: 3120447-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	910	91	910	91	80-120	0	10	mg/L	03.20.20 12:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

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Analytical Method: TDS by SM2540C

Seq Number: 3120447

Parent Sample Id: 656036-001

Matrix: Water

MD Sample Id: 656036-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	<5.00	0	10	mg/L	03.20.20 12:30	

Analytical Method: pH by SM4500-H

Seq Number: 3120398

Parent Sample Id: 655279-001

Matrix: Waste Water

MD Sample Id: 655279-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.10	8.11	0	20	SU	03.20.20 10:50	
Temperature	23.8	23.7	0	20	Deg C	03.20.20 10:50	

Analytical Method: pH by SM4500-H

Seq Number: 3120398

Parent Sample Id: 655710-001

Matrix: Waste Water

MD Sample Id: 655710-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.38	8.39	0	20	SU	03.20.20 10:50	
Temperature	24.0	24.2	1	20	Deg C	03.20.20 10:50	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3120450

MB Sample Id: 7699396-1-BLK

Matrix: Water

LCS Sample Id: 7699396-1-BKS

Prep Method: E200.7P

Date Prep: 03.20.20

LCSD Sample Id: 7699396-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.4	98	24.1	96	85-115	1	20	mg/L	03.20.20 14:33	
Magnesium	<0.400	25.0	24.2	97	23.9	96	85-115	1	20	mg/L	03.20.20 14:33	
Potassium	<0.500	10.0	10.1	101	9.94	99	85-115	2	20	mg/L	03.20.20 14:33	
Silica	<1.07	21.4	21.8	102	21.3	100	85-115	2	20	mg/L	03.20.20 14:33	
Sodium	<0.500	25.0	24.2	97	24.0	96	85-115	1	20	mg/L	03.20.20 14:33	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3120450

Matrix: Water

Prep Method: E200.7P

Parent Sample Id: 655743-001

MS Sample Id: 655743-001 S

Date Prep: 03.20.20

MSD Sample Id: 655743-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	33.4	25.0	55.4	88	55.9	90	70-130	1	20	mg/L	03.20.20 14:57	
Magnesium	14.1	25.0	36.4	89	36.7	90	70-130	1	20	mg/L	03.20.20 14:57	
Potassium	3.66	10.0	13.1	94	13.2	95	70-130	1	20	mg/L	03.20.20 14:57	
Silica	9.12	21.4	30.0	98	29.8	97	70-130	1	20	mg/L	03.20.20 14:57	
Sodium	102	25.0	124	88	125	92	70-130	1	20	mg/L	03.20.20 14:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3120441

MB Sample Id: 7699415-1-BLK

Matrix: Water

LCS Sample Id: 7699415-1-BKS

Prep Method: SW5030B

Date Prep: 03.20.20

LCSD Sample Id: 7699415-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0503	101	0.0476	95	66-142	6	25	mg/L	03.20.20 10:07	
Bromobenzene	<0.00100	0.0500	0.0490	98	0.0481	96	75-125	2	25	mg/L	03.20.20 10:07	
Bromochloromethane	<0.00100	0.0500	0.0503	101	0.0492	98	60-140	2	25	mg/L	03.20.20 10:07	
Bromodichloromethane	<0.00100	0.0500	0.0498	100	0.0483	97	75-125	3	25	mg/L	03.20.20 10:07	
Bromoform	<0.00500	0.0500	0.0516	103	0.0511	102	75-125	1	25	mg/L	03.20.20 10:07	
Methyl bromide	<0.00500	0.0500	0.0446	89	0.0428	86	60-140	4	25	mg/L	03.20.20 10:07	
2-Butanone	<0.0500	0.250	0.238	95	0.235	94	60-140	1	25	mg/L	03.20.20 10:07	
n-Butylbenzene	<0.00100	0.0500	0.0465	93	0.0451	90	75-125	3	25	mg/L	03.20.20 10:07	
Sec-Butylbenzene	<0.00100	0.0500	0.0467	93	0.0455	91	75-125	3	25	mg/L	03.20.20 10:07	
tert-Butylbenzene	<0.00100	0.0500	0.0508	102	0.0498	100	75-125	2	25	mg/L	03.20.20 10:07	
Carbon Tetrachloride	<0.00500	0.0500	0.0519	104	0.0494	99	62-125	5	25	mg/L	03.20.20 10:07	
Chlorobenzene	<0.00100	0.0500	0.0485	97	0.0466	93	60-133	4	25	mg/L	03.20.20 10:07	
Chloroethane	<0.0100	0.0500	0.0409	82	0.0389	78	60-140	5	25	mg/L	03.20.20 10:07	
Chloroform	<0.00100	0.0500	0.0498	100	0.0483	97	70-130	3	25	mg/L	03.20.20 10:07	
Methyl Chloride	<0.0100	0.0500	0.0552	110	0.0541	108	60-140	2	25	mg/L	03.20.20 10:07	
2-Chlorotoluene	<0.00100	0.0500	0.0493	99	0.0482	96	73-125	2	25	mg/L	03.20.20 10:07	
4-Chlorotoluene	<0.00100	0.0500	0.0490	98	0.0480	96	74-125	2	25	mg/L	03.20.20 10:07	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0453	91	0.0438	88	75-125	3	25	mg/L	03.20.20 10:07	
Dibromochloromethane	<0.00500	0.0500	0.0505	101	0.0496	99	73-125	2	25	mg/L	03.20.20 10:07	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0468	94	0.0474	95	59-125	1	25	mg/L	03.20.20 10:07	
1,2-Dibromoethane	<0.00500	0.0500	0.0515	103	0.0510	102	73-125	1	25	mg/L	03.20.20 10:07	
Methylene Bromide	<0.00100	0.0500	0.0477	95	0.0471	94	69-127	1	25	mg/L	03.20.20 10:07	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0478	96	0.0472	94	75-125	1	25	mg/L	03.20.20 10:07	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0479	96	0.0472	94	75-125	1	25	mg/L	03.20.20 10:07	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0475	95	0.0469	94	75-125	1	25	mg/L	03.20.20 10:07	
Dichlorodifluoromethane	<0.00100	0.0500	0.0747	149	0.0713	143	60-140	5	25	mg/L	03.20.20 10:07	H
1,1-Dichloroethane	<0.00100	0.0500	0.0530	106	0.0507	101	72-125	4	25	mg/L	03.20.20 10:07	
1,2-Dichloroethane	<0.00100	0.0500	0.0491	98	0.0470	94	68-127	4	25	mg/L	03.20.20 10:07	
1,1-Dichloroethene	<0.00100	0.0500	0.0520	104	0.0498	100	59-172	4	25	mg/L	03.20.20 10:07	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0491	98	0.0471	94	75-125	4	25	mg/L	03.20.20 10:07	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0495	99	0.0476	95	75-125	4	25	mg/L	03.20.20 10:07	
1,2-Dichloropropane	<0.00500	0.0500	0.0526	105	0.0505	101	74-125	4	25	mg/L	03.20.20 10:07	
1,3-Dichloropropane	<0.00500	0.0500	0.0531	106	0.0520	104	75-125	2	25	mg/L	03.20.20 10:07	
2,2-Dichloropropane	<0.00500	0.0500	0.0536	107	0.0501	100	75-125	7	25	mg/L	03.20.20 10:07	
1,1-Dichloropropene	<0.00500	0.0500	0.0554	111	0.0527	105	75-125	5	25	mg/L	03.20.20 10:07	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0518	104	0.0499	100	74-125	4	25	mg/L	03.20.20 10:07	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0520	104	0.0505	101	66-125	3	25	mg/L	03.20.20 10:07	
Ethylbenzene	<0.00100	0.0500	0.0493	99	0.0474	95	75-125	4	25	mg/L	03.20.20 10:07	
Hexachlorobutadiene	<0.00500	0.0500	0.0449	90	0.0442	88	75-125	2	25	mg/L	03.20.20 10:07	
Isopropylbenzene	<0.00100	0.0500	0.0498	100	0.0475	95	75-125	5	25	mg/L	03.20.20 10:07	
Methylene Chloride	<0.00191	0.0500	0.0499	100	0.0486	97	75-125	3	25	mg/L	03.20.20 10:07	
MTBE	<0.00500	0.0500	0.0536	107	0.0534	107	65-135	0	25	mg/L	03.20.20 10:07	
Naphthalene	<0.0100	0.0500	0.0511	102	0.0512	102	70-130	0	25	mg/L	03.20.20 10:07	
n-Propylbenzene	<0.00100	0.0500	0.0490	98	0.0479	96	75-125	2	25	mg/L	03.20.20 10:07	
Styrene	<0.00100	0.0500	0.0505	101	0.0491	98	75-125	3	25	mg/L	03.20.20 10:07	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0498	100	0.0487	97	72-125	2	25	mg/L	03.20.20 10:07	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0492	98	0.0494	99	74-125	0	25	mg/L	03.20.20 10:07	
Tetrachloroethylene	<0.00100	0.0500	0.0502	100	0.0482	96	71-125	4	25	mg/L	03.20.20 10:07	
Toluene	<0.00100	0.0500	0.0488	98	0.0461	92	59-139	6	25	mg/L	03.20.20 10:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3120441

MB Sample Id: 7699415-1-BLK

Matrix: Water

LCS Sample Id: 7699415-1-BKS

Prep Method: SW5030B

Date Prep: 03.20.20

LCSD Sample Id: 7699415-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0473	95	0.0473	95	75-137	0	25	mg/L	03.20.20 10:07	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0474	95	0.0465	93	75-135	2	25	mg/L	03.20.20 10:07	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0503	101	0.0481	96	75-125	4	25	mg/L	03.20.20 10:07	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0528	106	0.0515	103	75-127	2	25	mg/L	03.20.20 10:07	
Trichloroethylene	<0.00500	0.0500	0.0467	93	0.0443	89	62-137	5	25	mg/L	03.20.20 10:07	
Trichlorofluoromethane	<0.00100	0.0500	0.0590	118	0.0556	111	60-140	6	25	mg/L	03.20.20 10:07	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0490	98	0.0496	99	75-125	1	25	mg/L	03.20.20 10:07	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0464	93	0.0452	90	75-125	3	25	mg/L	03.20.20 10:07	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0504	101	0.0492	98	70-125	2	25	mg/L	03.20.20 10:07	
o-Xylene	<0.00100	0.0500	0.0498	100	0.0482	96	75-125	3	25	mg/L	03.20.20 10:07	
m,p-Xylenes	<0.0100	0.100	0.0978	98	0.0942	94	75-125	4	25	mg/L	03.20.20 10:07	
Vinyl Chloride	<0.00200	0.0500	0.0544	109	0.0502	100	60-140	8	25	mg/L	03.20.20 10:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	103		99		101		75-131	%	03.20.20 10:07
1,2-Dichloroethane-D4	100		96		98		63-144	%	03.20.20 10:07
Toluene-D8	101		101		100		80-117	%	03.20.20 10:07
4-Bromofluorobenzene	103		99		101		74-124	%	03.20.20 10:07

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3120441

Matrix: Water

Prep Method: SW5030B

Date Prep: 03.20.20

Parent Sample Id: 655700-001

MS Sample Id: 655700-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0484	97	66-142	mg/L	03.20.20 11:06	
Bromobenzene	<0.00100	0.0500	0.0482	96	75-125	mg/L	03.20.20 11:06	
Bromochloromethane	<0.00100	0.0500	0.0488	98	60-140	mg/L	03.20.20 11:06	
Bromodichloromethane	<0.00100	0.0500	0.0483	97	75-125	mg/L	03.20.20 11:06	
Bromoform	<0.00500	0.0500	0.0485	97	75-125	mg/L	03.20.20 11:06	
Methyl bromide	<0.00500	0.0500	0.0466	93	60-140	mg/L	03.20.20 11:06	
2-Butanone	<0.0500	0.250	0.215	86	60-140	mg/L	03.20.20 11:06	
n-Butylbenzene	<0.00100	0.0500	0.0473	95	75-125	mg/L	03.20.20 11:06	
Sec-Butylbenzene	<0.00100	0.0500	0.0473	95	75-125	mg/L	03.20.20 11:06	
tert-Butylbenzene	<0.00100	0.0500	0.0512	102	75-125	mg/L	03.20.20 11:06	
Carbon Tetrachloride	<0.00500	0.0500	0.0515	103	62-125	mg/L	03.20.20 11:06	
Chlorobenzene	<0.00100	0.0500	0.0464	93	60-133	mg/L	03.20.20 11:06	
Chloroethane	<0.0100	0.0500	0.0410	82	60-140	mg/L	03.20.20 11:06	
Chloroform	<0.00100	0.0500	0.0493	99	70-130	mg/L	03.20.20 11:06	
Methyl Chloride	<0.0100	0.0500	0.0545	109	60-140	mg/L	03.20.20 11:06	
2-Chlorotoluene	<0.00100	0.0500	0.0490	98	73-125	mg/L	03.20.20 11:06	
4-Chlorotoluene	<0.00100	0.0500	0.0494	99	74-125	mg/L	03.20.20 11:06	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0456	91	75-125	mg/L	03.20.20 11:06	
Dibromochloromethane	<0.00500	0.0500	0.0484	97	73-125	mg/L	03.20.20 11:06	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0433	87	59-125	mg/L	03.20.20 11:06	
1,2-Dibromoethane	<0.00500	0.0500	0.0486	97	73-125	mg/L	03.20.20 11:06	
Methylene Bromide	<0.00100	0.0500	0.0462	92	69-127	mg/L	03.20.20 11:06	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0476	95	75-125	mg/L	03.20.20 11:06	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0480	96	75-125	mg/L	03.20.20 11:06	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0475	95	75-125	mg/L	03.20.20 11:06	
Dichlorodifluoromethane	<0.00100	0.0500	0.0741	148	60-140	mg/L	03.20.20 11:06	X
1,1-Dichloroethane	<0.00100	0.0500	0.0520	104	72-125	mg/L	03.20.20 11:06	
1,2-Dichloroethane	<0.00100	0.0500	0.0464	93	68-127	mg/L	03.20.20 11:06	
1,1-Dichloroethene	<0.00100	0.0500	0.0523	105	59-172	mg/L	03.20.20 11:06	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0485	97	75-125	mg/L	03.20.20 11:06	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0496	99	75-125	mg/L	03.20.20 11:06	
1,2-Dichloropropane	<0.00500	0.0500	0.0506	101	74-125	mg/L	03.20.20 11:06	
1,3-Dichloropropane	<0.00500	0.0500	0.0504	101	75-125	mg/L	03.20.20 11:06	
2,2-Dichloropropane	<0.00500	0.0500	0.0525	105	75-125	mg/L	03.20.20 11:06	
1,1-Dichloropropene	<0.00500	0.0500	0.0546	109	75-125	mg/L	03.20.20 11:06	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0501	100	74-125	mg/L	03.20.20 11:06	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0499	100	66-125	mg/L	03.20.20 11:06	
Ethylbenzene	<0.00100	0.0500	0.0479	96	75-125	mg/L	03.20.20 11:06	
Hexachlorobutadiene	<0.00500	0.0500	0.0462	92	75-125	mg/L	03.20.20 11:06	
Isopropylbenzene	<0.00100	0.0500	0.0493	99	75-125	mg/L	03.20.20 11:06	
Methylene Chloride	<0.00500	0.0500	0.0472	94	75-125	mg/L	03.20.20 11:06	
MTBE	<0.00500	0.0500	0.0512	102	65-135	mg/L	03.20.20 11:06	
Naphthalene	<0.0100	0.0500	0.0482	96	70-130	mg/L	03.20.20 11:06	
n-Propylbenzene	<0.00100	0.0500	0.0496	99	75-125	mg/L	03.20.20 11:06	
Styrene	<0.00100	0.0500	0.0494	99	75-125	mg/L	03.20.20 11:06	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0475	95	72-125	mg/L	03.20.20 11:06	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0471	94	74-125	mg/L	03.20.20 11:06	
Tetrachloroethylene	<0.00100	0.0500	0.0495	99	71-125	mg/L	03.20.20 11:06	
Toluene	0.00501	0.0500	0.0520	94	59-139	mg/L	03.20.20 11:06	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3120441

Parent Sample Id: 655700-001

Matrix: Water

MS Sample Id: 655700-001 S

Prep Method: SW5030B

Date Prep: 03.20.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0456	91	75-137	mg/L	03.20.20 11:06	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0471	94	75-135	mg/L	03.20.20 11:06	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0499	100	75-125	mg/L	03.20.20 11:06	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0494	99	75-127	mg/L	03.20.20 11:06	
Trichloroethylene	<0.00500	0.0500	0.0455	91	62-137	mg/L	03.20.20 11:06	
Trichlorofluoromethane	<0.00100	0.0500	0.0595	119	60-140	mg/L	03.20.20 11:06	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0465	93	75-125	mg/L	03.20.20 11:06	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0467	93	75-125	mg/L	03.20.20 11:06	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0503	101	70-125	mg/L	03.20.20 11:06	
o-Xylene	<0.00100	0.0500	0.0488	98	75-125	mg/L	03.20.20 11:06	
m,p-Xylenes	<0.0100	0.100	0.0962	96	75-125	mg/L	03.20.20 11:06	
Vinyl Chloride	<0.00200	0.0500	0.0534	107	60-140	mg/L	03.20.20 11:06	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		75-131	%	03.20.20 11:06
1,2-Dichloroethane-D4	97		63-144	%	03.20.20 11:06
Toluene-D8	101		80-117	%	03.20.20 11:06
4-Bromofluorobenzene	101		74-124	%	03.20.20 11:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: U501100

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

www.xenco.com Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

SAMPLE RECEIPT	Temp Blank:	Yes ☒	Wet Ice:	Yes ☒	No
	Temperature (°C):	0410.1	Thermometer ID:	29	
	Received Intact:	Yes ☒	No		
	Cooler Custody Seals:	Yes ☒	No	N/A	Correction Factor: -0.3
	Sample Custody Seals:	Yes ☒	No	N/A	Total Containers:

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	VOCs	Anions	Cations	pH	Alkalinity	TDS									Sample Comments
Levey Well	GW	3/18/2020	1220:00			X	X	X	X	X	X									24hr

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	3/18/20			

CUSTODY SEAL
Date: 3-18-24
Signature: [Signature]

Thermo
SCIENTIFIC

6009

Inter-Office Shipment

IOS Number : **60575**

Date/Time: 03.19.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770065443706

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
656160-001	W	Levey Well	03.18.2020 12:00	E200.7	Recoverable Metals per ICP by EPA 200	03.19.2020	09.14.2020	JKR	CA K MG NA SI	
656160-001	W	Levey Well	03.18.2020 12:00	E300	Inorganic Anions by EPA 300/300.1	03.19.2020	03.20.2020 12:00	JKR	BR CL F NO2N NO3N S	
656160-001	W	Levey Well	03.18.2020 12:00	SM1030E	Cation-Anion Balance Calculation	03.19.2020	04.17.2020	JKR	Cation-Anion Balance	
656160-001	W	Levey Well	03.18.2020 12:00	SM2320B	Alkalinity by SM2320B	03.19.2020	04.01.2020	JKR	ALK ALKB ALKC	
656160-001	W	Levey Well	03.18.2020 12:00	SM2540C	TDS by SM2540C	03.19.2020	03.25.2020 12:00	JKR	TDS	
656160-001	W	Levey Well	03.18.2020 12:00	SM4500-H	pH by SM4500-H	03.19.2020	03.18.2020 12:15	JKR		
656160-001	W	Levey Well	03.18.2020 12:00	SW8260C	VOCs by SW-846 8260C	03.19.2020	04.01.2020	JKR	BDCME BRBZ BRCLME	

Inter Office Shipment or Sample Comments:

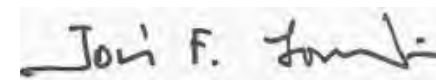
Relinquished By:



Brianna Teel

Date Relinquished: 03.19.2020

Received By:



Jose Londono

Date Received: 03.20.2020

Cooler Temperature: 3.4



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 60575

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 03.19.2020 07.33 AM

Received By: Jose Londono

Date Received: 03.20.2020 09.13 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jose Londono

Date: 03.20.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 03.18.2020 04.59.00 PM

Work Order #: 656160

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10bdh1991

Checklist completed by:



Brianna Teel

Date: 03.19.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.19.2020



Certificate of Analysis Summary 657135

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-27-20 12:15 pm
Report Date: 30-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657135-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-27-20 09:15					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Mar-30-20 10:05 Analyzed: Mar-30-20 11:10 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1180 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1180 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Mar-30-20 16:31 Units/RL: % RL					
Cation-Anion Balance	0.200					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Mar-28-20 10:30 Analyzed: Mar-28-20 12:24 Units/RL: mg/L RL					
Bromide	0.553 0.500					
Chloride	324 X 0.500					
Fluoride	0.728 0.500					
Nitrate as N	<0.100 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	57.6 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657135

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-27-20 12:15 pm
Report Date: 30-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657135-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Mar-27-20 09:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Mar-30-20 08:30					
	Analyzed:	Mar-30-20 13:22					
	Units/RL:	mg/L RL					
Calcium		418 D 10.0					
Magnesium		70.3 0.400					
Potassium		5.91 0.500					
Silica		70.1 X 1.07					
Sodium		105 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Mar-30-20 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1610 5.00					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657135

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-27-20 12:15 pm
Report Date: 30-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657135-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-27-20 09:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-30-20 12:00 Analyzed: Mar-30-20 14:46 Units/RL: mg/L RL					
Benzene	0.00641 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00122 0.00100					
Sec-Butylbenzene	0.00345 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00189 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657135

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-27-20 12:15 pm
Report Date: 30-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657135-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-27-20 09:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-30-20 12:00 Analyzed: Mar-30-20 14:46 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0247 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0166 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0336 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657135

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Mar-27-20 12:15 pm
Report Date: 30-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657135-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Mar-27-20 09:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Mar-30-20 12:00 Analyzed: Mar-30-20 14:46 Units/RL: mg/L RL					
Toluene	0.0151 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.261 D 0.00500					
1,3,5-Trimethylbenzene	0.0721 0.00100					
o-Xylene	0.0132 0.00100					
m,p-Xylenes	0.0737 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0869 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-30-20 13:42 Units/RL: Deg C RL					
Temperature	23.7 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Mar-30-20 13:42 Units/RL: SU RL					
pH	6.57 K					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Manager

Analytical Report 657135

for Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

30-MAR-20

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



30-MAR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **657135**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657135. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657135 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 657135

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	03-27-20 09:15		657135-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 657135Report Date: 30-MAR-20
Date Received: 03/27/2020**Sample receipt non conformances and comments:**

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121257 Inorganic Anions by EPA 300/300.1

Lab Sample ID 657135-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 657135-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3121357 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 657135-001.

Batch: LBA-3121360 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 657135-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 657135-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 657135



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.27.20 12.15

Lab Sample Id: 657135-001

Date Collected: 03.27.20 09.15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 03.30.20 10.05

Seq Number: 3121341

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1180	4.00	mg/L	03.30.20 11.10		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1180	4.00	mg/L	03.30.20 11.10		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	03.30.20 11.10	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	03.30.20 11.10	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3121367

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.200		%	03.30.20 16.31		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 03.28.20 10.30

Seq Number: 3121257

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.553	0.500	mg/L	03.28.20 12.24		1
Chloride	16887-00-6	324	0.500	mg/L	03.28.20 12.24	X	1
Fluoride	16984-48-8	0.728	0.500	mg/L	03.28.20 12.24		1
Nitrate as N	14797-55-8	<0.100	0.100	mg/L	03.28.20 12.24	U	1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	03.28.20 12.24	U	1
Sulfate	14808-79-8	57.6	0.500	mg/L	03.28.20 12.24		1



Certificate of Analytical Results 657135



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.27.20 12.15

Lab Sample Id: 657135-001

Date Collected: 03.27.20 09.15

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3121364

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1610	5.00	mg/L	03.30.20 10.00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3121346

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.57		SU	03.30.20 13.42	K	1
Temperature	TEMP	23.7		Deg C	03.30.20 13.42	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 03.30.20 08.30

Seq Number: 3121360

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	418	10.0	mg/L	03.30.20 13.43	D	50
Magnesium	7439-95-4	70.3	0.400	mg/L	03.30.20 13.22		1
Potassium	7440-09-7	5.91	0.500	mg/L	03.30.20 13.22		1
Silica	7631-86-9	70.1	1.07	mg/L	03.30.20 13.22	X	1
Sodium	7440-23-5	105	0.500	mg/L	03.30.20 13.22		1



Certificate of Analytical Results 657135



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.27.20 12.15

Lab Sample Id: 657135-001

Date Collected: 03.27.20 09.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 03.30.20 12.00

Seq Number: 3121357

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00641	0.00100	mg/L	03.30.20 14.46		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	03.30.20 14.46	U	1
n-Butylbenzene	104-51-8	0.00122	0.00100	mg/L	03.30.20 14.46		1
Sec-Butylbenzene	135-98-8	0.00345	0.00100	mg/L	03.30.20 14.46		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	03.30.20 14.46	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	03.30.20 14.46	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00189	0.00100	mg/L	03.30.20 14.46		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	03.30.20 14.46	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Ethylbenzene	100-41-4	0.0247	0.00100	mg/L	03.30.20 14.46		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1



Certificate of Analytical Results 657135



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 03.27.20 12.15

Lab Sample Id: 657135-001

Date Collected: 03.27.20 09.15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 03.30.20 12.00

Seq Number: 3121357

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0166	0.00100	mg/L	03.30.20 14.46		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	03.30.20 14.46	U	1
n-Propylbenzene	103-65-1	0.0336	0.00100	mg/L	03.30.20 14.46		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Toluene	108-88-3	0.0151	0.00100	mg/L	03.30.20 14.46		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	03.30.20 14.46	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	03.30.20 14.46	U	1
1,2,4-Trimethylbenzene	95-63-6	0.261	0.00500	mg/L	03.30.20 15.06	D	5
1,3,5-Trimethylbenzene	108-67-8	0.0721	0.00100	mg/L	03.30.20 14.46		1
o-Xylene	95-47-6	0.0132	0.00100	mg/L	03.30.20 14.46		1
m,p-Xylenes	179601-23-1	0.0737	0.0100	mg/L	03.30.20 14.46		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	03.30.20 14.46	U	1
Total Xylenes	1330-20-7	0.0869	0.00100	mg/L	03.30.20 14.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	75-131	03.30.20 14.46	
1,2-Dichloroethane-D4	17060-07-0	102	%	63-144	03.30.20 14.46	
Toluene-D8	2037-26-5	98	%	80-117	03.30.20 14.46	
4-Bromofluorobenzene	460-00-4	96	%	74-124	03.30.20 14.46	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3121341

MB Sample Id: 7699996-1-BLK

Matrix: Water

LCS Sample Id: 7699996-1-BKS

Prep Method: SM2320P

Date Prep: 03.30.20

LCSD Sample Id: 7699996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	258	103	259	104	85-115	0	20	mg/L	03.30.20 10:50	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3121341

Matrix: Water

MB Sample Id: 7699996-1-BLK

Prep Method: SM2320P

Date Prep: 03.30.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	03.30.20 10:42	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	03.30.20 10:42	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	03.30.20 10:42	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3121341

Matrix: Ground Water

Parent Sample Id: 657135-001

MD Sample Id: 657135-001 D

Prep Method: SM2320P

Date Prep: 03.30.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1180	1180	0	20	mg/L	03.30.20 11:23	
Alkalinity, Bicarbonate (as CaCO ₃)	1180	1180	0	20	mg/L	03.30.20 11:23	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.30.20 11:23	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	03.30.20 11:23	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3121257

Matrix: Water

MB Sample Id: 7699990-1-BLK

LCS Sample Id: 7699990-1-BKS

Prep Method: E300P

Date Prep: 03.28.20

LCSD Sample Id: 7699990-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.8	108	10.9	109	90-110	1	20	mg/L	03.28.20 11:03	
Chloride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	03.28.20 11:03	
Fluoride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	03.28.20 11:03	
Nitrate as N	<0.100	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	03.28.20 11:03	
Nitrite as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	03.28.20 11:03	
Sulfate	<0.500	10.0	9.69	97	9.70	97	90-110	0	20	mg/L	03.28.20 11:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3121257

Matrix: Ground Water

Prep Method: E300P

Parent Sample Id: 657135-001

MS Sample Id: 657135-001 S

Date Prep: 03.28.20

MSD Sample Id: 657135-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.553	10.0	11.0	104	11.0	104	90-110	0	20	mg/L	03.28.20 12:36	
Chloride	324	10.0	328	40	329	50	90-110	0	20	mg/L	03.28.20 12:36	X
Fluoride	0.728	10.0	10.3	96	10.3	96	90-110	0	20	mg/L	03.28.20 12:36	
Nitrate as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	03.28.20 12:36	
Nitrite as N	<0.100	10.0	9.72	97	9.74	97	90-110	0	20	mg/L	03.28.20 12:36	
Sulfate	57.6	10.0	66.8	92	66.8	92	90-110	0	20	mg/L	03.28.20 12:36	

Analytical Method: TDS by SM2540C

Seq Number: 3121364

Matrix: Water

MB Sample Id: 3121364-1-BLK

LCS Sample Id: 3121364-1-BKS

LCSD Sample Id: 3121364-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	989	99	990	99	80-120	0	10	mg/L	03.30.20 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3121364

Matrix: Liquid

Parent Sample Id: 656610-001

MD Sample Id: 656610-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	739	738	0	10	mg/L	03.30.20 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3121346

Matrix: Ground Water

Parent Sample Id: 656516-002

MD Sample Id: 656516-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.45	8.46	0	20	SU	03.30.20 13:42	
Temperature	24.3	24.4	0	20	Deg C	03.30.20 13:42	

Analytical Method: pH by SM4500-H

Seq Number: 3121346

Matrix: Ground Water

Parent Sample Id: 656920-001

MD Sample Id: 656920-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.83	7.84	0	20	SU	03.30.20 13:42	
Temperature	25.2	25.2	0	20	Deg C	03.30.20 13:42	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3121360

Matrix: Water

Prep Method: E200.7P

MB Sample Id: 7700026-1-BLK

LCS Sample Id: 7700026-1-BKS

Date Prep: 03.30.20

LCSD Sample Id: 7700026-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.6	102	25.4	102	85-115	1	20	mg/L	03.30.20 13:14	
Magnesium	<0.400	25.0	25.4	102	25.2	101	85-115	1	20	mg/L	03.30.20 13:14	
Potassium	<0.500	10.0	10.3	103	10.2	102	85-115	1	20	mg/L	03.30.20 13:14	
Silica	<1.07	21.4	23.0	107	23.0	107	85-115	0	20	mg/L	03.30.20 13:14	
Sodium	<0.500	25.0	25.6	102	25.5	102	85-115	0	20	mg/L	03.30.20 13:14	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3121360

Matrix: Ground Water

Prep Method: E200.7P

Parent Sample Id: 657135-001

MS Sample Id: 657135-001 S

Date Prep: 03.30.20

MSD Sample Id: 657135-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	396	25.0	421	100	422	104	70-130	0	20	mg/L	03.30.20 13:26	
Magnesium	70.3	25.0	95.6	101	95.9	102	70-130	0	20	mg/L	03.30.20 13:26	
Potassium	5.91	10.0	16.5	106	16.4	105	70-130	1	20	mg/L	03.30.20 13:26	
Silica	70.1	21.4	113	200	113	200	70-130	0	20	mg/L	03.30.20 13:26	X
Sodium	105	25.0	131	104	130	100	70-130	1	20	mg/L	03.30.20 13:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3121357

MB Sample Id: 7700063-1-BLK

Matrix: Water

LCS Sample Id: 7700063-1-BKS

Prep Method: SW5030B

Date Prep: 03.30.20

LCSD Sample Id: 7700063-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0448	90	0.0505	101	66-142	12	25	mg/L	03.30.20 10:01	
Bromobenzene	<0.00100	0.0500	0.0445	89	0.0484	97	75-125	8	25	mg/L	03.30.20 10:01	
Bromochloromethane	<0.00100	0.0500	0.0454	91	0.0493	99	60-140	8	25	mg/L	03.30.20 10:01	
Bromodichloromethane	<0.00100	0.0500	0.0473	95	0.0519	104	75-125	9	25	mg/L	03.30.20 10:01	
Bromoform	<0.00500	0.0500	0.0506	101	0.0538	108	75-125	6	25	mg/L	03.30.20 10:01	
Methyl bromide	<0.00500	0.0500	0.0405	81	0.0456	91	60-140	12	25	mg/L	03.30.20 10:01	
2-Butanone	<0.0500	0.250	0.257	103	0.275	110	60-140	7	25	mg/L	03.30.20 10:01	
n-Butylbenzene	<0.00100	0.0500	0.0439	88	0.0476	95	75-125	8	25	mg/L	03.30.20 10:01	
Sec-Butylbenzene	<0.00100	0.0500	0.0431	86	0.0471	94	75-125	9	25	mg/L	03.30.20 10:01	
tert-Butylbenzene	<0.00100	0.0500	0.0458	92	0.0502	100	75-125	9	25	mg/L	03.30.20 10:01	
Carbon Tetrachloride	<0.00500	0.0500	0.0485	97	0.0562	112	62-125	15	25	mg/L	03.30.20 10:01	
Chlorobenzene	<0.00100	0.0500	0.0444	89	0.0484	97	60-133	9	25	mg/L	03.30.20 10:01	
Chloroethane	<0.0100	0.0500	0.0415	83	0.0466	93	60-140	12	25	mg/L	03.30.20 10:01	
Chloroform	<0.00100	0.0500	0.0440	88	0.0497	99	70-130	12	25	mg/L	03.30.20 10:01	
Methyl Chloride	<0.0100	0.0500	0.0536	107	0.0620	124	60-140	15	25	mg/L	03.30.20 10:01	
2-Chlorotoluene	<0.00100	0.0500	0.0439	88	0.0478	96	73-125	9	25	mg/L	03.30.20 10:01	
4-Chlorotoluene	<0.00100	0.0500	0.0440	88	0.0486	97	74-125	10	25	mg/L	03.30.20 10:01	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0414	83	0.0454	91	75-125	9	25	mg/L	03.30.20 10:01	
Dibromochloromethane	<0.00500	0.0500	0.0496	99	0.0529	106	73-125	6	25	mg/L	03.30.20 10:01	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0490	98	0.0525	105	59-125	7	25	mg/L	03.30.20 10:01	
1,2-Dibromoethane	<0.00500	0.0500	0.0491	98	0.0529	106	73-125	7	25	mg/L	03.30.20 10:01	
Methylene Bromide	<0.00100	0.0500	0.0461	92	0.0500	100	69-127	8	25	mg/L	03.30.20 10:01	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0452	90	0.0487	97	75-125	7	25	mg/L	03.30.20 10:01	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0440	88	0.0473	95	75-125	7	25	mg/L	03.30.20 10:01	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0446	89	0.0480	96	75-125	7	25	mg/L	03.30.20 10:01	
Dichlorodifluoromethane	<0.00100	0.0500	0.0761	152	0.0965	193	60-140	24	25	mg/L	03.30.20 10:01	H
1,1-Dichloroethane	<0.00100	0.0500	0.0460	92	0.0523	105	72-125	13	25	mg/L	03.30.20 10:01	
1,2-Dichloroethane	<0.00100	0.0500	0.0463	93	0.0498	100	68-127	7	25	mg/L	03.30.20 10:01	
1,1-Dichloroethene	<0.00100	0.0500	0.0472	94	0.0552	110	59-172	16	25	mg/L	03.30.20 10:01	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0431	86	0.0492	98	75-125	13	25	mg/L	03.30.20 10:01	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0436	87	0.0506	101	75-125	15	25	mg/L	03.30.20 10:01	
1,2-Dichloropropane	<0.00500	0.0500	0.0479	96	0.0529	106	74-125	10	25	mg/L	03.30.20 10:01	
1,3-Dichloropropane	<0.00500	0.0500	0.0495	99	0.0532	106	75-125	7	25	mg/L	03.30.20 10:01	
2,2-Dichloropropane	<0.00500	0.0500	0.0485	97	0.0555	111	75-125	13	25	mg/L	03.30.20 10:01	
1,1-Dichloropropene	<0.00500	0.0500	0.0483	97	0.0565	113	75-125	16	25	mg/L	03.30.20 10:01	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0487	97	0.0532	106	74-125	9	25	mg/L	03.30.20 10:01	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0498	100	0.0535	107	66-125	7	25	mg/L	03.30.20 10:01	
Ethylbenzene	<0.00100	0.0500	0.0445	89	0.0494	99	75-125	10	25	mg/L	03.30.20 10:01	
Hexachlorobutadiene	<0.00500	0.0500	0.0465	93	0.0496	99	75-125	6	25	mg/L	03.30.20 10:01	
Isopropylbenzene	<0.00100	0.0500	0.0451	90	0.0502	100	75-125	11	25	mg/L	03.30.20 10:01	
Methylene Chloride	<0.00500	0.0500	0.0448	90	0.0503	101	75-125	12	25	mg/L	03.30.20 10:01	
MTBE	<0.00500	0.0500	0.0522	104	0.0569	114	65-135	9	25	mg/L	03.30.20 10:01	
Naphthalene	<0.0100	0.0500	0.0525	105	0.0558	112	70-130	6	25	mg/L	03.30.20 10:01	
n-Propylbenzene	<0.00100	0.0500	0.0440	88	0.0486	97	75-125	10	25	mg/L	03.30.20 10:01	
Styrene	<0.00100	0.0500	0.0463	93	0.0502	100	75-125	8	25	mg/L	03.30.20 10:01	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0467	93	0.0509	102	72-125	9	25	mg/L	03.30.20 10:01	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0479	96	0.0512	102	74-125	7	25	mg/L	03.30.20 10:01	
Tetrachloroethylene	<0.00100	0.0500	0.0453	91	0.0505	101	71-125	11	25	mg/L	03.30.20 10:01	
Toluene	<0.00100	0.0500	0.0430	86	0.0476	95	59-139	10	25	mg/L	03.30.20 10:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3121357

MB Sample Id: 7700063-1-BLK

Matrix: Water

LCS Sample Id: 7700063-1-BKS

Prep Method: SW5030B

Date Prep: 03.30.20

LCSD Sample Id: 7700063-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0480	96	0.0516	103	75-137	7	25	mg/L	03.30.20 10:01	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0471	94	0.0496	99	75-135	5	25	mg/L	03.30.20 10:01	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0466	93	0.0536	107	75-125	14	25	mg/L	03.30.20 10:01	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0498	100	0.0530	106	75-127	6	25	mg/L	03.30.20 10:01	
Trichloroethylene	<0.00500	0.0500	0.0418	84	0.0476	95	62-137	13	25	mg/L	03.30.20 10:01	
Trichlorofluoromethane	<0.00100	0.0500	0.0546	109	0.0679	136	60-140	22	25	mg/L	03.30.20 10:01	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0499	100	0.0511	102	75-125	2	25	mg/L	03.30.20 10:01	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0420	84	0.0460	92	75-125	9	25	mg/L	03.30.20 10:01	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0449	90	0.0493	99	70-125	9	25	mg/L	03.30.20 10:01	
o-Xylene	<0.00100	0.0500	0.0456	91	0.0500	100	75-125	9	25	mg/L	03.30.20 10:01	
m,p-Xylenes	<0.0100	0.100	0.0881	88	0.0981	98	75-125	11	25	mg/L	03.30.20 10:01	
Vinyl Chloride	<0.00200	0.0500	0.0533	107	0.0634	127	60-140	17	25	mg/L	03.30.20 10:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	103		99		101		75-131	%	03.30.20 10:01
1,2-Dichloroethane-D4	106		100		99		63-144	%	03.30.20 10:01
Toluene-D8	98		100		98		80-117	%	03.30.20 10:01
4-Bromofluorobenzene	101		97		98		74-124	%	03.30.20 10:01

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3121357

Matrix: Water

Prep Method: SW5030B

Date Prep: 03.30.20

Parent Sample Id: 657001-001

MS Sample Id: 657001-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0485	97	66-142	mg/L	03.30.20 11:45	
Bromobenzene	<0.00100	0.0500	0.0500	100	75-125	mg/L	03.30.20 11:45	
Bromochloromethane	<0.00100	0.0500	0.0478	96	60-140	mg/L	03.30.20 11:45	
Bromodichloromethane	<0.00100	0.0500	0.0500	100	75-125	mg/L	03.30.20 11:45	
Bromoform	<0.00500	0.0500	0.0514	103	75-125	mg/L	03.30.20 11:45	
Methyl bromide	<0.00500	0.0500	0.0465	93	60-140	mg/L	03.30.20 11:45	
2-Butanone	<0.0500	0.250	0.240	96	60-140	mg/L	03.30.20 11:45	
n-Butylbenzene	<0.00100	0.0500	0.0487	97	75-125	mg/L	03.30.20 11:45	
Sec-Butylbenzene	<0.00100	0.0500	0.0488	98	75-125	mg/L	03.30.20 11:45	
tert-Butylbenzene	<0.00100	0.0500	0.0521	104	75-125	mg/L	03.30.20 11:45	
Carbon Tetrachloride	<0.00500	0.0500	0.0528	106	62-125	mg/L	03.30.20 11:45	
Chlorobenzene	<0.00100	0.0500	0.0484	97	60-133	mg/L	03.30.20 11:45	
Chloroethane	<0.0100	0.0500	0.0474	95	60-140	mg/L	03.30.20 11:45	
Chloroform	<0.00100	0.0500	0.0476	95	70-130	mg/L	03.30.20 11:45	
Methyl Chloride	<0.0100	0.0500	0.0641	128	60-140	mg/L	03.30.20 11:45	
2-Chlorotoluene	<0.00100	0.0500	0.0496	99	73-125	mg/L	03.30.20 11:45	
4-Chlorotoluene	<0.00100	0.0500	0.0508	102	74-125	mg/L	03.30.20 11:45	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0465	93	75-125	mg/L	03.30.20 11:45	
Dibromochloromethane	<0.00500	0.0500	0.0517	103	73-125	mg/L	03.30.20 11:45	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0474	95	59-125	mg/L	03.30.20 11:45	
1,2-Dibromoethane	<0.00500	0.0500	0.0502	100	73-125	mg/L	03.30.20 11:45	
Methylene Bromide	<0.00100	0.0500	0.0476	95	69-127	mg/L	03.30.20 11:45	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0499	100	75-125	mg/L	03.30.20 11:45	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0493	99	75-125	mg/L	03.30.20 11:45	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0495	99	75-125	mg/L	03.30.20 11:45	
Dichlorodifluoromethane	<0.00100	0.0500	0.0955	191	60-140	mg/L	03.30.20 11:45	X
1,1-Dichloroethane	<0.00100	0.0500	0.0498	100	72-125	mg/L	03.30.20 11:45	
1,2-Dichloroethane	<0.00100	0.0500	0.0482	96	68-127	mg/L	03.30.20 11:45	
1,1-Dichloroethene	<0.00100	0.0500	0.0516	103	59-172	mg/L	03.30.20 11:45	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0469	94	75-125	mg/L	03.30.20 11:45	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0477	95	75-125	mg/L	03.30.20 11:45	
1,2-Dichloropropane	<0.00500	0.0500	0.0519	104	74-125	mg/L	03.30.20 11:45	
1,3-Dichloropropane	<0.00500	0.0500	0.0522	104	75-125	mg/L	03.30.20 11:45	
2,2-Dichloropropane	<0.00500	0.0500	0.0526	105	75-125	mg/L	03.30.20 11:45	
1,1-Dichloropropene	<0.00500	0.0500	0.0534	107	75-125	mg/L	03.30.20 11:45	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0518	104	74-125	mg/L	03.30.20 11:45	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0525	105	66-125	mg/L	03.30.20 11:45	
Ethylbenzene	<0.00100	0.0500	0.0487	97	75-125	mg/L	03.30.20 11:45	
Hexachlorobutadiene	<0.00500	0.0500	0.0505	101	75-125	mg/L	03.30.20 11:45	
Isopropylbenzene	<0.00100	0.0500	0.0500	100	75-125	mg/L	03.30.20 11:45	
Methylene Chloride	<0.00500	0.0500	0.0481	96	75-125	mg/L	03.30.20 11:45	
MTBE	<0.00500	0.0500	0.0529	106	65-135	mg/L	03.30.20 11:45	
Naphthalene	<0.0100	0.0500	0.0527	105	70-130	mg/L	03.30.20 11:45	
n-Propylbenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	03.30.20 11:45	
Styrene	<0.00100	0.0500	0.0504	101	75-125	mg/L	03.30.20 11:45	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0515	103	72-125	mg/L	03.30.20 11:45	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0501	100	74-125	mg/L	03.30.20 11:45	
Tetrachloroethylene	<0.00100	0.0500	0.0502	100	71-125	mg/L	03.30.20 11:45	
Toluene	<0.00100	0.0500	0.0477	95	59-139	mg/L	03.30.20 11:45	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3121357

Matrix: Water

Prep Method: SW5030B

Parent Sample Id: 657001-001

MS Sample Id: 657001-001 S

Date Prep: 03.30.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0491	98	75-137	mg/L	03.30.20 11:45	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0490	98	75-135	mg/L	03.30.20 11:45	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0504	101	75-125	mg/L	03.30.20 11:45	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0524	105	75-127	mg/L	03.30.20 11:45	
Trichloroethylene	<0.00500	0.0500	0.0452	90	62-137	mg/L	03.30.20 11:45	
Trichlorofluoromethane	<0.00100	0.0500	0.0694	139	60-140	mg/L	03.30.20 11:45	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0505	101	75-125	mg/L	03.30.20 11:45	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0466	93	75-125	mg/L	03.30.20 11:45	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0502	100	70-125	mg/L	03.30.20 11:45	
o-Xylene	<0.00100	0.0500	0.0504	101	75-125	mg/L	03.30.20 11:45	
m,p-Xylenes	<0.0100	0.100	0.0973	97	75-125	mg/L	03.30.20 11:45	
Vinyl Chloride	<0.00200	0.0500	0.0657	131	60-140	mg/L	03.30.20 11:45	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	03.30.20 11:45
1,2-Dichloroethane-D4	95		63-144	%	03.30.20 11:45
Toluene-D8	100		80-117	%	03.30.20 11:45
4-Bromofluorobenzene	100		74-124	%	03.30.20 11:45

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



1057135

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

Revised Date 051418 Rev. 2018.

CUSTODY SEAL
Date 3/27/20
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **61123**

Date/Time: 03.27.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770123770873

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
657135-001	W	Levey Well	03.27.2020 09:15	SW8260C	VOCs by SW-846 8260C	03.30.2020	04.10.2020	JKR	BDCME BRBZ BRCLME	
657135-001	W	Levey Well	03.27.2020 09:15	E200.7	Recoverable Metals per ICP by EPA 200	03.30.2020	09.23.2020	JKR	CA K MG NA SI	
657135-001	W	Levey Well	03.27.2020 09:15	E300	Inorganic Anions by EPA 300/300.1	03.30.2020	03.29.2020 09:15	JKR	BR CL F NO2N NO3N S	
657135-001	W	Levey Well	03.27.2020 09:15	SM4500-H	pH by SM4500-H	03.30.2020	03.27.2020 09:30	JKR		
657135-001	W	Levey Well	03.27.2020 09:15	SM2540C	TDS by SM2540C	03.30.2020	04.03.2020	JKR	TDS	
657135-001	W	Levey Well	03.27.2020 09:15	SM2320B	Alkalinity by SM2320B	03.30.2020	04.10.2020	JKR	ALK ALKB ALKC	
657135-001	W	Levey Well	03.27.2020 09:15	SM1030E	Cation-Anion Balance Calculation	03.30.2020	04.26.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 03.27.2020

Received By:



Monica Benavides

Date Received: 03.28.2020

Cooler Temperature: 3.8



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 61123

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 03.27.2020 12.40 PM

Received By: Monica Benavides

Date Received: 03.28.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Benavides

Date: 03.28.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 03.27.2020 12.15.00 PM

Work Order #: 657135

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	10.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 03.27.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.27.2020



Certificate of Analysis Summary 657877

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Apr-03-20 01:46 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657877-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Apr-03-20 10:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: Apr-06-20 09:59 Analyzed: Apr-06-20 11:10 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1180 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1180 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: Apr-06-20 16:59 Units/RL: % RL					
Cation-Anion Balance	0.200					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: Apr-04-20 11:00 Analyzed: Apr-04-20 14:37 Units/RL: mg/L RL					
Bromide	<0.500 0.500					
Chloride	304 0.500					
Fluoride	0.807 0.500					
Nitrate as N	0.110 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	57.3 0.500					

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Version: 1.0%

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657877

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Apr-03-20 01:46 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657877-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Apr-03-20 10:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	Apr-06-20 08:30					
	Analyzed:	Apr-06-20 14:18					
	Units/RL:	mg/L RL					
Calcium		417 D 10.0					
Magnesium		69.0 0.400					
Potassium		5.91 0.500					
Silica		77.4 1.07					
Sodium		101 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	Apr-06-20 08:15					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1960 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657877

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Apr-03-20 01:46 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657877-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Apr-03-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	Apr-06-20 12:00					
	Analyzed:	Apr-06-20 13:32					
	Units/RL:	mg/L RL					
Benzene		0.00625 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		0.00120 0.00100					
Sec-Butylbenzene		<0.00100 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00209 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

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Project Manager



Certificate of Analysis Summary 657877

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Apr-03-20 01:46 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657877-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Apr-03-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Apr-06-20 12:00 Analyzed: Apr-06-20 13:32 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0250 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0174 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0363 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657877

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri Apr-03-20 01:46 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 657877-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: Apr-03-20 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: Apr-06-20 12:00 Analyzed: Apr-06-20 13:32 Units/RL: mg/L RL					
Toluene	0.0129 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.273 D 0.00500					
1,3,5-Trimethylbenzene	0.0756 0.00100					
o-Xylene	0.0130 0.00100					
m,p-Xylenes	0.0745 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0875 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Apr-06-20 10:59 Units/RL: Deg C RL					
Temperature	25.8 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: Apr-06-20 10:59 Units/RL: SU RL					
pH	6.37 K					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.0%

Jessica Kramer

Jessica Kramer
Project Manager

Analytical Report 657877

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

06-APR-20

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



06-APR-20

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **657877**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657877. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657877 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 657877

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	04-03-20 10:30		657877-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001

Work Order Number(s): 657877

Report Date: 06-APR-20

Date Received: 04/03/2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122081 VOCs by SW-846 8260C

Methyl Chloride recovered above QC limits Analyte was not detected in any of the associated samples and therefore the data was accepted. Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 657877-001.



Certificate of Analytical Results 657877



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.03.20 13.46

Lab Sample Id: 657877-001

Date Collected: 04.03.20 10.30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 04.06.20 09.59

Seq Number: 3122047

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1180	4.00	mg/L	04.06.20 11.10		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1180	4.00	mg/L	04.06.20 11.10		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	04.06.20 11.10	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	04.06.20 11.10	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3122107

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.200		%	04.06.20 16.59		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 04.04.20 11.00

Seq Number: 3121950

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	<0.500	0.500	mg/L	04.04.20 14.37	U	1
Chloride	16887-00-6	304	0.500	mg/L	04.04.20 14.37		1
Fluoride	16984-48-8	0.807	0.500	mg/L	04.04.20 14.37		1
Nitrate as N	14797-55-8	0.110	0.100	mg/L	04.04.20 14.37		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	04.04.20 14.37	U	1
Sulfate	14808-79-8	57.3	0.500	mg/L	04.04.20 14.37		1



Certificate of Analytical Results 657877



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.03.20 13.46

Lab Sample Id: 657877-001

Date Collected: 04.03.20 10.30

Analytical Method: TDS by SM2540C

Tech: JCL

% Moisture:

Analyst: JCL

Seq Number: 3122028

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1960	5.00	mg/L	04.06.20 08.15		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3122049

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.37		SU	04.06.20 10.59	K	1
Temperature	TEMP	25.8		Deg C	04.06.20 10.59	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 04.06.20 08.30

Seq Number: 3122101

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	417	10.0	mg/L	04.06.20 14.22	D	50
Magnesium	7439-95-4	69.0	0.400	mg/L	04.06.20 14.18		1
Potassium	7440-09-7	5.91	0.500	mg/L	04.06.20 14.18		1
Silica	7631-86-9	77.4	1.07	mg/L	04.06.20 14.18		1
Sodium	7440-23-5	101	0.500	mg/L	04.06.20 14.18		1



Certificate of Analytical Results 657877

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.03.20 13.46

Lab Sample Id: 657877-001

Date Collected: 04.03.20 10.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 04.06.20 12.00

Seq Number: 3122081

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00625	0.00100	mg/L	04.06.20 13.32		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	04.06.20 13.32	U	1
n-Butylbenzene	104-51-8	0.00120	0.00100	mg/L	04.06.20 13.32		1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	04.06.20 13.32	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	04.06.20 13.32	UH	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00209	0.00100	mg/L	04.06.20 13.32		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	04.06.20 13.32	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Ethylbenzene	100-41-4	0.0250	0.00100	mg/L	04.06.20 13.32		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1



Certificate of Analytical Results 657877



Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.03.20 13.46

Lab Sample Id: 657877-001

Date Collected: 04.03.20 10.30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: CRL

% Moisture:

Analyst: CRL

Date Prep: 04.06.20 12.00

Seq Number: 3122081

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0174	0.00100	mg/L	04.06.20 13.32		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	04.06.20 13.32	U	1
n-Propylbenzene	103-65-1	0.0363	0.00100	mg/L	04.06.20 13.32		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Toluene	108-88-3	0.0129	0.00100	mg/L	04.06.20 13.32		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	04.06.20 13.32	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	04.06.20 13.32	U	1
1,2,4-Trimethylbenzene	95-63-6	0.273	0.00500	mg/L	04.06.20 14.19	D	5
1,3,5-Trimethylbenzene	108-67-8	0.0756	0.00100	mg/L	04.06.20 13.32		1
o-Xylene	95-47-6	0.0130	0.00100	mg/L	04.06.20 13.32		1
m,p-Xylenes	179601-23-1	0.0745	0.0100	mg/L	04.06.20 13.32		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	04.06.20 13.32	U	1
Total Xylenes	1330-20-7	0.0875	0.00100	mg/L	04.06.20 13.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	75-131	04.06.20 13.32	
1,2-Dichloroethane-D4	17060-07-0	96	%	63-144	04.06.20 13.32	
Toluene-D8	2037-26-5	98	%	80-117	04.06.20 13.32	
4-Bromofluorobenzene	460-00-4	98	%	74-124	04.06.20 13.32	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122047

MB Sample Id: 7700559-1-BLK

Matrix: Water

LCS Sample Id: 7700559-1-BKS

Prep Method: SM2320P

Date Prep: 04.06.20

LCSD Sample Id: 7700559-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	257	103	260	104	85-115	1	20	mg/L	04.06.20 10:50	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122047

Matrix: Water

MB Sample Id: 7700559-1-BLK

Prep Method: SM2320P

Date Prep: 04.06.20

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	04.06.20 10:43	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	04.06.20 10:43	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	04.06.20 10:43	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122047

Matrix: Ground Water

Parent Sample Id: 657877-001

MD Sample Id: 657877-001 D

Prep Method: SM2320P

Date Prep: 04.06.20

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1180	1180	0	20	mg/L	04.06.20 11:23	
Alkalinity, Bicarbonate (as CaCO ₃)	1180	1180	0	20	mg/L	04.06.20 11:23	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	04.06.20 11:23	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	04.06.20 11:23	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3121950

Matrix: Water

MB Sample Id: 7700544-1-BLK

LCS Sample Id: 7700544-1-BKS

Prep Method: E300P

Date Prep: 04.04.20

LCSD Sample Id: 7700544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	04.04.20 10:52	
Chloride	<0.500	10.0	10.9	109	10.8	108	90-110	1	20	mg/L	04.04.20 10:52	
Fluoride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	04.04.20 10:52	
Nitrate as N	<0.100	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	04.04.20 10:52	
Nitrite as N	<0.100	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	04.04.20 10:52	
Sulfate	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	04.04.20 10:52	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3121950

Matrix: Water

Prep Method: E300P

Date Prep: 04.04.20

Parent Sample Id: 657822-001

MS Sample Id: 657822-001 S

MSD Sample Id: 657822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.08	10.0	11.5	104	11.5	104	90-110	0	20	mg/L	04.04.20 12:00	
Chloride	671	200	817	73	817	73	90-110	0	20	mg/L	04.04.20 12:36	X
Fluoride	1.19	10.0	11.1	99	11.1	99	90-110	0	20	mg/L	04.04.20 12:00	
Nitrate as N	0.109	10.0	10.2	101	10.2	101	90-110	0	20	mg/L	04.04.20 12:00	
Nitrite as N	<0.100	10.0	9.62	96	9.62	96	90-110	0	20	mg/L	04.04.20 12:00	
Sulfate	115	10.0	122	70	122	70	90-110	0	20	mg/L	04.04.20 12:00	X

Analytical Method: TDS by SM2540C

Seq Number: 3122028

Matrix: Water

MB Sample Id: 3122028-1-BLK

LCS Sample Id: 3122028-1-BKS

LCSD Sample Id: 3122028-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	973	97	972	97	80-120	0	10	mg/L	04.06.20 08:15	

Analytical Method: TDS by SM2540C

Seq Number: 3122049

Matrix: Water

Parent Sample Id: 657801-001

MD Sample Id: 657801-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9190	9190	0	10	mg/L	04.06.20 08:15	

Analytical Method: pH by SM4500-H

Seq Number: 3122049

Matrix: Water

Parent Sample Id: 657822-001

MD Sample Id: 657822-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.05	8.06	0	20	SU	04.06.20 10:59	
Temperature	25.0	25.2	1	20	Deg C	04.06.20 10:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3122101

Matrix: Water

Prep Method: E200.7P

MB Sample Id: 7700586-1-BLK

LCS Sample Id: 7700586-1-BKS

Date Prep: 04.06.20

LCSD Sample Id: 7700586-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.1	96	24.1	96	85-115	0	20	mg/L	04.06.20 13:28	
Magnesium	<0.400	25.0	23.8	95	23.9	96	85-115	0	20	mg/L	04.06.20 13:28	
Potassium	<0.500	10.0	9.65	97	9.64	96	85-115	0	20	mg/L	04.06.20 13:28	
Silica	<1.07	21.4	20.8	97	20.8	97	85-115	0	20	mg/L	04.06.20 13:28	
Sodium	<0.500	25.0	23.6	94	23.6	94	85-115	0	20	mg/L	04.06.20 13:28	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3122101

Matrix: Ground Water

Prep Method: E200.7P

Parent Sample Id: 657697-001

MS Sample Id: 657697-001 S

Date Prep: 04.06.20

MSD Sample Id: 657697-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	62.8	25.0	86.9	96	86.9	96	70-130	0	20	mg/L	04.06.20 13:40	
Magnesium	48.0	25.0	72.4	98	72.3	97	70-130	0	20	mg/L	04.06.20 13:40	
Potassium	6.95	10.0	17.1	102	17.1	102	70-130	0	20	mg/L	04.06.20 13:40	
Silica	16.2	21.4	38.2	103	38.1	102	70-130	0	20	mg/L	04.06.20 13:40	
Sodium	155	25.0	179	96	179	96	70-130	0	20	mg/L	04.06.20 13:40	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122081

MB Sample Id: 7700624-1-BLK

Matrix: Water

LCS Sample Id: 7700624-1-BKS

Prep Method: SW5030B

Date Prep: 04.06.20

LCSD Sample Id: 7700624-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0490	98	0.0467	93	66-142	5	25	mg/L	04.06.20 10:40	
Bromobenzene	<0.00100	0.0500	0.0517	103	0.0503	101	75-125	3	25	mg/L	04.06.20 10:40	
Bromochloromethane	<0.00100	0.0500	0.0487	97	0.0449	90	60-140	8	25	mg/L	04.06.20 10:40	
Bromodichloromethane	<0.00100	0.0500	0.0493	99	0.0469	94	75-125	5	25	mg/L	04.06.20 10:40	
Bromoform	<0.00500	0.0500	0.0547	109	0.0548	110	75-125	0	25	mg/L	04.06.20 10:40	
Methyl bromide	<0.00500	0.0500	0.0437	87	0.0426	85	60-140	3	25	mg/L	04.06.20 10:40	
2-Butanone	<0.0500	0.250	0.259	104	0.258	103	60-140	0	25	mg/L	04.06.20 10:40	
n-Butylbenzene	<0.00100	0.0500	0.0472	94	0.0449	90	75-125	5	25	mg/L	04.06.20 10:40	
Sec-Butylbenzene	<0.00100	0.0500	0.0474	95	0.0454	91	75-125	4	25	mg/L	04.06.20 10:40	
tert-Butylbenzene	<0.00100	0.0500	0.0516	103	0.0498	100	75-125	4	25	mg/L	04.06.20 10:40	
Carbon Tetrachloride	<0.00500	0.0500	0.0502	100	0.0460	92	62-125	9	25	mg/L	04.06.20 10:40	
Chlorobenzene	<0.00100	0.0500	0.0489	98	0.0473	95	60-133	3	25	mg/L	04.06.20 10:40	
Chloroethane	<0.0100	0.0500	0.0454	91	0.0425	85	60-140	7	25	mg/L	04.06.20 10:40	
Chloroform	<0.00100	0.0500	0.0498	100	0.0456	91	70-130	9	25	mg/L	04.06.20 10:40	
Methyl Chloride	<0.0100	0.0500	0.0703	141	0.0648	130	60-140	8	25	mg/L	04.06.20 10:40	H
2-Chlorotoluene	<0.00100	0.0500	0.0506	101	0.0493	99	73-125	3	25	mg/L	04.06.20 10:40	
4-Chlorotoluene	<0.00100	0.0500	0.0495	99	0.0479	96	74-125	3	25	mg/L	04.06.20 10:40	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0464	93	0.0436	87	75-125	6	25	mg/L	04.06.20 10:40	
Dibromochloromethane	<0.00500	0.0500	0.0532	106	0.0520	104	73-125	2	25	mg/L	04.06.20 10:40	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0528	106	0.0529	106	59-125	0	25	mg/L	04.06.20 10:40	
1,2-Dibromoethane	<0.00500	0.0500	0.0541	108	0.0539	108	73-125	0	25	mg/L	04.06.20 10:40	
Methylene Bromide	<0.00100	0.0500	0.0475	95	0.0468	94	69-127	1	25	mg/L	04.06.20 10:40	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0492	98	0.0479	96	75-125	3	25	mg/L	04.06.20 10:40	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0503	101	0.0481	96	75-125	4	25	mg/L	04.06.20 10:40	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0491	98	0.0467	93	75-125	5	25	mg/L	04.06.20 10:40	
Dichlorodifluoromethane	<0.00100	0.0500	0.0964	193	0.0886	177	60-140	8	25	mg/L	04.06.20 10:40	H
1,1-Dichloroethane	<0.00100	0.0500	0.0523	105	0.0492	98	72-125	6	25	mg/L	04.06.20 10:40	
1,2-Dichloroethane	<0.00100	0.0500	0.0478	96	0.0459	92	68-127	4	25	mg/L	04.06.20 10:40	
1,1-Dichloroethene	<0.00100	0.0500	0.0496	99	0.0458	92	59-172	8	25	mg/L	04.06.20 10:40	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0487	97	0.0446	89	75-125	9	25	mg/L	04.06.20 10:40	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0480	96	0.0437	87	75-125	9	25	mg/L	04.06.20 10:40	
1,2-Dichloropropane	<0.00500	0.0500	0.0531	106	0.0500	100	74-125	6	25	mg/L	04.06.20 10:40	
1,3-Dichloropropane	<0.00500	0.0500	0.0554	111	0.0546	109	75-125	1	25	mg/L	04.06.20 10:40	
2,2-Dichloropropane	<0.00500	0.0500	0.0544	109	0.0499	100	75-125	9	25	mg/L	04.06.20 10:40	
1,1-Dichloropropene	<0.00500	0.0500	0.0539	108	0.0492	98	75-125	9	25	mg/L	04.06.20 10:40	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0522	104	0.0489	98	74-125	7	25	mg/L	04.06.20 10:40	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0521	104	0.0506	101	66-125	3	25	mg/L	04.06.20 10:40	
Ethylbenzene	<0.00100	0.0500	0.0487	97	0.0472	94	75-125	3	25	mg/L	04.06.20 10:40	
Hexachlorobutadiene	<0.00500	0.0500	0.0504	101	0.0473	95	75-125	6	25	mg/L	04.06.20 10:40	
Isopropylbenzene	<0.00100	0.0500	0.0485	97	0.0463	93	75-125	5	25	mg/L	04.06.20 10:40	
Methylene Chloride	<0.00500	0.0500	0.0479	96	0.0445	89	75-125	7	25	mg/L	04.06.20 10:40	
MTBE	<0.00500	0.0500	0.0540	108	0.0523	105	65-135	3	25	mg/L	04.06.20 10:40	
Naphthalene	<0.0100	0.0500	0.0537	107	0.0554	111	70-130	3	25	mg/L	04.06.20 10:40	
n-Propylbenzene	<0.00100	0.0500	0.0506	101	0.0486	97	75-125	4	25	mg/L	04.06.20 10:40	
Styrene	<0.00100	0.0500	0.0493	99	0.0474	95	75-125	4	25	mg/L	04.06.20 10:40	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0522	104	0.0511	102	72-125	2	25	mg/L	04.06.20 10:40	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0555	111	0.0545	109	74-125	2	25	mg/L	04.06.20 10:40	
Tetrachloroethylene	<0.00100	0.0500	0.0509	102	0.0492	98	71-125	3	25	mg/L	04.06.20 10:40	
Toluene	<0.00100	0.0500	0.0467	93	0.0458	92	59-139	2	25	mg/L	04.06.20 10:40	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122081

MB Sample Id: 7700624-1-BLK

Matrix: Water

LCS Sample Id: 7700624-1-BKS

Prep Method: SW5030B

Date Prep: 04.06.20

LCSD Sample Id: 7700624-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0510	102	0.0517	103	75-137	1	25	mg/L	04.06.20 10:40	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0515	103	0.0510	102	75-135	1	25	mg/L	04.06.20 10:40	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0513	103	0.0474	95	75-125	8	25	mg/L	04.06.20 10:40	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0533	107	0.0538	108	75-127	1	25	mg/L	04.06.20 10:40	
Trichloroethylene	<0.00500	0.0500	0.0465	93	0.0436	87	62-137	6	25	mg/L	04.06.20 10:40	
Trichlorofluoromethane	<0.00100	0.0500	0.0629	126	0.0591	118	60-140	6	25	mg/L	04.06.20 10:40	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0550	110	0.0553	111	75-125	1	25	mg/L	04.06.20 10:40	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0476	95	0.0454	91	75-125	5	25	mg/L	04.06.20 10:40	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0512	102	0.0488	98	70-125	5	25	mg/L	04.06.20 10:40	
o-Xylene	<0.00100	0.0500	0.0498	100	0.0479	96	75-125	4	25	mg/L	04.06.20 10:40	
m,p-Xylenes	<0.0100	0.100	0.0951	95	0.0920	92	75-125	3	25	mg/L	04.06.20 10:40	
Vinyl Chloride	<0.00200	0.0500	0.0633	127	0.0579	116	60-140	9	25	mg/L	04.06.20 10:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	103		100		98		75-131	%	04.06.20 10:40
1,2-Dichloroethane-D4	100		96		91		63-144	%	04.06.20 10:40
Toluene-D8	99		98		99		80-117	%	04.06.20 10:40
4-Bromofluorobenzene	103		100		101		74-124	%	04.06.20 10:40

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122081

Parent Sample Id: 657875-001

Matrix: Storm Water

MS Sample Id: 657875-001 S

Prep Method: SW5030B

Date Prep: 04.06.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0452	90	66-142	mg/L	04.06.20 11:34	
Bromobenzene	<0.00100	0.0500	0.0495	99	75-125	mg/L	04.06.20 11:34	
Bromochloromethane	<0.00100	0.0500	0.0465	93	60-140	mg/L	04.06.20 11:34	
Bromodichloromethane	<0.00100	0.0500	0.0464	93	75-125	mg/L	04.06.20 11:34	
Bromoform	<0.00500	0.0500	0.0524	105	75-125	mg/L	04.06.20 11:34	
Methyl bromide	<0.00500	0.0500	0.0463	93	60-140	mg/L	04.06.20 11:34	
2-Butanone	<0.0500	0.250	0.246	98	60-140	mg/L	04.06.20 11:34	
n-Butylbenzene	<0.00100	0.0500	0.0446	89	75-125	mg/L	04.06.20 11:34	
Sec-Butylbenzene	<0.00100	0.0500	0.0453	91	75-125	mg/L	04.06.20 11:34	
tert-Butylbenzene	<0.00100	0.0500	0.0494	99	75-125	mg/L	04.06.20 11:34	
Carbon Tetrachloride	<0.00500	0.0500	0.0467	93	62-125	mg/L	04.06.20 11:34	
Chlorobenzene	<0.00100	0.0500	0.0453	91	60-133	mg/L	04.06.20 11:34	
Chloroethane	<0.0100	0.0500	0.0456	91	60-140	mg/L	04.06.20 11:34	
Chloroform	<0.00100	0.0500	0.0462	92	70-130	mg/L	04.06.20 11:34	
Methyl Chloride	<0.0100	0.0500	0.0692	138	60-140	mg/L	04.06.20 11:34	
2-Chlorotoluene	<0.00100	0.0500	0.0479	96	73-125	mg/L	04.06.20 11:34	
4-Chlorotoluene	<0.00100	0.0500	0.0475	95	74-125	mg/L	04.06.20 11:34	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0443	89	75-125	mg/L	04.06.20 11:34	
Dibromochloromethane	<0.00500	0.0500	0.0512	102	73-125	mg/L	04.06.20 11:34	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0484	97	59-125	mg/L	04.06.20 11:34	
1,2-Dibromoethane	<0.00500	0.0500	0.0526	105	73-125	mg/L	04.06.20 11:34	
Methylene Bromide	<0.00100	0.0500	0.0456	91	69-127	mg/L	04.06.20 11:34	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0467	93	75-125	mg/L	04.06.20 11:34	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0477	95	75-125	mg/L	04.06.20 11:34	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0467	93	75-125	mg/L	04.06.20 11:34	
Dichlorodifluoromethane	<0.00100	0.0500	0.0940	188	60-140	mg/L	04.06.20 11:34	X
1,1-Dichloroethane	<0.00100	0.0500	0.0482	96	72-125	mg/L	04.06.20 11:34	
1,2-Dichloroethane	<0.00100	0.0500	0.0451	90	68-127	mg/L	04.06.20 11:34	
1,1-Dichloroethene	<0.00100	0.0500	0.0470	94	59-172	mg/L	04.06.20 11:34	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0450	90	75-125	mg/L	04.06.20 11:34	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0448	90	75-125	mg/L	04.06.20 11:34	
1,2-Dichloropropane	<0.00500	0.0500	0.0500	100	74-125	mg/L	04.06.20 11:34	
1,3-Dichloropropane	<0.00500	0.0500	0.0531	106	75-125	mg/L	04.06.20 11:34	
2,2-Dichloropropane	<0.00500	0.0500	0.0511	102	75-125	mg/L	04.06.20 11:34	
1,1-Dichloropropene	<0.00500	0.0500	0.0500	100	75-125	mg/L	04.06.20 11:34	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0480	96	74-125	mg/L	04.06.20 11:34	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0499	100	66-125	mg/L	04.06.20 11:34	
Ethylbenzene	<0.00100	0.0500	0.0462	92	75-125	mg/L	04.06.20 11:34	
Hexachlorobutadiene	<0.00500	0.0500	0.0483	97	75-125	mg/L	04.06.20 11:34	
Isopropylbenzene	<0.00100	0.0500	0.0464	93	75-125	mg/L	04.06.20 11:34	
Methylene Chloride	<0.00500	0.0500	0.0443	89	75-125	mg/L	04.06.20 11:34	
MTBE	<0.00500	0.0500	0.0528	106	65-135	mg/L	04.06.20 11:34	
Naphthalene	<0.0100	0.0500	0.0537	107	70-130	mg/L	04.06.20 11:34	
n-Propylbenzene	<0.00100	0.0500	0.0481	96	75-125	mg/L	04.06.20 11:34	
Styrene	<0.00100	0.0500	0.0466	93	75-125	mg/L	04.06.20 11:34	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0499	100	72-125	mg/L	04.06.20 11:34	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0527	105	74-125	mg/L	04.06.20 11:34	
Tetrachloroethylene	<0.00100	0.0500	0.0481	96	71-125	mg/L	04.06.20 11:34	
Toluene	<0.00100	0.0500	0.0447	89	59-139	mg/L	04.06.20 11:34	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122081

Matrix: Storm Water

Prep Method: SW5030B

Parent Sample Id: 657875-001

MS Sample Id: 657875-001 S

Date Prep: 04.06.20

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0501	100	75-137	mg/L	04.06.20 11:34	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0500	100	75-135	mg/L	04.06.20 11:34	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0476	95	75-125	mg/L	04.06.20 11:34	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0523	105	75-127	mg/L	04.06.20 11:34	
Trichloroethylene	<0.00500	0.0500	0.0426	85	62-137	mg/L	04.06.20 11:34	
Trichlorofluoromethane	<0.00100	0.0500	0.0613	123	60-140	mg/L	04.06.20 11:34	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0534	107	75-125	mg/L	04.06.20 11:34	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0449	90	75-125	mg/L	04.06.20 11:34	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0486	97	70-125	mg/L	04.06.20 11:34	
o-Xylene	<0.00100	0.0500	0.0473	95	75-125	mg/L	04.06.20 11:34	
m,p-Xylenes	<0.0100	0.100	0.0910	91	75-125	mg/L	04.06.20 11:34	
Vinyl Chloride	<0.00200	0.0500	0.0615	123	60-140	mg/L	04.06.20 11:34	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	04.06.20 11:34
1,2-Dichloroethane-D4	93		63-144	%	04.06.20 11:34
Toluene-D8	99		80-117	%	04.06.20 11:34
4-Bromofluorobenzene	102		74-124	%	04.06.20 11:34

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

22

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
Phoenix, AZ (480-335-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)575-392-7550

www.xenco.com Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

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

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	(Yes)	No
Temperature (°C):	31	Thermometer ID: 29					
Received Intact:	Yes	No					
Cooler Custody Seals:	Yes	No	Correction Factor: -0.3				
Sample Custody Seals:	Yes	No	Total Containers: 1				

Number of Containers

Residuals: F, Cl, SO₄, B

Residuals: Ca, K, Mg, Na, Si

Quantity

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

	Total	200.7 / 6010	200.8 / 6020:	
	8RCRA	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	Texas 11	
	TCPLP / SPLP	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	6010:	8RCRA
				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 service. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated. of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 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
		9/3/20			

Revised Date 05/14/18 Rev. 201

CUSTODY SEAL
Date 1-3-24
Signature [Signature]

Thermo
SCIENTIFIC

90005

Inter-Office Shipment

IOS Number : **61532**

Date/Time: 04.03.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770171850280

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
657877-001	W	Levey Well	04.03.2020 10:30	SW8260C	VOCs by SW-846 8260C	04.06.2020	04.17.2020	JKR	BDCME BRBZ BRCLME	
657877-001	W	Levey Well	04.03.2020 10:30	E200.7	Recoverable Metals per ICP by EPA 200	04.06.2020	09.30.2020	JKR	CA K MG NA SI	
657877-001	W	Levey Well	04.03.2020 10:30	E300	Inorganic Anions by EPA 300/300.1	04.06.2020	04.05.2020 10:30	JKR	BR CL F NO2N NO3N S	
657877-001	W	Levey Well	04.03.2020 10:30	SM4500-H	pH by SM4500-H	04.06.2020	04.03.2020 10:45	JKR		
657877-001	W	Levey Well	04.03.2020 10:30	SM2540C	TDS by SM2540C	04.06.2020	04.10.2020	JKR	TDS	
657877-001	W	Levey Well	04.03.2020 10:30	SM2320B	Alkalinity by SM2320B	04.06.2020	04.17.2020	JKR	ALK ALKB ALKC	
657877-001	W	Levey Well	04.03.2020 10:30	SM1030E	Cation-Anion Balance Calculation	04.06.2020	05.03.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 04.03.2020

Received By:



Jhyrom Edralin

Date Received: 04.04.2020

Cooler Temperature: 2.5



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 61532

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 04.03.2020 01.58 PM

Received By: Jhyrom Edralin

Date Received: 04.04.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 04.04.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 04.03.2020 01.46.00 PM

Work Order #: 657877

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 04.03.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.06.2020



Certificate of Analysis Summary 658558

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.10.2020 11:36
Report Date: 04.14.2020 08:43
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658558-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.10.2020 09:20					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 04.13.2020 09:04 Analyzed: 04.13.2020 09:59 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1190 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1190 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 04.13.2020 17:03 Units/RL: % RL					
Cation-Anion Balance	0.600					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 04.11.2020 10:00 Analyzed: 04.11.2020 10:40 Units/RL: mg/L RL					
Bromide	0.575 0.500					
Chloride	351 0.500					
Fluoride	0.612 0.500					
Nitrate as N	0.172 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	61.8 X 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658558

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.10.2020 11:36
Report Date: 04.14.2020 08:43
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	658558-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	04.10.2020 09:20					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	04.13.2020 09:30					
	Analyzed:	04.13.2020 14:53					
	Units/RL:	mg/L RL					
	Calcium	431 DX 10.0					
	Magnesium	72.3 0.400					
	Potassium	6.17 0.500					
	Silica	67.7 X 1.07					
	Sodium	104 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	04.13.2020 09:10					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1930 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658558

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.10.2020 11:36
Report Date: 04.14.2020 08:43
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658558-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.10.2020 09:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.13.2020 10:30 Analyzed: 04.13.2020 12:46 Units/RL: mg/L RL					
Benzene	0.00689 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00253 0.00100					
Sec-Butylbenzene	0.00338 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00188 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 658558

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.10.2020 11:36
Report Date: 04.14.2020 08:43
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658558-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.10.2020 09:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.13.2020 10:30 Analyzed: 04.13.2020 12:46 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0277 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0171 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0300 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658558

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.10.2020 11:36
Report Date: 04.14.2020 08:43
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658558-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.10.2020 09:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.13.2020 10:30 Analyzed: 04.13.2020 12:46 Units/RL: mg/L RL					
Toluene	0.0327 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.264 D 0.0100					
1,3,5-Trimethylbenzene	0.0580 0.00100					
o-Xylene	0.0159 0.00100					
m,p-Xylenes	0.0924 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.108 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.13.2020 13:43 Units/RL: Deg C RL					
Temperature	25.0 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.13.2020 13:43 Units/RL: SU RL					
pH	6.73 K					

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Jessica Kramer
Project Manager



Analytical Report 658558

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

04.14.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



04.14.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **658558**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658558. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658558 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 658558

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	04.10.2020 09:20		658558-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 658558Report Date: 04.14.2020
Date Received: 04.10.2020**Sample receipt non conformances and comments:**

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122720 Inorganic Anions by EPA 300/300.1

Lab Sample ID 658558-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Sulfate recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 658558-001.

The Laboratory Control Sample for Sulfate is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3122846 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 658558-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 658558-001.

The Laboratory Control Sample for Silica, Calcium is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3122855 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 658558-001.

Lab Sample ID 658558-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Dichlorodifluoromethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 658558-001.



Certificate of Analytical Results 658558

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.10.2020 11:36

Lab Sample Id: 658558-001

Date Collected: 04.10.2020 09:20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 04.13.2020 09:04

Seq Number: 3122802

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1190	4.00	mg/L	04.13.2020 09:59		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1190	4.00	mg/L	04.13.2020 09:59		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	04.13.2020 09:59	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	04.13.2020 09:59	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3122866

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.600		%	04.13.2020 17:03		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 04.11.2020 10:00

Seq Number: 3122720

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.575	0.500	mg/L	04.11.2020 10:40		1
Chloride	16887-00-6	351	0.500	mg/L	04.11.2020 10:40		1
Fluoride	16984-48-8	0.612	0.500	mg/L	04.11.2020 10:40		1
Nitrate as N	14797-55-8	0.172	0.100	mg/L	04.11.2020 10:40		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	04.11.2020 10:40	U	1
Sulfate	14808-79-8	61.8	0.500	mg/L	04.11.2020 10:40	X	1



Certificate of Analytical Results 658558

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.10.2020 11:36

Lab Sample Id: 658558-001

Date Collected: 04.10.2020 09:20

Analytical Method: TDS by SM2540C

Tech: AMW

% Moisture:

Analyst: AMW

Seq Number: 3122749

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1930	5.00	mg/L	04.13.2020 09:10		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3122819

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.73		SU	04.13.2020 13:43	K	1
Temperature	TEMP	25.0		Deg C	04.13.2020 13:43	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 04.13.2020 09:30

Seq Number: 3122846

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	431	10.0	mg/L	04.13.2020 15:14	DX	50
Magnesium	7439-95-4	72.3	0.400	mg/L	04.13.2020 14:53		1
Potassium	7440-09-7	6.17	0.500	mg/L	04.13.2020 14:53		1
Silica	7631-86-9	67.7	1.07	mg/L	04.13.2020 14:53	X	1
Sodium	7440-23-5	104	0.500	mg/L	04.13.2020 14:53		1



Certificate of Analytical Results 658558

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.10.2020 11:36

Lab Sample Id: 658558-001

Date Collected: 04.10.2020 09:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.13.2020 10:30

Seq Number: 3122855

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00689	0.00100	mg/L	04.13.2020 12:46		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	04.13.2020 12:46	U	1
n-Butylbenzene	104-51-8	0.00253	0.00100	mg/L	04.13.2020 12:46		1
Sec-Butylbenzene	135-98-8	0.00338	0.00100	mg/L	04.13.2020 12:46		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	04.13.2020 12:46	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	04.13.2020 12:46	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00188	0.00100	mg/L	04.13.2020 12:46		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	04.13.2020 12:46	UHX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Ethylbenzene	100-41-4	0.0277	0.00100	mg/L	04.13.2020 12:46		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1



Certificate of Analytical Results 658558

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.10.2020 11:36

Lab Sample Id: 658558-001

Date Collected: 04.10.2020 09:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.13.2020 10:30

Seq Number: 3122855

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0171	0.00100	mg/L	04.13.2020 12:46		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	04.13.2020 12:46	U	1
n-Propylbenzene	103-65-1	0.0300	0.00100	mg/L	04.13.2020 12:46		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Toluene	108-88-3	0.0327	0.00100	mg/L	04.13.2020 12:46		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	04.13.2020 12:46	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	04.13.2020 12:46	U	1
1,2,4-Trimethylbenzene	95-63-6	0.264	0.0100	mg/L	04.13.2020 13:12	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0580	0.00100	mg/L	04.13.2020 12:46		1
o-Xylene	95-47-6	0.0159	0.00100	mg/L	04.13.2020 12:46		1
m,p-Xylenes	179601-23-1	0.0924	0.0100	mg/L	04.13.2020 12:46		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	04.13.2020 12:46	U	1
Total Xylenes	1330-20-7	0.108	0.00100	mg/L	04.13.2020 12:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	04.13.2020 12:46	
1,2-Dichloroethane-D4	17060-07-0	96	%	63-144	04.13.2020 12:46	
Toluene-D8	2037-26-5	101	%	80-117	04.13.2020 12:46	
4-Bromofluorobenzene	460-00-4	98	%	74-124	04.13.2020 12:46	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122802

MB Sample Id: 7701096-1-BLK

Matrix: Water

LCS Sample Id: 7701096-1-BKS

Prep Method: SM2320P

Date Prep: 04.13.2020

LCSD Sample Id: 7701096-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	260	104	267	107	85-115	3	20	mg/L	04.13.2020 09:38	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122802

Matrix: Water

MB Sample Id: 7701096-1-BLK

Prep Method: SM2320P

Date Prep: 04.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	04.13.2020 09:31	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	04.13.2020 09:31	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	04.13.2020 09:31	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3122802

Matrix: Ground Water

Parent Sample Id: 658558-001

MD Sample Id: 658558-001 D

Prep Method: SM2320P

Date Prep: 04.13.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1190	1180	1	20	mg/L	04.13.2020 10:12	
Alkalinity, Bicarbonate (as CaCO3)	1190	1180	1	20	mg/L	04.13.2020 10:12	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	04.13.2020 10:12	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	04.13.2020 10:12	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3122720

Matrix: Water

MB Sample Id: 7701095-1-BLK

LCS Sample Id: 7701095-1-BKS

Prep Method: E300P

Date Prep: 04.11.2020

LCSD Sample Id: 7701095-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	04.11.2020 10:16	
Chloride	<0.500	10.0	11.0	110	10.9	109	90-110	1	20	mg/L	04.11.2020 10:16	
Fluoride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	04.11.2020 10:16	
Nitrate as N	<0.100	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	04.11.2020 10:16	
Nitrite as N	<0.100	10.0	10.2	102	10.0	100	90-110	2	20	mg/L	04.11.2020 10:16	
Sulfate	<0.500	10.0	10.8	108	10.1	101	90-110	7	20	mg/L	04.11.2020 10:16	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3122720

Matrix: Ground Water

Prep Method: E300P

Date Prep: 04.11.2020

Parent Sample Id: 658558-001

MS Sample Id: 658558-001 S

MSD Sample Id: 658558-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.575	10.0	11.0	104	11.0	104	90-110	0	20	mg/L	04.11.2020 10:52	
Chloride	351	200	549	99	550	100	90-110	0	20	mg/L	04.11.2020 11:29	
Fluoride	0.612	10.0	10.1	95	10.1	95	90-110	0	20	mg/L	04.11.2020 10:52	
Nitrate as N	0.172	10.0	10.3	101	10.3	101	90-110	0	20	mg/L	04.11.2020 10:52	
Nitrite as N	<0.100	10.0	9.40	94	9.47	95	90-110	1	20	mg/L	04.11.2020 10:52	
Sulfate	61.8	10.0	69.8	80	69.9	81	90-110	0	20	mg/L	04.11.2020 10:52	X

Analytical Method: TDS by SM2540C

Seq Number: 3122749

Matrix: Water

MB Sample Id: 3122749-1-BLK

LCS Sample Id: 3122749-1-BKS

LCSD Sample Id: 3122749-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1050	105	1100	110	80-120	5	10	mg/L	04.13.2020 09:10	

Analytical Method: TDS by SM2540C

Seq Number: 3122749

Matrix: Ground Water

Parent Sample Id: 658558-001

MD Sample Id: 658558-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1930	1820	6	10	mg/L	04.13.2020 09:10	

Analytical Method: pH by SM4500-H

Seq Number: 3122819

Matrix: Waste Water

Parent Sample Id: 658139-001

MD Sample Id: 658139-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.77	7.78	0	20	SU	04.13.2020 13:43	
Temperature	24.9	24.6	1	20	Deg C	04.13.2020 13:43	

Analytical Method: pH by SM4500-H

Seq Number: 3122819

Matrix: Water

Parent Sample Id: 658189-006

MD Sample Id: 658189-006 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.38	7.39	0	20	SU	04.13.2020 13:43	
Temperature	25.9	25.7	1	20	Deg C	04.13.2020 13:43	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3122846

Matrix: Water

Prep Method: E200.7P

Date Prep: 04.13.2020

MB Sample Id: 7701155-1-BLK

LCS Sample Id: 7701155-1-BKS

LCSD Sample Id: 7701155-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.7	99	24.8	99	85-115	0	20	mg/L	04.13.2020 14:44	
Magnesium	<0.400	25.0	24.3	97	24.3	97	85-115	0	20	mg/L	04.13.2020 14:44	
Potassium	<0.500	10.0	9.81	98	9.86	99	85-115	1	20	mg/L	04.13.2020 14:44	
Silica	<1.07	21.4	21.6	101	21.7	101	85-115	0	20	mg/L	04.13.2020 14:44	
Sodium	<0.500	25.0	24.7	99	24.7	99	85-115	0	20	mg/L	04.13.2020 14:44	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3122846

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 04.13.2020

Parent Sample Id: 658558-001

MS Sample Id: 658558-001 S

MSD Sample Id: 658558-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	405	25.0	419	56	417	48	70-130	0	20	mg/L	04.13.2020 14:57	X
Magnesium	72.3	25.0	94.7	90	94.4	88	70-130	0	20	mg/L	04.13.2020 14:57	
Potassium	6.17	10.0	16.2	100	16.2	100	70-130	0	20	mg/L	04.13.2020 14:57	
Silica	67.7	21.4	95.7	131	95.7	131	70-130	0	20	mg/L	04.13.2020 14:57	X
Sodium	104	25.0	127	92	126	88	70-130	1	20	mg/L	04.13.2020 14:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122855

Matrix: Water

Prep Method: SW5030B

Date Prep: 04.13.2020

MB Sample Id: 7701189-1-BLK

LCS Sample Id: 7701189-1-BKS

LCSD Sample Id: 7701189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0425	85	0.0429	86	66-142	1	25	mg/L	04.13.2020 09:48	
Bromobenzene	<0.00100	0.0500	0.0461	92	0.0451	90	75-125	2	25	mg/L	04.13.2020 09:48	
Bromochloromethane	<0.00100	0.0500	0.0417	83	0.0421	84	60-140	1	25	mg/L	04.13.2020 09:48	
Bromodichloromethane	<0.00100	0.0500	0.0464	93	0.0465	93	75-125	0	25	mg/L	04.13.2020 09:48	
Bromoform	<0.00500	0.0500	0.0489	98	0.0477	95	75-125	2	25	mg/L	04.13.2020 09:48	
Methyl bromide	<0.00500	0.0500	0.0468	94	0.0465	93	60-140	1	25	mg/L	04.13.2020 09:48	
2-Butanone	<0.0500	0.250	0.196	78	0.197	79	60-140	1	25	mg/L	04.13.2020 09:48	
n-Butylbenzene	<0.000286	0.0500	0.0424	85	0.0429	86	75-125	1	25	mg/L	04.13.2020 09:48	
Sec-Butylbenzene	<0.00100	0.0500	0.0445	89	0.0445	89	75-125	0	25	mg/L	04.13.2020 09:48	
tert-Butylbenzene	<0.00100	0.0500	0.0487	97	0.0487	97	75-125	0	25	mg/L	04.13.2020 09:48	
Carbon Tetrachloride	<0.00500	0.0500	0.0453	91	0.0470	94	62-125	4	25	mg/L	04.13.2020 09:48	
Chlorobenzene	<0.00100	0.0500	0.0432	86	0.0435	87	60-133	1	25	mg/L	04.13.2020 09:48	
Chloroethane	<0.0100	0.0500	0.0399	80	0.0410	82	60-140	3	25	mg/L	04.13.2020 09:48	
Chloroform	<0.00100	0.0500	0.0454	91	0.0460	92	70-130	1	25	mg/L	04.13.2020 09:48	
Methyl Chloride	<0.0100	0.0500	0.0610	122	0.0607	121	60-140	0	25	mg/L	04.13.2020 09:48	
2-Chlorotoluene	<0.00100	0.0500	0.0467	93	0.0457	91	73-125	2	25	mg/L	04.13.2020 09:48	
4-Chlorotoluene	<0.00100	0.0500	0.0468	94	0.0460	92	74-125	2	25	mg/L	04.13.2020 09:48	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0415	83	0.0418	84	75-125	1	25	mg/L	04.13.2020 09:48	
Dibromochloromethane	<0.00500	0.0500	0.0480	96	0.0467	93	73-125	3	25	mg/L	04.13.2020 09:48	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0428	86	0.0410	82	59-125	4	25	mg/L	04.13.2020 09:48	
1,2-Dibromoethane	<0.00500	0.0500	0.0444	89	0.0438	88	73-125	1	25	mg/L	04.13.2020 09:48	
Methylene Bromide	<0.00100	0.0500	0.0421	84	0.0418	84	69-127	1	25	mg/L	04.13.2020 09:48	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0449	90	0.0441	88	75-125	2	25	mg/L	04.13.2020 09:48	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0452	90	0.0447	89	75-125	1	25	mg/L	04.13.2020 09:48	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0449	90	0.0445	89	75-125	1	25	mg/L	04.13.2020 09:48	
Dichlorodifluoromethane	<0.00100	0.0500	0.0799	160	0.0817	163	60-140	2	25	mg/L	04.13.2020 09:48	H
1,1-Dichloroethane	<0.00100	0.0500	0.0474	95	0.0481	96	72-125	1	25	mg/L	04.13.2020 09:48	
1,2-Dichloroethane	<0.00100	0.0500	0.0431	86	0.0431	86	68-127	0	25	mg/L	04.13.2020 09:48	
1,1-Dichloroethene	<0.00100	0.0500	0.0437	87	0.0451	90	59-172	3	25	mg/L	04.13.2020 09:48	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0440	88	0.0451	90	75-125	2	25	mg/L	04.13.2020 09:48	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0413	83	0.0424	85	75-125	3	25	mg/L	04.13.2020 09:48	
1,2-Dichloropropane	<0.00500	0.0500	0.0453	91	0.0452	90	74-125	0	25	mg/L	04.13.2020 09:48	
1,3-Dichloropropane	<0.00500	0.0500	0.0465	93	0.0457	91	75-125	2	25	mg/L	04.13.2020 09:48	
2,2-Dichloropropane	<0.00500	0.0500	0.0490	98	0.0499	100	75-125	2	25	mg/L	04.13.2020 09:48	
1,1-Dichloropropene	<0.00500	0.0500	0.0442	88	0.0452	90	75-125	2	25	mg/L	04.13.2020 09:48	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0438	88	0.0439	88	74-125	0	25	mg/L	04.13.2020 09:48	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0464	93	0.0459	92	66-125	1	25	mg/L	04.13.2020 09:48	
Ethylbenzene	<0.00100	0.0500	0.0431	86	0.0432	86	75-125	0	25	mg/L	04.13.2020 09:48	
Hexachlorobutadiene	<0.00500	0.0500	0.0450	90	0.0448	90	75-125	0	25	mg/L	04.13.2020 09:48	
Isopropylbenzene	<0.00100	0.0500	0.0455	91	0.0460	92	75-125	1	25	mg/L	04.13.2020 09:48	
Methylene Chloride	<0.00191	0.0500	0.0402	80	0.0408	82	75-125	1	25	mg/L	04.13.2020 09:48	
MTBE	<0.00500	0.0500	0.0444	89	0.0448	90	65-135	1	25	mg/L	04.13.2020 09:48	
Naphthalene	<0.0100	0.0500	0.0475	95	0.0435	87	70-130	9	25	mg/L	04.13.2020 09:48	
n-Propylbenzene	<0.00100	0.0500	0.0477	95	0.0470	94	75-125	1	25	mg/L	04.13.2020 09:48	
Styrene	<0.00100	0.0500	0.0458	92	0.0460	92	75-125	0	25	mg/L	04.13.2020 09:48	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0465	93	0.0470	94	72-125	1	25	mg/L	04.13.2020 09:48	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0458	92	0.0444	89	74-125	3	25	mg/L	04.13.2020 09:48	
Tetrachloroethylene	<0.00100	0.0500	0.0442	88	0.0445	89	71-125	1	25	mg/L	04.13.2020 09:48	
Toluene	<0.00100	0.0500	0.0428	86	0.0427	85	59-139	0	25	mg/L	04.13.2020 09:48	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0491	98	0.0453	91	75-137	8	25	mg/L	04.13.2020 09:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122855

MB Sample Id: 7701189-1-BLK

Matrix: Water

LCS Sample Id: 7701189-1-BKS

Prep Method: SW5030B

Date Prep: 04.13.2020

LCSD Sample Id: 7701189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0457	91	0.0435	87	75-135	5	25	mg/L	04.13.2020 09:48	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0463	93	0.0476	95	75-125	3	25	mg/L	04.13.2020 09:48	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0474	95	0.0465	93	75-127	2	25	mg/L	04.13.2020 09:48	
Trichloroethylene	<0.00500	0.0500	0.0394	79	0.0397	79	62-137	1	25	mg/L	04.13.2020 09:48	
Trichlorofluoromethane	<0.00100	0.0500	0.0575	115	0.0594	119	60-140	3	25	mg/L	04.13.2020 09:48	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0446	89	0.0426	85	75-125	5	25	mg/L	04.13.2020 09:48	
1,2,4-Trimethylbenzene	<0.000252	0.0500	0.0420	84	0.0411	82	75-125	2	25	mg/L	04.13.2020 09:48	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0457	91	0.0448	90	70-125	2	25	mg/L	04.13.2020 09:48	
o-Xylene	<0.00100	0.0500	0.0456	91	0.0457	91	75-125	0	25	mg/L	04.13.2020 09:48	
m,p-Xylenes	<0.0100	0.100	0.0884	88	0.0880	88	75-125	0	25	mg/L	04.13.2020 09:48	
Vinyl Chloride	<0.00200	0.0500	0.0551	110	0.0567	113	60-140	3	25	mg/L	04.13.2020 09:48	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	101		103		104		75-131			%	04.13.2020 09:48	
1,2-Dichloroethane-D4	96		97		98		63-144			%	04.13.2020 09:48	
Toluene-D8	99		102		101		80-117			%	04.13.2020 09:48	
4-Bromofluorobenzene	105		103		101		74-124			%	04.13.2020 09:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122855

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 658558-001

MS Sample Id: 658558-001 S

Date Prep: 04.13.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00689	0.0500	0.0488	84	66-142	mg/L	04.13.2020 10:48	
Bromobenzene	<0.00100	0.0500	0.0423	85	75-125	mg/L	04.13.2020 10:48	
Bromochloromethane	<0.00100	0.0500	0.0404	81	60-140	mg/L	04.13.2020 10:48	
Bromodichloromethane	<0.00100	0.0500	0.0449	90	75-125	mg/L	04.13.2020 10:48	
Bromoform	<0.00500	0.0500	0.0440	88	75-125	mg/L	04.13.2020 10:48	
Methyl bromide	<0.00500	0.0500	0.0452	90	60-140	mg/L	04.13.2020 10:48	
2-Butanone	0.00905	0.250	0.183	70	60-140	mg/L	04.13.2020 10:48	
n-Butylbenzene	0.00253	0.0500	0.0431	81	75-125	mg/L	04.13.2020 10:48	
Sec-Butylbenzene	0.00338	0.0500	0.0451	83	75-125	mg/L	04.13.2020 10:48	
tert-Butylbenzene	<0.000195	0.0500	0.0459	92	75-125	mg/L	04.13.2020 10:48	
Carbon Tetrachloride	<0.00500	0.0500	0.0452	90	62-125	mg/L	04.13.2020 10:48	
Chlorobenzene	<0.00100	0.0500	0.0423	85	60-133	mg/L	04.13.2020 10:48	
Chloroethane	<0.0100	0.0500	0.0511	102	60-140	mg/L	04.13.2020 10:48	
Chloroform	<0.00100	0.0500	0.0444	89	70-130	mg/L	04.13.2020 10:48	
Methyl Chloride	<0.0100	0.0500	0.0591	118	60-140	mg/L	04.13.2020 10:48	
2-Chlorotoluene	<0.00100	0.0500	0.0439	88	73-125	mg/L	04.13.2020 10:48	
4-Chlorotoluene	<0.00100	0.0500	0.0493	99	74-125	mg/L	04.13.2020 10:48	
p-Cymene (p-Isopropyltoluene)	0.00188	0.0500	0.0413	79	75-125	mg/L	04.13.2020 10:48	
Dibromochloromethane	<0.00500	0.0500	0.0456	91	73-125	mg/L	04.13.2020 10:48	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0370	74	59-125	mg/L	04.13.2020 10:48	
1,2-Dibromoethane	<0.00500	0.0500	0.0412	82	73-125	mg/L	04.13.2020 10:48	
Methylene Bromide	<0.00100	0.0500	0.0390	78	69-127	mg/L	04.13.2020 10:48	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0415	83	75-125	mg/L	04.13.2020 10:48	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0426	85	75-125	mg/L	04.13.2020 10:48	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0421	84	75-125	mg/L	04.13.2020 10:48	
Dichlorodifluoromethane	<0.00100	0.0500	0.0782	156	60-140	mg/L	04.13.2020 10:48	X
1,1-Dichloroethane	<0.00100	0.0500	0.0457	91	72-125	mg/L	04.13.2020 10:48	
1,2-Dichloroethane	<0.00100	0.0500	0.0409	82	68-127	mg/L	04.13.2020 10:48	
1,1-Dichloroethene	<0.00100	0.0500	0.0439	88	59-172	mg/L	04.13.2020 10:48	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0433	87	75-125	mg/L	04.13.2020 10:48	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0410	82	75-125	mg/L	04.13.2020 10:48	
1,2-Dichloropropane	<0.00500	0.0500	0.0455	91	74-125	mg/L	04.13.2020 10:48	
1,3-Dichloropropane	<0.00500	0.0500	0.0445	89	75-125	mg/L	04.13.2020 10:48	
2,2-Dichloropropane	<0.00500	0.0500	0.0479	96	75-125	mg/L	04.13.2020 10:48	
1,1-Dichloropropene	<0.00500	0.0500	0.0448	90	75-125	mg/L	04.13.2020 10:48	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0433	87	74-125	mg/L	04.13.2020 10:48	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0437	87	66-125	mg/L	04.13.2020 10:48	
Ethylbenzene	0.0277	0.0500	0.0698	84	75-125	mg/L	04.13.2020 10:48	
Hexachlorobutadiene	<0.00500	0.0500	0.0445	89	75-125	mg/L	04.13.2020 10:48	
Isopropylbenzene	0.0171	0.0500	0.0617	89	75-125	mg/L	04.13.2020 10:48	
Methylene Chloride	<0.00500	0.0500	0.0386	77	75-125	mg/L	04.13.2020 10:48	
MTBE	<0.00500	0.0500	0.0429	86	65-135	mg/L	04.13.2020 10:48	
Naphthalene	<0.00200	0.0500	0.0474	95	70-130	mg/L	04.13.2020 10:48	
n-Propylbenzene	0.0300	0.0500	0.0749	90	75-125	mg/L	04.13.2020 10:48	
Styrene	<0.00100	0.0500	0.0446	89	75-125	mg/L	04.13.2020 10:48	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0460	92	72-125	mg/L	04.13.2020 10:48	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0415	83	74-125	mg/L	04.13.2020 10:48	
Tetrachloroethylene	<0.00100	0.0500	0.0437	87	71-125	mg/L	04.13.2020 10:48	
Toluene	0.0327	0.0500	0.0752	85	59-139	mg/L	04.13.2020 10:48	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0495	99	75-137	mg/L	04.13.2020 10:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3122855

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 658558-001

MS Sample Id: 658558-001 S

Date Prep: 04.13.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0453	91	75-135	mg/L	04.13.2020 10:48	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0457	91	75-125	mg/L	04.13.2020 10:48	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0485	97	75-127	mg/L	04.13.2020 10:48	
Trichloroethylene	<0.00500	0.0500	0.0384	77	62-137	mg/L	04.13.2020 10:48	
Trichlorofluoromethane	<0.00100	0.0500	0.0587	117	60-140	mg/L	04.13.2020 10:48	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0382	76	75-125	mg/L	04.13.2020 10:48	
1,2,4-Trimethylbenzene	0.210	0.0500	0.249	78	75-125	mg/L	04.13.2020 10:48	
1,3,5-Trimethylbenzene	0.0580	0.0500	0.103	90	70-125	mg/L	04.13.2020 10:48	
o-Xylene	0.0159	0.0500	0.0601	88	75-125	mg/L	04.13.2020 10:48	
m,p-Xylenes	0.0924	0.100	0.177	85	75-125	mg/L	04.13.2020 10:48	
Vinyl Chloride	<0.00200	0.0500	0.0570	114	60-140	mg/L	04.13.2020 10:48	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	100		75-131	%	04.13.2020 10:48
1,2-Dichloroethane-D4	94		63-144	%	04.13.2020 10:48
Toluene-D8	103		80-117	%	04.13.2020 10:48
4-Bromofluorobenzene	96		74-124	%	04.13.2020 10:48

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

05658

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0330 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 595-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 392-7550
Hobbs, NM (575) 392-7550

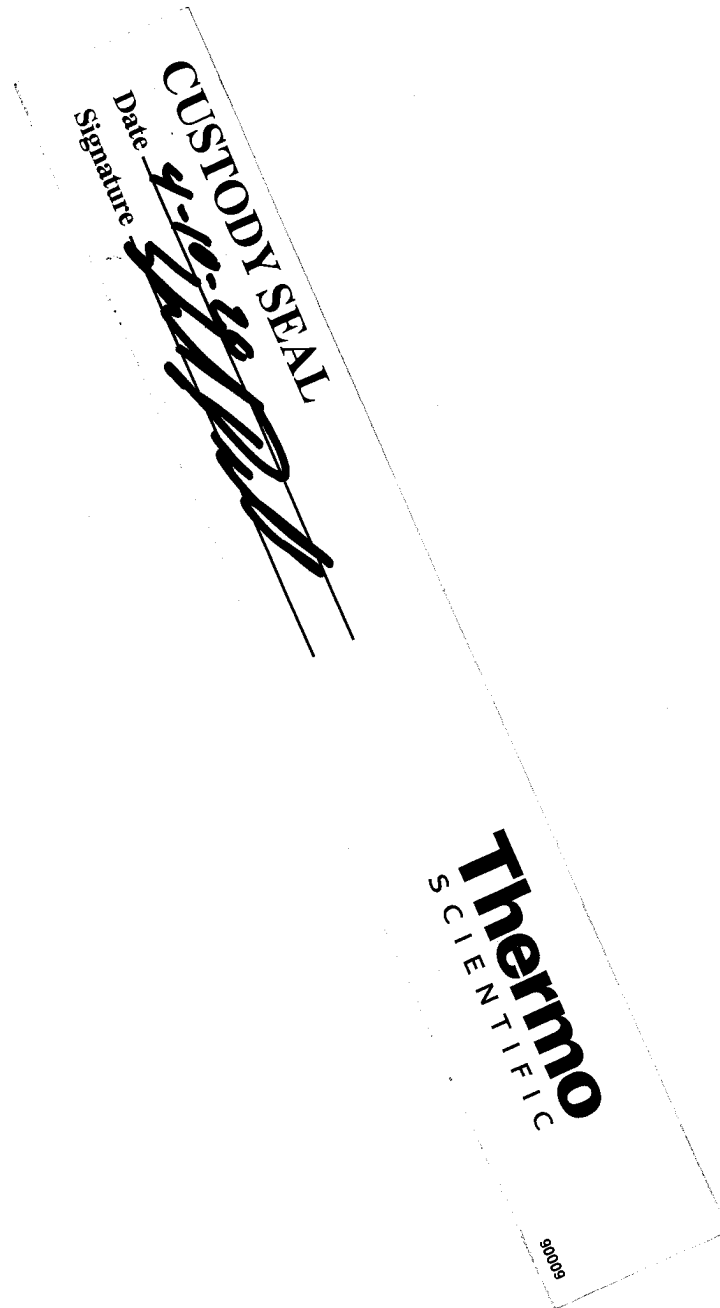
www.xenco.com

Page 7 of 7

Project Manager:		Beaux JENNINGS	Bill to: (if different)	
Company Name:		Ensolum LLC	Company Name:	
Address:		705 W Wadley #210	Address:	
City, State ZIP:		Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com	

Work Order Comments	
Program: UST/PSR ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

[illegible]



Inter-Office Shipment

IOS Number : **61944**

Date/Time: 04.10.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770218072540

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
658558-001	W	Levey Well	04.10.2020 09:20	SW8260C	VOCs by SW-846 8260C	04.13.2020	04.24.2020	JKR	BDCME BRBZ BRCLME	
658558-001	W	Levey Well	04.10.2020 09:20	E200.7	Recoverable Metals per ICP by EPA 200	04.13.2020	10.07.2020	JKR	CA K MG NA SI	
658558-001	W	Levey Well	04.10.2020 09:20	E300	Inorganic Anions by EPA 300/300.1	04.13.2020	04.12.2020 09:20	JKR	BR CL F NO2N NO3N SC	
658558-001	W	Levey Well	04.10.2020 09:20	SM4500-H	pH by SM4500-H	04.13.2020	04.10.2020 09:35	JKR		
658558-001	W	Levey Well	04.10.2020 09:20	SM2540C	TDS by SM2540C	04.13.2020	04.17.2020	JKR	TDS	
658558-001	W	Levey Well	04.10.2020 09:20	SM2320B	Alkalinity by SM2320B	04.13.2020	04.24.2020	JKR	ALK ALKB ALKC	
658558-001	W	Levey Well	04.10.2020 09:20	SM1030E	Cation-Anion Balance Calculation	04.13.2020	05.10.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 04.10.2020

Received By:



Monica Benavides

Date Received: 04.11.2020

Cooler Temperature: 1.9



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 61944

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 04.10.2020 12.03 PM

Received By: Monica Benavides

Date Received: 04.11.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Benavides

Date: 04.11.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 04.10.2020 11.36.00 AM

Work Order #: 658558

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 04.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.13.2020



Certificate of Analysis Summary 659203

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.17.2020 15:48
Report Date: 04.20.2020 19:04
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659203-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.17.2020 00:00					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 04.20.2020 09:19 Analyzed: 04.20.2020 10:12 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1180 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1180 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 04.20.2020 16:55 Units/RL: % RL					
Cation-Anion Balance	1.70					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: *** ** * Analyzed: 04.18.2020 11:55 Units/RL: mg/L RL					
Bromide	0.590 0.500					
Chloride	353 X 0.500					
Fluoride	0.691 0.500					
Nitrate as N	0.165 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	59.7 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659203

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.17.2020 15:48
Report Date: 04.20.2020 19:04
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	659203-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	04.17.2020 00:00					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	04.20.2020 09:30					
	Analyzed:	04.20.2020 15:23					
	Units/RL:	mg/L RL					
	Calcium	406 D 10.0					
	Magnesium	73.2 0.400					
	Potassium	5.40 0.500					
	Silica	65.0 X 1.07					
	Sodium	108 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	04.20.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1750 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659203

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.17.2020 15:48
Report Date: 04.20.2020 19:04
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659203-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.17.2020 00:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.20.2020 10:30 Analyzed: 04.20.2020 12:44 Units/RL: mg/L RL					
Benzene	0.00610 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00238 0.00100					
Sec-Butylbenzene	0.00321 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00175 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659203

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.17.2020 15:48
Report Date: 04.20.2020 19:04
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659203-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.17.2020 00:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.20.2020 10:30 Analyzed: 04.20.2020 12:44 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0253 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0164 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0280 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 659203

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.17.2020 15:48
Report Date: 04.20.2020 19:04
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659203-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.17.2020 00:00					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.20.2020 10:30 Analyzed: 04.20.2020 12:44 Units/RL: mg/L RL					
Toluene	0.0258 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.220 D 0.0100					
1,3,5-Trimethylbenzene	0.0562 0.00100					
o-Xylene	0.0141 0.00100					
m,p-Xylenes	0.0814 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0955 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.20.2020 15:22 Units/RL: Deg C RL					
Temperature	24.4 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.20.2020 15:22 Units/RL: SU RL					
pH	6.51 K					

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Jessica Kramer
Project Manager



Analytical Report 659203

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

04.20.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



04.20.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **659203**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 659203. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 659203 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 659203

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	04.17.2020 00:00		659203-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 659203

Report Date: 04.20.2020
Date Received: 04.17.2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123410 Inorganic Anions by EPA 300/300.1

Lab Sample ID 659203-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 659203-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3123503 VOCs by SW-846 8260C

Lab Sample ID 659203-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloroethane, Naphthalene recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 659203-001.

The Laboratory Control Sample for Naphthalene, Chloroethane is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3123506 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 659203-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 659203-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 659203

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.17.2020 15:48

Lab Sample Id: 659203-001

Date Collected: 04.17.2020 00:00

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 04.20.2020 09:19

Seq Number: 3123453

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1180	4.00	mg/L	04.20.2020 10:12		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1180	4.00	mg/L	04.20.2020 10:12		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	04.20.2020 10:12	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	04.20.2020 10:12	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3123517

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.70		%	04.20.2020 16:55		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 04.17.2020 10:30

Seq Number: 3123410

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.590	0.500	mg/L	04.18.2020 11:55		1
Chloride	16887-00-6	353	0.500	mg/L	04.18.2020 11:55	X	1
Fluoride	16984-48-8	0.691	0.500	mg/L	04.18.2020 11:55		1
Nitrate as N	14797-55-8	0.165	0.100	mg/L	04.18.2020 11:55		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	04.18.2020 11:55	U	1
Sulfate	14808-79-8	59.7	0.500	mg/L	04.18.2020 11:55		1



Certificate of Analytical Results 659203

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.17.2020 15:48

Lab Sample Id: 659203-001

Date Collected: 04.17.2020 00:00

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3123437

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1750	5.00	mg/L	04.20.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3123496

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.51		SU	04.20.2020 15:22	K	1
Temperature	TEMP	24.4		Deg C	04.20.2020 15:22	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 04.20.2020 09:30

Seq Number: 3123506

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	406	10.0	mg/L	04.20.2020 15:44	D	50
Magnesium	7439-95-4	73.2	0.400	mg/L	04.20.2020 15:23		1
Potassium	7440-09-7	5.40	0.500	mg/L	04.20.2020 15:23		1
Silica	7631-86-9	65.0	1.07	mg/L	04.20.2020 15:23	X	1
Sodium	7440-23-5	108	0.500	mg/L	04.20.2020 15:23		1



Certificate of Analytical Results 659203

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.17.2020 15:48

Lab Sample Id: 659203-001

Date Collected: 04.17.2020 00:00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.20.2020 10:30

Seq Number: 3123503

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00610	0.00100	mg/L	04.20.2020 12:44		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	04.20.2020 12:44	U	1
n-Butylbenzene	104-51-8	0.00238	0.00100	mg/L	04.20.2020 12:44		1
Sec-Butylbenzene	135-98-8	0.00321	0.00100	mg/L	04.20.2020 12:44		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	04.20.2020 12:44	UX	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	04.20.2020 12:44	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00175	0.00100	mg/L	04.20.2020 12:44		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Ethylbenzene	100-41-4	0.0253	0.00100	mg/L	04.20.2020 12:44		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1



Certificate of Analytical Results 659203

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.17.2020 15:48

Lab Sample Id: 659203-001

Date Collected: 04.17.2020 00:00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.20.2020 10:30

Seq Number: 3123503

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0164	0.00100	mg/L	04.20.2020 12:44		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	04.20.2020 12:44	UX	1
n-Propylbenzene	103-65-1	0.0280	0.00100	mg/L	04.20.2020 12:44		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Toluene	108-88-3	0.0258	0.00100	mg/L	04.20.2020 12:44		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	04.20.2020 12:44	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	04.20.2020 12:44	U	1
1,2,4-Trimethylbenzene	95-63-6	0.220	0.0100	mg/L	04.20.2020 13:10	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0562	0.00100	mg/L	04.20.2020 12:44		1
o-Xylene	95-47-6	0.0141	0.00100	mg/L	04.20.2020 12:44		1
m,p-Xylenes	179601-23-1	0.0814	0.0100	mg/L	04.20.2020 12:44		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	04.20.2020 12:44	U	1
Total Xylenes	1330-20-7	0.0955	0.00100	mg/L	04.20.2020 12:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	75-131	04.20.2020 12:44	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	04.20.2020 12:44	
Toluene-D8	2037-26-5	100	%	80-117	04.20.2020 12:44	
4-Bromofluorobenzene	460-00-4	97	%	74-124	04.20.2020 12:44	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3123453

MB Sample Id: 7701544-1-BLK

Matrix: Water

LCS Sample Id: 7701544-1-BKS

Prep Method: SM2320P

Date Prep: 04.20.2020

LCSD Sample Id: 7701544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	261	104	266	106	85-115	2	20	mg/L	04.20.2020 09:51	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3123453

Matrix: Water

MB Sample Id: 7701544-1-BLK

Prep Method: SM2320P

Date Prep: 04.20.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	04.20.2020 09:44	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	04.20.2020 09:44	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	04.20.2020 09:44	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3123453

Matrix: Ground Water

Parent Sample Id: 659203-001

MD Sample Id: 659203-001 D

Prep Method: SM2320P

Date Prep: 04.20.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1180	1170	1	20	mg/L	04.20.2020 10:25	
Alkalinity, Bicarbonate (as CaCO3)	1180	1170	1	20	mg/L	04.20.2020 10:25	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	04.20.2020 10:25	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	04.20.2020 10:25	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3123410

Matrix: Water

MB Sample Id: 7701542-1-BLK

LCS Sample Id: 7701542-1-BKS

Prep Method: E300P

Date Prep: 04.17.2020

LCSD Sample Id: 7701542-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.8	108	11.0	110	90-110	2	20	mg/L	04.18.2020 11:31	
Chloride	<0.500	10.0	10.8	108	11.0	110	90-110	2	20	mg/L	04.18.2020 11:31	
Fluoride	<0.500	10.0	10.7	107	10.8	108	90-110	1	20	mg/L	04.18.2020 11:31	
Nitrate as N	<0.100	10.0	10.5	105	10.7	107	90-110	2	20	mg/L	04.18.2020 11:31	
Nitrite as N	<0.100	10.0	9.80	98	9.91	99	90-110	1	20	mg/L	04.18.2020 11:31	
Sulfate	<0.500	10.0	10.3	103	10.5	105	90-110	2	20	mg/L	04.18.2020 11:31	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3123410

Matrix: Ground Water

Prep Method: E300P

Date Prep: 04.17.2020

Parent Sample Id: 659203-001

MS Sample Id: 659203-001 S

MSD Sample Id: 659203-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.590	10.0	11.0	104	11.1	105	90-110	1	20	mg/L	04.18.2020 12:07	
Chloride	353	10.0	356	30	356	30	90-110	0	20	mg/L	04.18.2020 12:07	X
Fluoride	0.691	10.0	10.6	99	10.7	100	90-110	1	20	mg/L	04.18.2020 12:07	
Nitrate as N	0.165	10.0	10.3	101	10.3	101	90-110	0	20	mg/L	04.18.2020 12:07	
Nitrite as N	<0.100	10.0	9.50	95	9.51	95	90-110	0	20	mg/L	04.18.2020 12:07	
Sulfate	59.7	10.0	68.7	90	68.7	90	90-110	0	20	mg/L	04.18.2020 12:07	

Analytical Method: TDS by SM2540C

Seq Number: 3123437

Matrix: Water

MB Sample Id: 3123437-1-BLK

LCS Sample Id: 3123437-1-BKS

LCSD Sample Id: 3123437-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1000	100	80-120	1	10	mg/L	04.20.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3123437

Matrix: Ground Water

Parent Sample Id: 659203-001

MD Sample Id: 659203-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1750	1620	8	10	mg/L	04.20.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3123496

Matrix: Waste Water

Parent Sample Id: 658930-001

MD Sample Id: 658930-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.94	7.93	0	20	SU	04.20.2020 15:22	
Temperature	24.5	24.6	0	20	Deg C	04.20.2020 15:22	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3123506

Matrix: Water

MB Sample Id: 7701571-1-BLK

LCS Sample Id: 7701571-1-BKS

Prep Method: E200.7P

Date Prep: 04.20.2020

LCSD Sample Id: 7701571-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.0	96	23.9	96	85-115	0	20	mg/L	04.20.2020 15:14	
Magnesium	<0.400	25.0	24.1	96	24.0	96	85-115	0	20	mg/L	04.20.2020 15:14	
Potassium	<0.500	10.0	9.54	95	9.54	95	85-115	0	20	mg/L	04.20.2020 15:14	
Silica	<1.07	21.4	20.1	94	20.1	94	85-115	0	20	mg/L	04.20.2020 15:14	
Sodium	<0.500	25.0	24.5	98	24.4	98	85-115	0	20	mg/L	04.20.2020 15:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3123506

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 04.20.2020

Parent Sample Id: 659203-001

MS Sample Id: 659203-001 S

MSD Sample Id: 659203-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	403	25.0	428	100	430	108	70-130	0	20	mg/L	04.20.2020 15:27	
Magnesium	73.2	25.0	99.8	106	100	107	70-130	0	20	mg/L	04.20.2020 15:27	
Potassium	5.40	10.0	16.3	109	16.3	109	70-130	0	20	mg/L	04.20.2020 15:27	
Silica	65.0	21.4	102	173	102	173	70-130	0	20	mg/L	04.20.2020 15:27	X
Sodium	108	25.0	134	104	136	112	70-130	1	20	mg/L	04.20.2020 15:27	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3123503

Matrix: Water

Prep Method: SW5030B

Date Prep: 04.20.2020

MB Sample Id: 7701613-1-BLK

LCS Sample Id: 7701613-1-BKS

LCSD Sample Id: 7701613-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0519	104	0.0500	100	66-142	4	25	mg/L	04.20.2020 09:47	
Bromobenzene	<0.00100	0.0500	0.0494	99	0.0509	102	75-125	3	25	mg/L	04.20.2020 09:47	
Bromochloromethane	<0.00100	0.0500	0.0510	102	0.0495	99	60-140	3	25	mg/L	04.20.2020 09:47	
Bromodichloromethane	<0.00100	0.0500	0.0544	109	0.0529	106	75-125	3	25	mg/L	04.20.2020 09:47	
Bromoform	<0.00500	0.0500	0.0568	114	0.0560	112	75-125	1	25	mg/L	04.20.2020 09:47	
Methyl bromide	<0.00500	0.0500	0.0487	97	0.0459	92	60-140	6	25	mg/L	04.20.2020 09:47	
2-Butanone	<0.0500	0.250	0.245	98	0.254	102	60-140	4	25	mg/L	04.20.2020 09:47	
n-Butylbenzene	<0.00100	0.0500	0.0500	100	0.0484	97	75-125	3	25	mg/L	04.20.2020 09:47	
Sec-Butylbenzene	<0.00100	0.0500	0.0489	98	0.0483	97	75-125	1	25	mg/L	04.20.2020 09:47	
tert-Butylbenzene	<0.00100	0.0500	0.0517	103	0.0524	105	75-125	1	25	mg/L	04.20.2020 09:47	
Carbon Tetrachloride	<0.00500	0.0500	0.0547	109	0.0513	103	62-125	6	25	mg/L	04.20.2020 09:47	
Chlorobenzene	<0.00100	0.0500	0.0519	104	0.0506	101	60-133	3	25	mg/L	04.20.2020 09:47	
Chloroethane	<0.0100	0.0500	0.0410	82	0.0387	77	60-140	6	25	mg/L	04.20.2020 09:47	
Chloroform	<0.00100	0.0500	0.0518	104	0.0496	99	70-130	4	25	mg/L	04.20.2020 09:47	
Methyl Chloride	<0.0100	0.0500	0.0530	106	0.0498	100	60-140	6	25	mg/L	04.20.2020 09:47	
2-Chlorotoluene	<0.00100	0.0500	0.0502	100	0.0505	101	73-125	1	25	mg/L	04.20.2020 09:47	
4-Chlorotoluene	<0.00100	0.0500	0.0500	100	0.0504	101	74-125	1	25	mg/L	04.20.2020 09:47	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0472	94	0.0463	93	75-125	2	25	mg/L	04.20.2020 09:47	
Dibromochloromethane	<0.00500	0.0500	0.0551	110	0.0548	110	73-125	1	25	mg/L	04.20.2020 09:47	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0471	94	0.0526	105	59-125	11	25	mg/L	04.20.2020 09:47	
1,2-Dibromoethane	<0.00500	0.0500	0.0529	106	0.0535	107	73-125	1	25	mg/L	04.20.2020 09:47	
Methylene Bromide	<0.00100	0.0500	0.0523	105	0.0521	104	69-127	0	25	mg/L	04.20.2020 09:47	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0496	99	0.0504	101	75-125	2	25	mg/L	04.20.2020 09:47	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0498	100	0.0500	100	75-125	0	25	mg/L	04.20.2020 09:47	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0497	99	0.0496	99	75-125	0	25	mg/L	04.20.2020 09:47	
Dichlorodifluoromethane	<0.00100	0.0500	0.0490	98	0.0447	89	60-140	9	25	mg/L	04.20.2020 09:47	
1,1-Dichloroethane	<0.00100	0.0500	0.0545	109	0.0517	103	72-125	5	25	mg/L	04.20.2020 09:47	
1,2-Dichloroethane	<0.00100	0.0500	0.0525	105	0.0522	104	68-127	1	25	mg/L	04.20.2020 09:47	
1,1-Dichloroethene	<0.00100	0.0500	0.0516	103	0.0488	98	59-172	6	25	mg/L	04.20.2020 09:47	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0523	105	0.0497	99	75-125	5	25	mg/L	04.20.2020 09:47	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0517	103	0.0495	99	75-125	4	25	mg/L	04.20.2020 09:47	
1,2-Dichloropropane	<0.00500	0.0500	0.0535	107	0.0517	103	74-125	3	25	mg/L	04.20.2020 09:47	
1,3-Dichloropropane	<0.00500	0.0500	0.0558	112	0.0552	110	75-125	1	25	mg/L	04.20.2020 09:47	
2,2-Dichloropropane	<0.00500	0.0500	0.0563	113	0.0532	106	75-125	6	25	mg/L	04.20.2020 09:47	
1,1-Dichloropropene	<0.00500	0.0500	0.0551	110	0.0524	105	75-125	5	25	mg/L	04.20.2020 09:47	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0543	109	0.0527	105	74-125	3	25	mg/L	04.20.2020 09:47	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0546	109	0.0546	109	66-125	0	25	mg/L	04.20.2020 09:47	
Ethylbenzene	<0.00100	0.0500	0.0528	106	0.0507	101	75-125	4	25	mg/L	04.20.2020 09:47	
Hexachlorobutadiene	<0.00500	0.0500	0.0488	98	0.0494	99	75-125	1	25	mg/L	04.20.2020 09:47	
Isopropylbenzene	<0.00100	0.0500	0.0547	109	0.0525	105	75-125	4	25	mg/L	04.20.2020 09:47	
Methylene Chloride	<0.00500	0.0500	0.0493	99	0.0480	96	75-125	3	25	mg/L	04.20.2020 09:47	
MTBE	<0.00500	0.0500	0.0552	110	0.0551	110	65-135	0	25	mg/L	04.20.2020 09:47	
Naphthalene	<0.0100	0.0500	0.0472	94	0.0596	119	70-130	23	25	mg/L	04.20.2020 09:47	
n-Propylbenzene	<0.00100	0.0500	0.0505	101	0.0508	102	75-125	1	25	mg/L	04.20.2020 09:47	
Styrene	<0.00100	0.0500	0.0546	109	0.0532	106	75-125	3	25	mg/L	04.20.2020 09:47	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0532	106	0.0526	105	72-125	1	25	mg/L	04.20.2020 09:47	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0475	95	0.0511	102	74-125	7	25	mg/L	04.20.2020 09:47	
Tetrachloroethylene	<0.00100	0.0500	0.0550	110	0.0521	104	71-125	5	25	mg/L	04.20.2020 09:47	
Toluene	<0.00100	0.0500	0.0519	104	0.0503	101	59-139	3	25	mg/L	04.20.2020 09:47	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0452	90	0.0558	112	75-137	21	25	mg/L	04.20.2020 09:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3123503

MB Sample Id: 7701613-1-BLK

Matrix: Water

LCS Sample Id: 7701613-1-BKS

Prep Method: SW5030B

Date Prep: 04.20.2020

LCSD Sample Id: 7701613-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0486	97	0.0552	110	75-135	13	25	mg/L	04.20.2020 09:47	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0543	109	0.0515	103	75-125	5	25	mg/L	04.20.2020 09:47	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0542	108	0.0541	108	75-127	0	25	mg/L	04.20.2020 09:47	
Trichloroethylene	<0.00500	0.0500	0.0486	97	0.0464	93	62-137	5	25	mg/L	04.20.2020 09:47	
Trichlorofluoromethane	<0.00100	0.0500	0.0559	112	0.0518	104	60-140	8	25	mg/L	04.20.2020 09:47	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0481	96	0.0509	102	75-125	6	25	mg/L	04.20.2020 09:47	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0484	97	0.0478	96	75-125	1	25	mg/L	04.20.2020 09:47	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0503	101	0.0501	100	70-125	0	25	mg/L	04.20.2020 09:47	
o-Xylene	<0.00100	0.0500	0.0552	110	0.0535	107	75-125	3	25	mg/L	04.20.2020 09:47	
m,p-Xylenes	<0.0100	0.100	0.108	108	0.104	104	75-125	4	25	mg/L	04.20.2020 09:47	
Vinyl Chloride	<0.00200	0.0500	0.0498	100	0.0468	94	60-140	6	25	mg/L	04.20.2020 09:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		100		101		75-131	%	04.20.2020 09:47
1,2-Dichloroethane-D4	99		99		101		63-144	%	04.20.2020 09:47
Toluene-D8	98		100		100		80-117	%	04.20.2020 09:47
4-Bromofluorobenzene	101		96		100		74-124	%	04.20.2020 09:47

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3123503

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 04.20.2020

Parent Sample Id: 659203-001

MS Sample Id: 659203-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00610	0.0500	0.0593	106	66-142	mg/L	04.20.2020 10:46	
Bromobenzene	<0.00100	0.0500	0.0513	103	75-125	mg/L	04.20.2020 10:46	
Bromochloromethane	<0.00100	0.0500	0.0520	104	60-140	mg/L	04.20.2020 10:46	
Bromodichloromethane	<0.00100	0.0500	0.0547	109	75-125	mg/L	04.20.2020 10:46	
Bromoform	<0.00500	0.0500	0.0530	106	75-125	mg/L	04.20.2020 10:46	
Methyl bromide	<0.00500	0.0500	0.0469	94	60-140	mg/L	04.20.2020 10:46	
2-Butanone	0.0103	0.250	0.248	95	60-140	mg/L	04.20.2020 10:46	
n-Butylbenzene	0.00238	0.0500	0.0537	103	75-125	mg/L	04.20.2020 10:46	
Sec-Butylbenzene	0.00321	0.0500	0.0543	102	75-125	mg/L	04.20.2020 10:46	
tert-Butylbenzene	<0.00100	0.0500	0.0545	109	75-125	mg/L	04.20.2020 10:46	
Carbon Tetrachloride	<0.00500	0.0500	0.0571	114	62-125	mg/L	04.20.2020 10:46	
Chlorobenzene	<0.00100	0.0500	0.0524	105	60-133	mg/L	04.20.2020 10:46	
Chloroethane	<0.0100	0.0500	0.0725	145	60-140	mg/L	04.20.2020 10:46	X
Chloroform	<0.00100	0.0500	0.0520	104	70-130	mg/L	04.20.2020 10:46	
Methyl Chloride	<0.0100	0.0500	0.0541	108	60-140	mg/L	04.20.2020 10:46	
2-Chlorotoluene	<0.00100	0.0500	0.0527	105	73-125	mg/L	04.20.2020 10:46	
4-Chlorotoluene	<0.00100	0.0500	0.0577	115	74-125	mg/L	04.20.2020 10:46	
p-Cymene (p-Isopropyltoluene)	0.00175	0.0500	0.0503	97	75-125	mg/L	04.20.2020 10:46	
Dibromochloromethane	<0.00500	0.0500	0.0540	108	73-125	mg/L	04.20.2020 10:46	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0516	103	59-125	mg/L	04.20.2020 10:46	
1,2-Dibromoethane	<0.00500	0.0500	0.0525	105	73-125	mg/L	04.20.2020 10:46	
Methylene Bromide	<0.00100	0.0500	0.0514	103	69-127	mg/L	04.20.2020 10:46	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0500	100	75-125	mg/L	04.20.2020 10:46	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0514	103	75-125	mg/L	04.20.2020 10:46	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0509	102	75-125	mg/L	04.20.2020 10:46	
Dichlorodifluoromethane	<0.00100	0.0500	0.0521	104	60-140	mg/L	04.20.2020 10:46	
1,1-Dichloroethane	<0.00100	0.0500	0.0538	108	72-125	mg/L	04.20.2020 10:46	
1,2-Dichloroethane	<0.00100	0.0500	0.0526	105	68-127	mg/L	04.20.2020 10:46	
1,1-Dichloroethene	<0.00100	0.0500	0.0544	109	59-172	mg/L	04.20.2020 10:46	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0526	105	75-125	mg/L	04.20.2020 10:46	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0531	106	75-125	mg/L	04.20.2020 10:46	
1,2-Dichloropropane	<0.00500	0.0500	0.0552	110	74-125	mg/L	04.20.2020 10:46	
1,3-Dichloropropane	<0.00500	0.0500	0.0550	110	75-125	mg/L	04.20.2020 10:46	
2,2-Dichloropropane	<0.00500	0.0500	0.0580	116	75-125	mg/L	04.20.2020 10:46	
1,1-Dichloropropene	<0.00500	0.0500	0.0590	118	75-125	mg/L	04.20.2020 10:46	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0545	109	74-125	mg/L	04.20.2020 10:46	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0548	110	66-125	mg/L	04.20.2020 10:46	
Ethylbenzene	0.0253	0.0500	0.0807	111	75-125	mg/L	04.20.2020 10:46	
Hexachlorobutadiene	<0.00500	0.0500	0.0539	108	75-125	mg/L	04.20.2020 10:46	
Isopropylbenzene	0.0164	0.0500	0.0725	112	75-125	mg/L	04.20.2020 10:46	
Methylene Chloride	<0.00500	0.0500	0.0495	99	75-125	mg/L	04.20.2020 10:46	
MTBE	<0.00500	0.0500	0.0556	111	65-135	mg/L	04.20.2020 10:46	
Naphthalene	<0.00200	0.0500	0.0659	132	70-130	mg/L	04.20.2020 10:46	X
n-Propylbenzene	0.0280	0.0500	0.0840	112	75-125	mg/L	04.20.2020 10:46	
Styrene	<0.00100	0.0500	0.0553	111	75-125	mg/L	04.20.2020 10:46	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0538	108	72-125	mg/L	04.20.2020 10:46	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0510	102	74-125	mg/L	04.20.2020 10:46	
Tetrachloroethylene	<0.00100	0.0500	0.0565	113	71-125	mg/L	04.20.2020 10:46	
Toluene	0.0258	0.0500	0.0814	111	59-139	mg/L	04.20.2020 10:46	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0625	125	75-137	mg/L	04.20.2020 10:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3123503

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 659203-001

MS Sample Id: 659203-001 S

Date Prep: 04.20.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00200	0.0500	0.0593	119	75-135	mg/L	04.20.2020 10:46	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0559	112	75-125	mg/L	04.20.2020 10:46	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0584	117	75-127	mg/L	04.20.2020 10:46	
Trichloroethylene	<0.00500	0.0500	0.0494	99	62-137	mg/L	04.20.2020 10:46	
Trichlorofluoromethane	<0.00100	0.0500	0.0610	122	60-140	mg/L	04.20.2020 10:46	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0476	95	75-125	mg/L	04.20.2020 10:46	
1,2,4-Trimethylbenzene	0.207	0.0500	0.265	116	75-125	mg/L	04.20.2020 10:46	
1,3,5-Trimethylbenzene	0.0562	0.0500	0.112	112	70-125	mg/L	04.20.2020 10:46	
o-Xylene	0.0141	0.0500	0.0708	113	75-125	mg/L	04.20.2020 10:46	
m,p-Xylenes	0.0814	0.100	0.195	114	75-125	mg/L	04.20.2020 10:46	
Vinyl Chloride	<0.00200	0.0500	0.0521	104	60-140	mg/L	04.20.2020 10:46	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	04.20.2020 10:46
1,2-Dichloroethane-D4	101		63-144	%	04.20.2020 10:46
Toluene-D8	101		80-117	%	04.20.2020 10:46
4-Bromofluorobenzene	98		74-124	%	04.20.2020 10:46

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

1059203

Houston, TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-365-0900) Atlanta, GA (770-449-8300) Tampa, FL (813-620-2000)

www.xenco.com Page 7 of 7

Project Manager:	Bea Jannings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP	
Phone:	432-230-3344	Email:	jennings@ensolum.com

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

Project Name:	Levey Well Hobbs NM	Turn Around	
Project Number:	03B1417001	Route: ☐	
P.O. Number:	03B1417001	Rush: 24 hr	
Sampler's Name:	Shane Dillar	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes ☒ No ☐	W at Ice:	Yes ☒ No ☐
Temperature (°C):	19.14	Thermometer ID		
Received Inact:	Yes ☒ No ☐	Correction Factor:		
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:		
Sample Custody Seals:	Yes ☒ No ☐			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
Levey Well	GW	4/17/2020	0:00	

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

TAT starts the day received by the lab.
 if received by 4:30pm

Sample Comments

24hr

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

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
		4/17			2
					4
					6

60006
Thermo
SCIENTIFIC

TEST SEAL
4-17-23
re

Inter-Office Shipment

IOS Number : **62302**

Date/Time: 04.17.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770266640597

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
659203-001	W	Levey Well	04.17.2020 00:00	SW8260C	VOCs by SW-846 8260C	04.20.2020	05.01.2020	JKR	BDCME BRBZ BRCLME	
659203-001	W	Levey Well	04.17.2020 00:00	E200.7	Recoverable Metals per ICP by EPA 200	04.20.2020	10.14.2020	JKR	CA K MG NA SI	
659203-001	W	Levey Well	04.17.2020 00:00	E300	Inorganic Anions by EPA 300/300.1	04.20.2020	04.19.2020 00:00	JKR	BR CL F NO2N NO3N S	
659203-001	W	Levey Well	04.17.2020 00:00	SM4500-H	pH by SM4500-H	04.20.2020	04.17.2020 00:15	JKR		
659203-001	W	Levey Well	04.17.2020 00:00	SM2540C	TDS by SM2540C	04.20.2020	04.24.2020	JKR	TDS	
659203-001	W	Levey Well	04.17.2020 00:00	SM2320B	Alkalinity by SM2320B	04.20.2020	05.01.2020	JKR	ALK ALKB ALKC	
659203-001	W	Levey Well	04.17.2020 00:00	SM1030E	Cation-Anion Balance Calculation	04.20.2020	05.17.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 04.17.2020

Received By:



Jhyrom Edralin

Date Received: 04.18.2020

Cooler Temperature: 2.2



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 62302

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 04.17.2020 03.54 PM

Received By: Lesia Minor

Date Received: 04.18.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 04.18.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 04.17.2020 03.48.00 PM

Work Order #: 659203

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 04.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.20.2020



Certificate of Analysis Summary 659771

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.24.2020 14:28
Report Date: 04.27.2020 18:33
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659771-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.24.2020 12:15					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 04.27.2020 10:18 Analyzed: 04.27.2020 11:07 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1130 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1130 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 04.27.2020 16:50 Units/RL: % RL					
Cation-Anion Balance	0.600					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 04.25.2020 10:30 Analyzed: 04.25.2020 11:18 Units/RL: mg/L RL					
Bromide	0.595 0.500					
Chloride	370 D 5.00					
Fluoride	0.723 0.500					
Nitrate as N	0.152 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	61.2 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659771

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.24.2020 14:28
 Report Date: 04.27.2020 18:33
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	659771-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	04.24.2020 12:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted:	04.27.2020 09:00					
	Analyzed:	04.27.2020 13:58					
	Units/RL:	mg/L RL					
	Calcium	408 D 10.0					
	Magnesium	75.2 0.400					
	Potassium	5.55 0.500					
	Silica	70.5 1.07					
	Sodium	113 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted:						
	Analyzed:	04.27.2020 09:10					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1810 5.00					

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Jessica Kramer
 Project Manager



Certificate of Analysis Summary 659771

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.24.2020 14:28
Report Date: 04.27.2020 18:33
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659771-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.24.2020 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.27.2020 10:55 Analyzed: 04.27.2020 13:09 Units/RL: mg/L RL					
Benzene	0.00550 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00297 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00179 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659771

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.24.2020 14:28
Report Date: 04.27.2020 18:33
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659771-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.24.2020 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.27.2020 10:55 Analyzed: 04.27.2020 13:09 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0225 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0148 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0251 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 659771

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 04.24.2020 14:28
Report Date: 04.27.2020 18:33
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659771-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 04.24.2020 12:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 04.27.2020 10:55 Analyzed: 04.27.2020 13:09 Units/RL: mg/L RL					
Toluene	0.0241 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.199 D 0.0100					
1,3,5-Trimethylbenzene	0.0526 0.00100					
o-Xylene	0.0125 0.00100					
m,p-Xylenes	0.0756 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0881 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.27.2020 14:30 Units/RL: Deg C RL					
Temperature	24.4 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 04.27.2020 14:30 Units/RL: SU RL					
pH	6.32 K					

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Jessica Kramer
Project Manager



Analytical Report 659771

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

04.27.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



04.27.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **659771**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 659771. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 659771 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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Sample Cross Reference 659771

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	04.24.2020 12:15		659771-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 659771

Report Date: 04.27.2020
Date Received: 04.24.2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 659771

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.24.2020 14:28

Lab Sample Id: 659771-001

Date Collected: 04.24.2020 12:15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 04.27.2020 10:18

Seq Number: 3124232

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1130	4.00	mg/L	04.27.2020 11:07		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1130	4.00	mg/L	04.27.2020 11:07		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	04.27.2020 11:07	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	04.27.2020 11:07	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3124273

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.600		%	04.27.2020 16:50		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 04.25.2020 10:30

Seq Number: 3124157

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.595	0.500	mg/L	04.25.2020 11:18		1
Chloride	16887-00-6	370	5.00	mg/L	04.25.2020 12:30	D	10
Fluoride	16984-48-8	0.723	0.500	mg/L	04.25.2020 11:18		1
Nitrate as N	14797-55-8	0.152	0.100	mg/L	04.25.2020 11:18		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	04.25.2020 11:18	U	1
Sulfate	14808-79-8	61.2	0.500	mg/L	04.25.2020 11:18		1



Certificate of Analytical Results 659771

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.24.2020 14:28

Lab Sample Id: 659771-001

Date Collected: 04.24.2020 12:15

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3124251

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1810	5.00	mg/L	04.27.2020 09:10		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3124247

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.32		SU	04.27.2020 14:30	K	1
Temperature	TEMP	24.4		Deg C	04.27.2020 14:30	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 04.27.2020 09:00

Seq Number: 3124265

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	408	10.0	mg/L	04.27.2020 14:02	D	50
Magnesium	7439-95-4	75.2	0.400	mg/L	04.27.2020 13:58		1
Potassium	7440-09-7	5.55	0.500	mg/L	04.27.2020 13:58		1
Silica	7631-86-9	70.5	1.07	mg/L	04.27.2020 13:58		1
Sodium	7440-23-5	113	0.500	mg/L	04.27.2020 13:58		1



Certificate of Analytical Results 659771

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.24.2020 14:28

Lab Sample Id: 659771-001

Date Collected: 04.24.2020 12:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.27.2020 10:55

Seq Number: 3124266

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00550	0.00100	mg/L	04.27.2020 13:09		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	04.27.2020 13:09	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Sec-Butylbenzene	135-98-8	0.00297	0.00100	mg/L	04.27.2020 13:09		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	04.27.2020 13:09	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	04.27.2020 13:09	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00179	0.00100	mg/L	04.27.2020 13:09		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Ethylbenzene	100-41-4	0.0225	0.00100	mg/L	04.27.2020 13:09		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1



Certificate of Analytical Results 659771

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 04.24.2020 14:28

Lab Sample Id: 659771-001

Date Collected: 04.24.2020 12:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 04.27.2020 10:55

Seq Number: 3124266

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0148	0.00100	mg/L	04.27.2020 13:09		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	04.27.2020 13:09	U	1
n-Propylbenzene	103-65-1	0.0251	0.00100	mg/L	04.27.2020 13:09		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Toluene	108-88-3	0.0241	0.00100	mg/L	04.27.2020 13:09		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	04.27.2020 13:09	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	04.27.2020 13:09	U	1
1,2,4-Trimethylbenzene	95-63-6	0.199	0.0100	mg/L	04.27.2020 13:35	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0526	0.00100	mg/L	04.27.2020 13:09		1
o-Xylene	95-47-6	0.0125	0.00100	mg/L	04.27.2020 13:09		1
m,p-Xylenes	179601-23-1	0.0756	0.0100	mg/L	04.27.2020 13:09		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	04.27.2020 13:09	U	1
Total Xylenes	1330-20-7	0.0881	0.00100	mg/L	04.27.2020 13:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	75-131	04.27.2020 13:09	
1,2-Dichloroethane-D4	17060-07-0	100	%	63-144	04.27.2020 13:09	
Toluene-D8	2037-26-5	98	%	80-117	04.27.2020 13:09	
4-Bromofluorobenzene	460-00-4	94	%	74-124	04.27.2020 13:09	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124232

MB Sample Id: 7702062-1-BLK

Matrix: Water

LCS Sample Id: 7702062-1-BKS

Prep Method: SM2320P

Date Prep: 04.27.2020

LCSD Sample Id: 7702062-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	253	101	255	102	85-115	1	20	mg/L	04.27.2020 10:48	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124232

Matrix: Water

MB Sample Id: 7702062-1-BLK

Prep Method: SM2320P

Date Prep: 04.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	04.27.2020 10:41	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	04.27.2020 10:41	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	04.27.2020 10:41	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124232

Matrix: Ground Water

Parent Sample Id: 659771-001

MD Sample Id: 659771-001 D

Prep Method: SM2320P

Date Prep: 04.27.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1130	1130	0	20	mg/L	04.27.2020 11:20	
Alkalinity, Bicarbonate (as CaCO ₃)	1130	1130	0	20	mg/L	04.27.2020 11:20	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	04.27.2020 11:20	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	04.27.2020 11:20	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124157

Matrix: Water

MB Sample Id: 7702052-1-BLK

LCS Sample Id: 7702052-1-BKS

Prep Method: E300P

Date Prep: 04.25.2020

LCSD Sample Id: 7702052-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	04.25.2020 10:53	
Chloride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	04.25.2020 10:53	
Fluoride	<0.500	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	04.25.2020 10:53	
Nitrate as N	<0.100	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	04.25.2020 10:53	
Nitrite as N	<0.100	10.0	9.86	99	9.94	99	90-110	1	20	mg/L	04.25.2020 10:53	
Sulfate	<0.500	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	04.25.2020 10:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124157

Matrix: Ground Water

Prep Method: E300P

Date Prep: 04.25.2020

Parent Sample Id: 659771-001

MS Sample Id: 659771-001 S

MSD Sample Id: 659771-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.595	10.0	10.6	100	10.6	100	90-110	0	20	mg/L	04.25.2020 11:30	
Fluoride	0.723	10.0	10.1	94	10.1	94	90-110	0	20	mg/L	04.25.2020 11:30	
Nitrate as N	0.152	10.0	9.88	97	9.89	97	90-110	0	20	mg/L	04.25.2020 11:30	
Nitrite as N	<0.100	10.0	9.49	95	9.51	95	90-110	0	20	mg/L	04.25.2020 11:30	
Sulfate	61.2	10.0	70.2	90	70.3	91	90-110	0	20	mg/L	04.25.2020 11:30	

Analytical Method: TDS by SM2540C

Seq Number: 3124251

Matrix: Water

MB Sample Id: 3124251-1-BLK

LCS Sample Id: 3124251-1-BKS

LCSD Sample Id: 3124251-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1010	101	80-120	0	10	mg/L	04.27.2020 09:10	

Analytical Method: TDS by SM2540C

Seq Number: 3124251

Matrix: Water

Parent Sample Id: 659284-001

MD Sample Id: 659284-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	905	868	4	10	mg/L	04.27.2020 09:10	

Analytical Method: TDS by SM2540C

Seq Number: 3124251

Matrix: Ground Water

Parent Sample Id: 659400-003

MD Sample Id: 659400-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1280	1220	5	10	mg/L	04.27.2020 09:10	

Analytical Method: pH by SM4500-H

Seq Number: 3124247

Matrix: Ground Water

Parent Sample Id: 659539-001

MD Sample Id: 659539-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.14	7.15	0	20	SU	04.27.2020 14:30	
Temperature	25.1	25.2	0	20	Deg C	04.27.2020 14:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: pH by SM4500-H

Seq Number: 3124247

Matrix: Ground Water

Parent Sample Id: 659539-011

MD Sample Id: 659539-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.16	7.17	0	20	SU	04.27.2020 14:30	
Temperature	25.5	25.5	0	20	Deg C	04.27.2020 14:30	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124265

Matrix: Water

MB Sample Id: 7702100-1-BLK

LCS Sample Id: 7702100-1-BKS

Prep Method: E200.7P

Date Prep: 04.27.2020

LCSD Sample Id: 7702100-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.1	100	25.2	101	85-115	0	20	mg/L	04.27.2020 13:20	
Magnesium	<0.400	25.0	24.5	98	24.6	98	85-115	0	20	mg/L	04.27.2020 13:20	
Potassium	<0.500	10.0	10.1	101	10.0	100	85-115	1	20	mg/L	04.27.2020 13:20	
Silica	<1.07	21.4	21.6	101	21.7	101	85-115	0	20	mg/L	04.27.2020 13:20	
Sodium	<0.500	25.0	25.1	100	25.1	100	85-115	0	20	mg/L	04.27.2020 13:20	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124265

Matrix: Waste Water

Parent Sample Id: 659483-001

MS Sample Id: 659483-001 S

Prep Method: E200.7P

Date Prep: 04.27.2020

MSD Sample Id: 659483-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	41.6	25.0	68.8	109	68.8	109	70-130	0	20	mg/L	04.27.2020 13:33	
Magnesium	23.3	25.0	49.7	106	49.7	106	70-130	0	20	mg/L	04.27.2020 13:33	
Potassium	5.99	10.0	17.0	110	17.0	110	70-130	0	20	mg/L	04.27.2020 13:33	
Silica	16.4	21.4	40.5	113	40.5	113	70-130	0	20	mg/L	04.27.2020 13:33	
Sodium	61.1	25.0	88.9	111	89.1	112	70-130	0	20	mg/L	04.27.2020 13:33	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124265

Matrix: Waste Water

Parent Sample Id: 659484-001

MS Sample Id: 659484-001 S

Prep Method: E200.7P

Date Prep: 04.27.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	103	25.0	125	88	70-130	mg/L	04.27.2020 14:53	
Magnesium	17.2	25.0	42.0	99	70-130	mg/L	04.27.2020 14:53	
Potassium	20.9	10.0	31.1	102	70-130	mg/L	04.27.2020 14:53	
Silica	13.1	21.4	35.9	107	70-130	mg/L	04.27.2020 14:53	
Sodium	76.1	25.0	100	96	70-130	mg/L	04.27.2020 14:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124266

Matrix: Water

Prep Method: SW5030B

Date Prep: 04.27.2020

MB Sample Id: 7702133-1-BLK

LCS Sample Id: 7702133-1-BKS

LCSD Sample Id: 7702133-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0451	90	0.0443	89	66-142	2	25	mg/L	04.27.2020 10:14	
Bromobenzene	<0.00100	0.0500	0.0491	98	0.0514	103	75-125	5	25	mg/L	04.27.2020 10:14	
Bromochloromethane	<0.00100	0.0500	0.0455	91	0.0420	84	60-140	8	25	mg/L	04.27.2020 10:14	
Bromodichloromethane	<0.00100	0.0500	0.0434	87	0.0431	86	75-125	1	25	mg/L	04.27.2020 10:14	
Bromoform	<0.00500	0.0500	0.0550	110	0.0543	109	75-125	1	25	mg/L	04.27.2020 10:14	
Methyl bromide	<0.00500	0.0500	0.0436	87	0.0411	82	60-140	6	25	mg/L	04.27.2020 10:14	
2-Butanone	<0.0500	0.250	0.189	76	0.184	74	60-140	3	25	mg/L	04.27.2020 10:14	
n-Butylbenzene	<0.00100	0.0500	0.0435	87	0.0453	91	75-125	4	25	mg/L	04.27.2020 10:14	
Sec-Butylbenzene	<0.00100	0.0500	0.0437	87	0.0460	92	75-125	5	25	mg/L	04.27.2020 10:14	
tert-Butylbenzene	<0.00100	0.0500	0.0487	97	0.0508	102	75-125	4	25	mg/L	04.27.2020 10:14	
Carbon Tetrachloride	<0.00500	0.0500	0.0459	92	0.0425	85	62-125	8	25	mg/L	04.27.2020 10:14	
Chlorobenzene	<0.00100	0.0500	0.0472	94	0.0470	94	60-133	0	25	mg/L	04.27.2020 10:14	
Chloroethane	<0.0100	0.0500	0.0378	76	0.0356	71	60-140	6	25	mg/L	04.27.2020 10:14	
Chloroform	<0.00100	0.0500	0.0416	83	0.0401	80	70-130	4	25	mg/L	04.27.2020 10:14	
Methyl Chloride	<0.0100	0.0500	0.0459	92	0.0445	89	60-140	3	25	mg/L	04.27.2020 10:14	
2-Chlorotoluene	<0.00100	0.0500	0.0443	89	0.0468	94	73-125	5	25	mg/L	04.27.2020 10:14	
4-Chlorotoluene	<0.00100	0.0500	0.0445	89	0.0471	94	74-125	6	25	mg/L	04.27.2020 10:14	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0441	88	0.0461	92	75-125	4	25	mg/L	04.27.2020 10:14	
Dibromochloromethane	<0.00500	0.0500	0.0497	99	0.0506	101	73-125	2	25	mg/L	04.27.2020 10:14	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0390	78	0.0428	86	59-125	9	25	mg/L	04.27.2020 10:14	
1,2-Dibromoethane	<0.00500	0.0500	0.0484	97	0.0485	97	73-125	0	25	mg/L	04.27.2020 10:14	
Methylene Bromide	<0.00100	0.0500	0.0432	86	0.0432	86	69-127	0	25	mg/L	04.27.2020 10:14	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0480	96	0.0502	100	75-125	4	25	mg/L	04.27.2020 10:14	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0479	96	0.0511	102	75-125	6	25	mg/L	04.27.2020 10:14	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0474	95	0.0506	101	75-125	7	25	mg/L	04.27.2020 10:14	
Dichlorodifluoromethane	<0.00100	0.0500	0.0470	94	0.0435	87	60-140	8	25	mg/L	04.27.2020 10:14	
1,1-Dichloroethane	<0.00100	0.0500	0.0424	85	0.0407	81	72-125	4	25	mg/L	04.27.2020 10:14	
1,2-Dichloroethane	<0.00100	0.0500	0.0388	78	0.0388	78	68-127	0	25	mg/L	04.27.2020 10:14	
1,1-Dichloroethene	<0.00100	0.0500	0.0432	86	0.0411	82	59-172	5	25	mg/L	04.27.2020 10:14	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0427	85	0.0414	83	75-125	3	25	mg/L	04.27.2020 10:14	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0424	85	0.0407	81	75-125	4	25	mg/L	04.27.2020 10:14	
1,2-Dichloropropane	<0.00500	0.0500	0.0447	89	0.0444	89	74-125	1	25	mg/L	04.27.2020 10:14	
1,3-Dichloropropane	<0.00500	0.0500	0.0481	96	0.0482	96	75-125	0	25	mg/L	04.27.2020 10:14	
2,2-Dichloropropane	<0.00500	0.0500	0.0447	89	0.0424	85	75-125	5	25	mg/L	04.27.2020 10:14	
1,1-Dichloropropene	<0.00500	0.0500	0.0456	91	0.0431	86	75-125	6	25	mg/L	04.27.2020 10:14	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0469	94	0.0469	94	74-125	0	25	mg/L	04.27.2020 10:14	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0481	96	0.0479	96	66-125	0	25	mg/L	04.27.2020 10:14	
Ethylbenzene	<0.00100	0.0500	0.0464	93	0.0460	92	75-125	1	25	mg/L	04.27.2020 10:14	
Hexachlorobutadiene	<0.00500	0.0500	0.0446	89	0.0459	92	75-125	3	25	mg/L	04.27.2020 10:14	
Isopropylbenzene	<0.00100	0.0500	0.0489	98	0.0479	96	75-125	2	25	mg/L	04.27.2020 10:14	
Methylene Chloride	<0.00500	0.0500	0.0402	80	0.0385	77	75-125	4	25	mg/L	04.27.2020 10:14	
MTBE	<0.00500	0.0500	0.0464	93	0.0457	91	65-135	2	25	mg/L	04.27.2020 10:14	
Naphthalene	<0.0100	0.0500	0.0454	91	0.0475	95	70-130	5	25	mg/L	04.27.2020 10:14	
n-Propylbenzene	<0.00100	0.0500	0.0450	90	0.0467	93	75-125	4	25	mg/L	04.27.2020 10:14	
Styrene	<0.00100	0.0500	0.0494	99	0.0493	99	75-125	0	25	mg/L	04.27.2020 10:14	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0515	103	0.0510	102	72-125	1	25	mg/L	04.27.2020 10:14	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0410	82	0.0444	89	74-125	8	25	mg/L	04.27.2020 10:14	
Tetrachloroethylene	<0.00100	0.0500	0.0527	105	0.0521	104	71-125	1	25	mg/L	04.27.2020 10:14	
Toluene	<0.00100	0.0500	0.0460	92	0.0458	92	59-139	0	25	mg/L	04.27.2020 10:14	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0445	89	0.0464	93	75-137	4	25	mg/L	04.27.2020 10:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124266

MB Sample Id: 7702133-1-BLK

Matrix: Water

LCS Sample Id: 7702133-1-BKS

Prep Method: SW5030B

Date Prep: 04.27.2020

LCSD Sample Id: 7702133-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0462	92	0.0487	97	75-135	5	25	mg/L	04.27.2020 10:14	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0435	87	0.0410	82	75-125	6	25	mg/L	04.27.2020 10:14	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0477	95	0.0476	95	75-127	0	25	mg/L	04.27.2020 10:14	
Trichloroethylene	<0.00500	0.0500	0.0435	87	0.0420	84	62-137	4	25	mg/L	04.27.2020 10:14	
Trichlorofluoromethane	<0.00100	0.0500	0.0512	102	0.0477	95	60-140	7	25	mg/L	04.27.2020 10:14	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0427	85	0.0458	92	75-125	7	25	mg/L	04.27.2020 10:14	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0428	86	0.0455	91	75-125	6	25	mg/L	04.27.2020 10:14	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0456	91	0.0490	98	70-125	7	25	mg/L	04.27.2020 10:14	
o-Xylene	<0.00100	0.0500	0.0496	99	0.0494	99	75-125	0	25	mg/L	04.27.2020 10:14	
m,p-Xylenes	<0.0100	0.100	0.0973	97	0.0950	95	75-125	2	25	mg/L	04.27.2020 10:14	
Vinyl Chloride	<0.00200	0.0500	0.0462	92	0.0434	87	60-140	6	25	mg/L	04.27.2020 10:14	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	99		91		90		75-131			%	04.27.2020 10:14	
1,2-Dichloroethane-D4	106		98		96		63-144			%	04.27.2020 10:14	
Toluene-D8	95		96		98		80-117			%	04.27.2020 10:14	
4-Bromofluorobenzene	95		91		93		74-124			%	04.27.2020 10:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124266

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 04.27.2020

Parent Sample Id: 659771-001

MS Sample Id: 659771-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00550	0.0500	0.0502	89	66-142	mg/L	04.27.2020 11:11	
Bromobenzene	<0.00100	0.0500	0.0479	96	75-125	mg/L	04.27.2020 11:11	
Bromochloromethane	<0.00100	0.0500	0.0426	85	60-140	mg/L	04.27.2020 11:11	
Bromodichloromethane	<0.00100	0.0500	0.0425	85	75-125	mg/L	04.27.2020 11:11	
Bromoform	<0.00500	0.0500	0.0535	107	75-125	mg/L	04.27.2020 11:11	
Methyl bromide	<0.00500	0.0500	0.0369	74	60-140	mg/L	04.27.2020 11:11	
2-Butanone	<0.0500	0.250	0.196	78	60-140	mg/L	04.27.2020 11:11	
n-Butylbenzene	<0.00100	0.0500	0.0437	87	75-125	mg/L	04.27.2020 11:11	
Sec-Butylbenzene	0.00297	0.0500	0.0448	84	75-125	mg/L	04.27.2020 11:11	
tert-Butylbenzene	<0.00100	0.0500	0.0461	92	75-125	mg/L	04.27.2020 11:11	
Carbon Tetrachloride	<0.00500	0.0500	0.0426	85	62-125	mg/L	04.27.2020 11:11	
Chlorobenzene	<0.00100	0.0500	0.0463	93	60-133	mg/L	04.27.2020 11:11	
Chloroethane	<0.0100	0.0500	0.0351	70	60-140	mg/L	04.27.2020 11:11	
Chloroform	<0.00100	0.0500	0.0410	82	70-130	mg/L	04.27.2020 11:11	
Methyl Chloride	<0.0100	0.0500	0.0424	85	60-140	mg/L	04.27.2020 11:11	
2-Chlorotoluene	<0.00100	0.0500	0.0623	125	73-125	mg/L	04.27.2020 11:11	
4-Chlorotoluene	<0.00100	0.0500	0.0483	97	74-125	mg/L	04.27.2020 11:11	
p-Cymene (p-Isopropyltoluene)	0.00179	0.0500	0.0438	84	75-125	mg/L	04.27.2020 11:11	
Dibromochloromethane	<0.00500	0.0500	0.0501	100	73-125	mg/L	04.27.2020 11:11	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0402	80	59-125	mg/L	04.27.2020 11:11	
1,2-Dibromoethane	<0.00500	0.0500	0.0487	97	73-125	mg/L	04.27.2020 11:11	
Methylene Bromide	<0.00100	0.0500	0.0420	84	69-127	mg/L	04.27.2020 11:11	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0468	94	75-125	mg/L	04.27.2020 11:11	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0467	93	75-125	mg/L	04.27.2020 11:11	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0465	93	75-125	mg/L	04.27.2020 11:11	
Dichlorodifluoromethane	<0.00100	0.0500	0.0368	74	60-140	mg/L	04.27.2020 11:11	
1,1-Dichloroethane	<0.00100	0.0500	0.0409	82	72-125	mg/L	04.27.2020 11:11	
1,2-Dichloroethane	<0.00100	0.0500	0.0386	77	68-127	mg/L	04.27.2020 11:11	
1,1-Dichloroethene	<0.00100	0.0500	0.0409	82	59-172	mg/L	04.27.2020 11:11	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0426	85	75-125	mg/L	04.27.2020 11:11	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0416	83	75-125	mg/L	04.27.2020 11:11	
1,2-Dichloropropane	<0.00500	0.0500	0.0452	90	74-125	mg/L	04.27.2020 11:11	
1,3-Dichloropropane	<0.00500	0.0500	0.0482	96	75-125	mg/L	04.27.2020 11:11	
2,2-Dichloropropane	<0.00500	0.0500	0.0430	86	75-125	mg/L	04.27.2020 11:11	
1,1-Dichloropropene	<0.00500	0.0500	0.0442	88	75-125	mg/L	04.27.2020 11:11	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0468	94	74-125	mg/L	04.27.2020 11:11	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0473	95	66-125	mg/L	04.27.2020 11:11	
Ethylbenzene	0.0225	0.0500	0.0702	95	75-125	mg/L	04.27.2020 11:11	
Hexachlorobutadiene	<0.00500	0.0500	0.0424	85	75-125	mg/L	04.27.2020 11:11	
Isopropylbenzene	0.0148	0.0500	0.0638	98	75-125	mg/L	04.27.2020 11:11	
Methylene Chloride	<0.00500	0.0500	0.0389	78	75-125	mg/L	04.27.2020 11:11	
MTBE	<0.00500	0.0500	0.0474	95	65-135	mg/L	04.27.2020 11:11	
Naphthalene	<0.0100	0.0500	0.0505	101	70-130	mg/L	04.27.2020 11:11	
n-Propylbenzene	0.0251	0.0500	0.0705	91	75-125	mg/L	04.27.2020 11:11	
Styrene	<0.00100	0.0500	0.0488	98	75-125	mg/L	04.27.2020 11:11	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0506	101	72-125	mg/L	04.27.2020 11:11	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0423	85	74-125	mg/L	04.27.2020 11:11	
Tetrachloroethylene	<0.00100	0.0500	0.0505	101	71-125	mg/L	04.27.2020 11:11	
Toluene	0.0241	0.0500	0.0696	91	59-139	mg/L	04.27.2020 11:11	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0494	99	75-137	mg/L	04.27.2020 11:11	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124266

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 04.27.2020

Parent Sample Id: 659771-001

MS Sample Id: 659771-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0492	98	75-135	mg/L	04.27.2020 11:11	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0415	83	75-125	mg/L	04.27.2020 11:11	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0485	97	75-127	mg/L	04.27.2020 11:11	
Trichloroethylene	<0.00500	0.0500	0.0419	84	62-137	mg/L	04.27.2020 11:11	
Trichlorofluoromethane	<0.00100	0.0500	0.0425	85	60-140	mg/L	04.27.2020 11:11	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0426	85	75-125	mg/L	04.27.2020 11:11	
1,2,4-Trimethylbenzene	0.181	0.0500	0.233	104	75-125	mg/L	04.27.2020 11:11	
1,3,5-Trimethylbenzene	0.0526	0.0500	0.102	99	70-125	mg/L	04.27.2020 11:11	
o-Xylene	0.0125	0.0500	0.0613	98	75-125	mg/L	04.27.2020 11:11	
m,p-Xylenes	0.0756	0.100	0.173	97	75-125	mg/L	04.27.2020 11:11	
Vinyl Chloride	<0.00200	0.0500	0.0388	78	60-140	mg/L	04.27.2020 11:11	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	93		75-131	%	04.27.2020 11:11
1,2-Dichloroethane-D4	95		63-144	%	04.27.2020 11:11
Toluene-D8	98		80-117	%	04.27.2020 11:11
4-Bromofluorobenzene	92		74-124	%	04.27.2020 11:11

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-5334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 251-1111
Hobbs, NM (575-392-7550)

Work Order No:

US9771

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Project Manager:	Beaux JENNINGS	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

[illegible]

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
		7/24			



Inter-Office Shipment

IOS Number : **62653**

Date/Time: 04.24.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770318423876

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
659771-001	W	Levey Well	04.24.2020 12:15	SW8260C	VOCs by SW-846 8260C	04.27.2020	05.08.2020	JKR	BDCME BRBZ BRCLME	
659771-001	W	Levey Well	04.24.2020 12:15	E200.7	Recoverable Metals per ICP by EPA 200	04.27.2020	10.21.2020	JKR	CA K MG NA SI	
659771-001	W	Levey Well	04.24.2020 12:15	E300	Inorganic Anions by EPA 300/300.1	04.27.2020	04.26.2020 12:15	JKR	BR CL F NO2N NO3N SC	
659771-001	W	Levey Well	04.24.2020 12:15	SM4500-H	pH by SM4500-H	04.27.2020	04.24.2020 12:30	JKR		
659771-001	W	Levey Well	04.24.2020 12:15	SM2540C	TDS by SM2540C	04.27.2020	05.01.2020	JKR	TDS	
659771-001	W	Levey Well	04.24.2020 12:15	SM2320B	Alkalinity by SM2320B	04.27.2020	05.08.2020	JKR	ALK ALKB ALKC	
659771-001	W	Levey Well	04.24.2020 12:15	SM1030E	Cation-Anion Balance Calculation	04.27.2020	05.24.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 04.24.2020

Received By:



Jhyrom Edralin

Date Received: 04.25.2020

Cooler Temperature: 2.6



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 62653

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 04.24.2020 02.32 PM

Received By: Jhyrom Edralin

Date Received: 04.25.2020 09.03 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	Yes
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 04.25.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 04.24.2020 02:28.00 PM

Work Order #: 659771

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 04.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.24.2020



Certificate of Analysis Summary 660410

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.01.2020 12:42
Report Date: 05.04.2020 17:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660410-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.01.2020 10:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 05.04.2020 08:49 Analyzed: 05.04.2020 09:41 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1130 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1130 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 05.04.2020 16:14 Units/RL: % RL					
Cation-Anion Balance	1.90					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 05.02.2020 10:30 Analyzed: 05.02.2020 14:17 Units/RL: mg/L RL					
Bromide	0.576 0.500					
Chloride	376 0.500					
Fluoride	0.686 0.500					
Nitrate as N	0.140 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	61.8 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660410

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.01.2020 12:42
Report Date: 05.04.2020 17:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660410-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.01.2020 10:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 05.04.2020 08:30 Analyzed: 05.04.2020 13:03 Units/RL: mg/L RL					
Calcium	402 D 10.0					
Magnesium	74.6 0.400					
Potassium	5.39 0.500					
Silica	65.9 X 1.07					
Sodium	106 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 05.04.2020 09:00 Units/RL: mg/L RL					
Total Dissolved Solids	1750 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660410

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.01.2020 12:42
Report Date: 05.04.2020 17:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660410-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.01.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.04.2020 10:40 Analyzed: 05.04.2020 14:17 Units/RL: mg/L RL					
Benzene	0.00606 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	<0.00100 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00159 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.01.2020 12:42
Report Date: 05.04.2020 17:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660410-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.01.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.04.2020 10:40 Analyzed: 05.04.2020 14:17 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0237 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0143 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0242 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660410

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.01.2020 12:42
Report Date: 05.04.2020 17:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660410-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.01.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.04.2020 10:40 Analyzed: 05.04.2020 14:17 Units/RL: mg/L RL					
Toluene	0.0277 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.185 D 0.0100					
1,3,5-Trimethylbenzene	0.0513 0.00100					
o-Xylene	0.0129 0.00100					
m,p-Xylenes	0.0773 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0902 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.04.2020 11:43 Units/RL: Deg C RL					
Temperature	25.7 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.04.2020 11:43 Units/RL: SU RL					
pH	6.37 K					

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Jessica Kramer
Project Manager



Analytical Report 660410

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

05.04.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



05.04.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **660410**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660410. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660410 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 660410

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	05.01.2020 10:30		660410-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 660410

Report Date: 05.04.2020
Date Received: 05.01.2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3124943 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 660410-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 660410-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 660410

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.01.2020 12:42

Lab Sample Id: 660410-001

Date Collected: 05.01.2020 10:30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 05.04.2020 08:49

Seq Number: 3124912

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1130	4.00	mg/L	05.04.2020 09:41		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1130	4.00	mg/L	05.04.2020 09:41		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	05.04.2020 09:41	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	05.04.2020 09:41	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3124951

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.90		%	05.04.2020 16:14		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 05.02.2020 10:30

Seq Number: 3124844

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.576	0.500	mg/L	05.02.2020 14:17		1
Chloride	16887-00-6	376	0.500	mg/L	05.02.2020 14:17		1
Fluoride	16984-48-8	0.686	0.500	mg/L	05.02.2020 14:17		1
Nitrate as N	14797-55-8	0.140	0.100	mg/L	05.02.2020 14:17		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	05.02.2020 14:17	U	1
Sulfate	14808-79-8	61.8	0.500	mg/L	05.02.2020 14:17		1



Certificate of Analytical Results 660410

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.01.2020 12:42

Lab Sample Id: 660410-001

Date Collected: 05.01.2020 10:30

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3124911

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1750	5.00	mg/L	05.04.2020 09:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3124890

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.37		SU	05.04.2020 11:43	K	1
Temperature	TEMP	25.7		Deg C	05.04.2020 11:43	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 05.04.2020 08:30

Seq Number: 3124943

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	402	10.0	mg/L	05.04.2020 13:24	D	50
Magnesium	7439-95-4	74.6	0.400	mg/L	05.04.2020 13:03		1
Potassium	7440-09-7	5.39	0.500	mg/L	05.04.2020 13:03		1
Silica	7631-86-9	65.9	1.07	mg/L	05.04.2020 13:03	X	1
Sodium	7440-23-5	106	0.500	mg/L	05.04.2020 13:03		1



Certificate of Analytical Results 660410

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.01.2020 12:42

Lab Sample Id: 660410-001

Date Collected: 05.01.2020 10:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.04.2020 10:40

Seq Number: 3124959

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00606	0.00100	mg/L	05.04.2020 14:17		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	05.04.2020 14:17	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	05.04.2020 14:17	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	05.04.2020 14:17	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00159	0.00100	mg/L	05.04.2020 14:17		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Ethylbenzene	100-41-4	0.0237	0.00100	mg/L	05.04.2020 14:17		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1



Certificate of Analytical Results 660410

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.01.2020 12:42

Lab Sample Id: 660410-001

Date Collected: 05.01.2020 10:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.04.2020 10:40

Seq Number: 3124959

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0143	0.00100	mg/L	05.04.2020 14:17		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	05.04.2020 14:17	U	1
n-Propylbenzene	103-65-1	0.0242	0.00100	mg/L	05.04.2020 14:17		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Toluene	108-88-3	0.0277	0.00100	mg/L	05.04.2020 14:17		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	05.04.2020 14:17	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	05.04.2020 14:17	U	1
1,2,4-Trimethylbenzene	95-63-6	0.185	0.0100	mg/L	05.04.2020 15:30	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0513	0.00100	mg/L	05.04.2020 14:17		1
o-Xylene	95-47-6	0.0129	0.00100	mg/L	05.04.2020 14:17		1
m,p-Xylenes	179601-23-1	0.0773	0.0100	mg/L	05.04.2020 14:17		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	05.04.2020 14:17	U	1
Total Xylenes	1330-20-7	0.0902	0.00100	mg/L	05.04.2020 14:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	75-131	05.04.2020 14:17	
1,2-Dichloroethane-D4	17060-07-0	96	%	63-144	05.04.2020 14:17	
Toluene-D8	2037-26-5	99	%	80-117	05.04.2020 14:17	
4-Bromofluorobenzene	460-00-4	100	%	74-124	05.04.2020 14:17	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124912

MB Sample Id: 7702559-1-BLK

Matrix: Water

LCS Sample Id: 7702559-1-BKS

Prep Method: SM2320P

Date Prep: 05.04.2020

LCSD Sample Id: 7702559-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	255	102	257	103	85-115	1	20	mg/L	05.04.2020 09:22	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124912

Matrix: Water

MB Sample Id: 7702559-1-BLK

Prep Method: SM2320P

Date Prep: 05.04.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	05.04.2020 09:14	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	05.04.2020 09:14	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	05.04.2020 09:14	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3124912

Matrix: Ground Water

Parent Sample Id: 660410-001

MD Sample Id: 660410-001 D

Prep Method: SM2320P

Date Prep: 05.04.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1130	1130	0	20	mg/L	05.04.2020 09:54	
Alkalinity, Bicarbonate (as CaCO ₃)	1130	1130	0	20	mg/L	05.04.2020 09:54	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	05.04.2020 09:54	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	05.04.2020 09:54	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124844

Matrix: Water

MB Sample Id: 7702568-1-BLK

LCS Sample Id: 7702568-1-BKS

Prep Method: E300P

Date Prep: 05.02.2020

LCSD Sample Id: 7702568-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.3	103	90-110	1	20	mg/L	05.02.2020 11:28	
Chloride	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.02.2020 11:28	
Fluoride	<0.500	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	05.02.2020 11:28	
Nitrate as N	<0.100	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.02.2020 11:28	
Nitrite as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	05.02.2020 11:28	
Sulfate	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	05.02.2020 11:28	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124844

Matrix: Water

Prep Method: E300P

Date Prep: 05.02.2020

Parent Sample Id: 660392-001

MS Sample Id: 660392-001 S

MSD Sample Id: 660392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.611	10.0	11.0	104	11.0	104	90-110	0	20	mg/L	05.02.2020 12:05	
Chloride	47.1	10.0	55.6	85	55.7	86	90-110	0	20	mg/L	05.02.2020 12:05	X
Fluoride	5.57	10.0	15.0	94	15.0	94	90-110	0	20	mg/L	05.02.2020 12:05	
Nitrate as N	12.0	10.0	22.0	100	22.1	101	90-110	0	20	mg/L	05.02.2020 12:05	
Nitrite as N	1.32	10.0	10.9	96	10.8	95	90-110	1	20	mg/L	05.02.2020 12:05	
Sulfate	260	200	480	110	479	110	90-110	0	20	mg/L	05.02.2020 12:41	

Analytical Method: TDS by SM2540C

Seq Number: 3124911

Matrix: Water

MB Sample Id: 3124911-1-BLK

LCS Sample Id: 3124911-1-BKS

LCSD Sample Id: 3124911-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1010	101	80-120	0	10	mg/L	05.04.2020 09:00	

Analytical Method: TDS by SM2540C

Seq Number: 3124911

Matrix: Water

Parent Sample Id: 659858-001

MD Sample Id: 659858-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	34800	32900	6	10	mg/L	05.04.2020 09:00	

Analytical Method: pH by SM4500-H

Seq Number: 3124890

Matrix: Liquid

Parent Sample Id: 660388-001

MD Sample Id: 660388-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.38	6.39	0	20	SU	05.04.2020 11:43	
Temperature	25.3	25.4	0	20	Deg C	05.04.2020 11:43	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124943

Matrix: Water

MB Sample Id: 7702603-1-BLK

LCS Sample Id: 7702603-1-BKS

Prep Method: E200.7P

Date Prep: 05.04.2020

LCSD Sample Id: 7702603-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.9	96	24.0	96	85-115	0	20	mg/L	05.04.2020 12:54	
Magnesium	<0.400	25.0	23.9	96	23.9	96	85-115	0	20	mg/L	05.04.2020 12:54	
Potassium	<0.500	10.0	9.50	95	9.51	95	85-115	0	20	mg/L	05.04.2020 12:54	
Silica	<1.07	21.4	19.7	92	19.7	92	85-115	0	20	mg/L	05.04.2020 12:54	
Sodium	<0.500	25.0	23.2	93	23.2	93	85-115	0	20	mg/L	05.04.2020 12:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124943

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 05.04.2020

Parent Sample Id: 660410-001

MS Sample Id: 660410-001 S

MSD Sample Id: 660410-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	405	25.0	432	108	432	108	70-130	0	20	mg/L	05.04.2020 13:07	
Magnesium	74.6	25.0	100	102	100	102	70-130	0	20	mg/L	05.04.2020 13:07	
Potassium	5.39	10.0	16.2	108	16.2	108	70-130	0	20	mg/L	05.04.2020 13:07	
Silica	65.9	21.4	98.1	150	98.1	150	70-130	0	20	mg/L	05.04.2020 13:07	X
Sodium	106	25.0	131	100	131	100	70-130	0	20	mg/L	05.04.2020 13:07	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3124943

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.04.2020

Parent Sample Id: 660131-001

MS Sample Id: 660131-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	16.3	25.0	40.5	97	70-130	mg/L	05.04.2020 14:30	
Magnesium	10.3	25.0	34.7	98	70-130	mg/L	05.04.2020 14:30	
Potassium	0.834	10.0	10.8	100	70-130	mg/L	05.04.2020 14:30	
Silica	3.96	21.4	24.6	96	70-130	mg/L	05.04.2020 14:30	
Sodium	112	25.0	134	88	70-130	mg/L	05.04.2020 14:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124959

Matrix: Water

Prep Method: SW5030B

Date Prep: 05.04.2020

MB Sample Id: 7702658-1-BLK

LCS Sample Id: 7702658-1-BKS

LCSD Sample Id: 7702658-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0516	103	0.0486	97	66-142	6	25	mg/L	05.04.2020 10:00	
Bromobenzene	<0.00100	0.0500	0.0517	103	0.0483	97	75-125	7	25	mg/L	05.04.2020 10:00	
Bromochloromethane	<0.00100	0.0500	0.0521	104	0.0488	98	60-140	7	25	mg/L	05.04.2020 10:00	
Bromodichloromethane	<0.00100	0.0500	0.0513	103	0.0489	98	75-125	5	25	mg/L	05.04.2020 10:00	
Bromoform	<0.00500	0.0500	0.0556	111	0.0546	109	75-125	2	25	mg/L	05.04.2020 10:00	
Methyl bromide	<0.00500	0.0500	0.0462	92	0.0415	83	60-140	11	25	mg/L	05.04.2020 10:00	
2-Butanone	<0.0500	0.250	0.252	101	0.261	104	60-140	4	25	mg/L	05.04.2020 10:00	
n-Butylbenzene	<0.00100	0.0500	0.0495	99	0.0470	94	75-125	5	25	mg/L	05.04.2020 10:00	
Sec-Butylbenzene	<0.00100	0.0500	0.0498	100	0.0463	93	75-125	7	25	mg/L	05.04.2020 10:00	
tert-Butylbenzene	<0.00100	0.0500	0.0522	104	0.0483	97	75-125	8	25	mg/L	05.04.2020 10:00	
Carbon Tetrachloride	<0.00500	0.0500	0.0552	110	0.0510	102	62-125	8	25	mg/L	05.04.2020 10:00	
Chlorobenzene	<0.00100	0.0500	0.0501	100	0.0463	93	60-133	8	25	mg/L	05.04.2020 10:00	
Chloroethane	<0.0100	0.0500	0.0452	90	0.0403	81	60-140	11	25	mg/L	05.04.2020 10:00	
Chloroform	<0.00100	0.0500	0.0522	104	0.0488	98	70-130	7	25	mg/L	05.04.2020 10:00	
Methyl Chloride	<0.0100	0.0500	0.0569	114	0.0536	107	60-140	6	25	mg/L	05.04.2020 10:00	
2-Chlorotoluene	<0.00100	0.0500	0.0521	104	0.0485	97	73-125	7	25	mg/L	05.04.2020 10:00	
4-Chlorotoluene	<0.00100	0.0500	0.0521	104	0.0490	98	74-125	6	25	mg/L	05.04.2020 10:00	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0479	96	0.0451	90	75-125	6	25	mg/L	05.04.2020 10:00	
Dibromochloromethane	<0.00500	0.0500	0.0548	110	0.0523	105	73-125	5	25	mg/L	05.04.2020 10:00	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0482	96	0.0470	94	59-125	3	25	mg/L	05.04.2020 10:00	
1,2-Dibromoethane	<0.00500	0.0500	0.0539	108	0.0527	105	73-125	2	25	mg/L	05.04.2020 10:00	
Methylene Bromide	<0.00100	0.0500	0.0506	101	0.0488	98	69-127	4	25	mg/L	05.04.2020 10:00	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0518	104	0.0492	98	75-125	5	25	mg/L	05.04.2020 10:00	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0513	103	0.0487	97	75-125	5	25	mg/L	05.04.2020 10:00	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0510	102	0.0483	97	75-125	5	25	mg/L	05.04.2020 10:00	
Dichlorodifluoromethane	<0.00100	0.0500	0.0665	133	0.0593	119	60-140	11	25	mg/L	05.04.2020 10:00	
1,1-Dichloroethane	<0.00100	0.0500	0.0550	110	0.0510	102	72-125	8	25	mg/L	05.04.2020 10:00	
1,2-Dichloroethane	<0.00100	0.0500	0.0512	102	0.0483	97	68-127	6	25	mg/L	05.04.2020 10:00	
1,1-Dichloroethene	<0.00100	0.0500	0.0544	109	0.0499	100	59-172	9	25	mg/L	05.04.2020 10:00	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0526	105	0.0486	97	75-125	8	25	mg/L	05.04.2020 10:00	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0538	108	0.0487	97	75-125	10	25	mg/L	05.04.2020 10:00	
1,2-Dichloropropane	<0.00500	0.0500	0.0533	107	0.0511	102	74-125	4	25	mg/L	05.04.2020 10:00	
1,3-Dichloropropane	<0.00500	0.0500	0.0556	111	0.0537	107	75-125	3	25	mg/L	05.04.2020 10:00	
2,2-Dichloropropane	<0.00500	0.0500	0.0569	114	0.0521	104	75-125	9	25	mg/L	05.04.2020 10:00	
1,1-Dichloropropene	<0.00500	0.0500	0.0590	118	0.0554	111	75-125	6	25	mg/L	05.04.2020 10:00	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0545	109	0.0528	106	74-125	3	25	mg/L	05.04.2020 10:00	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0560	112	0.0538	108	66-125	4	25	mg/L	05.04.2020 10:00	
Ethylbenzene	<0.00100	0.0500	0.0512	102	0.0473	95	75-125	8	25	mg/L	05.04.2020 10:00	
Hexachlorobutadiene	<0.00500	0.0500	0.0443	89	0.0473	95	75-125	7	25	mg/L	05.04.2020 10:00	
Isopropylbenzene	<0.00100	0.0500	0.0523	105	0.0488	98	75-125	7	25	mg/L	05.04.2020 10:00	
Methylene Chloride	0.00374	0.0500	0.0513	103	0.0484	97	75-125	6	25	mg/L	05.04.2020 10:00	
MTBE	<0.00500	0.0500	0.0570	114	0.0574	115	65-135	1	25	mg/L	05.04.2020 10:00	
Naphthalene	<0.0100	0.0500	0.0493	99	0.0560	112	70-130	13	25	mg/L	05.04.2020 10:00	
n-Propylbenzene	<0.00100	0.0500	0.0519	104	0.0478	96	75-125	8	25	mg/L	05.04.2020 10:00	
Styrene	<0.00100	0.0500	0.0514	103	0.0477	95	75-125	7	25	mg/L	05.04.2020 10:00	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0545	109	0.0510	102	72-125	7	25	mg/L	05.04.2020 10:00	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0518	104	0.0513	103	74-125	1	25	mg/L	05.04.2020 10:00	
Tetrachloroethylene	<0.00100	0.0500	0.0552	110	0.0508	102	71-125	8	25	mg/L	05.04.2020 10:00	
Toluene	<0.00100	0.0500	0.0509	102	0.0472	94	59-139	8	25	mg/L	05.04.2020 10:00	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0477	95	0.0529	106	75-137	10	25	mg/L	05.04.2020 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124959

MB Sample Id: 7702658-1-BLK

Matrix: Water

LCS Sample Id: 7702658-1-BKS

Prep Method: SW5030B

Date Prep: 05.04.2020

LCSD Sample Id: 7702658-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0491	98	0.0523	105	75-135	6	25	mg/L	05.04.2020 10:00	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0542	108	0.0506	101	75-125	7	25	mg/L	05.04.2020 10:00	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0539	108	0.0525	105	75-127	3	25	mg/L	05.04.2020 10:00	
Trichloroethylene	<0.00500	0.0500	0.0497	99	0.0466	93	62-137	6	25	mg/L	05.04.2020 10:00	
Trichlorofluoromethane	<0.00100	0.0500	0.0606	121	0.0550	110	60-140	10	25	mg/L	05.04.2020 10:00	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0521	104	0.0514	103	75-125	1	25	mg/L	05.04.2020 10:00	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0495	99	0.0467	93	75-125	6	25	mg/L	05.04.2020 10:00	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0520	104	0.0491	98	70-125	6	25	mg/L	05.04.2020 10:00	
o-Xylene	<0.00100	0.0500	0.0516	103	0.0482	96	75-125	7	25	mg/L	05.04.2020 10:00	
m,p-Xylenes	<0.0100	0.100	0.104	104	0.0957	96	75-125	8	25	mg/L	05.04.2020 10:00	
Vinyl Chloride	<0.00200	0.0500	0.0554	111	0.0493	99	60-140	12	25	mg/L	05.04.2020 10:00	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	109		101		100		75-131			%	05.04.2020 10:00	
1,2-Dichloroethane-D4	101		97		97		63-144			%	05.04.2020 10:00	
Toluene-D8	100		100		99		80-117			%	05.04.2020 10:00	
4-Bromofluorobenzene	104		97		98		74-124			%	05.04.2020 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124959

Parent Sample Id: 660213-001

Matrix: Ground Water

MS Sample Id: 660213-001 S

Prep Method: SW5030B

Date Prep: 05.04.2020

MSD Sample Id: 660213-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0486	97	0.0508	102	66-142	4	25	mg/L	05.04.2020 10:56	
Bromobenzene	<0.00100	0.0500	0.0513	103	0.0510	102	75-125	1	25	mg/L	05.04.2020 10:56	
Bromochloromethane	<0.00100	0.0500	0.0468	94	0.0499	100	60-140	6	25	mg/L	05.04.2020 10:56	
Bromodichloromethane	<0.00100	0.0500	0.0479	96	0.0505	101	75-125	5	25	mg/L	05.04.2020 10:56	
Bromoform	<0.00500	0.0500	0.0510	102	0.0542	108	75-125	6	25	mg/L	05.04.2020 10:56	
Methyl bromide	<0.00500	0.0500	0.0434	87	0.0457	91	60-140	5	25	mg/L	05.04.2020 10:56	
2-Butanone	<0.0500	0.250	0.233	93	0.245	98	60-140	5	25	mg/L	05.04.2020 10:56	
n-Butylbenzene	<0.00100	0.0500	0.0495	99	0.0492	98	75-125	1	25	mg/L	05.04.2020 10:56	
Sec-Butylbenzene	<0.00100	0.0500	0.0488	98	0.0497	99	75-125	2	25	mg/L	05.04.2020 10:56	
tert-Butylbenzene	<0.00100	0.0500	0.0518	104	0.0521	104	75-125	1	25	mg/L	05.04.2020 10:56	
Carbon Tetrachloride	<0.00500	0.0500	0.0498	100	0.0518	104	62-125	4	25	mg/L	05.04.2020 10:56	
Chlorobenzene	<0.00100	0.0500	0.0467	93	0.0480	96	60-133	3	25	mg/L	05.04.2020 10:56	
Chloroethane	<0.0100	0.0500	0.0409	82	0.0429	86	60-140	5	25	mg/L	05.04.2020 10:56	
Chloroform	<0.00100	0.0500	0.0475	95	0.0498	100	70-130	5	25	mg/L	05.04.2020 10:56	
Methyl Chloride	<0.0100	0.0500	0.0545	109	0.0572	114	60-140	5	25	mg/L	05.04.2020 10:56	
2-Chlorotoluene	<0.00100	0.0500	0.0512	102	0.0527	105	73-125	3	25	mg/L	05.04.2020 10:56	
4-Chlorotoluene	<0.00100	0.0500	0.0517	103	0.0524	105	74-125	1	25	mg/L	05.04.2020 10:56	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0474	95	0.0472	94	75-125	0	25	mg/L	05.04.2020 10:56	
Dibromochloromethane	<0.00500	0.0500	0.0506	101	0.0530	106	73-125	5	25	mg/L	05.04.2020 10:56	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0441	88	0.0461	92	59-125	4	25	mg/L	05.04.2020 10:56	
1,2-Dibromoethane	<0.00500	0.0500	0.0501	100	0.0531	106	73-125	6	25	mg/L	05.04.2020 10:56	
Methylene Bromide	<0.00100	0.0500	0.0472	94	0.0500	100	69-127	6	25	mg/L	05.04.2020 10:56	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0507	101	0.0505	101	75-125	0	25	mg/L	05.04.2020 10:56	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0509	102	0.0520	104	75-125	2	25	mg/L	05.04.2020 10:56	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0512	102	0.0515	103	75-125	1	25	mg/L	05.04.2020 10:56	
Dichlorodifluoromethane	<0.00100	0.0500	0.0572	114	0.0596	119	60-140	4	25	mg/L	05.04.2020 10:56	
1,1-Dichloroethane	<0.00100	0.0500	0.0495	99	0.0526	105	72-125	6	25	mg/L	05.04.2020 10:56	
1,2-Dichloroethane	<0.00100	0.0500	0.0472	94	0.0501	100	68-127	6	25	mg/L	05.04.2020 10:56	
1,1-Dichloroethene	<0.00100	0.0500	0.0490	98	0.0514	103	59-172	5	25	mg/L	05.04.2020 10:56	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0484	97	0.0500	100	75-125	3	25	mg/L	05.04.2020 10:56	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0484	97	0.0501	100	75-125	3	25	mg/L	05.04.2020 10:56	
1,2-Dichloropropane	<0.00500	0.0500	0.0510	102	0.0532	106	74-125	4	25	mg/L	05.04.2020 10:56	
1,3-Dichloropropane	<0.00500	0.0500	0.0517	103	0.0541	108	75-125	5	25	mg/L	05.04.2020 10:56	
2,2-Dichloropropane	<0.00500	0.0500	0.0515	103	0.0541	108	75-125	5	25	mg/L	05.04.2020 10:56	
1,1-Dichloropropene	<0.00500	0.0500	0.0532	106	0.0559	112	75-125	5	25	mg/L	05.04.2020 10:56	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0518	104	0.0541	108	74-125	4	25	mg/L	05.04.2020 10:56	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0524	105	0.0555	111	66-125	6	25	mg/L	05.04.2020 10:56	
Ethylbenzene	<0.00100	0.0500	0.0477	95	0.0494	99	75-125	4	25	mg/L	05.04.2020 10:56	
Hexachlorobutadiene	<0.00500	0.0500	0.0452	90	0.0474	95	75-125	5	25	mg/L	05.04.2020 10:56	
Isopropylbenzene	<0.00100	0.0500	0.0487	97	0.0513	103	75-125	5	25	mg/L	05.04.2020 10:56	
Methylene Chloride	<0.00500	0.0500	0.0463	93	0.0496	99	75-125	7	25	mg/L	05.04.2020 10:56	
MTBE	<0.00500	0.0500	0.0540	108	0.0566	113	65-135	5	25	mg/L	05.04.2020 10:56	
Naphthalene	<0.0100	0.0500	0.0482	96	0.0509	102	70-130	5	25	mg/L	05.04.2020 10:56	
n-Propylbenzene	<0.00100	0.0500	0.0513	103	0.0518	104	75-125	1	25	mg/L	05.04.2020 10:56	
Styrene	<0.00100	0.0500	0.0474	95	0.0505	101	75-125	6	25	mg/L	05.04.2020 10:56	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0506	101	0.0524	105	72-125	3	25	mg/L	05.04.2020 10:56	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0516	103	0.0510	102	74-125	1	25	mg/L	05.04.2020 10:56	
Tetrachloroethylene	<0.00100	0.0500	0.0504	101	0.0521	104	71-125	3	25	mg/L	05.04.2020 10:56	
Toluene	<0.00100	0.0500	0.0470	94	0.0495	99	59-139	5	25	mg/L	05.04.2020 10:56	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0469	94	0.0505	101	75-137	7	25	mg/L	05.04.2020 10:56	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3124959

Parent Sample Id: 660213-001

Matrix: Ground Water

MS Sample Id: 660213-001 S

Prep Method: SW5030B

Date Prep: 05.04.2020

MSD Sample Id: 660213-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0500	100	0.0498	100	75-135	0	25	mg/L	05.04.2020 10:56	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0491	98	0.0519	104	75-125	6	25	mg/L	05.04.2020 10:56	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0501	100	0.0533	107	75-127	6	25	mg/L	05.04.2020 10:56	
Trichloroethylene	<0.00500	0.0500	0.0461	92	0.0480	96	62-137	4	25	mg/L	05.04.2020 10:56	
Trichlorofluoromethane	<0.00100	0.0500	0.0537	107	0.0571	114	60-140	6	25	mg/L	05.04.2020 10:56	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0514	103	0.0516	103	75-125	0	25	mg/L	05.04.2020 10:56	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0495	99	0.0495	99	75-125	0	25	mg/L	05.04.2020 10:56	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0521	104	0.0516	103	70-125	1	25	mg/L	05.04.2020 10:56	
o-Xylene	<0.00100	0.0500	0.0484	97	0.0515	103	75-125	6	25	mg/L	05.04.2020 10:56	
m,p-Xylenes	<0.0100	0.100	0.0961	96	0.102	102	75-125	6	25	mg/L	05.04.2020 10:56	
Vinyl Chloride	<0.00200	0.0500	0.0503	101	0.0535	107	60-140	6	25	mg/L	05.04.2020 10:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		102		75-131	%	05.04.2020 10:56
1,2-Dichloroethane-D4	97		99		63-144	%	05.04.2020 10:56
Toluene-D8	99		101		80-117	%	05.04.2020 10:56
4-Bromofluorobenzene	103		100		74-124	%	05.04.2020 10:56

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order N

10/04/0

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjenings@ensolum.com

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

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

SAMPLE RECEIPT		Temp Blank:		Yes	No	Wet Ice:	Yes	No
Temperature (°C):	3.9	3.0	Thermometer ID					
Received Intact:	Yes	No	29					
Cooler Custody Seals:	Yes	No	XX	Correction Factor: -0.3				
Sample Custody Seals:	Yes	No	N/A	Total Containers:				

Number of Containers

F, Cl, SO₄, B

: Ca, K, Mg, Na, Si

ty

TAT starts the day received by the lab, if received by 4:30pm

[illegible][illegible]

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
		5/1/00			
		12/4/02			

CUSTODY SEAL
Date 5-1-24
Signature [Signature]

Thermo
SCIENTIFIC

90007

Inter-Office Shipment

IOS Number : **62998**

Date/Time: 05.01.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770371315990

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
660410-001	W	Levey Well	05.01.2020 10:30	SW8260C	VOCs by SW-846 8260C	05.04.2020	05.15.2020	JKR	BDCME BRBZ BRCLME	
660410-001	W	Levey Well	05.01.2020 10:30	E200.7	Recoverable Metals per ICP by EPA 200	05.04.2020	10.28.2020	JKR	CA K MG NA SI	
660410-001	W	Levey Well	05.01.2020 10:30	E300	Inorganic Anions by EPA 300/300.1	05.04.2020	05.03.2020 10:30	JKR	BR CL F NO2N NO3N SC	
660410-001	W	Levey Well	05.01.2020 10:30	SM4500-H	pH by SM4500-H	05.04.2020	05.01.2020 10:45	JKR		
660410-001	W	Levey Well	05.01.2020 10:30	SM2540C	TDS by SM2540C	05.04.2020	05.08.2020	JKR	TDS	
660410-001	W	Levey Well	05.01.2020 10:30	SM2320B	Alkalinity by SM2320B	05.04.2020	05.15.2020	JKR	ALK ALKB ALKC	
660410-001	W	Levey Well	05.01.2020 10:30	SM1030E	Cation-Anion Balance Calculation	05.04.2020	05.31.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 05.01.2020

Received By:



Jhyrom Edralin

Date Received: 05.02.2020

Cooler Temperature: 2.6



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 62998

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 05.01.2020 12.46 PM

Received By: Jhyrom Edralin

Date Received: 05.02.2020 09.07 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	___
#3 *Samples received with appropriate temperature?	___
#4 *Custody Seals intact on shipping container/ cooler?	___
#5 *Custody Seals Signed and dated for Containers/coolers	___
#6 *IOS present?	___
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	___
#9 Sample matrix/ properties agree with IOS?	___
#10 Samples in proper container/ bottle?	___
#11 Samples properly preserved?	___
#12 Sample container(s) intact?	___
#13 Sufficient sample amount for indicated test(s)?	___
#14 All samples received within hold time?	___

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 05.02.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 05.01.2020 12.42.00 PM

Work Order #: 660410

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 05.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.04.2020



Certificate of Analysis Summary 660915

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.07.2020 13:40
Report Date: 05.11.2020 08:15
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660915-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.07.2020 10:20					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 05.08.2020 11:00 Analyzed: 05.08.2020 13:53 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1140 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1140 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 05.08.2020 17:09 Units/RL: % RL					
Cation-Anion Balance	0					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 05.08.2020 10:40 Analyzed: 05.08.2020 10:47 Units/RL: mg/L RL					
Bromide	0.517 0.500					
Chloride	365 0.500					
Fluoride	0.675 0.500					
Nitrate as N	0.163 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	58.8 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660915

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.07.2020 13:40
Report Date: 05.11.2020 08:15
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660915-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.07.2020 10:20					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 05.08.2020 10:20 Analyzed: 05.08.2020 14:46 Units/RL: mg/L RL					
Calcium	425 D 10.0					
Magnesium	70.5 0.400					
Potassium	5.57 0.500					
Silica	60.7 1.07					
Sodium	108 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 05.08.2020 11:00 Units/RL: mg/L RL					
Total Dissolved Solids	1640 5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660915

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.07.2020 13:40
Report Date: 05.11.2020 08:15
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660915-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.07.2020 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.08.2020 10:44 Analyzed: 05.08.2020 11:30 Units/RL: mg/L RL					
Benzene	0.00524 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00306 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00171 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Certificate of Analysis Summary 660915

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.07.2020 13:40
Report Date: 05.11.2020 08:15
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660915-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.07.2020 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.08.2020 10:44 Analyzed: 05.08.2020 11:30 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0211 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0138 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0270 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

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Project Manager



Certificate of Analysis Summary 660915

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.07.2020 13:40
Report Date: 05.11.2020 08:15
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 660915-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.07.2020 10:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.08.2020 10:44 Analyzed: 05.08.2020 11:30 Units/RL: mg/L RL					
Toluene	0.0168 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.202 D 0.0100					
1,3,5-Trimethylbenzene	0.0582 0.00100					
o-Xylene	0.0108 0.00100					
m,p-Xylenes	0.0655 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0763 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.08.2020 16:30 Units/RL: Deg C RL					
Temperature	20.9 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.08.2020 16:30 Units/RL: SU RL					
pH	6.55 K					

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Jessica Kramer
Project Manager



Analytical Report 660915

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

05.11.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.11.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **660915**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660915. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660915 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 660915

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	05.07.2020 10:20		660915-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 660915

Report Date: 05.11.2020
Date Received: 05.07.2020

Sample receipt non conformances and comments:

V1.001 Revision due to missing dilution on VOC. JK 02/25/20

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660915

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.07.2020 13:40

Lab Sample Id: 660915-001

Date Collected: 05.07.2020 10:20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: YAV

% Moisture:

Analyst: YAV

Date Prep: 05.08.2020 11:00

Seq Number: 3125467

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1140	4.00	mg/L	05.08.2020 13:53		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1140	4.00	mg/L	05.08.2020 13:53		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	05.08.2020 13:53	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	05.08.2020 13:53	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3125492

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0		%	05.08.2020 17:09	U	1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 05.08.2020 10:40

Seq Number: 3125490

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.517	0.500	mg/L	05.08.2020 10:47		1
Chloride	16887-00-6	365	0.500	mg/L	05.08.2020 10:47		1
Fluoride	16984-48-8	0.675	0.500	mg/L	05.08.2020 10:47		1
Nitrate as N	14797-55-8	0.163	0.100	mg/L	05.08.2020 10:47		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	05.08.2020 10:47	U	1
Sulfate	14808-79-8	58.8	0.500	mg/L	05.08.2020 10:47		1



Certificate of Analytical Results 660915

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.07.2020 13:40

Lab Sample Id: 660915-001

Date Collected: 05.07.2020 10:20

Analytical Method: TDS by SM2540C

Tech: AMW

% Moisture:

Analyst: AMW

Seq Number: 3125422

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1640	5.00	mg/L	05.08.2020 11:00		1

Analytical Method: pH by SM4500-H

Tech: AMW

% Moisture:

Analyst: AMW

Seq Number: 3125479

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.55		SU	05.08.2020 16:30	K	1
Temperature	TEMP	20.9		Deg C	05.08.2020 16:30	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 05.08.2020 10:20

Seq Number: 3125466

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	425	10.0	mg/L	05.08.2020 15:07	D	50
Magnesium	7439-95-4	70.5	0.400	mg/L	05.08.2020 14:46		1
Potassium	7440-09-7	5.57	0.500	mg/L	05.08.2020 14:46		1
Silica	7631-86-9	60.7	1.07	mg/L	05.08.2020 14:46		1
Sodium	7440-23-5	108	0.500	mg/L	05.08.2020 14:46		1



Certificate of Analytical Results 660915

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.07.2020 13:40

Lab Sample Id: 660915-001

Date Collected: 05.07.2020 10:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.08.2020 10:44

Seq Number: 3125462

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00524	0.00100	mg/L	05.08.2020 11:30		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	05.08.2020 11:30	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Sec-Butylbenzene	135-98-8	0.00306	0.00100	mg/L	05.08.2020 11:30		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	05.08.2020 11:30	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	05.08.2020 11:30	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00171	0.00100	mg/L	05.08.2020 11:30		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Ethylbenzene	100-41-4	0.0211	0.00100	mg/L	05.08.2020 11:30		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1



Certificate of Analytical Results 660915

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.07.2020 13:40

Lab Sample Id: 660915-001

Date Collected: 05.07.2020 10:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.08.2020 10:44

Seq Number: 3125462

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0138	0.00100	mg/L	05.08.2020 11:30		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	05.08.2020 11:30	U	1
n-Propylbenzene	103-65-1	0.0270	0.00100	mg/L	05.08.2020 11:30		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Toluene	108-88-3	0.0168	0.00100	mg/L	05.08.2020 11:30		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	05.08.2020 11:30	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	05.08.2020 11:30	U	1
1,2,4-Trimethylbenzene	95-63-6	0.202	0.0100	mg/L	05.08.2020 11:56	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0582	0.00100	mg/L	05.08.2020 11:30		1
o-Xylene	95-47-6	0.0108	0.00100	mg/L	05.08.2020 11:30		1
m,p-Xylenes	179601-23-1	0.0655	0.0100	mg/L	05.08.2020 11:30		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	05.08.2020 11:30	U	1
Total Xylenes	1330-20-7	0.0763	0.00100	mg/L	05.08.2020 11:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	05.08.2020 11:30	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	05.08.2020 11:30	
Toluene-D8	2037-26-5	101	%	80-117	05.08.2020 11:30	
4-Bromofluorobenzene	460-00-4	98	%	74-124	05.08.2020 11:30	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3125467

MB Sample Id: 7702982-1-BLK

Matrix: Water

LCS Sample Id: 7702982-1-BKS

Prep Method: SM2320P

Date Prep: 05.08.2020

LCSD Sample Id: 7702982-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	260	104	262	105	85-115	1	20	mg/L	05.08.2020 13:33	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3125467

Matrix: Water

MB Sample Id: 7702982-1-BLK

Prep Method: SM2320P

Date Prep: 05.08.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	05.08.2020 13:26	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	05.08.2020 13:26	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	05.08.2020 13:26	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3125467

Matrix: Ground Water

Parent Sample Id: 660915-001

MD Sample Id: 660915-001 D

Prep Method: SM2320P

Date Prep: 05.08.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1140	1130	1	20	mg/L	05.08.2020 14:07	
Alkalinity, Bicarbonate (as CaCO ₃)	1140	1130	1	20	mg/L	05.08.2020 14:07	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	05.08.2020 14:07	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	05.08.2020 14:07	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125490

Matrix: Water

MB Sample Id: 7702953-1-BLK

LCS Sample Id: 7702953-1-BKS

Prep Method: E300P

Date Prep: 05.08.2020

LCSD Sample Id: 7702953-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.4	104	90-110	2	20	mg/L	05.08.2020 07:36	
Chloride	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	05.08.2020 07:36	
Fluoride	<0.500	10.0	10.6	106	10.8	108	90-110	2	20	mg/L	05.08.2020 07:36	
Nitrate as N	<0.100	10.0	10.2	102	10.4	104	90-110	2	20	mg/L	05.08.2020 07:36	
Nitrite as N	<0.100	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	05.08.2020 07:36	
Sulfate	<0.500	10.0	10.5	105	10.7	107	90-110	2	20	mg/L	05.08.2020 07:36	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125490

Matrix: Ground Water

Prep Method: E300P

Date Prep: 05.08.2020

Parent Sample Id: 660948-001

MS Sample Id: 660948-001 S

MSD Sample Id: 660948-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.08	10.0	11.6	105	11.7	106	90-110	1	20	mg/L	05.08.2020 12:51	
Chloride	392	200	605	107	605	107	90-110	0	20	mg/L	05.08.2020 15:52	
Fluoride	0.602	10.0	10.7	101	10.7	101	90-110	0	20	mg/L	05.08.2020 12:51	
Nitrate as N	0.140	10.0	10.3	102	10.3	102	90-110	0	20	mg/L	05.08.2020 12:51	
Nitrite as N	0.110	10.0	10.3	102	9.64	95	90-110	7	20	mg/L	05.08.2020 12:51	
Sulfate	89.0	10.0	98.1	91	98.0	90	90-110	0	20	mg/L	05.08.2020 12:51	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125490

Matrix: Ground Water

Prep Method: E300P

Date Prep: 05.08.2020

Parent Sample Id: 660948-002

MS Sample Id: 660948-002 S

MSD Sample Id: 660948-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.61	10.0	12.2	106	12.2	106	90-110	0	20	mg/L	05.08.2020 13:27	
Chloride	539	200	747	104	747	104	90-110	0	20	mg/L	05.08.2020 16:52	
Fluoride	0.653	10.0	10.4	97	10.4	97	90-110	0	20	mg/L	05.08.2020 13:27	
Nitrate as N	0.163	10.0	10.3	101	10.3	101	90-110	0	20	mg/L	05.08.2020 13:27	
Nitrite as N	0.102	10.0	9.63	95	9.62	95	90-110	0	20	mg/L	05.08.2020 13:27	
Sulfate	78.7	10.0	88.0	93	88.0	93	90-110	0	20	mg/L	05.08.2020 13:27	

Analytical Method: TDS by SM2540C

Seq Number: 3125422

Matrix: Water

MB Sample Id: 3125422-1-BLK

LCS Sample Id: 3125422-1-BKS

LCSD Sample Id: 3125422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1010	101	80-120	0	10	mg/L	05.08.2020 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3125422

Matrix: Ground Water

Parent Sample Id: 660915-001

MD Sample Id: 660915-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1640	1630	1	10	mg/L	05.08.2020 11:00	

Analytical Method: pH by SM4500-H

Seq Number: 3125479

Matrix: Ground Water

Parent Sample Id: 660915-001

MD Sample Id: 660915-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.55	6.55	0	20	SU	05.08.2020 16:30	
Temperature	20.9	20.9	0	20	Deg C	05.08.2020 16:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3125466

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.08.2020

MB Sample Id: 7702971-1-BLK

LCS Sample Id: 7702971-1-BKS

LCSD Sample Id: 7702971-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.5	94	23.6	94	85-115	0	20	mg/L	05.08.2020 14:38	
Magnesium	<0.400	25.0	23.6	94	23.6	94	85-115	0	20	mg/L	05.08.2020 14:38	
Potassium	<0.500	10.0	9.25	93	9.30	93	85-115	1	20	mg/L	05.08.2020 14:38	
Silica	<1.07	21.4	19.1	89	19.2	90	85-115	1	20	mg/L	05.08.2020 14:38	
Sodium	<0.500	25.0	24.2	97	24.2	97	85-115	0	20	mg/L	05.08.2020 14:38	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3125466

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 05.08.2020

Parent Sample Id: 660915-001

MS Sample Id: 660915-001 S

MSD Sample Id: 660915-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	380	25.0	398	72	399	76	70-130	0	20	mg/L	05.08.2020 14:50	
Magnesium	70.5	25.0	94.0	94	93.9	94	70-130	0	20	mg/L	05.08.2020 14:50	
Potassium	5.57	10.0	15.6	100	15.6	100	70-130	0	20	mg/L	05.08.2020 14:50	
Silica	60.7	21.4	86.2	119	86.2	119	70-130	0	20	mg/L	05.08.2020 14:50	
Sodium	108	25.0	132	96	132	96	70-130	0	20	mg/L	05.08.2020 14:50	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3125462

MB Sample Id: 7702978-1-BLK

Matrix: Water

LCS Sample Id: 7702978-1-BKS

Prep Method: SW5030B

Date Prep: 05.07.2020

LCSD Sample Id: 7702978-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0512	102	0.0490	98	66-142	4	25	mg/L	05.08.2020 01:54	
Bromobenzene	<0.00100	0.0500	0.0513	103	0.0513	103	75-125	0	25	mg/L	05.08.2020 01:54	
Bromochloromethane	<0.00100	0.0500	0.0515	103	0.0492	98	60-140	5	25	mg/L	05.08.2020 01:54	
Bromodichloromethane	<0.00100	0.0500	0.0504	101	0.0476	95	75-125	6	25	mg/L	05.08.2020 01:54	
Bromoform	<0.00500	0.0500	0.0533	107	0.0518	104	75-125	3	25	mg/L	05.08.2020 01:54	
Methyl bromide	<0.00500	0.0500	0.0473	95	0.0440	88	60-140	7	25	mg/L	05.08.2020 01:54	
2-Butanone	<0.0500	0.250	0.260	104	0.250	100	60-140	4	25	mg/L	05.08.2020 01:54	
n-Butylbenzene	<0.00100	0.0500	0.0480	96	0.0477	95	75-125	1	25	mg/L	05.08.2020 01:54	
Sec-Butylbenzene	<0.00100	0.0500	0.0491	98	0.0481	96	75-125	2	25	mg/L	05.08.2020 01:54	
tert-Butylbenzene	<0.00100	0.0500	0.0521	104	0.0523	105	75-125	0	25	mg/L	05.08.2020 01:54	
Carbon Tetrachloride	<0.00500	0.0500	0.0526	105	0.0502	100	62-125	5	25	mg/L	05.08.2020 01:54	
Chlorobenzene	<0.00100	0.0500	0.0487	97	0.0474	95	60-133	3	25	mg/L	05.08.2020 01:54	
Chloroethane	<0.0100	0.0500	0.0425	85	0.0408	82	60-140	4	25	mg/L	05.08.2020 01:54	
Chloroform	<0.00100	0.0500	0.0509	102	0.0484	97	70-130	5	25	mg/L	05.08.2020 01:54	
Methyl Chloride	<0.0100	0.0500	0.0551	110	0.0530	106	60-140	4	25	mg/L	05.08.2020 01:54	
2-Chlorotoluene	<0.00100	0.0500	0.0522	104	0.0516	103	73-125	1	25	mg/L	05.08.2020 01:54	
4-Chlorotoluene	<0.00100	0.0500	0.0515	103	0.0510	102	74-125	1	25	mg/L	05.08.2020 01:54	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0470	94	0.0466	93	75-125	1	25	mg/L	05.08.2020 01:54	
Dibromochloromethane	<0.00500	0.0500	0.0528	106	0.0522	104	73-125	1	25	mg/L	05.08.2020 01:54	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0455	91	0.0444	89	59-125	2	25	mg/L	05.08.2020 01:54	
1,2-Dibromoethane	<0.00500	0.0500	0.0535	107	0.0528	106	73-125	1	25	mg/L	05.08.2020 01:54	
Methylene Bromide	<0.00100	0.0500	0.0508	102	0.0477	95	69-127	6	25	mg/L	05.08.2020 01:54	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0512	102	0.0509	102	75-125	1	25	mg/L	05.08.2020 01:54	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0515	103	0.0499	100	75-125	3	25	mg/L	05.08.2020 01:54	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0515	103	0.0499	100	75-125	3	25	mg/L	05.08.2020 01:54	
Dichlorodifluoromethane	<0.00100	0.0500	0.0509	102	0.0481	96	60-140	6	25	mg/L	05.08.2020 01:54	
1,1-Dichloroethane	<0.00100	0.0500	0.0533	107	0.0510	102	72-125	4	25	mg/L	05.08.2020 01:54	
1,2-Dichloroethane	<0.00100	0.0500	0.0512	102	0.0471	94	68-127	8	25	mg/L	05.08.2020 01:54	
1,1-Dichloroethene	<0.00100	0.0500	0.0547	109	0.0506	101	59-172	8	25	mg/L	05.08.2020 01:54	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0509	102	0.0487	97	75-125	4	25	mg/L	05.08.2020 01:54	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0520	104	0.0500	100	75-125	4	25	mg/L	05.08.2020 01:54	
1,2-Dichloropropane	<0.00500	0.0500	0.0536	107	0.0508	102	74-125	5	25	mg/L	05.08.2020 01:54	
1,3-Dichloropropane	<0.00500	0.0500	0.0555	111	0.0537	107	75-125	3	25	mg/L	05.08.2020 01:54	
2,2-Dichloropropane	<0.00500	0.0500	0.0462	92	0.0439	88	75-125	5	25	mg/L	05.08.2020 01:54	
1,1-Dichloropropene	<0.00500	0.0500	0.0573	115	0.0543	109	75-125	5	25	mg/L	05.08.2020 01:54	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0528	106	0.0508	102	74-125	4	25	mg/L	05.08.2020 01:54	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0532	106	0.0526	105	66-125	1	25	mg/L	05.08.2020 01:54	
Ethylbenzene	<0.00100	0.0500	0.0502	100	0.0488	98	75-125	3	25	mg/L	05.08.2020 01:54	
Hexachlorobutadiene	<0.00500	0.0500	0.0443	89	0.0464	93	75-125	5	25	mg/L	05.08.2020 01:54	
Isopropylbenzene	<0.00100	0.0500	0.0514	103	0.0502	100	75-125	2	25	mg/L	05.08.2020 01:54	
Methylene Chloride	<0.00500	0.0500	0.0509	102	0.0486	97	75-125	5	25	mg/L	05.08.2020 01:54	
MTBE	<0.00500	0.0500	0.0573	115	0.0559	112	65-135	2	25	mg/L	05.08.2020 01:54	
Naphthalene	<0.0100	0.0500	0.0521	104	0.0505	101	70-130	3	25	mg/L	05.08.2020 01:54	
n-Propylbenzene	<0.00100	0.0500	0.0520	104	0.0506	101	75-125	3	25	mg/L	05.08.2020 01:54	
Styrene	<0.00100	0.0500	0.0508	102	0.0492	98	75-125	3	25	mg/L	05.08.2020 01:54	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0521	104	0.0511	102	72-125	2	25	mg/L	05.08.2020 01:54	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0521	104	0.0506	101	74-125	3	25	mg/L	05.08.2020 01:54	
Tetrachloroethylene	<0.00100	0.0500	0.0535	107	0.0511	102	71-125	5	25	mg/L	05.08.2020 01:54	
Toluene	<0.00100	0.0500	0.0500	100	0.0485	97	59-139	3	25	mg/L	05.08.2020 01:54	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0495	99	0.0495	99	75-137	0	25	mg/L	05.08.2020 01:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3125462

MB Sample Id: 7702978-1-BLK

Matrix: Water

LCS Sample Id: 7702978-1-BKS

Prep Method: SW5030B

Date Prep: 05.07.2020

LCSD Sample Id: 7702978-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0502	100	0.0489	98	75-135	3	25	mg/L	05.08.2020 01:54	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0526	105	0.0502	100	75-125	5	25	mg/L	05.08.2020 01:54	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0528	106	0.0526	105	75-127	0	25	mg/L	05.08.2020 01:54	
Trichloroethylene	<0.00500	0.0500	0.0487	97	0.0471	94	62-137	3	25	mg/L	05.08.2020 01:54	
Trichlorofluoromethane	<0.00100	0.0500	0.0522	104	0.0498	100	60-140	5	25	mg/L	05.08.2020 01:54	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0521	104	0.0516	103	75-125	1	25	mg/L	05.08.2020 01:54	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0493	99	0.0493	99	75-125	0	25	mg/L	05.08.2020 01:54	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0518	104	0.0520	104	70-125	0	25	mg/L	05.08.2020 01:54	
o-Xylene	<0.00100	0.0500	0.0513	103	0.0497	99	75-125	3	25	mg/L	05.08.2020 01:54	
m,p-Xylenes	<0.0100	0.100	0.103	103	0.0984	98	75-125	5	25	mg/L	05.08.2020 01:54	
Vinyl Chloride	<0.00200	0.0500	0.0528	106	0.0502	100	60-140	5	25	mg/L	05.08.2020 01:54	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	108		101		98		75-131			%	05.08.2020 01:54	
1,2-Dichloroethane-D4	104		98		95		63-144			%	05.08.2020 01:54	
Toluene-D8	98		101		100		80-117			%	05.08.2020 01:54	
4-Bromofluorobenzene	100		99		100		74-124			%	05.08.2020 01:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3125462

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 05.08.2020

Parent Sample Id: 660787-001

MS Sample Id: 660787-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0515	103	66-142	mg/L	05.08.2020 09:45	
Bromobenzene	<0.00100	0.0500	0.0501	100	75-125	mg/L	05.08.2020 09:45	
Bromochloromethane	<0.00100	0.0500	0.0505	101	60-140	mg/L	05.08.2020 09:45	
Bromodichloromethane	<0.00100	0.0500	0.0512	102	75-125	mg/L	05.08.2020 09:45	
Bromoform	<0.00500	0.0500	0.0534	107	75-125	mg/L	05.08.2020 09:45	
Methyl bromide	<0.00500	0.0500	0.0458	92	60-140	mg/L	05.08.2020 09:45	
2-Butanone	<0.0500	0.250	0.262	105	60-140	mg/L	05.08.2020 09:45	
n-Butylbenzene	<0.00100	0.0500	0.0470	94	75-125	mg/L	05.08.2020 09:45	
Sec-Butylbenzene	<0.00100	0.0500	0.0474	95	75-125	mg/L	05.08.2020 09:45	
tert-Butylbenzene	<0.00100	0.0500	0.0502	100	75-125	mg/L	05.08.2020 09:45	
Carbon Tetrachloride	<0.00500	0.0500	0.0530	106	62-125	mg/L	05.08.2020 09:45	
Chlorobenzene	<0.00100	0.0500	0.0483	97	60-133	mg/L	05.08.2020 09:45	
Chloroethane	<0.0100	0.0500	0.0414	83	60-140	mg/L	05.08.2020 09:45	
Chloroform	<0.00100	0.0500	0.0510	102	70-130	mg/L	05.08.2020 09:45	
Methyl Chloride	<0.0100	0.0500	0.0543	109	60-140	mg/L	05.08.2020 09:45	
2-Chlorotoluene	<0.00100	0.0500	0.0505	101	73-125	mg/L	05.08.2020 09:45	
4-Chlorotoluene	<0.00100	0.0500	0.0508	102	74-125	mg/L	05.08.2020 09:45	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0462	92	75-125	mg/L	05.08.2020 09:45	
Dibromochloromethane	<0.00500	0.0500	0.0535	107	73-125	mg/L	05.08.2020 09:45	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0447	89	59-125	mg/L	05.08.2020 09:45	
1,2-Dibromoethane	<0.00500	0.0500	0.0535	107	73-125	mg/L	05.08.2020 09:45	
Methylene Bromide	<0.00100	0.0500	0.0509	102	69-127	mg/L	05.08.2020 09:45	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	05.08.2020 09:45	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0500	100	75-125	mg/L	05.08.2020 09:45	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0494	99	75-125	mg/L	05.08.2020 09:45	
Dichlorodifluoromethane	<0.00100	0.0500	0.0573	115	60-140	mg/L	05.08.2020 09:45	
1,1-Dichloroethane	<0.00100	0.0500	0.0539	108	72-125	mg/L	05.08.2020 09:45	
1,2-Dichloroethane	<0.00100	0.0500	0.0513	103	68-127	mg/L	05.08.2020 09:45	
1,1-Dichloroethene	<0.00100	0.0500	0.0517	103	59-172	mg/L	05.08.2020 09:45	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0509	102	75-125	mg/L	05.08.2020 09:45	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0525	105	75-125	mg/L	05.08.2020 09:45	
1,2-Dichloropropane	<0.00500	0.0500	0.0537	107	74-125	mg/L	05.08.2020 09:45	
1,3-Dichloropropane	<0.00500	0.0500	0.0556	111	75-125	mg/L	05.08.2020 09:45	
2,2-Dichloropropane	<0.00500	0.0500	0.0543	109	75-125	mg/L	05.08.2020 09:45	
1,1-Dichloropropene	<0.00500	0.0500	0.0568	114	75-125	mg/L	05.08.2020 09:45	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0540	108	74-125	mg/L	05.08.2020 09:45	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0542	108	66-125	mg/L	05.08.2020 09:45	
Ethylbenzene	<0.00100	0.0500	0.0494	99	75-125	mg/L	05.08.2020 09:45	
Hexachlorobutadiene	<0.00500	0.0500	0.0447	89	75-125	mg/L	05.08.2020 09:45	
Isopropylbenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	05.08.2020 09:45	
Methylene Chloride	<0.00500	0.0500	0.0504	101	75-125	mg/L	05.08.2020 09:45	
MTBE	<0.00500	0.0500	0.0586	117	65-135	mg/L	05.08.2020 09:45	
Naphthalene	<0.0100	0.0500	0.0447	89	70-130	mg/L	05.08.2020 09:45	
n-Propylbenzene	<0.00100	0.0500	0.0503	101	75-125	mg/L	05.08.2020 09:45	
Styrene	<0.00100	0.0500	0.0500	100	75-125	mg/L	05.08.2020 09:45	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0530	106	72-125	mg/L	05.08.2020 09:45	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0523	105	74-125	mg/L	05.08.2020 09:45	
Tetrachloroethylene	<0.00100	0.0500	0.0520	104	71-125	mg/L	05.08.2020 09:45	
Toluene	<0.00100	0.0500	0.0493	99	59-139	mg/L	05.08.2020 09:45	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0423	85	75-137	mg/L	05.08.2020 09:45	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3125462

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 660787-001

MS Sample Id: 660787-001 S

Date Prep: 05.08.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0460	92	75-135	mg/L	05.08.2020 09:45	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0526	105	75-125	mg/L	05.08.2020 09:45	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0541	108	75-127	mg/L	05.08.2020 09:45	
Trichloroethylene	<0.00500	0.0500	0.0490	98	62-137	mg/L	05.08.2020 09:45	
Trichlorofluoromethane	<0.00100	0.0500	0.0570	114	60-140	mg/L	05.08.2020 09:45	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0513	103	75-125	mg/L	05.08.2020 09:45	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0479	96	75-125	mg/L	05.08.2020 09:45	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0503	101	70-125	mg/L	05.08.2020 09:45	
o-Xylene	<0.00100	0.0500	0.0499	100	75-125	mg/L	05.08.2020 09:45	
m,p-Xylenes	<0.0100	0.100	0.100	100	75-125	mg/L	05.08.2020 09:45	
Vinyl Chloride	<0.00200	0.0500	0.0504	101	60-140	mg/L	05.08.2020 09:45	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		75-131	%	05.08.2020 09:45
1,2-Dichloroethane-D4	96		63-144	%	05.08.2020 09:45
Toluene-D8	101		80-117	%	05.08.2020 09:45
4-Bromofluorobenzene	97		74-124	%	05.08.2020 09:45

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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) 565-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 335-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 392-7550
Hobbs, NM (575) 392-7550

Page 7 of 7

Chain of Custody

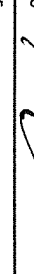
Work Order No:

516900

Project Manager:		Beaux Jennings	Bill To: (if different)	
Company Name:		Ensolum, LLC	Company Name:	
Address:		705 W. Wadley Ave, Suite 210	Address:	
City, State ZIP:		Midland, TX 79705	City, State ZIP:	
Phone:		210-219-8858	Email:	bjennings@ensolum.com
Work Order Comments				
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐				
State of Project:				
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐				
Deliverables: EDD ☐ ADaPT ☐ Other: ☐				

Project Name:				Turn Around						
Project Number:				Routine: ☐						
P.O. Number:				Rush: ☐						
Sampler's Name:				Due Date:						
Levey Well										
03B1417001										
03B1417001										
Beaux Jennings										
SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☐ No ☐					
Temperature (°C):		39.6		Thermometer ID:	29					
Received Intact:		Yes ☐ No ☐		Correction Factor:	-0.5					
Cooler Custody Seals:		Yes ☐ No ☐		Total Containers:						
Sample Custody Seals:		Yes ☐ No ☐								
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth						
Levey Well	UD	5/7/20	1030	-						
ANALYSIS REQUEST										
						Number of Containers				
						X VOCs				
						X Anions: F, Cl, SO ₄ , B				
						X Cations: Ca, K, Mg, Na, Si				
						X pH				
						X Alkalinity				
						X TDS				
Work Order Notes										
TAT starts the day received by the lab, if received by 4:30pm										
Sample Comments										
- 24hr Rush										
- NM Samples										

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

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg			
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.							
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		
1 		5/4/20 1340	2				
3 			4				
5			6				

CUSTODY SEAL
ENVIRONMENTAL SAMPLING SUPPLY
www.esvial.com 800-233-8425

Signature:

Date:

[Handwritten Signature]
8/27/23

Inter-Office Shipment

IOS Number : **63258**

Date/Time: 05.07.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770414790412

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
660915-001	W	Levey Well	05.07.2020 10:20	SW8260C	VOCs by SW-846 8260C	05.08.2020	05.21.2020	JKR	BDCME BRBZ BRCLME	
660915-001	W	Levey Well	05.07.2020 10:20	E200.7	Recoverable Metals per ICP by EPA 200	05.08.2020	11.03.2020	JKR	CA K MG NA SI	
660915-001	W	Levey Well	05.07.2020 10:20	E300	Inorganic Anions by EPA 300/300.1	05.08.2020	05.09.2020 10:20	JKR	BR CL F NO2N NO3N S	
660915-001	W	Levey Well	05.07.2020 10:20	SM4500-H	pH by SM4500-H	05.08.2020	05.07.2020 10:35	JKR		
660915-001	W	Levey Well	05.07.2020 10:20	SM2540C	TDS by SM2540C	05.08.2020	05.14.2020	JKR	TDS	
660915-001	W	Levey Well	05.07.2020 10:20	SM2320B	Alkalinity by SM2320B	05.08.2020	05.21.2020	JKR	ALK ALKB ALKC	
660915-001	W	Levey Well	05.07.2020 10:20	SM1030E	Cation-Anion Balance Calculation	05.08.2020	06.06.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 05.07.2020

Received By:



Jhyrom Edralin

Date Received: 05.08.2020

Cooler Temperature: 1.4



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 63258

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 05.07.2020 01.52 PM

Received By: Jhyrom Edralin

Date Received: 05.08.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 05.08.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 05.07.2020 01.40.00 PM

Work Order #: 660915

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 05.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.08.2020



Certificate of Analysis Summary 661623

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.14.2020 14:20
Report Date: 05.15.2020 17:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 661623-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.14.2020 11:15					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 05.15.2020 11:19 Analyzed: 05.15.2020 15:11 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1200 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1200 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 05.15.2020 17:20 Units/RL: % RL					
Cation-Anion Balance	3.70					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 05.15.2020 09:55 Analyzed: 05.15.2020 12:24 Units/RL: mg/L RL					
Bromide	0.571 0.500					
Chloride	409 0.500					
Fluoride	0.585 0.500					
Nitrate as N	0.160 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	56.0 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661623

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.14.2020 14:20
Report Date: 05.15.2020 17:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 661623-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.14.2020 11:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 05.15.2020 09:30 Analyzed: 05.15.2020 14:01 Units/RL: mg/L RL					
Calcium	412 D 10.0					
Magnesium	76.5 0.400					
Potassium	6.23 0.500					
Silica	65.9 X 1.07					
Sodium	107 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 05.15.2020 11:00 Units/RL: mg/L RL					
Total Dissolved Solids	1900 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661623

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.14.2020 14:20
Report Date: 05.15.2020 17:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 661623-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.14.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.15.2020 14:33 Analyzed: 05.15.2020 16:24 Units/RL: mg/L RL					
Benzene	0.00660 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00236 0.00100					
Sec-Butylbenzene	0.00324 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00191 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661623

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.14.2020 14:20
Report Date: 05.15.2020 17:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 661623-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.14.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.15.2020 14:33 Analyzed: 05.15.2020 16:24 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0268 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0165 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0236 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661623

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Thu 05.14.2020 14:20
Report Date: 05.15.2020 17:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 661623-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.14.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 05.15.2020 14:33 Analyzed: 05.15.2020 16:24 Units/RL: mg/L RL					
Toluene	0.0357 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.201 D 0.0100					
1,3,5-Trimethylbenzene	0.0453 0.00100					
o-Xylene	0.0141 0.00100					
m,p-Xylenes	0.0882 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.102 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.15.2020 11:57 Units/RL: Deg C RL					
Temperature	22.2 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.15.2020 11:57 Units/RL: SU RL					
pH	6.34 K					

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Jessica Kramer
Project Manager



Analytical Report 661623

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

05.15.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.15.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **661623**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661623. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 661623 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 661623

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	05.14.2020 11:15		661623-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 661623

Report Date: 05.15.2020
Date Received: 05.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3126098 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 661623-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 661623-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3126125 VOCs by SW-846 8260C

Lab Sample ID 661623-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Dichlorodifluoromethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 661623-001.

The Laboratory Control Sample for Dichlorodifluoromethane is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 661623

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.14.2020 14:20

Lab Sample Id: 661623-001

Date Collected: 05.14.2020 11:15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 05.15.2020 11:19

Seq Number: 3126122

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1200	4.00	mg/L	05.15.2020 15:11		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1200	4.00	mg/L	05.15.2020 15:11		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	05.15.2020 15:11	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	05.15.2020 15:11	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3126126

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.70		%	05.15.2020 17:20		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 05.15.2020 09:55

Seq Number: 3126081

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.571	0.500	mg/L	05.15.2020 12:24		1
Chloride	16887-00-6	409	0.500	mg/L	05.15.2020 12:24		1
Fluoride	16984-48-8	0.585	0.500	mg/L	05.15.2020 12:24		1
Nitrate as N	14797-55-8	0.160	0.100	mg/L	05.15.2020 12:24		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	05.15.2020 12:24	U	1
Sulfate	14808-79-8	56.0	0.500	mg/L	05.15.2020 12:24		1



Certificate of Analytical Results 661623

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.14.2020 14:20

Lab Sample Id: 661623-001

Date Collected: 05.14.2020 11:15

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3126090

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1900	5.00	mg/L	05.15.2020 11:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3126038

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.34		SU	05.15.2020 11:57	K	1
Temperature	TEMP	22.2		Deg C	05.15.2020 11:57	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 05.15.2020 09:30

Seq Number: 3126098

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	412	10.0	mg/L	05.15.2020 14:22	D	50
Magnesium	7439-95-4	76.5	0.400	mg/L	05.15.2020 14:01		1
Potassium	7440-09-7	6.23	0.500	mg/L	05.15.2020 14:01		1
Silica	7631-86-9	65.9	1.07	mg/L	05.15.2020 14:01	X	1
Sodium	7440-23-5	107	0.500	mg/L	05.15.2020 14:01		1



Certificate of Analytical Results 661623

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.14.2020 14:20

Lab Sample Id: 661623-001

Date Collected: 05.14.2020 11:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.15.2020 14:33

Seq Number: 3126125

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00660	0.00100	mg/L	05.15.2020 16:24		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	05.15.2020 16:24	U	1
n-Butylbenzene	104-51-8	0.00236	0.00100	mg/L	05.15.2020 16:24		1
Sec-Butylbenzene	135-98-8	0.00324	0.00100	mg/L	05.15.2020 16:24		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	05.15.2020 16:24	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	05.15.2020 16:24	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00191	0.00100	mg/L	05.15.2020 16:24		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	05.15.2020 16:24	UX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Ethylbenzene	100-41-4	0.0268	0.00100	mg/L	05.15.2020 16:24		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1



Certificate of Analytical Results 661623

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.14.2020 14:20

Lab Sample Id: 661623-001

Date Collected: 05.14.2020 11:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.15.2020 14:33

Seq Number: 3126125

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0165	0.00100	mg/L	05.15.2020 16:24		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	05.15.2020 16:24	U	1
n-Propylbenzene	103-65-1	0.0236	0.00100	mg/L	05.15.2020 16:24		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Toluene	108-88-3	0.0357	0.00100	mg/L	05.15.2020 16:24		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	05.15.2020 16:24	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	05.15.2020 16:24	U	1
1,2,4-Trimethylbenzene	95-63-6	0.201	0.0100	mg/L	05.15.2020 16:50	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0453	0.00100	mg/L	05.15.2020 16:24		1
o-Xylene	95-47-6	0.0141	0.00100	mg/L	05.15.2020 16:24		1
m,p-Xylenes	179601-23-1	0.0882	0.0100	mg/L	05.15.2020 16:24		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	05.15.2020 16:24	U	1
Total Xylenes	1330-20-7	0.102	0.00100	mg/L	05.15.2020 16:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	75-131	05.15.2020 16:24	
1,2-Dichloroethane-D4	17060-07-0	100	%	63-144	05.15.2020 16:24	
Toluene-D8	2037-26-5	101	%	80-117	05.15.2020 16:24	
4-Bromofluorobenzene	460-00-4	99	%	74-124	05.15.2020 16:24	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126122

MB Sample Id: 7703394-1-BLK

Matrix: Water

LCS Sample Id: 7703394-1-BKS

Prep Method: SM2320P

Date Prep: 05.15.2020

LCSD Sample Id: 7703394-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	266	106	267	107	85-115	0	20	mg/L	05.15.2020 14:50	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126122

Matrix: Water

MB Sample Id: 7703394-1-BLK

Prep Method: SM2320P

Date Prep: 05.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	05.15.2020 14:43	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	05.15.2020 14:43	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	05.15.2020 14:43	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126122

Matrix: Ground Water

Parent Sample Id: 661623-001

MD Sample Id: 661623-001 D

Prep Method: SM2320P

Date Prep: 05.15.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1200	1200	0	20	mg/L	05.15.2020 15:24	
Alkalinity, Bicarbonate (as CaCO3)	1200	1200	0	20	mg/L	05.15.2020 15:24	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	05.15.2020 15:24	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	05.15.2020 15:24	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126081

Matrix: Water

MB Sample Id: 7703373-1-BLK

LCS Sample Id: 7703373-1-BKS

Prep Method: E300P

Date Prep: 05.15.2020

LCSD Sample Id: 7703373-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	05.15.2020 11:26	
Chloride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	05.15.2020 11:26	
Fluoride	<0.500	10.0	10.6	106	10.7	107	90-110	1	20	mg/L	05.15.2020 11:26	
Nitrate as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	05.15.2020 11:26	
Nitrite as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	05.15.2020 11:26	
Sulfate	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	05.15.2020 11:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126081

Matrix: Water

Prep Method: E300P

Date Prep: 05.15.2020

Parent Sample Id: 661551-001

MS Sample Id: 661551-001 S

MSD Sample Id: 661551-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	05.15.2020 12:01	
Chloride	117	10.0	125	80	125	80	90-110	0	20	mg/L	05.15.2020 12:01	X
Fluoride	0.683	10.0	11.2	105	11.2	105	90-110	0	20	mg/L	05.15.2020 12:01	
Nitrate as N	2.09	10.0	12.4	103	12.4	103	90-110	0	20	mg/L	05.15.2020 12:01	
Nitrite as N	0.165	10.0	9.96	98	10.0	98	90-110	0	20	mg/L	05.15.2020 12:01	
Sulfate	133	10.0	142	90	142	90	90-110	0	20	mg/L	05.15.2020 12:01	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126081

Matrix: Water

Prep Method: E300P

Date Prep: 05.15.2020

Parent Sample Id: 661657-002

MS Sample Id: 661657-002 S

MSD Sample Id: 661657-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.152	10.0	10.6	104	10.7	105	90-110	1	20	mg/L	05.15.2020 16:38	
Chloride	280	10.0	286	60	286	60	90-110	0	20	mg/L	05.15.2020 16:38	X
Fluoride	0.380	10.0	11.0	106	11.0	106	90-110	0	20	mg/L	05.15.2020 16:38	
Nitrate as N	2.32	10.0	12.7	104	12.7	104	90-110	0	20	mg/L	05.15.2020 16:38	
Nitrite as N	<0.100	10.0	9.92	99	9.91	99	90-110	0	20	mg/L	05.15.2020 16:38	
Sulfate	122	10.0	131	90	130	80	90-110	1	20	mg/L	05.15.2020 16:38	X

Analytical Method: TDS by SM2540C

Seq Number: 3126090

Matrix: Water

MB Sample Id: 3126090-1-BLK

LCS Sample Id: 3126090-1-BKS

LCSD Sample Id: 3126090-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	988	99	991	99	80-120	0	10	mg/L	05.15.2020 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3126090

Matrix: Ground Water

Parent Sample Id: 661623-001

MD Sample Id: 661623-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1900	1830	4	10	mg/L	05.15.2020 11:00	

Analytical Method: pH by SM4500-H

Seq Number: 3126038

Matrix: Water

Parent Sample Id: 661378-001

MD Sample Id: 661378-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	3.28	3.29	0	20	SU	05.15.2020 11:57	
Temperature	22.6	22.6	0	20	Deg C	05.15.2020 11:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: pH by SM4500-H

Seq Number: 3126038

Matrix: Ground Water

Parent Sample Id: 661623-001

MD Sample Id: 661623-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.34	6.35	0	20	SU	05.15.2020 11:57	
Temperature	22.2	22.3	0	20	Deg C	05.15.2020 11:57	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3126098

Matrix: Water

MB Sample Id: 7703401-1-BLK

LCS Sample Id: 7703401-1-BKS

Prep Method: E200.7P

Date Prep: 05.15.2020

LCSD Sample Id: 7703401-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.3	97	24.4	98	85-115	0	20	mg/L	05.15.2020 13:53	
Magnesium	<0.400	25.0	24.1	96	24.2	97	85-115	0	20	mg/L	05.15.2020 13:53	
Potassium	<0.500	10.0	9.75	98	9.74	97	85-115	0	20	mg/L	05.15.2020 13:53	
Silica	<1.07	21.4	20.4	95	20.4	95	85-115	0	20	mg/L	05.15.2020 13:53	
Sodium	<0.500	25.0	23.0	92	23.0	92	85-115	0	20	mg/L	05.15.2020 13:53	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3126098

Matrix: Ground Water

Parent Sample Id: 661623-001

MS Sample Id: 661623-001 S

Prep Method: E200.7P

Date Prep: 05.15.2020

MSD Sample Id: 661623-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	416	25.0	440	96	441	100	70-130	0	20	mg/L	05.15.2020 14:06	
Magnesium	76.5	25.0	102	102	101	98	70-130	1	20	mg/L	05.15.2020 14:06	
Potassium	6.23	10.0	16.8	106	16.9	107	70-130	1	20	mg/L	05.15.2020 14:06	
Silica	65.9	21.4	94.9	136	94.6	134	70-130	0	20	mg/L	05.15.2020 14:06	X
Sodium	107	25.0	131	96	131	96	70-130	0	20	mg/L	05.15.2020 14:06	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3126125

MB Sample Id: 7703433-1-BLK

Matrix: Water

LCS Sample Id: 7703433-1-BKS

Prep Method: SW5030B

Date Prep: 05.15.2020

LCSD Sample Id: 7703433-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0510	102	0.0509	102	66-142	0	25	mg/L	05.15.2020 13:56	
Bromobenzene	<0.00100	0.0500	0.0507	101	0.0501	100	75-125	1	25	mg/L	05.15.2020 13:56	
Bromochloromethane	<0.00100	0.0500	0.0512	102	0.0513	103	60-140	0	25	mg/L	05.15.2020 13:56	
Bromodichloromethane	<0.00100	0.0500	0.0511	102	0.0525	105	75-125	3	25	mg/L	05.15.2020 13:56	
Bromoform	<0.00500	0.0500	0.0509	102	0.0511	102	75-125	0	25	mg/L	05.15.2020 13:56	
Methyl bromide	<0.00500	0.0500	0.0555	111	0.0539	108	60-140	3	25	mg/L	05.15.2020 13:56	
2-Butanone	<0.0500	0.250	0.247	99	0.252	101	60-140	2	25	mg/L	05.15.2020 13:56	
n-Butylbenzene	<0.00100	0.0500	0.0539	108	0.0531	106	75-125	1	25	mg/L	05.15.2020 13:56	
Sec-Butylbenzene	<0.00100	0.0500	0.0532	106	0.0524	105	75-125	2	25	mg/L	05.15.2020 13:56	
tert-Butylbenzene	<0.00100	0.0500	0.0533	107	0.0531	106	75-125	0	25	mg/L	05.15.2020 13:56	
Carbon Tetrachloride	<0.00500	0.0500	0.0506	101	0.0520	104	62-125	3	25	mg/L	05.15.2020 13:56	
Chlorobenzene	<0.00100	0.0500	0.0500	100	0.0498	100	60-133	0	25	mg/L	05.15.2020 13:56	
Chloroethane	<0.0100	0.0500	0.0496	99	0.0504	101	60-140	2	25	mg/L	05.15.2020 13:56	
Chloroform	<0.00100	0.0500	0.0508	102	0.0516	103	70-130	2	25	mg/L	05.15.2020 13:56	
Methyl Chloride	<0.0100	0.0500	0.0482	96	0.0489	98	60-140	1	25	mg/L	05.15.2020 13:56	
2-Chlorotoluene	<0.00100	0.0500	0.0517	103	0.0513	103	73-125	1	25	mg/L	05.15.2020 13:56	
4-Chlorotoluene	<0.00100	0.0500	0.0516	103	0.0511	102	74-125	1	25	mg/L	05.15.2020 13:56	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0538	108	0.0537	107	75-125	0	25	mg/L	05.15.2020 13:56	
Dibromochloromethane	<0.00500	0.0500	0.0528	106	0.0526	105	73-125	0	25	mg/L	05.15.2020 13:56	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0490	98	0.0504	101	59-125	3	25	mg/L	05.15.2020 13:56	
1,2-Dibromoethane	<0.00500	0.0500	0.0519	104	0.0517	103	73-125	0	25	mg/L	05.15.2020 13:56	
Methylene Bromide	<0.00100	0.0500	0.0500	100	0.0503	101	69-127	1	25	mg/L	05.15.2020 13:56	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0499	100	0.0502	100	75-125	1	25	mg/L	05.15.2020 13:56	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0505	101	0.0509	102	75-125	1	25	mg/L	05.15.2020 13:56	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0510	102	0.0508	102	75-125	0	25	mg/L	05.15.2020 13:56	
Dichlorodifluoromethane	<0.00100	0.0500	0.0477	95	0.0477	95	60-140	0	25	mg/L	05.15.2020 13:56	
1,1-Dichloroethane	<0.00100	0.0500	0.0502	100	0.0512	102	72-125	2	25	mg/L	05.15.2020 13:56	
1,2-Dichloroethane	<0.00100	0.0500	0.0506	101	0.0516	103	68-127	2	25	mg/L	05.15.2020 13:56	
1,1-Dichloroethene	<0.00100	0.0500	0.0492	98	0.0505	101	59-172	3	25	mg/L	05.15.2020 13:56	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0515	103	0.0524	105	75-125	2	25	mg/L	05.15.2020 13:56	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0508	102	0.0518	104	75-125	2	25	mg/L	05.15.2020 13:56	
1,2-Dichloropropane	<0.00500	0.0500	0.0513	103	0.0518	104	74-125	1	25	mg/L	05.15.2020 13:56	
1,3-Dichloropropane	<0.00500	0.0500	0.0515	103	0.0516	103	75-125	0	25	mg/L	05.15.2020 13:56	
2,2-Dichloropropane	<0.00500	0.0500	0.0501	100	0.0509	102	75-125	2	25	mg/L	05.15.2020 13:56	
1,1-Dichloropropene	<0.00500	0.0500	0.0512	102	0.0522	104	75-125	2	25	mg/L	05.15.2020 13:56	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0517	103	0.0518	104	74-125	0	25	mg/L	05.15.2020 13:56	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0524	105	0.0527	105	66-125	1	25	mg/L	05.15.2020 13:56	
Ethylbenzene	<0.00100	0.0500	0.0509	102	0.0512	102	75-125	1	25	mg/L	05.15.2020 13:56	
Hexachlorobutadiene	<0.00500	0.0500	0.0509	102	0.0524	105	75-125	3	25	mg/L	05.15.2020 13:56	
Isopropylbenzene	<0.00100	0.0500	0.0534	107	0.0536	107	75-125	0	25	mg/L	05.15.2020 13:56	
Methylene Chloride	<0.00500	0.0500	0.0488	98	0.0502	100	75-125	3	25	mg/L	05.15.2020 13:56	
MTBE	<0.00500	0.0500	0.0526	105	0.0538	108	65-135	2	25	mg/L	05.15.2020 13:56	
Naphthalene	<0.0100	0.0500	0.0465	93	0.0510	102	70-130	9	25	mg/L	05.15.2020 13:56	
n-Propylbenzene	<0.00100	0.0500	0.0523	105	0.0516	103	75-125	1	25	mg/L	05.15.2020 13:56	
Styrene	<0.00100	0.0500	0.0522	104	0.0519	104	75-125	1	25	mg/L	05.15.2020 13:56	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0524	105	0.0528	106	72-125	1	25	mg/L	05.15.2020 13:56	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0490	98	0.0489	98	74-125	0	25	mg/L	05.15.2020 13:56	
Tetrachloroethylene	<0.00100	0.0500	0.0519	104	0.0513	103	71-125	1	25	mg/L	05.15.2020 13:56	
Toluene	<0.00100	0.0500	0.0511	102	0.0512	102	59-139	0	25	mg/L	05.15.2020 13:56	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0504	101	0.0542	108	75-137	7	25	mg/L	05.15.2020 13:56	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3126125

MB Sample Id: 7703433-1-BLK

Matrix: Water

LCS Sample Id: 7703433-1-BKS

Prep Method: SW5030B

Date Prep: 05.15.2020

LCSD Sample Id: 7703433-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0480	96	0.0588	118	75-135	20	25	mg/L	05.15.2020 13:56	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0521	104	0.0524	105	75-125	1	25	mg/L	05.15.2020 13:56	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0520	104	0.0521	104	75-127	0	25	mg/L	05.15.2020 13:56	
Trichloroethylene	<0.00500	0.0500	0.0507	101	0.0508	102	62-137	0	25	mg/L	05.15.2020 13:56	
Trichlorofluoromethane	<0.00100	0.0500	0.0493	99	0.0490	98	60-140	1	25	mg/L	05.15.2020 13:56	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0492	98	0.0493	99	75-125	0	25	mg/L	05.15.2020 13:56	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0529	106	0.0524	105	75-125	1	25	mg/L	05.15.2020 13:56	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0519	104	0.0517	103	70-125	0	25	mg/L	05.15.2020 13:56	
o-Xylene	<0.00100	0.0500	0.0519	104	0.0528	106	75-125	2	25	mg/L	05.15.2020 13:56	
m,p-Xylenes	<0.0100	0.100	0.105	105	0.106	106	75-125	1	25	mg/L	05.15.2020 13:56	
Vinyl Chloride	<0.00200	0.0500	0.0491	98	0.0499	100	60-140	2	25	mg/L	05.15.2020 13:56	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	94		100		101		75-131			%	05.15.2020 13:56	
1,2-Dichloroethane-D4	95		99		98		63-144			%	05.15.2020 13:56	
Toluene-D8	99		101		101		80-117			%	05.15.2020 13:56	
4-Bromofluorobenzene	110		100		99		74-124			%	05.15.2020 13:56	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3126125

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 05.15.2020

Parent Sample Id: 661623-001

MS Sample Id: 661623-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00660	0.0500	0.0508	88	66-142	mg/L	05.15.2020 14:49	
Bromobenzene	<0.00100	0.0500	0.0435	87	75-125	mg/L	05.15.2020 14:49	
Bromochloromethane	<0.00100	0.0500	0.0450	90	60-140	mg/L	05.15.2020 14:49	
Bromodichloromethane	<0.00100	0.0500	0.0442	88	75-125	mg/L	05.15.2020 14:49	
Bromoform	<0.00500	0.0500	0.0476	95	75-125	mg/L	05.15.2020 14:49	
Methyl bromide	<0.00500	0.0500	0.0417	83	60-140	mg/L	05.15.2020 14:49	
2-Butanone	<0.0500	0.250	0.251	100	60-140	mg/L	05.15.2020 14:49	
n-Butylbenzene	0.00236	0.0500	0.0454	86	75-125	mg/L	05.15.2020 14:49	
Sec-Butylbenzene	0.00324	0.0500	0.0436	81	75-125	mg/L	05.15.2020 14:49	
tert-Butylbenzene	<0.00100	0.0500	0.0457	91	75-125	mg/L	05.15.2020 14:49	
Carbon Tetrachloride	<0.00500	0.0500	0.0499	100	62-125	mg/L	05.15.2020 14:49	
Chlorobenzene	<0.00100	0.0500	0.0426	85	60-133	mg/L	05.15.2020 14:49	
Chloroethane	<0.0100	0.0500	0.0665	133	60-140	mg/L	05.15.2020 14:49	
Chloroform	<0.00100	0.0500	0.0443	89	70-130	mg/L	05.15.2020 14:49	
Methyl Chloride	<0.0100	0.0500	0.0515	103	60-140	mg/L	05.15.2020 14:49	
2-Chlorotoluene	<0.00100	0.0500	0.0441	88	73-125	mg/L	05.15.2020 14:49	
4-Chlorotoluene	<0.00100	0.0500	0.0478	96	74-125	mg/L	05.15.2020 14:49	
p-Cymene (p-Isopropyltoluene)	0.00191	0.0500	0.0457	88	75-125	mg/L	05.15.2020 14:49	
Dibromochloromethane	<0.00500	0.0500	0.0457	91	73-125	mg/L	05.15.2020 14:49	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0476	95	59-125	mg/L	05.15.2020 14:49	
1,2-Dibromoethane	<0.00500	0.0500	0.0482	96	73-125	mg/L	05.15.2020 14:49	
Methylene Bromide	<0.00100	0.0500	0.0454	91	69-127	mg/L	05.15.2020 14:49	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0437	87	75-125	mg/L	05.15.2020 14:49	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0431	86	75-125	mg/L	05.15.2020 14:49	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0441	88	75-125	mg/L	05.15.2020 14:49	
Dichlorodifluoromethane	<0.00100	0.0500	0.0724	145	60-140	mg/L	05.15.2020 14:49	X
1,1-Dichloroethane	<0.00100	0.0500	0.0452	90	72-125	mg/L	05.15.2020 14:49	
1,2-Dichloroethane	<0.00100	0.0500	0.0457	91	68-127	mg/L	05.15.2020 14:49	
1,1-Dichloroethene	<0.00100	0.0500	0.0505	101	59-172	mg/L	05.15.2020 14:49	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0450	90	75-125	mg/L	05.15.2020 14:49	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0461	92	75-125	mg/L	05.15.2020 14:49	
1,2-Dichloropropane	<0.00500	0.0500	0.0469	94	74-125	mg/L	05.15.2020 14:49	
1,3-Dichloropropane	<0.00500	0.0500	0.0490	98	75-125	mg/L	05.15.2020 14:49	
2,2-Dichloropropane	<0.00500	0.0500	0.0500	100	75-125	mg/L	05.15.2020 14:49	
1,1-Dichloropropene	<0.00500	0.0500	0.0525	105	75-125	mg/L	05.15.2020 14:49	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0467	93	74-125	mg/L	05.15.2020 14:49	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0454	91	66-125	mg/L	05.15.2020 14:49	
Ethylbenzene	0.0268	0.0500	0.0697	86	75-125	mg/L	05.15.2020 14:49	
Hexachlorobutadiene	<0.00500	0.0500	0.0422	84	75-125	mg/L	05.15.2020 14:49	
Isopropylbenzene	0.0165	0.0500	0.0621	91	75-125	mg/L	05.15.2020 14:49	
Methylene Chloride	<0.00500	0.0500	0.0422	84	75-125	mg/L	05.15.2020 14:49	
MTBE	<0.00500	0.0500	0.0499	100	65-135	mg/L	05.15.2020 14:49	
Naphthalene	<0.0100	0.0500	0.0546	109	70-130	mg/L	05.15.2020 14:49	
n-Propylbenzene	0.0236	0.0500	0.0705	94	75-125	mg/L	05.15.2020 14:49	
Styrene	<0.00100	0.0500	0.0443	89	75-125	mg/L	05.15.2020 14:49	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0454	91	72-125	mg/L	05.15.2020 14:49	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0476	95	74-125	mg/L	05.15.2020 14:49	
Tetrachloroethylene	<0.00100	0.0500	0.0473	95	71-125	mg/L	05.15.2020 14:49	
Toluene	0.0357	0.0500	0.0783	85	59-139	mg/L	05.15.2020 14:49	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0551	110	75-137	mg/L	05.15.2020 14:49	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3126125

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 661623-001

MS Sample Id: 661623-001 S

Date Prep: 05.15.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0571	114	75-135	mg/L	05.15.2020 14:49	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0494	99	75-125	mg/L	05.15.2020 14:49	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0542	108	75-127	mg/L	05.15.2020 14:49	
Trichloroethylene	<0.00500	0.0500	0.0446	89	62-137	mg/L	05.15.2020 14:49	
Trichlorofluoromethane	<0.00100	0.0500	0.0564	113	60-140	mg/L	05.15.2020 14:49	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0452	90	75-125	mg/L	05.15.2020 14:49	
1,2,4-Trimethylbenzene	0.161	0.0500	0.201	80	75-125	mg/L	05.15.2020 14:49	
1,3,5-Trimethylbenzene	0.0453	0.0500	0.0896	89	70-125	mg/L	05.15.2020 14:49	
o-Xylene	0.0141	0.0500	0.0585	89	75-125	mg/L	05.15.2020 14:49	
m,p-Xylenes	0.0882	0.100	0.175	87	75-125	mg/L	05.15.2020 14:49	
Vinyl Chloride	<0.00200	0.0500	0.0465	93	60-140	mg/L	05.15.2020 14:49	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		75-131	%	05.15.2020 14:49
1,2-Dichloroethane-D4	102		63-144	%	05.15.2020 14:49
Toluene-D8	103		80-117	%	05.15.2020 14:49
4-Bromofluorobenzene	101		74-124	%	05.15.2020 14:49

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

get it

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Page 7 of _____

Project Manager:	Beaux Jennings		Bill to: (if different)	
Company Name:	Ensolum LLC		Company Name:	
Address:	705 W Wadley #210		Address:	
City, State ZIP:	Midland TX		City, State ZIP:	
Phone:	432-230-3344		Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/PT ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	Levey Well Hobbs NM	Turn Around	ANALYSIS REQUEST							Work Order Notes
Project Number:	03B1417001	Routine ☐								
P.O. Number:	03B1417001	Rush: 24 hr								
Sampler's Name:	Shane Diller	Due Date:								

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	59.5		Yes	No			
Received Intact:	Yes	No					
Cooler Custody Seals:	Yes	No			Correction Factor:	-03	
Sample Custody Seals:	Yes	No			Total Containers:		

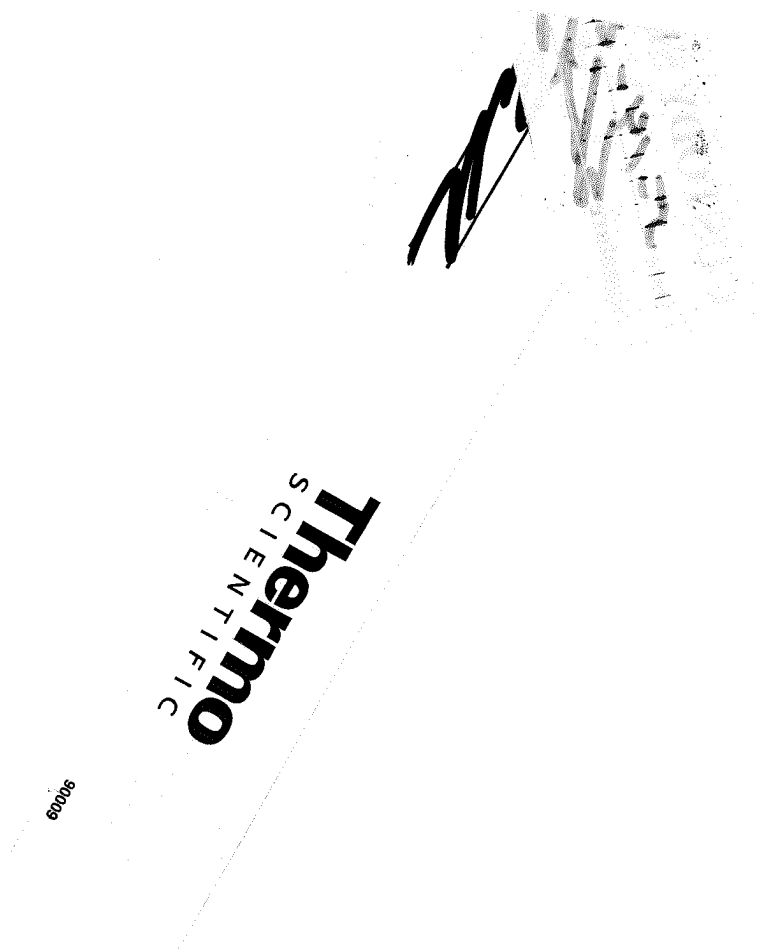
F, Cl, SO ₄ , B	
Ca, K, Mg, Na, Si	
y	
TAT starts the day received by the lab if received by 4:30pm	

[illegible]

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/14/20			
		1/4/20			



Inter-Office Shipment

IOS Number : **63723**

Date/Time: 05.14.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770468615414

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
661623-001	W	Levey Well	05.14.2020 11:15	SW8260C	VOCs by SW-846 8260C	05.15.2020	05.28.2020	JKR	BDCME BRBZ BRCLME	
661623-001	W	Levey Well	05.14.2020 11:15	E200.7	Recoverable Metals per ICP by EPA 200	05.15.2020	11.10.2020	JKR	CA K MG NA SI	
661623-001	W	Levey Well	05.14.2020 11:15	E300	Inorganic Anions by EPA 300/300.1	05.15.2020	05.16.2020 11:15	JKR	BR CL F NO2N NO3N SC	
661623-001	W	Levey Well	05.14.2020 11:15	SM4500-H	pH by SM4500-H	05.15.2020	05.14.2020 11:30	JKR		
661623-001	W	Levey Well	05.14.2020 11:15	SM2540C	TDS by SM2540C	05.15.2020	05.21.2020	JKR	TDS	
661623-001	W	Levey Well	05.14.2020 11:15	SM2320B	Alkalinity by SM2320B	05.15.2020	05.28.2020	JKR	ALK ALKB ALKC	
661623-001	W	Levey Well	05.14.2020 11:15	SM1030E	Cation-Anion Balance Calculation	05.15.2020	06.13.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 05.14.2020

Received By:



Jhyrom Edralin

Date Received: 05.15.2020

Cooler Temperature: 1.8



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 63723

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 05.14.2020 02.34 PM

Received By: Jhyrom Edralin

Date Received: 05.15.2020 08.56 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 05.15.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 05.14.2020 02.20.00 PM

Work Order #: 661623

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 05.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.15.2020



Certificate of Analysis Summary 662448

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.22.2020 16:04
Report Date: 06.02.2020 08:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662448-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.22.2020 13:30					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 05.26.2020 10:19 Analyzed: 05.26.2020 12:38 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO ₃)	1190 4.00					
Alkalinity, Bicarbonate (as CaCO ₃)	1190 4.00					
Alkalinity, Carbonate (as CaCO ₃)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO ₃)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 06.01.2020 22:15 Units/RL: % RL					
Cation-Anion Balance	6.10					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 05.23.2020 11:00 Analyzed: 05.23.2020 12:02 Units/RL: mg/L RL					
Bromide	0.531 0.500					
Chloride	319 X 0.500					
Fluoride	0.561 0.500					
Nitrate as N	<0.100 0.100					
Nitrite as N	1.55 DX 1.00					
Sulfate	30.1 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 662448

Ensolum, Dallas, TX

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Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.22.2020 16:04
Report Date: 06.02.2020 08:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662448-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.22.2020 13:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 05.26.2020 10:35 Analyzed: 05.26.2020 20:41 Units/RL: mg/L RL					
Calcium	354 D 10.0					
Magnesium	63.7 0.400					
Potassium	5.24 0.500					
Silica	64.5 1.07					
Sodium	97.4 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 05.29.2020 14:06 Units/RL: mg/L RL					
Total Dissolved Solids	1360 5.00					

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Project Manager



Certificate of Analysis Summary 662448

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.22.2020 16:04
Report Date: 06.02.2020 08:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662448-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.22.2020 13:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 06.01.2020 16:25 Analyzed: 06.01.2020 16:45 Units/RL: mg/L RL					
Benzene	0.00480 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	<0.00100 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00194 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Date Received in Lab: Fri 05.22.2020 16:04
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Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662448-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.22.2020 13:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 06.01.2020 16:25 Analyzed: 06.01.2020 16:45 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0193 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0137 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0276 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 662448

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 05.22.2020 16:04
Report Date: 06.02.2020 08:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662448-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.22.2020 13:30					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 06.01.2020 16:25 Analyzed: 06.01.2020 16:45 Units/RL: mg/L RL					
Toluene	0.00851 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.187 DX 0.0100					
1,3,5-Trimethylbenzene	0.0597 0.00100					
o-Xylene	0.00896 0.00100					
m,p-Xylenes	0.0567 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0657 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.26.2020 13:59 Units/RL: Deg C RL					
Temperature	23.3 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.26.2020 13:59 Units/RL: SU RL					
pH	6.54 K					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Analytical Report 662448

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

06.02.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.02.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **662448**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 662448. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 662448 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 662448

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	05.22.2020 13:30		662448-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 662448

Report Date: 06.02.2020
Date Received: 05.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3126865 Inorganic Anions by EPA 300/300.1

Lab Sample ID 662448-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 662448-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3127611 VOCs by SW-846 8260C

Lab Sample ID 662448-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 1,2,4-Trimethylbenzene recovered below QC limits in the Matrix Spike. Naphthalene recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 662448-001.

The Laboratory Control Sample for Naphthalene, 1,2,4-Trimethylbenzene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 662448

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.22.2020 16:04

Lab Sample Id: 662448-001

Date Collected: 05.22.2020 13:30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 05.26.2020 10:19

Seq Number: 3126966

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1190	4.00	mg/L	05.26.2020 12:38		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1190	4.00	mg/L	05.26.2020 12:38		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	05.26.2020 12:38	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	05.26.2020 12:38	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3127612

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	6.10		%	06.01.2020 22:15		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 05.23.2020 11:00

Seq Number: 3126865

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.531	0.500	mg/L	05.26.2020 11:24		1
Chloride	16887-00-6	319	0.500	mg/L	05.26.2020 11:24	X	1
Fluoride	16984-48-8	0.561	0.500	mg/L	05.26.2020 11:24		1
Nitrate as N	14797-55-8	<0.100	0.100	mg/L	05.26.2020 11:24	UK	1
Nitrite as N	14797-65-0	1.55	1.00	mg/L	05.23.2020 13:13	DX	10
Sulfate	14808-79-8	30.1	0.500	mg/L	05.26.2020 11:24		1



Certificate of Analytical Results 662448

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.22.2020 16:04

Lab Sample Id: 662448-001

Date Collected: 05.22.2020 13:30

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3127430

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1360	5.00	mg/L	05.29.2020 14:06		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3126963

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.54		SU	05.26.2020 13:59	K	1
Temperature	TEMP	23.3		Deg C	05.26.2020 13:59	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 05.26.2020 10:35

Seq Number: 3127050

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	354	10.0	mg/L	05.26.2020 20:45	D	50
Magnesium	7439-95-4	63.7	0.400	mg/L	05.26.2020 20:41		1
Potassium	7440-09-7	5.24	0.500	mg/L	05.26.2020 20:41		1
Silica	7631-86-9	64.5	1.07	mg/L	05.26.2020 20:41		1
Sodium	7440-23-5	97.4	0.500	mg/L	05.26.2020 20:41		1



Certificate of Analytical Results 662448

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.22.2020 16:04

Lab Sample Id: 662448-001

Date Collected: 05.22.2020 13:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.01.2020 16:25

Seq Number: 3127611

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00480	0.00100	mg/L	06.01.2020 16:45		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	06.01.2020 16:45	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	06.01.2020 16:45	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	06.01.2020 16:45	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00194	0.00100	mg/L	06.01.2020 16:45		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Ethylbenzene	100-41-4	0.0193	0.00100	mg/L	06.01.2020 16:45		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1



Certificate of Analytical Results 662448

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.22.2020 16:04

Lab Sample Id: 662448-001

Date Collected: 05.22.2020 13:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.01.2020 16:25

Seq Number: 3127611

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0137	0.00100	mg/L	06.01.2020 16:45		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	06.01.2020 16:45	UX	1
n-Propylbenzene	103-65-1	0.0276	0.00100	mg/L	06.01.2020 16:45		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Toluene	108-88-3	0.00851	0.00100	mg/L	06.01.2020 16:45		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	06.01.2020 16:45	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	06.01.2020 16:45	U	1
1,2,4-Trimethylbenzene	95-63-6	0.187	0.0100	mg/L	06.01.2020 17:12	DX	10
1,3,5-Trimethylbenzene	108-67-8	0.0597	0.00100	mg/L	06.01.2020 16:45		1
o-Xylene	95-47-6	0.00896	0.00100	mg/L	06.01.2020 16:45		1
m,p-Xylenes	179601-23-1	0.0567	0.0100	mg/L	06.01.2020 16:45		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	06.01.2020 16:45	U	1
Total Xylenes	1330-20-7	0.0657	0.00100	mg/L	06.01.2020 16:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	75-131	06.01.2020 16:45	
1,2-Dichloroethane-D4	17060-07-0	100	%	63-144	06.01.2020 16:45	
Toluene-D8	2037-26-5	100	%	80-117	06.01.2020 16:45	
4-Bromofluorobenzene	460-00-4	97	%	74-124	06.01.2020 16:45	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126966

MB Sample Id: 7704014-1-BLK

Matrix: Water

LCS Sample Id: 7704014-1-BKS

Prep Method: SM2320P

Date Prep: 05.26.2020

LCSD Sample Id: 7704014-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	261	104	264	106	85-115	1	20	mg/L	05.26.2020 10:57	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126966

Matrix: Water

MB Sample Id: 7704014-1-BLK

Prep Method: SM2320P

Date Prep: 05.26.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	05.26.2020 10:50	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	05.26.2020 10:50	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	05.26.2020 10:50	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3126966

Matrix: Water

Parent Sample Id: 662239-001

MD Sample Id: 662239-001 D

Prep Method: SM2320P

Date Prep: 05.26.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	425	418	2	20	mg/L	05.26.2020 11:20	
Alkalinity, Bicarbonate (as CaCO3)	421	417	1	20	mg/L	05.26.2020 11:20	
Alkalinity, Carbonate (as CaCO3)	4.92	<4.00	NC	20	mg/L	05.26.2020 11:20	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	05.26.2020 11:20	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126865

Matrix: Water

MB Sample Id: 7703996-1-BLK

LCS Sample Id: 7703996-1-BKS

Prep Method: E300P

Date Prep: 05.23.2020

LCSD Sample Id: 7703996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.23.2020 11:39	
Chloride	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.23.2020 11:39	
Fluoride	<0.500	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	05.23.2020 11:39	
Nitrate as N	<0.100	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.23.2020 11:39	
Nitrite as N	<0.100	10.0	9.98	100	10.1	101	90-110	1	20	mg/L	05.23.2020 11:39	
Sulfate	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.23.2020 11:39	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126865

Matrix: Ground Water

Prep Method: E300P

Date Prep: 05.23.2020

Parent Sample Id: 662448-001

MS Sample Id: 662448-001 S

MSD Sample Id: 662448-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.531	10.0	10.6	101	10.7	102	90-110	1	20	mg/L	05.26.2020 11:36	
Chloride	319	10.0	322	30	322	30	90-110	0	20	mg/L	05.26.2020 11:36	X
Fluoride	0.561	10.0	11.3	107	11.3	107	90-110	0	20	mg/L	05.26.2020 11:36	
Nitrate as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	05.26.2020 11:36	
Sulfate	30.1	10.0	39.9	98	39.9	98	90-110	0	20	mg/L	05.26.2020 11:36	

Analytical Method: TDS by SM2540C

Seq Number: 3127430

Matrix: Water

MB Sample Id: 3127430-1-BLK

LCS Sample Id: 3127430-1-BKS

LCSD Sample Id: 3127430-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	973	97	80-120	1	10	mg/L	05.29.2020 14:06	

Analytical Method: TDS by SM2540C

Seq Number: 3127430

Matrix: Ground Water

Parent Sample Id: 662448-001

MD Sample Id: 662448-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1360	1380	1	10	mg/L	05.29.2020 14:06	

Analytical Method: pH by SM4500-H

Seq Number: 3126963

Matrix: Ground Water

Parent Sample Id: 662132-001

MD Sample Id: 662132-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	10.2	10.2	0	20	SU	05.26.2020 13:59	
Temperature	23.7	23.8	0	20	Deg C	05.26.2020 13:59	

Analytical Method: pH by SM4500-H

Seq Number: 3126963

Matrix: Surface Water

Parent Sample Id: 662271-001

MD Sample Id: 662271-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.19	6.20	0	20	SU	05.26.2020 13:59	
Temperature	23.9	24.0	0	20	Deg C	05.26.2020 13:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127050

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.26.2020

MB Sample Id: 7704026-1-BLK

LCS Sample Id: 7704026-1-BKS

LCSD Sample Id: 7704026-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.5	94	23.6	94	85-115	0	20	mg/L	05.26.2020 19:13	
Magnesium	<0.400	25.0	23.2	93	23.3	93	85-115	0	20	mg/L	05.26.2020 19:13	
Potassium	<0.500	10.0	9.11	91	9.09	91	85-115	0	20	mg/L	05.26.2020 19:13	
Silica	<1.07	21.4	20.0	93	20.2	94	85-115	1	20	mg/L	05.26.2020 19:13	
Sodium	<0.500	25.0	23.4	94	23.6	94	85-115	1	20	mg/L	05.26.2020 19:13	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127050

Matrix: Waste Water

Prep Method: E200.7P

Date Prep: 05.26.2020

Parent Sample Id: 662224-001

MS Sample Id: 662224-001 S

MSD Sample Id: 662224-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	5.08	25.0	29.7	98	29.6	98	70-130	0	20	mg/L	05.26.2020 19:25	
Magnesium	1.13	25.0	25.2	96	25.2	96	70-130	0	20	mg/L	05.26.2020 19:25	
Potassium	0.427	10.0	10.0	96	10.0	96	70-130	0	20	mg/L	05.26.2020 19:25	
Silica	0.872	21.4	22.2	100	22.2	100	70-130	0	20	mg/L	05.26.2020 19:25	
Sodium	23.6	25.0	48.5	100	48.2	98	70-130	1	20	mg/L	05.26.2020 19:25	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127050

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.26.2020

Parent Sample Id: 662206-003

MS Sample Id: 662206-003 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	11.3	25.0	34.9	94	70-130	mg/L	05.26.2020 21:14	
Magnesium	2.58	25.0	26.3	95	70-130	mg/L	05.26.2020 21:14	
Potassium	0.767	10.0	10.3	95	70-130	mg/L	05.26.2020 21:14	
Silica	1.34	21.4	22.6	99	70-130	mg/L	05.26.2020 21:14	
Sodium	101	25.0	121	80	70-130	mg/L	05.26.2020 21:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127611

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.01.2020

MB Sample Id: 7704551-1-BLK

LCS Sample Id: 7704551-1-BKS

LCSD Sample Id: 7704551-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0449	90	0.0442	88	66-142	2	25	mg/L	06.01.2020 17:46	
Bromobenzene	<0.00100	0.0500	0.0481	96	0.0449	90	75-125	7	25	mg/L	06.01.2020 17:46	
Bromochloromethane	<0.00100	0.0500	0.0454	91	0.0455	91	60-140	0	25	mg/L	06.01.2020 17:46	
Bromodichloromethane	<0.00100	0.0500	0.0457	91	0.0450	90	75-125	2	25	mg/L	06.01.2020 17:46	
Bromoform	<0.00500	0.0500	0.0516	103	0.0505	101	75-125	2	25	mg/L	06.01.2020 17:46	
Methyl bromide	<0.00500	0.0500	0.0345	69	0.0381	76	60-140	10	25	mg/L	06.01.2020 17:46	
2-Butanone	<0.0500	0.250	0.241	96	0.246	98	60-140	2	25	mg/L	06.01.2020 17:46	
n-Butylbenzene	<0.00100	0.0500	0.0481	96	0.0448	90	75-125	7	25	mg/L	06.01.2020 17:46	
Sec-Butylbenzene	<0.00100	0.0500	0.0451	90	0.0418	84	75-125	8	25	mg/L	06.01.2020 17:46	
tert-Butylbenzene	<0.00100	0.0500	0.0502	100	0.0464	93	75-125	8	25	mg/L	06.01.2020 17:46	
Carbon Tetrachloride	<0.00500	0.0500	0.0474	95	0.0470	94	62-125	1	25	mg/L	06.01.2020 17:46	
Chlorobenzene	<0.00100	0.0500	0.0462	92	0.0445	89	60-133	4	25	mg/L	06.01.2020 17:46	
Chloroethane	<0.0100	0.0500	0.0367	73	0.0358	72	60-140	2	25	mg/L	06.01.2020 17:46	
Chloroform	<0.00100	0.0500	0.0453	91	0.0458	92	70-130	1	25	mg/L	06.01.2020 17:46	
Methyl Chloride	<0.0100	0.0500	0.0473	95	0.0468	94	60-140	1	25	mg/L	06.01.2020 17:46	
2-Chlorotoluene	<0.00100	0.0500	0.0478	96	0.0442	88	73-125	8	25	mg/L	06.01.2020 17:46	
4-Chlorotoluene	<0.00100	0.0500	0.0487	97	0.0448	90	74-125	8	25	mg/L	06.01.2020 17:46	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0497	99	0.0459	92	75-125	8	25	mg/L	06.01.2020 17:46	
Dibromochloromethane	<0.00500	0.0500	0.0490	98	0.0475	95	73-125	3	25	mg/L	06.01.2020 17:46	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0514	103	0.0482	96	59-125	6	25	mg/L	06.01.2020 17:46	
1,2-Dibromoethane	<0.00500	0.0500	0.0504	101	0.0489	98	73-125	3	25	mg/L	06.01.2020 17:46	
Methylene Bromide	<0.00100	0.0500	0.0453	91	0.0445	89	69-127	2	25	mg/L	06.01.2020 17:46	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0492	98	0.0454	91	75-125	8	25	mg/L	06.01.2020 17:46	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0476	95	0.0446	89	75-125	7	25	mg/L	06.01.2020 17:46	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0489	98	0.0455	91	75-125	7	25	mg/L	06.01.2020 17:46	
Dichlorodifluoromethane	<0.00100	0.0500	0.0558	112	0.0544	109	60-140	3	25	mg/L	06.01.2020 17:46	
1,1-Dichloroethane	<0.00100	0.0500	0.0457	91	0.0460	92	72-125	1	25	mg/L	06.01.2020 17:46	
1,2-Dichloroethane	<0.00100	0.0500	0.0452	90	0.0444	89	68-127	2	25	mg/L	06.01.2020 17:46	
1,1-Dichloroethene	<0.00100	0.0500	0.0463	93	0.0460	92	59-172	1	25	mg/L	06.01.2020 17:46	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0458	92	0.0453	91	75-125	1	25	mg/L	06.01.2020 17:46	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0448	90	0.0445	89	75-125	1	25	mg/L	06.01.2020 17:46	
1,2-Dichloropropane	<0.00500	0.0500	0.0479	96	0.0475	95	74-125	1	25	mg/L	06.01.2020 17:46	
1,3-Dichloropropane	<0.00500	0.0500	0.0519	104	0.0502	100	75-125	3	25	mg/L	06.01.2020 17:46	
2,2-Dichloropropane	<0.00500	0.0500	0.0470	94	0.0463	93	75-125	2	25	mg/L	06.01.2020 17:46	
1,1-Dichloropropene	<0.00500	0.0500	0.0511	102	0.0501	100	75-125	2	25	mg/L	06.01.2020 17:46	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0491	98	0.0483	97	74-125	2	25	mg/L	06.01.2020 17:46	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0488	98	0.0472	94	66-125	3	25	mg/L	06.01.2020 17:46	
Ethylbenzene	<0.00100	0.0500	0.0465	93	0.0445	89	75-125	4	25	mg/L	06.01.2020 17:46	
Hexachlorobutadiene	<0.00500	0.0500	0.0529	106	0.0557	111	75-125	5	25	mg/L	06.01.2020 17:46	
Isopropylbenzene	<0.00100	0.0500	0.0470	94	0.0450	90	75-125	4	25	mg/L	06.01.2020 17:46	
Methylene Chloride	<0.00500	0.0500	0.0473	95	0.0475	95	75-125	0	25	mg/L	06.01.2020 17:46	
MTBE	<0.00500	0.0500	0.0530	106	0.0538	108	65-135	1	25	mg/L	06.01.2020 17:46	
Naphthalene	<0.0100	0.0500	0.0566	113	0.0611	122	70-130	8	25	mg/L	06.01.2020 17:46	
n-Propylbenzene	<0.00100	0.0500	0.0496	99	0.0455	91	75-125	9	25	mg/L	06.01.2020 17:46	
Styrene	<0.00100	0.0500	0.0468	94	0.0452	90	75-125	3	25	mg/L	06.01.2020 17:46	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0489	98	0.0475	95	72-125	3	25	mg/L	06.01.2020 17:46	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0489	98	0.0462	92	74-125	6	25	mg/L	06.01.2020 17:46	
Tetrachloroethylene	<0.00100	0.0500	0.0473	95	0.0458	92	71-125	3	25	mg/L	06.01.2020 17:46	
Toluene	<0.00100	0.0500	0.0465	93	0.0451	90	59-139	3	25	mg/L	06.01.2020 17:46	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0535	107	0.0585	117	75-137	9	25	mg/L	06.01.2020 17:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127611

MB Sample Id: 7704551-1-BLK

Matrix: Water

LCS Sample Id: 7704551-1-BKS

Prep Method: SW5030B

Date Prep: 06.01.2020

LCSD Sample Id: 7704551-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0566	113	0.0563	113	75-135	1	25	mg/L	06.01.2020 17:46	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0466	93	0.0464	93	75-125	0	25	mg/L	06.01.2020 17:46	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0506	101	0.0490	98	75-127	3	25	mg/L	06.01.2020 17:46	
Trichloroethylene	<0.00500	0.0500	0.0472	94	0.0464	93	62-137	2	25	mg/L	06.01.2020 17:46	
Trichlorofluoromethane	<0.00100	0.0500	0.0508	102	0.0507	101	60-140	0	25	mg/L	06.01.2020 17:46	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0502	100	0.0472	94	75-125	6	25	mg/L	06.01.2020 17:46	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0505	101	0.0465	93	75-125	8	25	mg/L	06.01.2020 17:46	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0502	100	0.0459	92	70-125	9	25	mg/L	06.01.2020 17:46	
o-Xylene	<0.00100	0.0500	0.0477	95	0.0457	91	75-125	4	25	mg/L	06.01.2020 17:46	
m,p-Xylenes	<0.0100	0.100	0.0951	95	0.0914	91	75-125	4	25	mg/L	06.01.2020 17:46	
Vinyl Chloride	<0.00200	0.0500	0.0455	91	0.0450	90	60-140	1	25	mg/L	06.01.2020 17:46	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	105		99		101		75-131			%	06.01.2020 17:46	
1,2-Dichloroethane-D4	106		95		98		63-144			%	06.01.2020 17:46	
Toluene-D8	96		101		99		80-117			%	06.01.2020 17:46	
4-Bromofluorobenzene	99		98		96		74-124			%	06.01.2020 17:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127611

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 06.01.2020

Parent Sample Id: 662448-001

MS Sample Id: 662448-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00480	0.0500	0.0463	83	66-142	mg/L	06.01.2020 18:33	
Bromobenzene	<0.00100	0.0500	0.0443	89	75-125	mg/L	06.01.2020 18:33	
Bromochloromethane	<0.00100	0.0500	0.0439	88	60-140	mg/L	06.01.2020 18:33	
Bromodichloromethane	<0.00100	0.0500	0.0428	86	75-125	mg/L	06.01.2020 18:33	
Bromoform	<0.00500	0.0500	0.0516	103	75-125	mg/L	06.01.2020 18:33	
Methyl bromide	<0.00500	0.0500	0.0325	65	60-140	mg/L	06.01.2020 18:33	
2-Butanone	<0.0500	0.250	0.289	116	60-140	mg/L	06.01.2020 18:33	
n-Butylbenzene	<0.00100	0.0500	0.0456	91	75-125	mg/L	06.01.2020 18:33	
Sec-Butylbenzene	<0.00100	0.0500	0.0416	83	75-125	mg/L	06.01.2020 18:33	
tert-Butylbenzene	<0.00100	0.0500	0.0442	88	75-125	mg/L	06.01.2020 18:33	
Carbon Tetrachloride	<0.00500	0.0500	0.0428	86	62-125	mg/L	06.01.2020 18:33	
Chlorobenzene	<0.00100	0.0500	0.0437	87	60-133	mg/L	06.01.2020 18:33	
Chloroethane	<0.0100	0.0500	0.0349	70	60-140	mg/L	06.01.2020 18:33	
Chloroform	<0.00100	0.0500	0.0439	88	70-130	mg/L	06.01.2020 18:33	
Methyl Chloride	<0.0100	0.0500	0.0429	86	60-140	mg/L	06.01.2020 18:33	
2-Chlorotoluene	<0.00100	0.0500	0.0598	120	73-125	mg/L	06.01.2020 18:33	
4-Chlorotoluene	<0.00100	0.0500	0.0485	97	74-125	mg/L	06.01.2020 18:33	
p-Cymene (p-Isopropyltoluene)	0.00194	0.0500	0.0462	89	75-125	mg/L	06.01.2020 18:33	
Dibromochloromethane	<0.00500	0.0500	0.0473	95	73-125	mg/L	06.01.2020 18:33	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0516	103	59-125	mg/L	06.01.2020 18:33	
1,2-Dibromoethane	<0.00500	0.0500	0.0503	101	73-125	mg/L	06.01.2020 18:33	
Methylene Bromide	<0.00100	0.0500	0.0439	88	69-127	mg/L	06.01.2020 18:33	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0460	92	75-125	mg/L	06.01.2020 18:33	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0437	87	75-125	mg/L	06.01.2020 18:33	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0452	90	75-125	mg/L	06.01.2020 18:33	
Dichlorodifluoromethane	<0.00100	0.0500	0.0407	81	60-140	mg/L	06.01.2020 18:33	
1,1-Dichloroethane	<0.00100	0.0500	0.0437	87	72-125	mg/L	06.01.2020 18:33	
1,2-Dichloroethane	<0.00100	0.0500	0.0432	86	68-127	mg/L	06.01.2020 18:33	
1,1-Dichloroethene	<0.00100	0.0500	0.0419	84	59-172	mg/L	06.01.2020 18:33	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0442	88	75-125	mg/L	06.01.2020 18:33	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0421	84	75-125	mg/L	06.01.2020 18:33	
1,2-Dichloropropane	<0.00500	0.0500	0.0463	93	74-125	mg/L	06.01.2020 18:33	
1,3-Dichloropropane	<0.00500	0.0500	0.0512	102	75-125	mg/L	06.01.2020 18:33	
2,2-Dichloropropane	<0.00500	0.0500	0.0438	88	75-125	mg/L	06.01.2020 18:33	
1,1-Dichloropropene	<0.00500	0.0500	0.0476	95	75-125	mg/L	06.01.2020 18:33	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0475	95	74-125	mg/L	06.01.2020 18:33	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0480	96	66-125	mg/L	06.01.2020 18:33	
Ethylbenzene	0.0193	0.0500	0.0605	82	75-125	mg/L	06.01.2020 18:33	
Hexachlorobutadiene	<0.00500	0.0500	0.0536	107	75-125	mg/L	06.01.2020 18:33	
Isopropylbenzene	0.0137	0.0500	0.0555	84	75-125	mg/L	06.01.2020 18:33	
Methylene Chloride	<0.00500	0.0500	0.0422	84	75-125	mg/L	06.01.2020 18:33	
MTBE	<0.00500	0.0500	0.0564	113	65-135	mg/L	06.01.2020 18:33	
Naphthalene	<0.0100	0.0500	0.0712	142	70-130	mg/L	06.01.2020 18:33	X
n-Propylbenzene	0.0276	0.0500	0.0669	79	75-125	mg/L	06.01.2020 18:33	
Styrene	<0.00100	0.0500	0.0441	88	75-125	mg/L	06.01.2020 18:33	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0482	96	72-125	mg/L	06.01.2020 18:33	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0482	96	74-125	mg/L	06.01.2020 18:33	
Tetrachloroethylene	<0.00100	0.0500	0.0428	86	71-125	mg/L	06.01.2020 18:33	
Toluene	0.00851	0.0500	0.0495	82	59-139	mg/L	06.01.2020 18:33	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0665	133	75-137	mg/L	06.01.2020 18:33	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127611

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 662448-001

MS Sample Id: 662448-001 S

Date Prep: 06.01.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0617	123	75-135	mg/L	06.01.2020 18:33	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0437	87	75-125	mg/L	06.01.2020 18:33	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0505	101	75-127	mg/L	06.01.2020 18:33	
Trichloroethylene	<0.00500	0.0500	0.0438	88	62-137	mg/L	06.01.2020 18:33	
Trichlorofluoromethane	<0.00100	0.0500	0.0421	84	60-140	mg/L	06.01.2020 18:33	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0493	99	75-125	mg/L	06.01.2020 18:33	
1,2,4-Trimethylbenzene	0.207	0.0500	0.220	26	75-125	mg/L	06.01.2020 18:33	X
1,3,5-Trimethylbenzene	0.0597	0.0500	0.0964	73	70-125	mg/L	06.01.2020 18:33	
o-Xylene	0.00896	0.0500	0.0518	86	75-125	mg/L	06.01.2020 18:33	
m,p-Xylenes	0.0567	0.100	0.137	80	75-125	mg/L	06.01.2020 18:33	
Vinyl Chloride	<0.00200	0.0500	0.0398	80	60-140	mg/L	06.01.2020 18:33	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		75-131	%	06.01.2020 18:33
1,2-Dichloroethane-D4	96		63-144	%	06.01.2020 18:33
Toluene-D8	101		80-117	%	06.01.2020 18:33
4-Bromofluorobenzene	97		74-124	%	06.01.2020 18:33

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 66349

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) 565-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (602) 955-3333 Atlanta, GA (770) 449-3800 Tampa, FL (813) 281-3333
Hobbs, NM (575) 382-7550

Page _____ of _____
www.xenco.com

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	5.8/5.5	Thermopile ID	Yes	No		Yes	No
Received Intact:	Yes No						
Cooler Custody Seals:	Yes No	Correction Factor:					
Sample Custody Seals:	Yes No	Total Containers:					

[illegible]

Total 200.7 / 6010 200.8 / 6020:
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metals(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 / 7477: 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
		5/22/2015			

CUSTODY SEAL

Date 5-22-20

Signature [Handwritten Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **64190**

Date/Time: 05.22.2020

Created by: Jessica Kramer

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770532347663

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
662448-001	W	Levey Well	05.22.2020 13:30	SW8260C	VOCs by SW-846 8260C	06.01.2020	06.05.2020	JKR	BDCME BRBZ BRCLME	
662448-001	W	Levey Well	05.22.2020 13:30	E200.7	Recoverable Metals per ICP by EPA 200	06.01.2020	11.18.2020	JKR	CA K MG NA SI	
662448-001	W	Levey Well	05.22.2020 13:30	E300	Inorganic Anions by EPA 300/300.1	06.01.2020	05.24.2020 13:30	JKR	BR CL F NO2N NO3N S	
662448-001	W	Levey Well	05.22.2020 13:30	SM4500-H	pH by SM4500-H	06.01.2020	05.22.2020 13:45	JKR		
662448-001	W	Levey Well	05.22.2020 13:30	SM2540C	TDS by SM2540C	06.01.2020	05.29.2020 13:30	JKR	TDS	
662448-001	W	Levey Well	05.22.2020 13:30	SM2320B	Alkalinity by SM2320B	06.01.2020	06.05.2020	JKR	ALK ALKB ALKC	
662448-001	W	Levey Well	05.22.2020 13:30	SM1030E	Cation-Anion Balance Calculation	06.01.2020	06.21.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

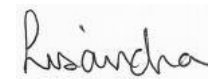
Relinquished By:



Jessica Kramer

Date Relinquished: 05.22.2020

Received By:



Lisandra Torres

Date Received: 05.23.2020

Cooler Temperature: 3.6



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 64190

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Jessica Kramer

Date Sent: 05.22.2020 04.48 PM

Received By: Lisandra Torres

Date Received: 05.23.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	No	
#5 *Custody Seals Signed and dated for Containers/coolers	No	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	Yes	662415-001 Extra Vials
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Lisandra Torres

Date: 05.23.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 05.22.2020 04.04.11 PM

Work Order #: 662448

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: JK

PH Device/Lot#: 10bdh1991

Checklist completed by:



Allison Johnson

Date: 05.22.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.23.2020



Certificate of Analysis Summary 662583

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Tue 05.26.2020 16:05
Report Date: 05.28.2020 12:12
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662583-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.26.2020 13:35					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 05.27.2020 10:39 Analyzed: 05.27.2020 11:28 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1170 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1170 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 05.27.2020 16:57 Units/RL: % RL					
Cation-Anion Balance	6.30					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 05.27.2020 09:00 Analyzed: 05.27.2020 11:49 Units/RL: mg/L RL					
Bromide	0.549 0.500					
Chloride	357 0.500					
Fluoride	0.688 0.500					
Nitrate as N	0.153 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	44.5 0.500					

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

John Builes
Project Manager



Certificate of Analysis Summary 662583

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Tue 05.26.2020 16:05
Report Date: 05.28.2020 12:12
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662583-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.26.2020 13:35					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 05.27.2020 10:00 Analyzed: 05.27.2020 14:31 Units/RL: mg/L RL					
Calcium	356 D 10.0					
Magnesium	69.6 0.400					
Potassium	5.67 0.500					
Silica	62.6 1.07					
Sodium	102 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 05.27.2020 11:00 Units/RL: mg/L RL					
Total Dissolved Solids	1650 5.00					

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John Builes
Project Manager



Certificate of Analysis Summary 662583

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Tue 05.26.2020 16:05
Report Date: 05.28.2020 12:12
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662583-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.26.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: *** ** ** Analyzed: 05.27.2020 14:07 Units/RL: mg/L RL					
Benzene	0.00490 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00122 0.00100					
Sec-Butylbenzene	0.00300 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00164 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Tue 05.26.2020 16:05
Report Date: 05.28.2020 12:12
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662583-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.26.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: *** ** Analyzed: 05.27.2020 14:07 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0210 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0138 X 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0256 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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John Builes
Project Manager



Certificate of Analysis Summary 662583

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Tue 05.26.2020 16:05
Report Date: 05.28.2020 12:12
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 662583-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 05.26.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: *** ** Analyzed: 05.27.2020 14:07 Units/RL: mg/L RL					
Toluene	0.0169 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.192 D 0.0100					
1,3,5-Trimethylbenzene	0.0532 0.00100					
o-Xylene	0.0109 0.00100					
m,p-Xylenes	0.0637 X 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0746 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.27.2020 14:13 Units/RL: Deg C RL					
Temperature	23.9 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 05.27.2020 14:13 Units/RL: SU RL					
pH	6.42 K					

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John Builes
Project Manager



Analytical Report 662583

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

05.28.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.28.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **662583**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 662583. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 662583 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'JB', is written over a light blue rectangular background.

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 662583

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	05.26.2020 13:35		662583-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 662583

Report Date: 05.28.2020
Date Received: 05.26.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3127136 VOCs by SW-846 8260C

Lab Sample ID 662583-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered below QC limits in the Matrix Spike. Isopropylbenzene, Naphthalene recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 662583-001.

The Laboratory Control Sample for Naphthalene, m,p-Xylenes, Isopropylbenzene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 662583

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.26.2020 16:05

Lab Sample Id: 662583-001

Date Collected: 05.26.2020 13:35

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 05.27.2020 10:39

Seq Number: 3127071

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1170	4.00	mg/L	05.27.2020 11:28		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1170	4.00	mg/L	05.27.2020 11:28		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	05.27.2020 11:28	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	05.27.2020 11:28	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3127132

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	6.30		%	05.27.2020 16:57		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 05.27.2020 09:00

Seq Number: 3127131

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.549	0.500	mg/L	05.27.2020 11:49		1
Chloride	16887-00-6	357	0.500	mg/L	05.27.2020 11:49		1
Fluoride	16984-48-8	0.688	0.500	mg/L	05.27.2020 11:49		1
Nitrate as N	14797-55-8	0.153	0.100	mg/L	05.27.2020 11:49		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	05.27.2020 11:49	U	1
Sulfate	14808-79-8	44.5	0.500	mg/L	05.27.2020 11:49		1



Certificate of Analytical Results 662583

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.26.2020 16:05

Lab Sample Id: 662583-001

Date Collected: 05.26.2020 13:35

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3127090

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1650	5.00	mg/L	05.27.2020 11:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3127109

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.42		SU	05.27.2020 14:13	K	1
Temperature	TEMP	23.9		Deg C	05.27.2020 14:13	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 05.27.2020 10:00

Seq Number: 3127123

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	356	10.0	mg/L	05.27.2020 15:08	D	50
Magnesium	7439-95-4	69.6	0.400	mg/L	05.27.2020 14:31		1
Potassium	7440-09-7	5.67	0.500	mg/L	05.27.2020 14:31		1
Silica	7631-86-9	62.6	1.07	mg/L	05.27.2020 14:31		1
Sodium	7440-23-5	102	0.500	mg/L	05.27.2020 14:31		1



Certificate of Analytical Results 662583

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.26.2020 16:05

Lab Sample Id: 662583-001

Date Collected: 05.26.2020 13:35

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.26.2020 10:14

Seq Number: 3127136

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00490	0.00100	mg/L	05.27.2020 14:07		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	05.27.2020 14:07	U	1
n-Butylbenzene	104-51-8	0.00122	0.00100	mg/L	05.27.2020 14:07		1
Sec-Butylbenzene	135-98-8	0.00300	0.00100	mg/L	05.27.2020 14:07		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	05.27.2020 14:07	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	05.27.2020 14:07	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00164	0.00100	mg/L	05.27.2020 14:07		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Ethylbenzene	100-41-4	0.0210	0.00100	mg/L	05.27.2020 14:07		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1



Certificate of Analytical Results 662583

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 05.26.2020 16:05

Lab Sample Id: 662583-001

Date Collected: 05.26.2020 13:35

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 05.26.2020 10:14

Seq Number: 3127136

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0138	0.00100	mg/L	05.27.2020 14:07	X	1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	05.27.2020 14:07	UX	1
n-Propylbenzene	103-65-1	0.0256	0.00100	mg/L	05.27.2020 14:07		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Toluene	108-88-3	0.0169	0.00100	mg/L	05.27.2020 14:07		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	05.27.2020 14:07	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	05.27.2020 14:07	U	1
1,2,4-Trimethylbenzene	95-63-6	0.192	0.0100	mg/L	05.27.2020 14:33	D	10
1,3,5-Trimethylbenzene	108-67-8	0.0532	0.00100	mg/L	05.27.2020 14:07		1
o-Xylene	95-47-6	0.0109	0.00100	mg/L	05.27.2020 14:07		1
m,p-Xylenes	179601-23-1	0.0637	0.0100	mg/L	05.27.2020 14:07	X	1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	05.27.2020 14:07	U	1
Total Xylenes	1330-20-7	0.0746	0.00100	mg/L	05.27.2020 14:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	75-131	05.27.2020 14:07	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	05.27.2020 14:07	
Toluene-D8	2037-26-5	99	%	80-117	05.27.2020 14:07	
4-Bromofluorobenzene	460-00-4	99	%	74-124	05.27.2020 14:07	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3127071

MB Sample Id: 7704131-1-BLK

Matrix: Water

LCS Sample Id: 7704131-1-BKS

Prep Method: SM2320P

Date Prep: 05.27.2020

LCSD Sample Id: 7704131-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	263	105	266	106	85-115	1	20	mg/L	05.27.2020 11:07	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3127071

Matrix: Water

MB Sample Id: 7704131-1-BLK

Prep Method: SM2320P

Date Prep: 05.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	05.27.2020 11:00	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	05.27.2020 11:00	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	05.27.2020 11:00	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3127071

Matrix: Ground Water

Parent Sample Id: 662583-001

MD Sample Id: 662583-001 D

Prep Method: SM2320P

Date Prep: 05.27.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1170	1160	1	20	mg/L	05.27.2020 11:41	
Alkalinity, Bicarbonate (as CaCO3)	1170	1160	1	20	mg/L	05.27.2020 11:41	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	05.27.2020 11:41	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	05.27.2020 11:41	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3127131

Matrix: Water

MB Sample Id: 7704116-1-BLK

LCS Sample Id: 7704116-1-BKS

Prep Method: E300P

Date Prep: 05.27.2020

LCSD Sample Id: 7704116-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.1	101	90-110	1	20	mg/L	05.27.2020 08:42	
Chloride	<0.500	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	05.27.2020 08:42	
Fluoride	<0.500	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	05.27.2020 08:42	
Nitrate as N	<0.100	10.0	10.0	100	10.2	102	90-110	2	20	mg/L	05.27.2020 08:42	
Nitrite as N	<0.100	10.0	10.2	102	10.4	104	90-110	2	20	mg/L	05.27.2020 08:42	
Sulfate	<0.500	10.0	10.0	100	10.1	101	90-110	1	20	mg/L	05.27.2020 08:42	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3127131

Matrix: Water

Prep Method: E300P

Date Prep: 05.27.2020

Parent Sample Id: 662511-005

MS Sample Id: 662511-005 S

MSD Sample Id: 662511-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	05.27.2020 10:16	
Chloride	7.84	10.0	17.6	98	17.6	98	90-110	0	20	mg/L	05.27.2020 10:16	
Fluoride	<0.500	10.0	10.7	107	10.8	108	90-110	1	20	mg/L	05.27.2020 10:16	
Nitrate as N	0.159	10.0	10.4	102	10.4	102	90-110	0	20	mg/L	05.27.2020 10:16	
Nitrite as N	0.125	10.0	10.5	104	10.6	105	90-110	1	20	mg/L	05.27.2020 10:16	
Sulfate	38.3	10.0	48.0	97	48.0	97	90-110	0	20	mg/L	05.27.2020 10:16	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3127131

Matrix: Water

Prep Method: E300P

Date Prep: 05.27.2020

Parent Sample Id: 662511-006

MS Sample Id: 662511-006 S

MSD Sample Id: 662511-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	9.96	100	9.96	100	90-110	0	20	mg/L	05.27.2020 11:14	
Chloride	7.76	10.0	17.2	94	17.2	94	90-110	0	20	mg/L	05.27.2020 11:14	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	05.27.2020 11:14	
Nitrate as N	0.164	10.0	10.1	99	10.1	99	90-110	0	20	mg/L	05.27.2020 11:14	
Nitrite as N	0.121	10.0	10.5	104	10.5	104	90-110	0	20	mg/L	05.27.2020 11:14	
Sulfate	38.1	10.0	47.6	95	47.6	95	90-110	0	20	mg/L	05.27.2020 11:14	

Analytical Method: TDS by SM2540C

Seq Number: 3127090

Matrix: Water

MB Sample Id: 3127090-1-BLK

LCS Sample Id: 3127090-1-BKS

LCSD Sample Id: 3127090-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1030	103	1010	101	80-120	2	10	mg/L	05.27.2020 11:00	

Analytical Method: TDS by SM2540C

Seq Number: 3127090

Matrix: Ground Water

Parent Sample Id: 662583-001

MD Sample Id: 662583-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1650	1600	3	10	mg/L	05.27.2020 11:00	

Analytical Method: pH by SM4500-H

Seq Number: 3127109

Matrix: Water

Parent Sample Id: 662462-001

MD Sample Id: 662462-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.09	7.10	0	20	SU	05.27.2020 14:13	
Temperature	23.3	23.5	1	20	Deg C	05.27.2020 14:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127123

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.27.2020

MB Sample Id: 7704138-1-BLK

LCS Sample Id: 7704138-1-BKS

LCSD Sample Id: 7704138-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	22.8	91	22.9	92	85-115	0	20	mg/L	05.27.2020 13:53	
Magnesium	<0.400	25.0	23.2	93	23.3	93	85-115	0	20	mg/L	05.27.2020 13:53	
Potassium	<0.500	10.0	9.01	90	9.06	91	85-115	1	20	mg/L	05.27.2020 13:53	
Silica	<1.07	21.4	19.0	89	19.0	89	85-115	0	20	mg/L	05.27.2020 13:53	
Sodium	<0.500	25.0	22.7	91	22.7	91	85-115	0	20	mg/L	05.27.2020 13:53	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127123

Matrix: Water

Prep Method: E200.7P

Date Prep: 05.27.2020

Parent Sample Id: 662232-001

MS Sample Id: 662232-001 S

MSD Sample Id: 662232-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	9.81	25.0	34.4	98	34.3	98	70-130	0	20	mg/L	05.27.2020 14:06	
Magnesium	1.85	25.0	26.7	99	26.7	99	70-130	0	20	mg/L	05.27.2020 14:06	
Potassium	3.29	10.0	13.2	99	13.1	98	70-130	1	20	mg/L	05.27.2020 14:06	
Silica	9.37	21.4	30.6	99	30.6	99	70-130	0	20	mg/L	05.27.2020 14:06	
Sodium	42.6	25.0	67.4	99	67.6	100	70-130	0	20	mg/L	05.27.2020 14:06	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3127123

Matrix: Waste Water

Prep Method: E200.7P

Date Prep: 05.27.2020

Parent Sample Id: 662357-001

MS Sample Id: 662357-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	282	25.0	300	72	70-130	mg/L	05.27.2020 15:58	
Magnesium	86.8	25.0	110	93	70-130	mg/L	05.27.2020 15:58	
Potassium	24.2	10.0	34.3	101	70-130	mg/L	05.27.2020 15:58	
Silica	20.6	21.4	42.0	100	70-130	mg/L	05.27.2020 15:58	
Sodium	653	25.0	661	32	70-130	mg/L	05.27.2020 15:58	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127136

Matrix: Water

Prep Method: SW5030B

Date Prep: 05.26.2020

MB Sample Id: 7704197-1-BLK

LCS Sample Id: 7704197-1-BKS

LCSD Sample Id: 7704197-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0488	98	0.0475	95	66-142	3	25	mg/L	05.27.2020 09:32	
Bromobenzene	<0.00100	0.0500	0.0494	99	0.0506	101	75-125	2	25	mg/L	05.27.2020 09:32	
Bromochloromethane	<0.00100	0.0500	0.0470	94	0.0466	93	60-140	1	25	mg/L	05.27.2020 09:32	
Bromodichloromethane	<0.00100	0.0500	0.0488	98	0.0477	95	75-125	2	25	mg/L	05.27.2020 09:32	
Bromoform	<0.00500	0.0500	0.0515	103	0.0511	102	75-125	1	25	mg/L	05.27.2020 09:32	
Methyl bromide	<0.00500	0.0500	0.0527	105	0.0520	104	60-140	1	25	mg/L	05.27.2020 09:32	
2-Butanone	<0.0500	0.250	0.271	108	0.285	114	60-140	5	25	mg/L	05.27.2020 09:32	
n-Butylbenzene	<0.00100	0.0500	0.0521	104	0.0513	103	75-125	2	25	mg/L	05.27.2020 09:32	
Sec-Butylbenzene	<0.00100	0.0500	0.0516	103	0.0518	104	75-125	0	25	mg/L	05.27.2020 09:32	
tert-Butylbenzene	<0.00100	0.0500	0.0508	102	0.0510	102	75-125	0	25	mg/L	05.27.2020 09:32	
Carbon Tetrachloride	<0.00500	0.0500	0.0507	101	0.0500	100	62-125	1	25	mg/L	05.27.2020 09:32	
Chlorobenzene	<0.00100	0.0500	0.0489	98	0.0475	95	60-133	3	25	mg/L	05.27.2020 09:32	
Chloroethane	<0.0100	0.0500	0.0459	92	0.0448	90	60-140	2	25	mg/L	05.27.2020 09:32	
Chloroform	<0.00100	0.0500	0.0474	95	0.0471	94	70-130	1	25	mg/L	05.27.2020 09:32	
Methyl Chloride	<0.0100	0.0500	0.0423	85	0.0413	83	60-140	2	25	mg/L	05.27.2020 09:32	
2-Chlorotoluene	<0.00100	0.0500	0.0503	101	0.0501	100	73-125	0	25	mg/L	05.27.2020 09:32	
4-Chlorotoluene	<0.00100	0.0500	0.0501	100	0.0507	101	74-125	1	25	mg/L	05.27.2020 09:32	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0536	107	0.0529	106	75-125	1	25	mg/L	05.27.2020 09:32	
Dibromochloromethane	<0.00500	0.0500	0.0523	105	0.0502	100	73-125	4	25	mg/L	05.27.2020 09:32	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0511	102	0.0589	118	59-125	14	25	mg/L	05.27.2020 09:32	
1,2-Dibromoethane	<0.00500	0.0500	0.0524	105	0.0523	105	73-125	0	25	mg/L	05.27.2020 09:32	
Methylene Bromide	<0.00100	0.0500	0.0471	94	0.0492	98	69-127	4	25	mg/L	05.27.2020 09:32	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0500	100	0.0508	102	75-125	2	25	mg/L	05.27.2020 09:32	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0493	99	0.0504	101	75-125	2	25	mg/L	05.27.2020 09:32	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0491	98	0.0507	101	75-125	3	25	mg/L	05.27.2020 09:32	
Dichlorodifluoromethane	<0.00100	0.0500	0.0430	86	0.0412	82	60-140	4	25	mg/L	05.27.2020 09:32	
1,1-Dichloroethane	<0.00100	0.0500	0.0470	94	0.0464	93	72-125	1	25	mg/L	05.27.2020 09:32	
1,2-Dichloroethane	<0.00100	0.0500	0.0473	95	0.0477	95	68-127	1	25	mg/L	05.27.2020 09:32	
1,1-Dichloroethene	<0.00100	0.0500	0.0465	93	0.0455	91	59-172	2	25	mg/L	05.27.2020 09:32	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0478	96	0.0473	95	75-125	1	25	mg/L	05.27.2020 09:32	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0464	93	0.0454	91	75-125	2	25	mg/L	05.27.2020 09:32	
1,2-Dichloropropane	<0.00500	0.0500	0.0507	101	0.0489	98	74-125	4	25	mg/L	05.27.2020 09:32	
1,3-Dichloropropane	<0.00500	0.0500	0.0526	105	0.0520	104	75-125	1	25	mg/L	05.27.2020 09:32	
2,2-Dichloropropane	<0.00500	0.0500	0.0502	100	0.0485	97	75-125	3	25	mg/L	05.27.2020 09:32	
1,1-Dichloropropene	<0.00500	0.0500	0.0538	108	0.0520	104	75-125	3	25	mg/L	05.27.2020 09:32	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0530	106	0.0520	104	74-125	2	25	mg/L	05.27.2020 09:32	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0545	109	0.0529	106	66-125	3	25	mg/L	05.27.2020 09:32	
Ethylbenzene	<0.00100	0.0500	0.0497	99	0.0471	94	75-125	5	25	mg/L	05.27.2020 09:32	
Hexachlorobutadiene	<0.00500	0.0500	0.0455	91	0.0520	104	75-125	13	25	mg/L	05.27.2020 09:32	
Isopropylbenzene	<0.00100	0.0500	0.0501	100	0.0478	96	75-125	5	25	mg/L	05.27.2020 09:32	
Methylene Chloride	<0.00500	0.0500	0.0512	102	0.0499	100	75-125	3	25	mg/L	05.27.2020 09:32	
MTBE	<0.00500	0.0500	0.0556	111	0.0579	116	65-135	4	25	mg/L	05.27.2020 09:32	
Naphthalene	<0.0100	0.0500	0.0536	107	0.0626	125	70-130	15	25	mg/L	05.27.2020 09:32	
n-Propylbenzene	<0.00100	0.0500	0.0512	102	0.0508	102	75-125	1	25	mg/L	05.27.2020 09:32	
Styrene	<0.00100	0.0500	0.0489	98	0.0471	94	75-125	4	25	mg/L	05.27.2020 09:32	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0513	103	0.0501	100	72-125	2	25	mg/L	05.27.2020 09:32	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0498	100	0.0532	106	74-125	7	25	mg/L	05.27.2020 09:32	
Tetrachloroethylene	<0.00100	0.0500	0.0511	102	0.0476	95	71-125	7	25	mg/L	05.27.2020 09:32	
Toluene	<0.00100	0.0500	0.0499	100	0.0477	95	59-139	5	25	mg/L	05.27.2020 09:32	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0527	105	0.0610	122	75-137	15	25	mg/L	05.27.2020 09:32	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127136

MB Sample Id: 7704197-1-BLK

Matrix: Water

LCS Sample Id: 7704197-1-BKS

Prep Method: SW5030B

Date Prep: 05.26.2020

LCSD Sample Id: 7704197-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0520	104	0.0577	115	75-135	10	25	mg/L	05.27.2020 09:32	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0502	100	0.0487	97	75-125	3	25	mg/L	05.27.2020 09:32	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0517	103	0.0517	103	75-127	0	25	mg/L	05.27.2020 09:32	
Trichloroethylene	<0.00500	0.0500	0.0512	102	0.0504	101	62-137	2	25	mg/L	05.27.2020 09:32	
Trichlorofluoromethane	<0.00100	0.0500	0.0473	95	0.0453	91	60-140	4	25	mg/L	05.27.2020 09:32	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0492	98	0.0532	106	75-125	8	25	mg/L	05.27.2020 09:32	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0527	105	0.0524	105	75-125	1	25	mg/L	05.27.2020 09:32	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0525	105	0.0526	105	70-125	0	25	mg/L	05.27.2020 09:32	
o-Xylene	<0.00100	0.0500	0.0486	97	0.0472	94	75-125	3	25	mg/L	05.27.2020 09:32	
m,p-Xylenes	<0.0100	0.100	0.0997	100	0.0951	95	75-125	5	25	mg/L	05.27.2020 09:32	
Vinyl Chloride	<0.00200	0.0500	0.0453	91	0.0443	89	60-140	2	25	mg/L	05.27.2020 09:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	106		96		98		75-131	%	05.27.2020 09:32
1,2-Dichloroethane-D4	104		95		97		63-144	%	05.27.2020 09:32
Toluene-D8	100		101		99		80-117	%	05.27.2020 09:32
4-Bromofluorobenzene	104		100		102		74-124	%	05.27.2020 09:32

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127136

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 05.26.2020

Parent Sample Id: 662583-001

MS Sample Id: 662583-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00490	0.0500	0.0496	89	66-142	mg/L	05.27.2020 10:58	
Bromobenzene	<0.00100	0.0500	0.0488	98	75-125	mg/L	05.27.2020 10:58	
Bromochloromethane	<0.00100	0.0500	0.0450	90	60-140	mg/L	05.27.2020 10:58	
Bromodichloromethane	<0.00100	0.0500	0.0450	90	75-125	mg/L	05.27.2020 10:58	
Bromoform	<0.00500	0.0500	0.0489	98	75-125	mg/L	05.27.2020 10:58	
Methyl bromide	<0.00500	0.0500	0.0345	69	60-140	mg/L	05.27.2020 10:58	
2-Butanone	<0.0500	0.250	0.291	116	60-140	mg/L	05.27.2020 10:58	
n-Butylbenzene	0.00122	0.0500	0.0476	93	75-125	mg/L	05.27.2020 10:58	
Sec-Butylbenzene	0.00300	0.0500	0.0440	82	75-125	mg/L	05.27.2020 10:58	
tert-Butylbenzene	<0.00100	0.0500	0.0469	94	75-125	mg/L	05.27.2020 10:58	
Carbon Tetrachloride	<0.00500	0.0500	0.0431	86	62-125	mg/L	05.27.2020 10:58	
Chlorobenzene	<0.00100	0.0500	0.0415	83	60-133	mg/L	05.27.2020 10:58	
Chloroethane	<0.0100	0.0500	0.0349	70	60-140	mg/L	05.27.2020 10:58	
Chloroform	<0.00100	0.0500	0.0443	89	70-130	mg/L	05.27.2020 10:58	
Methyl Chloride	<0.0100	0.0500	0.0426	85	60-140	mg/L	05.27.2020 10:58	
2-Chlorotoluene	<0.00100	0.0500	0.0617	123	73-125	mg/L	05.27.2020 10:58	
4-Chlorotoluene	<0.00100	0.0500	0.0510	102	74-125	mg/L	05.27.2020 10:58	
p-Cymene (p-Isopropyltoluene)	0.00164	0.0500	0.0484	94	75-125	mg/L	05.27.2020 10:58	
Dibromochloromethane	<0.00500	0.0500	0.0462	92	73-125	mg/L	05.27.2020 10:58	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0567	113	59-125	mg/L	05.27.2020 10:58	
1,2-Dibromoethane	<0.00500	0.0500	0.0497	99	73-125	mg/L	05.27.2020 10:58	
Methylene Bromide	<0.00100	0.0500	0.0470	94	69-127	mg/L	05.27.2020 10:58	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0478	96	75-125	mg/L	05.27.2020 10:58	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0465	93	75-125	mg/L	05.27.2020 10:58	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0476	95	75-125	mg/L	05.27.2020 10:58	
Dichlorodifluoromethane	<0.00100	0.0500	0.0442	88	60-140	mg/L	05.27.2020 10:58	
1,1-Dichloroethane	<0.00100	0.0500	0.0447	89	72-125	mg/L	05.27.2020 10:58	
1,2-Dichloroethane	<0.00100	0.0500	0.0461	92	68-127	mg/L	05.27.2020 10:58	
1,1-Dichloroethene	<0.00100	0.0500	0.0418	84	59-172	mg/L	05.27.2020 10:58	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0451	90	75-125	mg/L	05.27.2020 10:58	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0424	85	75-125	mg/L	05.27.2020 10:58	
1,2-Dichloropropane	<0.00500	0.0500	0.0481	96	74-125	mg/L	05.27.2020 10:58	
1,3-Dichloropropane	<0.00500	0.0500	0.0497	99	75-125	mg/L	05.27.2020 10:58	
2,2-Dichloropropane	<0.00500	0.0500	0.0450	90	75-125	mg/L	05.27.2020 10:58	
1,1-Dichloropropene	<0.00500	0.0500	0.0536	107	75-125	mg/L	05.27.2020 10:58	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0525	105	74-125	mg/L	05.27.2020 10:58	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0514	103	66-125	mg/L	05.27.2020 10:58	
Ethylbenzene	0.0210	0.0500	0.0595	77	75-125	mg/L	05.27.2020 10:58	
Hexachlorobutadiene	<0.00500	0.0500	0.0427	85	75-125	mg/L	05.27.2020 10:58	
Isopropylbenzene	0.0138	0.0500	0.107	186	75-125	mg/L	05.27.2020 10:58	X
Methylene Chloride	<0.00500	0.0500	0.0426	85	75-125	mg/L	05.27.2020 10:58	
MTBE	<0.00500	0.0500	0.0545	109	65-135	mg/L	05.27.2020 10:58	
Naphthalene	<0.0100	0.0500	0.0656	131	70-130	mg/L	05.27.2020 10:58	X
n-Propylbenzene	0.0256	0.0500	0.0727	94	75-125	mg/L	05.27.2020 10:58	
Styrene	<0.00100	0.0500	0.0460	92	75-125	mg/L	05.27.2020 10:58	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0442	88	72-125	mg/L	05.27.2020 10:58	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0521	104	74-125	mg/L	05.27.2020 10:58	
Tetrachloroethylene	<0.00100	0.0500	0.0416	83	71-125	mg/L	05.27.2020 10:58	
Toluene	0.0169	0.0500	0.0597	86	59-139	mg/L	05.27.2020 10:58	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0576	115	75-137	mg/L	05.27.2020 10:58	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3127136

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 05.26.2020

Parent Sample Id: 662583-001

MS Sample Id: 662583-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0568	114	75-135	mg/L	05.27.2020 10:58	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0446	89	75-125	mg/L	05.27.2020 10:58	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0481	96	75-127	mg/L	05.27.2020 10:58	
Trichloroethylene	<0.00500	0.0500	0.0470	94	62-137	mg/L	05.27.2020 10:58	
Trichlorofluoromethane	<0.00100	0.0500	0.0396	79	60-140	mg/L	05.27.2020 10:58	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0529	106	75-125	mg/L	05.27.2020 10:58	
1,2,4-Trimethylbenzene	0.189	0.0500	0.232	86	75-125	mg/L	05.27.2020 10:58	
1,3,5-Trimethylbenzene	0.0532	0.0500	0.0985	91	70-125	mg/L	05.27.2020 10:58	
o-Xylene	0.0109	0.0500	0.0535	85	75-125	mg/L	05.27.2020 10:58	
m,p-Xylenes	0.0637	0.100	0.138	74	75-125	mg/L	05.27.2020 10:58	X
Vinyl Chloride	<0.00200	0.0500	0.0393	79	60-140	mg/L	05.27.2020 10:58	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	97		75-131	%	05.27.2020 10:58
1,2-Dichloroethane-D4	96		63-144	%	05.27.2020 10:58
Toluene-D8	94		80-117	%	05.27.2020 10:58
4-Bromofluorobenzene	100		74-124	%	05.27.2020 10:58

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

www.xenco.com Page 1 of 1

Work Order No:

142533

Project Manager:		Beaux Jennings		Bill to: (if different)			
Company Name:		Ensolum LLC		Company Name:			
Address:		705 W Wadley #210		Address:			
City, State ZIP:		Midland TX		City, State ZIP:			
Phone:		432-230-3344		Email:		bjennings@ensolum.com	

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

[illegible][illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		5/10	2		
3 		1/2005	4		
5			6		

CUSTODY SEAL
Date 5-26-24
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **64305**

Date/Time: 05.26.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770550618469

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
662583-001	W	Levey Well	05.26.2020 13:35	SW8260C	VOCs by SW-846 8260C	05.27.2020	06.09.2020	JKR	BDCME BRBZ BRCLME	
662583-001	W	Levey Well	05.26.2020 13:35	E200.7	Recoverable Metals per ICP by EPA 200	05.27.2020	11.22.2020	JKR	CA K MG NA SI	
662583-001	W	Levey Well	05.26.2020 13:35	E300	Inorganic Anions by EPA 300/300.1	05.27.2020	05.28.2020 13:35	JKR	BR CL F NO2N NO3N SC	
662583-001	W	Levey Well	05.26.2020 13:35	SM4500-H	pH by SM4500-H	05.27.2020	05.26.2020 13:50	JKR		
662583-001	W	Levey Well	05.26.2020 13:35	SM2540C	TDS by SM2540C	05.27.2020	06.02.2020	JKR	TDS	
662583-001	W	Levey Well	05.26.2020 13:35	SM2320B	Alkalinity by SM2320B	05.27.2020	06.09.2020	JKR	ALK ALKB ALKC	
662583-001	W	Levey Well	05.26.2020 13:35	SM1030E	Cation-Anion Balance Calculation	05.27.2020	06.25.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 05.26.2020

Received By:



Jhyrom Edralin

Date Received: 05.27.2020

Cooler Temperature: 2.6



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 64305

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 05.26.2020 04.13 PM

Received By: Jhyrom Edralin

Date Received: 05.27.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	662487 wrong container for BTEX
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 05.27.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 05.26.2020 04.05.00 PM

Work Order #: 662583

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 05.26.2020

Checklist reviewed by:



Holly Taylor

Date: 05.27.2020



Certificate of Analysis Summary 663627

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 06.05.2020 14:31
Report Date: 06.09.2020 07:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 663627-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 06.05.2020 12:20					
Alkalinity by SM2320B SUB: T104704215-19-30	Extracted: 06.08.2020 10:52 Analyzed: 06.08.2020 11:52 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1160 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1160 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-19-30	Extracted: Analyzed: 06.08.2020 16:18 Units/RL: % RL					
Cation-Anion Balance	5.90					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-19-30	Extracted: 06.06.2020 09:40 Analyzed: 06.06.2020 14:58 Units/RL: mg/L RL					
Bromide	0.640 0.500					
Chloride	417 0.500					
Fluoride	0.535 0.500					
Nitrate as N	0.139 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	39.9 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 663627

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 06.05.2020 14:31
Report Date: 06.09.2020 07:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 663627-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 06.05.2020 12:20					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-19-30	Extracted: 06.08.2020 08:15 Analyzed: 06.08.2020 12:44 Units/RL: mg/L RL					
Calcium	379 D 10.0					
Magnesium	73.3 0.200					
Potassium	5.92 0.500					
Silica	69.7 X 1.07					
Sodium	108 0.500					
TDS by SM2540C SUB: T104704215-19-30	Extracted: Analyzed: 06.08.2020 09:01 Units/RL: mg/L RL					
Total Dissolved Solids	1670 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 663627

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 06.05.2020 14:31
Report Date: 06.09.2020 07:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	663627-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	06.05.2020 12:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted:	06.08.2020 16:15					
	Analyzed:	06.08.2020 16:57					
	Units/RL:	mg/L RL					
Benzene		0.00585 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		0.00183 0.00100					
Sec-Butylbenzene		0.00271 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00155 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 663627

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 06.05.2020 14:31
Report Date: 06.09.2020 07:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 663627-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 06.05.2020 12:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 06.08.2020 16:15 Analyzed: 06.08.2020 16:57 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0228 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0134 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0182 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 663627

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location: Hobbs ,NM

Date Received in Lab: Fri 06.05.2020 14:31
Report Date: 06.09.2020 07:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 663627-001 Field Id: Levey Well Depth: Matrix: GROUND WATER Sampled: 06.05.2020 12:20					
VOCs by SW-846 8260C SUB: T104704215-19-30	Extracted: 06.08.2020 16:15 Analyzed: 06.08.2020 16:57 Units/RL: mg/L RL					
Toluene	0.0317 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.129 0.00100					
1,3,5-Trimethylbenzene	0.0367 0.00100					
o-Xylene	0.0117 0.00100					
m,p-Xylenes	0.0744 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0861 0.00100					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 06.08.2020 13:41 Units/RL: Deg C RL					
Temperature	22.8 K					
pH by SM4500-H SUB: T104704215-19-30	Extracted: Analyzed: 06.08.2020 13:41 Units/RL: SU RL					
pH	6.30 K					

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Jessica Kramer
Project Manager



Analytical Report 663627

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

06.09.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.09.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **663627**

Levey Well Hobbs NM

Project Address: Hobbs ,NM

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 663627. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 663627 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 663627

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	06.05.2020 12:20		663627-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 663627

Report Date: 06.09.2020
Date Received: 06.05.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3128245 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 663627-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 663627-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 663627

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 06.05.2020 14:31

Lab Sample Id: 663627-001

Date Collected: 06.05.2020 12:20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 06.08.2020 10:52

Seq Number: 3128214

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1160	4.00	mg/L	06.08.2020 11:52		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1160	4.00	mg/L	06.08.2020 11:52		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	06.08.2020 11:52	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	06.08.2020 11:52	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3128250

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	5.90		%	06.08.2020 16:18		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 06.06.2020 09:40

Seq Number: 3128151

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.640	0.500	mg/L	06.06.2020 14:58		1
Chloride	16887-00-6	417	0.500	mg/L	06.06.2020 14:58		1
Fluoride	16984-48-8	0.535	0.500	mg/L	06.06.2020 14:58		1
Nitrate as N	14797-55-8	0.139	0.100	mg/L	06.06.2020 14:58		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	06.06.2020 14:58	U	1
Sulfate	14808-79-8	39.9	0.500	mg/L	06.06.2020 14:58		1



Certificate of Analytical Results 663627

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 06.05.2020 14:31

Lab Sample Id: 663627-001

Date Collected: 06.05.2020 12:20

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3128211

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1670	5.00	mg/L	06.08.2020 09:01		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3128226

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.30		SU	06.08.2020 13:41	K	1
Temperature	TEMP	22.8		Deg C	06.08.2020 13:41	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 06.08.2020 08:15

Seq Number: 3128245

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	379	10.0	mg/L	06.08.2020 13:05	D	50
Magnesium	7439-95-4	73.3	0.200	mg/L	06.08.2020 12:44		1
Potassium	7440-09-7	5.92	0.500	mg/L	06.08.2020 12:44		1
Silica	7631-86-9	69.7	1.07	mg/L	06.08.2020 12:44	X	1
Sodium	7440-23-5	108	0.500	mg/L	06.08.2020 12:44		1



Certificate of Analytical Results 663627

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 06.05.2020 14:31

Lab Sample Id: 663627-001

Date Collected: 06.05.2020 12:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.08.2020 16:15

Seq Number: 3128268

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00585	0.00100	mg/L	06.08.2020 16:57		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	06.08.2020 16:57	U	1
n-Butylbenzene	104-51-8	0.00183	0.00100	mg/L	06.08.2020 16:57		1
Sec-Butylbenzene	135-98-8	0.00271	0.00100	mg/L	06.08.2020 16:57		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	06.08.2020 16:57	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	06.08.2020 16:57	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00155	0.00100	mg/L	06.08.2020 16:57		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Ethylbenzene	100-41-4	0.0228	0.00100	mg/L	06.08.2020 16:57		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1



Certificate of Analytical Results 663627

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Ground Water

Date Received: 06.05.2020 14:31

Lab Sample Id: 663627-001

Date Collected: 06.05.2020 12:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.08.2020 16:15

Seq Number: 3128268

SUB: T104704215-19-30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0134	0.00100	mg/L	06.08.2020 16:57		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	06.08.2020 16:57	U	1
n-Propylbenzene	103-65-1	0.0182	0.00100	mg/L	06.08.2020 16:57		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Toluene	108-88-3	0.0317	0.00100	mg/L	06.08.2020 16:57		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	06.08.2020 16:57	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	06.08.2020 16:57	U	1
1,2,4-Trimethylbenzene	95-63-6	0.129	0.00100	mg/L	06.08.2020 16:57		1
1,3,5-Trimethylbenzene	108-67-8	0.0367	0.00100	mg/L	06.08.2020 16:57		1
o-Xylene	95-47-6	0.0117	0.00100	mg/L	06.08.2020 16:57		1
m,p-Xylenes	179601-23-1	0.0744	0.0100	mg/L	06.08.2020 16:57		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	06.08.2020 16:57	U	1
Total Xylenes	1330-20-7	0.0861	0.00100	mg/L	06.08.2020 16:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	75-131	06.08.2020 16:57	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	06.08.2020 16:57	
Toluene-D8	2037-26-5	100	%	80-117	06.08.2020 16:57	
4-Bromofluorobenzene	460-00-4	98	%	74-124	06.08.2020 16:57	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128214

MB Sample Id: 7704923-1-BLK

Matrix: Water

LCS Sample Id: 7704923-1-BKS

Prep Method: SM2320P

Date Prep: 06.08.2020

LCSD Sample Id: 7704923-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	256	102	259	104	85-115	1	20	mg/L	06.08.2020 11:32	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128214

Matrix: Water

MB Sample Id: 7704923-1-BLK

Prep Method: SM2320P

Date Prep: 06.08.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	06.08.2020 11:25	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	06.08.2020 11:25	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	06.08.2020 11:25	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128214

Matrix: Ground Water

Parent Sample Id: 663573-003

MD Sample Id: 663573-003 D

Prep Method: SM2320P

Date Prep: 06.08.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 13:17	
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 13:17	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 13:17	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 13:17	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128214

Matrix: Ground Water

Parent Sample Id: 663627-001

MD Sample Id: 663627-001 D

Prep Method: SM2320P

Date Prep: 06.08.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1160	1160	0	20	mg/L	06.08.2020 12:05	
Alkalinity, Bicarbonate (as CaCO ₃)	1160	1160	0	20	mg/L	06.08.2020 12:05	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 12:05	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.08.2020 12:05	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3128151

Matrix: Water

Prep Method: E300P

Date Prep: 06.06.2020

MB Sample Id: 7704899-1-BLK

LCS Sample Id: 7704899-1-BKS

LCSD Sample Id: 7704899-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.3	103	90-110	2	20	mg/L	06.06.2020 10:32	
Chloride	<0.500	10.0	10.4	104	10.6	106	90-110	2	20	mg/L	06.06.2020 10:32	
Fluoride	<0.500	10.0	10.6	106	10.8	108	90-110	2	20	mg/L	06.06.2020 10:32	
Nitrate as N	<0.100	10.0	10.2	102	10.4	104	90-110	2	20	mg/L	06.06.2020 10:32	
Nitrite as N	<0.100	10.0	10.0	100	10.1	101	90-110	1	20	mg/L	06.06.2020 10:32	
Sulfate	<0.500	10.0	10.2	102	10.4	104	90-110	2	20	mg/L	06.06.2020 10:32	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3128151

Matrix: Ground Water

Prep Method: E300P

Date Prep: 06.06.2020

Parent Sample Id: 663609-001

MS Sample Id: 663609-001 S

MSD Sample Id: 663609-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.185	10.0	10.1	99	10.1	99	90-110	0	20	mg/L	06.08.2020 16:19	
Chloride	48.6	10.0	57.0	84	57.0	84	90-110	0	20	mg/L	06.08.2020 16:19	X
Fluoride	0.519	10.0	10.8	103	10.9	104	90-110	1	20	mg/L	06.08.2020 16:19	
Nitrate as N	0.173	10.0	10.0	98	10.1	99	90-110	1	20	mg/L	06.08.2020 16:19	
Nitrite as N	0.708	10.0	10.1	94	10.2	95	90-110	1	20	mg/L	06.08.2020 16:19	
Sulfate	14.4	10.0	24.2	98	24.2	98	90-110	0	20	mg/L	06.08.2020 16:19	

Analytical Method: TDS by SM2540C

Seq Number: 3128211

Matrix: Water

MB Sample Id: 3128211-1-BLK

LCS Sample Id: 3128211-1-BKS

LCSD Sample Id: 3128211-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	976	98	958	96	80-120	2	10	mg/L	06.08.2020 09:01	

Analytical Method: TDS by SM2540C

Seq Number: 3128211

Matrix: Ground Water

Parent Sample Id: 663627-001

MD Sample Id: 663627-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1670	1720	3	10	mg/L	06.08.2020 09:01	

Analytical Method: pH by SM4500-H

Seq Number: 3128226

Matrix: Ground Water

Parent Sample Id: 663627-001

MD Sample Id: 663627-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.30	6.31	0	20	SU	06.08.2020 13:41	
Temperature	22.8	22.9	0	20	Deg C	06.08.2020 13:41	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3128245

Matrix: Water

Prep Method: E200.7P

Date Prep: 06.08.2020

MB Sample Id: 7704934-1-BLK

LCS Sample Id: 7704934-1-BKS

LCSD Sample Id: 7704934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	22.9	92	22.8	91	85-115	0	20	mg/L	06.08.2020 12:36	
Magnesium	<0.200	25.0	23.2	93	23.1	92	85-115	0	20	mg/L	06.08.2020 12:36	
Potassium	<0.500	10.0	9.06	91	9.03	90	85-115	0	20	mg/L	06.08.2020 12:36	
Silica	<1.07	21.4	20.6	96	20.5	96	85-115	0	20	mg/L	06.08.2020 12:36	
Sodium	<0.500	25.0	22.8	91	22.7	91	85-115	0	20	mg/L	06.08.2020 12:36	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3128245

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 06.08.2020

Parent Sample Id: 663627-001

MS Sample Id: 663627-001 S

MSD Sample Id: 663627-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	388	25.0	417	116	416	112	70-130	0	20	mg/L	06.08.2020 12:48	
Magnesium	73.3	25.0	99.2	104	99.1	103	70-130	0	20	mg/L	06.08.2020 12:48	
Potassium	5.92	10.0	16.5	106	16.6	107	70-130	1	20	mg/L	06.08.2020 12:48	
Silica	69.7	21.4	101	146	102	151	70-130	1	20	mg/L	06.08.2020 12:48	X
Sodium	108	25.0	134	104	134	104	70-130	0	20	mg/L	06.08.2020 12:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3128268

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.08.2020

MB Sample Id: 7705002-1-BLK

LCS Sample Id: 7705002-1-BKS

LCSD Sample Id: 7705002-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0489	98	0.0481	96	66-142	2	25	mg/L	06.08.2020 14:01	
Bromobenzene	<0.00100	0.0500	0.0478	96	0.0485	97	75-125	1	25	mg/L	06.08.2020 14:01	
Bromochloromethane	<0.00100	0.0500	0.0475	95	0.0466	93	60-140	2	25	mg/L	06.08.2020 14:01	
Bromodichloromethane	<0.00100	0.0500	0.0484	97	0.0479	96	75-125	1	25	mg/L	06.08.2020 14:01	
Bromoform	<0.00500	0.0500	0.0489	98	0.0493	99	75-125	1	25	mg/L	06.08.2020 14:01	
Methyl bromide	<0.00500	0.0500	0.0507	101	0.0488	98	60-140	4	25	mg/L	06.08.2020 14:01	
2-Butanone	<0.0500	0.250	0.262	105	0.271	108	60-140	3	25	mg/L	06.08.2020 14:01	
n-Butylbenzene	<0.00100	0.0500	0.0498	100	0.0501	100	75-125	1	25	mg/L	06.08.2020 14:01	
Sec-Butylbenzene	<0.00100	0.0500	0.0498	100	0.0501	100	75-125	1	25	mg/L	06.08.2020 14:01	
tert-Butylbenzene	<0.00100	0.0500	0.0492	98	0.0497	99	75-125	1	25	mg/L	06.08.2020 14:01	
Carbon Tetrachloride	<0.00500	0.0500	0.0486	97	0.0477	95	62-125	2	25	mg/L	06.08.2020 14:01	
Chlorobenzene	<0.00100	0.0500	0.0479	96	0.0477	95	60-133	0	25	mg/L	06.08.2020 14:01	
Chloroethane	<0.0100	0.0500	0.0438	88	0.0433	87	60-140	1	25	mg/L	06.08.2020 14:01	
Chloroform	<0.00100	0.0500	0.0470	94	0.0458	92	70-130	3	25	mg/L	06.08.2020 14:01	
Methyl Chloride	<0.0100	0.0500	0.0449	90	0.0433	87	60-140	4	25	mg/L	06.08.2020 14:01	
2-Chlorotoluene	<0.00100	0.0500	0.0482	96	0.0483	97	73-125	0	25	mg/L	06.08.2020 14:01	
4-Chlorotoluene	<0.00100	0.0500	0.0488	98	0.0491	98	74-125	1	25	mg/L	06.08.2020 14:01	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0507	101	0.0509	102	75-125	0	25	mg/L	06.08.2020 14:01	
Dibromochloromethane	<0.00500	0.0500	0.0487	97	0.0496	99	73-125	2	25	mg/L	06.08.2020 14:01	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0499	100	0.0515	103	59-125	3	25	mg/L	06.08.2020 14:01	
1,2-Dibromoethane	<0.00500	0.0500	0.0512	102	0.0518	104	73-125	1	25	mg/L	06.08.2020 14:01	
Methylene Bromide	<0.00100	0.0500	0.0477	95	0.0473	95	69-127	1	25	mg/L	06.08.2020 14:01	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0484	97	0.0488	98	75-125	1	25	mg/L	06.08.2020 14:01	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0482	96	75-125	0	25	mg/L	06.08.2020 14:01	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0479	96	75-125	0	25	mg/L	06.08.2020 14:01	
Dichlorodifluoromethane	<0.00100	0.0500	0.0440	88	0.0429	86	60-140	3	25	mg/L	06.08.2020 14:01	
1,1-Dichloroethane	<0.00100	0.0500	0.0469	94	0.0458	92	72-125	2	25	mg/L	06.08.2020 14:01	
1,2-Dichloroethane	<0.00100	0.0500	0.0468	94	0.0467	93	68-127	0	25	mg/L	06.08.2020 14:01	
1,1-Dichloroethene	<0.00100	0.0500	0.0466	93	0.0452	90	59-172	3	25	mg/L	06.08.2020 14:01	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0470	94	0.0464	93	75-125	1	25	mg/L	06.08.2020 14:01	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0476	95	0.0466	93	75-125	2	25	mg/L	06.08.2020 14:01	
1,2-Dichloropropane	<0.00500	0.0500	0.0504	101	0.0501	100	74-125	1	25	mg/L	06.08.2020 14:01	
1,3-Dichloropropane	<0.00500	0.0500	0.0504	101	0.0506	101	75-125	0	25	mg/L	06.08.2020 14:01	
2,2-Dichloropropane	<0.00500	0.0500	0.0469	94	0.0452	90	75-125	4	25	mg/L	06.08.2020 14:01	
1,1-Dichloropropene	<0.00500	0.0500	0.0513	103	0.0503	101	75-125	2	25	mg/L	06.08.2020 14:01	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0511	102	0.0513	103	74-125	0	25	mg/L	06.08.2020 14:01	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0514	103	0.0512	102	66-125	0	25	mg/L	06.08.2020 14:01	
Ethylbenzene	<0.00100	0.0500	0.0490	98	0.0485	97	75-125	1	25	mg/L	06.08.2020 14:01	
Hexachlorobutadiene	<0.00500	0.0500	0.0489	98	0.0495	99	75-125	1	25	mg/L	06.08.2020 14:01	
Isopropylbenzene	<0.00100	0.0500	0.0490	98	0.0490	98	75-125	0	25	mg/L	06.08.2020 14:01	
Methylene Chloride	<0.00500	0.0500	0.0510	102	0.0499	100	75-125	2	25	mg/L	06.08.2020 14:01	
MTBE	<0.00500	0.0500	0.0556	111	0.0558	112	65-135	0	25	mg/L	06.08.2020 14:01	
Naphthalene	<0.0100	0.0500	0.0519	104	0.0563	113	70-130	8	25	mg/L	06.08.2020 14:01	
n-Propylbenzene	<0.00100	0.0500	0.0490	98	0.0490	98	75-125	0	25	mg/L	06.08.2020 14:01	
Styrene	<0.00100	0.0500	0.0498	100	0.0504	101	75-125	1	25	mg/L	06.08.2020 14:01	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0507	101	0.0504	101	72-125	1	25	mg/L	06.08.2020 14:01	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0481	96	0.0496	99	74-125	3	25	mg/L	06.08.2020 14:01	
Tetrachloroethylene	<0.00100	0.0500	0.0466	93	0.0454	91	71-125	3	25	mg/L	06.08.2020 14:01	
Toluene	<0.00100	0.0500	0.0482	96	0.0482	96	59-139	0	25	mg/L	06.08.2020 14:01	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0565	113	0.0598	120	75-137	6	25	mg/L	06.08.2020 14:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3128268

MB Sample Id: 7705002-1-BLK

Matrix: Water

LCS Sample Id: 7705002-1-BKS

Prep Method: SW5030B

Date Prep: 06.08.2020

LCSD Sample Id: 7705002-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0535	107	0.0556	111	75-135	4	25	mg/L	06.08.2020 14:01	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0492	98	0.0478	96	75-125	3	25	mg/L	06.08.2020 14:01	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0519	104	0.0518	104	75-127	0	25	mg/L	06.08.2020 14:01	
Trichloroethylene	<0.00500	0.0500	0.0502	100	0.0490	98	62-137	2	25	mg/L	06.08.2020 14:01	
Trichlorofluoromethane	<0.00100	0.0500	0.0448	90	0.0434	87	60-140	3	25	mg/L	06.08.2020 14:01	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0491	98	0.0500	100	75-125	2	25	mg/L	06.08.2020 14:01	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0505	101	0.0505	101	75-125	0	25	mg/L	06.08.2020 14:01	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0499	100	0.0502	100	70-125	1	25	mg/L	06.08.2020 14:01	
o-Xylene	<0.00100	0.0500	0.0497	99	0.0495	99	75-125	0	25	mg/L	06.08.2020 14:01	
m,p-Xylenes	<0.0100	0.100	0.0981	98	0.0978	98	75-125	0	25	mg/L	06.08.2020 14:01	
Vinyl Chloride	<0.00200	0.0500	0.0457	91	0.0438	88	60-140	4	25	mg/L	06.08.2020 14:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		97		96		75-131	%	06.08.2020 14:01
1,2-Dichloroethane-D4	109		96		99		63-144	%	06.08.2020 14:01
Toluene-D8	99		99		100		80-117	%	06.08.2020 14:01
4-Bromofluorobenzene	104		100		99		74-124	%	06.08.2020 14:01

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3128268

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 06.08.2020

Parent Sample Id: 663627-001

MS Sample Id: 663627-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00585	0.0500	0.0508	90	66-142	mg/L	06.08.2020 14:59	
Bromobenzene	<0.00100	0.0500	0.0455	91	75-125	mg/L	06.08.2020 14:59	
Bromochloromethane	<0.00100	0.0500	0.0445	89	60-140	mg/L	06.08.2020 14:59	
Bromodichloromethane	<0.00100	0.0500	0.0443	89	75-125	mg/L	06.08.2020 14:59	
Bromoform	<0.00500	0.0500	0.0477	95	75-125	mg/L	06.08.2020 14:59	
Methyl bromide	<0.00500	0.0500	0.0417	83	60-140	mg/L	06.08.2020 14:59	
2-Butanone	<0.0500	0.250	0.277	111	60-140	mg/L	06.08.2020 14:59	
n-Butylbenzene	0.00183	0.0500	0.0454	87	75-125	mg/L	06.08.2020 14:59	
Sec-Butylbenzene	0.00271	0.0500	0.0434	81	75-125	mg/L	06.08.2020 14:59	
tert-Butylbenzene	<0.00100	0.0500	0.0453	91	75-125	mg/L	06.08.2020 14:59	
Carbon Tetrachloride	<0.00500	0.0500	0.0432	86	62-125	mg/L	06.08.2020 14:59	
Chlorobenzene	<0.00100	0.0500	0.0445	89	60-133	mg/L	06.08.2020 14:59	
Chloroethane	<0.0100	0.0500	0.0357	71	60-140	mg/L	06.08.2020 14:59	
Chloroform	<0.00100	0.0500	0.0441	88	70-130	mg/L	06.08.2020 14:59	
Methyl Chloride	<0.0100	0.0500	0.0453	91	60-140	mg/L	06.08.2020 14:59	
2-Chlorotoluene	<0.00100	0.0500	0.0566	113	73-125	mg/L	06.08.2020 14:59	
4-Chlorotoluene	<0.00100	0.0500	0.0493	99	74-125	mg/L	06.08.2020 14:59	
p-Cymene (p-Isopropyltoluene)	0.00155	0.0500	0.0472	91	75-125	mg/L	06.08.2020 14:59	
Dibromochloromethane	<0.00500	0.0500	0.0456	91	73-125	mg/L	06.08.2020 14:59	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0493	99	59-125	mg/L	06.08.2020 14:59	
1,2-Dibromoethane	<0.00500	0.0500	0.0499	100	73-125	mg/L	06.08.2020 14:59	
Methylene Bromide	<0.00100	0.0500	0.0447	89	69-127	mg/L	06.08.2020 14:59	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0453	91	75-125	mg/L	06.08.2020 14:59	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0443	89	75-125	mg/L	06.08.2020 14:59	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0452	90	75-125	mg/L	06.08.2020 14:59	
Dichlorodifluoromethane	<0.00100	0.0500	0.0436	87	60-140	mg/L	06.08.2020 14:59	
1,1-Dichloroethane	<0.00100	0.0500	0.0452	90	72-125	mg/L	06.08.2020 14:59	
1,2-Dichloroethane	<0.00100	0.0500	0.0442	88	68-127	mg/L	06.08.2020 14:59	
1,1-Dichloroethene	<0.00100	0.0500	0.0428	86	59-172	mg/L	06.08.2020 14:59	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0438	88	75-125	mg/L	06.08.2020 14:59	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0443	89	75-125	mg/L	06.08.2020 14:59	
1,2-Dichloropropane	<0.00500	0.0500	0.0481	96	74-125	mg/L	06.08.2020 14:59	
1,3-Dichloropropane	<0.00500	0.0500	0.0503	101	75-125	mg/L	06.08.2020 14:59	
2,2-Dichloropropane	<0.00500	0.0500	0.0456	91	75-125	mg/L	06.08.2020 14:59	
1,1-Dichloropropene	<0.00500	0.0500	0.0493	99	75-125	mg/L	06.08.2020 14:59	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0485	97	74-125	mg/L	06.08.2020 14:59	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0476	95	66-125	mg/L	06.08.2020 14:59	
Ethylbenzene	0.0228	0.0500	0.0683	91	75-125	mg/L	06.08.2020 14:59	
Hexachlorobutadiene	<0.00500	0.0500	0.0421	84	75-125	mg/L	06.08.2020 14:59	
Isopropylbenzene	0.0134	0.0500	0.0584	90	75-125	mg/L	06.08.2020 14:59	
Methylene Chloride	<0.00500	0.0500	0.0448	90	75-125	mg/L	06.08.2020 14:59	
MTBE	<0.00500	0.0500	0.0546	109	65-135	mg/L	06.08.2020 14:59	
Naphthalene	<0.0100	0.0500	0.0545	109	70-130	mg/L	06.08.2020 14:59	
n-Propylbenzene	0.0182	0.0500	0.0646	93	75-125	mg/L	06.08.2020 14:59	
Styrene	<0.00100	0.0500	0.0448	90	75-125	mg/L	06.08.2020 14:59	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0473	95	72-125	mg/L	06.08.2020 14:59	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0476	95	74-125	mg/L	06.08.2020 14:59	
Tetrachloroethylene	<0.00100	0.0500	0.0419	84	71-125	mg/L	06.08.2020 14:59	
Toluene	0.0317	0.0500	0.0741	85	59-139	mg/L	06.08.2020 14:59	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0534	107	75-137	mg/L	06.08.2020 14:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3128268

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 663627-001

MS Sample Id: 663627-001 S

Date Prep: 06.08.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0515	103	75-135	mg/L	06.08.2020 14:59	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0448	90	75-125	mg/L	06.08.2020 14:59	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0499	100	75-127	mg/L	06.08.2020 14:59	
Trichloroethylene	<0.00500	0.0500	0.0455	91	62-137	mg/L	06.08.2020 14:59	
Trichlorofluoromethane	<0.00100	0.0500	0.0418	84	60-140	mg/L	06.08.2020 14:59	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0488	98	75-125	mg/L	06.08.2020 14:59	
1,2,4-Trimethylbenzene	0.129	0.0500	0.174	90	75-125	mg/L	06.08.2020 14:59	
1,3,5-Trimethylbenzene	0.0367	0.0500	0.0842	95	70-125	mg/L	06.08.2020 14:59	
o-Xylene	0.0117	0.0500	0.0582	93	75-125	mg/L	06.08.2020 14:59	
m,p-Xylenes	0.0744	0.100	0.163	89	75-125	mg/L	06.08.2020 14:59	
Vinyl Chloride	<0.00200	0.0500	0.0422	84	60-140	mg/L	06.08.2020 14:59	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	97		75-131	%	06.08.2020 14:59
1,2-Dichloroethane-D4	97		63-144	%	06.08.2020 14:59
Toluene-D8	100		80-117	%	06.08.2020 14:59
4-Bromofluorobenzene	99		74-124	%	06.08.2020 14:59

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No.

1043427

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
(575-382-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

[illegible]

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	24.65	Thermometer ID:					
Received intact:	Yes	No					
Cooler Custody Seals:	Yes	No	N/A		Correction Factor:	0.4	
Sample Custody Seals:	Yes	No	N/A		Total Containers:		

No.	Name	Date Rec'd	Quantity	Purity	Cations: Ca, K, Mg, Na, Si Anions: F, Cl, SO ₄ , B	# of Containers
	TAT starts the day received by the lab, if received by 4:30pm					

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Tl	Sn	U	V	Zn

	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U	Hg
TCLP / SPLP 6010:	8RCRA																1631 / 245.1 / 7470 / 7471 :

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. 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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10/5			
		1/31			

Satisfied Date: 05/11/18 By: 2016

CUSTODY SEAL
Date 6-5-20
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **64937**

Date/Time: 06.05.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770640562887

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
663627-001	W	Levey Well	06.05.2020 12:20	SW8260C	VOCs by SW-846 8260C	06.08.2020	06.19.2020	JKR	BDCME BRBZ BRCLME	
663627-001	W	Levey Well	06.05.2020 12:20	E200.7	Recoverable Metals per ICP by EPA 200	06.08.2020	12.02.2020	JKR	CA K MG NA SI	
663627-001	W	Levey Well	06.05.2020 12:20	E300	Inorganic Anions by EPA 300/300.1	06.08.2020	06.07.2020 12:20	JKR	BR CL F NO2N NO3N SC	
663627-001	W	Levey Well	06.05.2020 12:20	SM4500-H	pH by SM4500-H	06.08.2020	06.05.2020 12:35	JKR		
663627-001	W	Levey Well	06.05.2020 12:20	SM2540C	TDS by SM2540C	06.08.2020	06.12.2020	JKR	TDS	
663627-001	W	Levey Well	06.05.2020 12:20	SM2320B	Alkalinity by SM2320B	06.08.2020	06.19.2020	JKR	ALK ALKB ALKC	
663627-001	W	Levey Well	06.05.2020 12:20	SM1030E	Cation-Anion Balance Calculation	06.08.2020	07.05.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

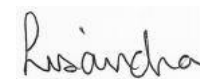
Relinquished By:



Brianna Teel

Date Relinquished: 06.05.2020

Received By:



Lisandra Torres

Date Received: 06.06.2020

Cooler Temperature: 1.2



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 64937

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 06.05.2020 02.59 PM

Received By: Lisandra Torres

Date Received: 06.06.2020 09.23 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Lisandra Torres

Date: 06.06.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 06.05.2020 02:31.00 PM

Work Order #: 663627

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10bdh1991

Checklist completed by:



Brianna Teel

Date: 06.05.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.08.2020



Certificate of Analysis Summary 664366

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 06.12.2020 16:32
Report Date: 06.16.2020 07:55
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 664366-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.12.2020 13:20					
Alkalinity by SM2320B SUB: T104704215-20-34	Extracted: 06.15.2020 09:43 Analyzed: 06.15.2020 10:35 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO ₃)	1140 4.00					
Alkalinity, Bicarbonate (as CaCO ₃)	1140 4.00					
Alkalinity, Carbonate (as CaCO ₃)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO ₃)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-34	Extracted: Analyzed: 06.15.2020 17:13 Units/RL: % RL					
Cation-Anion Balance	2.40					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-34	Extracted: 06.13.2020 10:30 Analyzed: 06.13.2020 12:50 Units/RL: mg/L RL					
Bromide	0.602 0.500					
Chloride	359 0.500					
Fluoride	0.697 0.500					
Nitrate as N	0.145 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	43.9 0.500					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 664366

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 06.12.2020 16:32
 Report Date: 06.16.2020 07:55
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 664366-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.12.2020 13:20					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-34	Extracted: 06.15.2020 10:00 Analyzed: 06.15.2020 14:36 Units/RL: mg/L RL					
Calcium	386 DX 10.0					
Magnesium	72.4 0.200					
Potassium	6.70 0.500					
Silica	68.0 1.07					
Sodium	106 0.500					
TDS by SM2540C SUB: T104704215-20-34	Extracted: Analyzed: 06.15.2020 08:48 Units/RL: mg/L RL					
Total Dissolved Solids	1670 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 664366

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 06.12.2020 16:32
Report Date: 06.16.2020 07:55
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 664366-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.12.2020 13:20					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.15.2020 09:20 Analyzed: 06.15.2020 13:36 Units/RL: mg/L RL					
Benzene	0.00600 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00283 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00154 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 664366

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 06.12.2020 16:32
Report Date: 06.16.2020 07:55
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 664366-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.12.2020 13:20					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.15.2020 09:20 Analyzed: 06.15.2020 13:36 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0231 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0135 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0211 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 664366

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 06.12.2020 16:32
Report Date: 06.16.2020 07:55
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 664366-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.12.2020 13:20					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.15.2020 09:20 Analyzed: 06.15.2020 13:36 Units/RL: mg/L RL					
Toluene	0.0299 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.150 0.00100					
1,3,5-Trimethylbenzene	0.0429 0.00100					
o-Xylene	0.0122 0.00100					
m,p-Xylenes	0.0757 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0879 0.00100					
pH by SM4500-H SUB: T104704215-20-34	Extracted: Analyzed: 06.15.2020 11:40 Units/RL: Deg C RL					
Temperature	23.9 K					
pH by SM4500-H SUB: T104704215-20-34	Extracted: Analyzed: 06.15.2020 11:40 Units/RL: SU RL					
pH	6.22 K					

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Jessica Kramer
Project Manager



Analytical Report 664366

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

06.16.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.16.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **664366**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 664366. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 664366 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 664366

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	06.12.2020 13:20		664366-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 664366

Report Date: 06.16.2020
Date Received: 06.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3128987 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 664366-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 664366-001.

The Laboratory Control Sample for Calcium is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 664366

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.12.2020 16:32

Lab Sample Id: 664366-001

Date Collected: 06.12.2020 13:20

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 06.15.2020 09:43

Seq Number: 3128936

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1140	4.00	mg/L	06.15.2020 10:35		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1140	4.00	mg/L	06.15.2020 10:35		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	06.15.2020 10:35	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	06.15.2020 10:35	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3129019

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	2.40		%	06.15.2020 17:13		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 06.13.2020 10:30

Seq Number: 3128887

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.602	0.500	mg/L	06.13.2020 12:50		1
Chloride	16887-00-6	359	0.500	mg/L	06.13.2020 12:50		1
Fluoride	16984-48-8	0.697	0.500	mg/L	06.13.2020 12:50		1
Nitrate as N	14797-55-8	0.145	0.100	mg/L	06.13.2020 12:50		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	06.13.2020 12:50	U	1
Sulfate	14808-79-8	43.9	0.500	mg/L	06.13.2020 12:50		1



Certificate of Analytical Results 664366

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.12.2020 16:32

Lab Sample Id: 664366-001

Date Collected: 06.12.2020 13:20

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3129002

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1670	5.00	mg/L	06.15.2020 08:48		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3128929

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.22		SU	06.15.2020 11:40	K	1
Temperature	TEMP	23.9		Deg C	06.15.2020 11:40	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 06.15.2020 10:00

Seq Number: 3128987

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	386	10.0	mg/L	06.15.2020 14:58	DX	50
Magnesium	7439-95-4	72.4	0.200	mg/L	06.15.2020 14:36		1
Potassium	7440-09-7	6.70	0.500	mg/L	06.15.2020 14:36		1
Silica	7631-86-9	68.0	1.07	mg/L	06.15.2020 14:36		1
Sodium	7440-23-5	106	0.500	mg/L	06.15.2020 14:36		1



Certificate of Analytical Results 664366

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.12.2020 16:32

Lab Sample Id: 664366-001

Date Collected: 06.12.2020 13:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.15.2020 09:20

Seq Number: 3129022

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00600	0.00100	mg/L	06.15.2020 13:36		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	06.15.2020 13:36	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Sec-Butylbenzene	135-98-8	0.00283	0.00100	mg/L	06.15.2020 13:36		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	06.15.2020 13:36	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	06.15.2020 13:36	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00154	0.00100	mg/L	06.15.2020 13:36		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Ethylbenzene	100-41-4	0.0231	0.00100	mg/L	06.15.2020 13:36		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1



Certificate of Analytical Results 664366

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.12.2020 16:32

Lab Sample Id: 664366-001

Date Collected: 06.12.2020 13:20

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.15.2020 09:20

Seq Number: 3129022

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0135	0.00100	mg/L	06.15.2020 13:36		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	06.15.2020 13:36	U	1
n-Propylbenzene	103-65-1	0.0211	0.00100	mg/L	06.15.2020 13:36		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Toluene	108-88-3	0.0299	0.00100	mg/L	06.15.2020 13:36		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	06.15.2020 13:36	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	06.15.2020 13:36	U	1
1,2,4-Trimethylbenzene	95-63-6	0.150	0.00100	mg/L	06.15.2020 13:36		1
1,3,5-Trimethylbenzene	108-67-8	0.0429	0.00100	mg/L	06.15.2020 13:36		1
o-Xylene	95-47-6	0.0122	0.00100	mg/L	06.15.2020 13:36		1
m,p-Xylenes	179601-23-1	0.0757	0.0100	mg/L	06.15.2020 13:36		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	06.15.2020 13:36	U	1
Total Xylenes	1330-20-7	0.0879	0.00100	mg/L	06.15.2020 13:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	75-131	06.15.2020 13:36	
1,2-Dichloroethane-D4	17060-07-0	102	%	63-144	06.15.2020 13:36	
Toluene-D8	2037-26-5	101	%	80-117	06.15.2020 13:36	
4-Bromofluorobenzene	460-00-4	99	%	74-124	06.15.2020 13:36	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128936

Matrix: Water

Prep Method: SM2320P

Date Prep: 06.15.2020

MB Sample Id: 7705418-1-BLK

LCS Sample Id: 7705418-1-BKS

LCSD Sample Id: 7705418-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	258	103	261	104	85-115	1	20	mg/L	06.15.2020 10:15	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3128936

Matrix: Water

Prep Method: SM2320P

Date Prep: 06.15.2020

MB Sample Id: 7705418-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	06.15.2020 10:08	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	06.15.2020 10:08	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	06.15.2020 10:08	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3128887

Matrix: Water

Prep Method: E300P

Date Prep: 06.13.2020

MB Sample Id: 7705404-1-BLK

LCS Sample Id: 7705404-1-BKS

LCSD Sample Id: 7705404-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	06.13.2020 11:17	
Chloride	<0.500	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	06.13.2020 11:17	
Fluoride	<0.500	10.0	10.6	106	10.8	108	90-110	2	20	mg/L	06.13.2020 11:17	
Nitrate as N	<0.100	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	06.13.2020 11:17	
Nitrite as N	<0.100	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	06.13.2020 11:17	
Sulfate	<0.500	10.0	10.3	103	10.5	105	90-110	2	20	mg/L	06.13.2020 11:17	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3128887

Matrix: Water

Prep Method: E300P

Date Prep: 06.13.2020

Parent Sample Id: 664338-001

MS Sample Id: 664338-001 S

MSD Sample Id: 664338-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	5.84	10.0	16.2	104	16.2	104	90-110	0	20	mg/L	06.13.2020 11:52	
Chloride	687	200	918	116	918	116	90-110	0	20	mg/L	06.13.2020 12:27	X
Fluoride	1.38	10.0	10.2	88	10.2	88	90-110	0	20	mg/L	06.13.2020 11:52	X
Nitrate as N	3.49	10.0	13.3	98	13.3	98	90-110	0	20	mg/L	06.13.2020 11:52	
Nitrite as N	0.0493	10.0	9.59	95	9.62	96	90-110	0	20	mg/L	06.13.2020 11:52	
Sulfate	90.1	200	291	100	291	100	90-110	0	20	mg/L	06.13.2020 12:27	

Analytical Method: TDS by SM2540C

Seq Number: 3129002

Matrix: Water

MB Sample Id: 3129002-1-BLK

LCS Sample Id: 3129002-1-BKS

LCSD Sample Id: 3129002-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	988	99	991	99	80-120	0	10	mg/L	06.15.2020 08:48	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: TDS by SM2540C

Seq Number: 3129002

Matrix: Water

Parent Sample Id: 663921-003

MD Sample Id: 663921-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	601	603	0	10	mg/L	06.15.2020 08:48	

Analytical Method: TDS by SM2540C

Seq Number: 3129002

Matrix: Water

Parent Sample Id: 664366-001

MD Sample Id: 664366-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1670	1690	1	10	mg/L	06.15.2020 08:48	

Analytical Method: pH by SM4500-H

Seq Number: 3128929

Matrix: Ground Water

Parent Sample Id: 664389-001

MD Sample Id: 664389-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	4.12	4.13	0	20	SU	06.15.2020 11:40	
Temperature	23.2	23.4	1	20	Deg C	06.15.2020 11:40	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3128987

Matrix: Water

MB Sample Id: 7705428-1-BLK

LCS Sample Id: 7705428-1-BKS

Prep Method: E200.7P

Date Prep: 06.15.2020

LCSD Sample Id: 7705428-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.4	98	24.6	98	85-115	1	20	mg/L	06.15.2020 14:28	
Magnesium	<0.200	25.0	24.7	99	24.7	99	85-115	0	20	mg/L	06.15.2020 14:28	
Potassium	<0.500	10.0	9.80	98	9.83	98	85-115	0	20	mg/L	06.15.2020 14:28	
Silica	<1.07	21.4	21.8	102	21.9	102	85-115	0	20	mg/L	06.15.2020 14:28	
Sodium	<0.500	25.0	24.1	96	24.2	97	85-115	0	20	mg/L	06.15.2020 14:28	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3128987

Matrix: Water

Parent Sample Id: 664366-001

MS Sample Id: 664366-001 S

Prep Method: E200.7P

Date Prep: 06.15.2020

MSD Sample Id: 664366-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	391	25.0	406	60	408	68	70-130	0	20	mg/L	06.15.2020 14:41	X
Magnesium	72.4	25.0	95.9	94	96.0	94	70-130	0	20	mg/L	06.15.2020 14:41	
Potassium	6.70	10.0	16.9	102	17.1	104	70-130	1	20	mg/L	06.15.2020 14:41	
Silica	68.0	21.4	94.5	124	94.2	122	70-130	0	20	mg/L	06.15.2020 14:41	
Sodium	106	25.0	128	88	129	92	70-130	1	20	mg/L	06.15.2020 14:41	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129022

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.15.2020

MB Sample Id: 7705490-1-BLK

LCS Sample Id: 7705490-1-BKS

LCSD Sample Id: 7705490-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0474	95	0.0468	94	66-142	1	25	mg/L	06.15.2020 10:41	
Bromobenzene	<0.00100	0.0500	0.0483	97	0.0460	92	75-125	5	25	mg/L	06.15.2020 10:41	
Bromochloromethane	<0.00100	0.0500	0.0457	91	0.0466	93	60-140	2	25	mg/L	06.15.2020 10:41	
Bromodichloromethane	<0.00100	0.0500	0.0480	96	0.0476	95	75-125	1	25	mg/L	06.15.2020 10:41	
Bromoform	<0.00500	0.0500	0.0493	99	0.0508	102	75-125	3	25	mg/L	06.15.2020 10:41	
Methyl bromide	<0.00500	0.0500	0.0406	81	0.0406	81	60-140	0	25	mg/L	06.15.2020 10:41	
2-Butanone	<0.0500	0.250	0.230	92	0.248	99	60-140	8	25	mg/L	06.15.2020 10:41	
n-Butylbenzene	<0.00100	0.0500	0.0471	94	0.0437	87	75-125	7	25	mg/L	06.15.2020 10:41	
Sec-Butylbenzene	<0.00100	0.0500	0.0453	91	0.0426	85	75-125	6	25	mg/L	06.15.2020 10:41	
tert-Butylbenzene	<0.00100	0.0500	0.0498	100	0.0469	94	75-125	6	25	mg/L	06.15.2020 10:41	
Carbon Tetrachloride	<0.00500	0.0500	0.0481	96	0.0476	95	62-125	1	25	mg/L	06.15.2020 10:41	
Chlorobenzene	<0.00100	0.0500	0.0473	95	0.0466	93	60-133	1	25	mg/L	06.15.2020 10:41	
Chloroethane	<0.0100	0.0500	0.0355	71	0.0350	70	60-140	1	25	mg/L	06.15.2020 10:41	
Chloroform	<0.00100	0.0500	0.0468	94	0.0467	93	70-130	0	25	mg/L	06.15.2020 10:41	
Methyl Chloride	<0.0100	0.0500	0.0460	92	0.0454	91	60-140	1	25	mg/L	06.15.2020 10:41	
2-Chlorotoluene	<0.00100	0.0500	0.0485	97	0.0456	91	73-125	6	25	mg/L	06.15.2020 10:41	
4-Chlorotoluene	<0.00100	0.0500	0.0496	99	0.0469	94	74-125	6	25	mg/L	06.15.2020 10:41	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0489	98	0.0463	93	75-125	5	25	mg/L	06.15.2020 10:41	
Dibromochloromethane	<0.00500	0.0500	0.0478	96	0.0483	97	73-125	1	25	mg/L	06.15.2020 10:41	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0439	88	0.0458	92	59-125	4	25	mg/L	06.15.2020 10:41	
1,2-Dibromoethane	<0.00500	0.0500	0.0486	97	0.0495	99	73-125	2	25	mg/L	06.15.2020 10:41	
Methylene Bromide	<0.00100	0.0500	0.0461	92	0.0466	93	69-127	1	25	mg/L	06.15.2020 10:41	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0484	97	0.0466	93	75-125	4	25	mg/L	06.15.2020 10:41	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0478	96	0.0453	91	75-125	5	25	mg/L	06.15.2020 10:41	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0486	97	0.0467	93	75-125	4	25	mg/L	06.15.2020 10:41	
Dichlorodifluoromethane	<0.00100	0.0500	0.0521	104	0.0512	102	60-140	2	25	mg/L	06.15.2020 10:41	
1,1-Dichloroethane	<0.00100	0.0500	0.0484	97	0.0478	96	72-125	1	25	mg/L	06.15.2020 10:41	
1,2-Dichloroethane	<0.00100	0.0500	0.0450	90	0.0460	92	68-127	2	25	mg/L	06.15.2020 10:41	
1,1-Dichloroethene	<0.00100	0.0500	0.0461	92	0.0454	91	59-172	2	25	mg/L	06.15.2020 10:41	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0460	92	0.0456	91	75-125	1	25	mg/L	06.15.2020 10:41	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0446	89	0.0447	89	75-125	0	25	mg/L	06.15.2020 10:41	
1,2-Dichloropropane	<0.00500	0.0500	0.0506	101	0.0503	101	74-125	1	25	mg/L	06.15.2020 10:41	
1,3-Dichloropropane	<0.00500	0.0500	0.0498	100	0.0509	102	75-125	2	25	mg/L	06.15.2020 10:41	
2,2-Dichloropropane	<0.00500	0.0500	0.0488	98	0.0479	96	75-125	2	25	mg/L	06.15.2020 10:41	
1,1-Dichloropropene	<0.00500	0.0500	0.0519	104	0.0509	102	75-125	2	25	mg/L	06.15.2020 10:41	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0501	100	0.0505	101	74-125	1	25	mg/L	06.15.2020 10:41	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0476	95	0.0480	96	66-125	1	25	mg/L	06.15.2020 10:41	
Ethylbenzene	<0.00100	0.0500	0.0472	94	0.0458	92	75-125	3	25	mg/L	06.15.2020 10:41	
Hexachlorobutadiene	<0.00500	0.0500	0.0478	96	0.0462	92	75-125	3	25	mg/L	06.15.2020 10:41	
Isopropylbenzene	<0.00100	0.0500	0.0468	94	0.0454	91	75-125	3	25	mg/L	06.15.2020 10:41	
Methylene Chloride	<0.00500	0.0500	0.0468	94	0.0479	96	75-125	2	25	mg/L	06.15.2020 10:41	
MTBE	<0.00500	0.0500	0.0504	101	0.0527	105	65-135	4	25	mg/L	06.15.2020 10:41	
Naphthalene	<0.0100	0.0500	0.0441	88	0.0485	97	70-130	10	25	mg/L	06.15.2020 10:41	
n-Propylbenzene	<0.00100	0.0500	0.0497	99	0.0465	93	75-125	7	25	mg/L	06.15.2020 10:41	
Styrene	<0.00100	0.0500	0.0488	98	0.0483	97	75-125	1	25	mg/L	06.15.2020 10:41	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0504	101	0.0494	99	72-125	2	25	mg/L	06.15.2020 10:41	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0477	95	0.0475	95	74-125	0	25	mg/L	06.15.2020 10:41	
Tetrachloroethylene	<0.00100	0.0500	0.0447	89	0.0426	85	71-125	5	25	mg/L	06.15.2020 10:41	
Toluene	<0.00100	0.0500	0.0462	92	0.0454	91	59-139	2	25	mg/L	06.15.2020 10:41	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0473	95	0.0506	101	75-137	7	25	mg/L	06.15.2020 10:41	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129022

MB Sample Id: 7705490-1-BLK

Matrix: Water

LCS Sample Id: 7705490-1-BKS

Prep Method: SW5030B

Date Prep: 06.15.2020

LCSD Sample Id: 7705490-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0462	92	0.0471	94	75-135	2	25	mg/L	06.15.2020 10:41	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0484	97	0.0474	95	75-125	2	25	mg/L	06.15.2020 10:41	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0505	101	0.0510	102	75-127	1	25	mg/L	06.15.2020 10:41	
Trichloroethylene	<0.00500	0.0500	0.0491	98	0.0470	94	62-137	4	25	mg/L	06.15.2020 10:41	
Trichlorofluoromethane	<0.00100	0.0500	0.0500	100	0.0486	97	60-140	3	25	mg/L	06.15.2020 10:41	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0483	97	0.0481	96	75-125	0	25	mg/L	06.15.2020 10:41	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0494	99	0.0461	92	75-125	7	25	mg/L	06.15.2020 10:41	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0493	99	0.0463	93	70-125	6	25	mg/L	06.15.2020 10:41	
o-Xylene	<0.00100	0.0500	0.0481	96	0.0476	95	75-125	1	25	mg/L	06.15.2020 10:41	
m,p-Xylenes	<0.0100	0.100	0.0962	96	0.0943	94	75-125	2	25	mg/L	06.15.2020 10:41	
Vinyl Chloride	<0.00200	0.0500	0.0459	92	0.0449	90	60-140	2	25	mg/L	06.15.2020 10:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	109		99		100		75-131	%	06.15.2020 10:41
1,2-Dichloroethane-D4	110		99		100		63-144	%	06.15.2020 10:41
Toluene-D8	98		101		100		80-117	%	06.15.2020 10:41
4-Bromofluorobenzene	100		99		97		74-124	%	06.15.2020 10:41

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129022

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.15.2020

Parent Sample Id: 664366-001

MS Sample Id: 664366-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00600	0.0500	0.0521	92	66-142	mg/L	06.15.2020 11:38	
Bromobenzene	<0.00100	0.0500	0.0468	94	75-125	mg/L	06.15.2020 11:38	
Bromochloromethane	<0.00100	0.0500	0.0459	92	60-140	mg/L	06.15.2020 11:38	
Bromodichloromethane	<0.00100	0.0500	0.0463	93	75-125	mg/L	06.15.2020 11:38	
Bromoform	<0.00500	0.0500	0.0489	98	75-125	mg/L	06.15.2020 11:38	
Methyl bromide	<0.00500	0.0500	0.0373	75	60-140	mg/L	06.15.2020 11:38	
2-Butanone	<0.0500	0.250	0.249	100	60-140	mg/L	06.15.2020 11:38	
n-Butylbenzene	<0.00100	0.0500	0.0470	94	75-125	mg/L	06.15.2020 11:38	
Sec-Butylbenzene	0.00283	0.0500	0.0450	84	75-125	mg/L	06.15.2020 11:38	
tert-Butylbenzene	<0.00100	0.0500	0.0474	95	75-125	mg/L	06.15.2020 11:38	
Carbon Tetrachloride	<0.00500	0.0500	0.0469	94	62-125	mg/L	06.15.2020 11:38	
Chlorobenzene	<0.00100	0.0500	0.0462	92	60-133	mg/L	06.15.2020 11:38	
Chloroethane	<0.0100	0.0500	0.0358	72	60-140	mg/L	06.15.2020 11:38	
Chloroform	<0.00100	0.0500	0.0467	93	70-130	mg/L	06.15.2020 11:38	
Methyl Chloride	<0.0100	0.0500	0.0433	87	60-140	mg/L	06.15.2020 11:38	
2-Chlorotoluene	<0.00100	0.0500	0.0609	122	73-125	mg/L	06.15.2020 11:38	
4-Chlorotoluene	<0.00100	0.0500	0.0517	103	74-125	mg/L	06.15.2020 11:38	
p-Cymene (p-Isopropyltoluene)	0.00154	0.0500	0.0485	94	75-125	mg/L	06.15.2020 11:38	
Dibromochloromethane	<0.00500	0.0500	0.0473	95	73-125	mg/L	06.15.2020 11:38	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0428	86	59-125	mg/L	06.15.2020 11:38	
1,2-Dibromoethane	<0.00500	0.0500	0.0491	98	73-125	mg/L	06.15.2020 11:38	
Methylene Bromide	<0.00100	0.0500	0.0452	90	69-127	mg/L	06.15.2020 11:38	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0471	94	75-125	mg/L	06.15.2020 11:38	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0459	92	75-125	mg/L	06.15.2020 11:38	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0467	93	75-125	mg/L	06.15.2020 11:38	
Dichlorodifluoromethane	<0.00100	0.0500	0.0442	88	60-140	mg/L	06.15.2020 11:38	
1,1-Dichloroethane	<0.00100	0.0500	0.0476	95	72-125	mg/L	06.15.2020 11:38	
1,2-Dichloroethane	<0.00100	0.0500	0.0445	89	68-127	mg/L	06.15.2020 11:38	
1,1-Dichloroethene	<0.00100	0.0500	0.0442	88	59-172	mg/L	06.15.2020 11:38	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0467	93	75-125	mg/L	06.15.2020 11:38	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0446	89	75-125	mg/L	06.15.2020 11:38	
1,2-Dichloropropane	<0.00500	0.0500	0.0501	100	74-125	mg/L	06.15.2020 11:38	
1,3-Dichloropropane	<0.00500	0.0500	0.0504	101	75-125	mg/L	06.15.2020 11:38	
2,2-Dichloropropane	<0.00500	0.0500	0.0486	97	75-125	mg/L	06.15.2020 11:38	
1,1-Dichloropropene	<0.00500	0.0500	0.0516	103	75-125	mg/L	06.15.2020 11:38	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0494	99	74-125	mg/L	06.15.2020 11:38	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0478	96	66-125	mg/L	06.15.2020 11:38	
Ethylbenzene	0.0231	0.0500	0.0696	93	75-125	mg/L	06.15.2020 11:38	
Hexachlorobutadiene	<0.00500	0.0500	0.0452	90	75-125	mg/L	06.15.2020 11:38	
Isopropylbenzene	0.0135	0.0500	0.0596	92	75-125	mg/L	06.15.2020 11:38	
Methylene Chloride	<0.00500	0.0500	0.0478	96	75-125	mg/L	06.15.2020 11:38	
MTBE	<0.00500	0.0500	0.0542	108	65-135	mg/L	06.15.2020 11:38	
Naphthalene	<0.0100	0.0500	0.0466	93	70-130	mg/L	06.15.2020 11:38	
n-Propylbenzene	0.0211	0.0500	0.0687	95	75-125	mg/L	06.15.2020 11:38	
Styrene	<0.00100	0.0500	0.0472	94	75-125	mg/L	06.15.2020 11:38	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0496	99	72-125	mg/L	06.15.2020 11:38	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0472	94	74-125	mg/L	06.15.2020 11:38	
Tetrachloroethylene	<0.00100	0.0500	0.0425	85	71-125	mg/L	06.15.2020 11:38	
Toluene	0.0299	0.0500	0.0737	88	59-139	mg/L	06.15.2020 11:38	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0484	97	75-137	mg/L	06.15.2020 11:38	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129022

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.15.2020

Parent Sample Id: 664366-001

MS Sample Id: 664366-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0469	94	75-135	mg/L	06.15.2020 11:38	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0478	96	75-125	mg/L	06.15.2020 11:38	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0508	102	75-127	mg/L	06.15.2020 11:38	
Trichloroethylene	<0.00500	0.0500	0.0474	95	62-137	mg/L	06.15.2020 11:38	
Trichlorofluoromethane	<0.00100	0.0500	0.0451	90	60-140	mg/L	06.15.2020 11:38	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0471	94	75-125	mg/L	06.15.2020 11:38	
1,2,4-Trimethylbenzene	0.150	0.0500	0.200	100	75-125	mg/L	06.15.2020 11:38	
1,3,5-Trimethylbenzene	0.0429	0.0500	0.0927	100	70-125	mg/L	06.15.2020 11:38	
o-Xylene	0.0122	0.0500	0.0591	94	75-125	mg/L	06.15.2020 11:38	
m,p-Xylenes	0.0757	0.100	0.166	90	75-125	mg/L	06.15.2020 11:38	
Vinyl Chloride	<0.00200	0.0500	0.0429	86	60-140	mg/L	06.15.2020 11:38	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		75-131	%	06.15.2020 11:38
1,2-Dichloroethane-D4	100		63-144	%	06.15.2020 11:38
Toluene-D8	100		80-117	%	06.15.2020 11:38
4-Bromofluorobenzene	97		74-124	%	06.15.2020 11:38

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

9607366

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
(575-382-7560) Phoenix, AZ (480-355-0800) Atlanta, GA (770-449-8800) Tampa, FL (813)

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.4/0.0			Thermometer ID		
Received intact:	Yes No					
Cooler Custody Seals:	Yes No N/A			Correction Factor:	-0.4	
Sample Custody Seals:	Yes No N/A			Total Containers:		

Number of Containers

F, Cl, SO₄, B

: Ca, K, Mg, Na, Si

ty

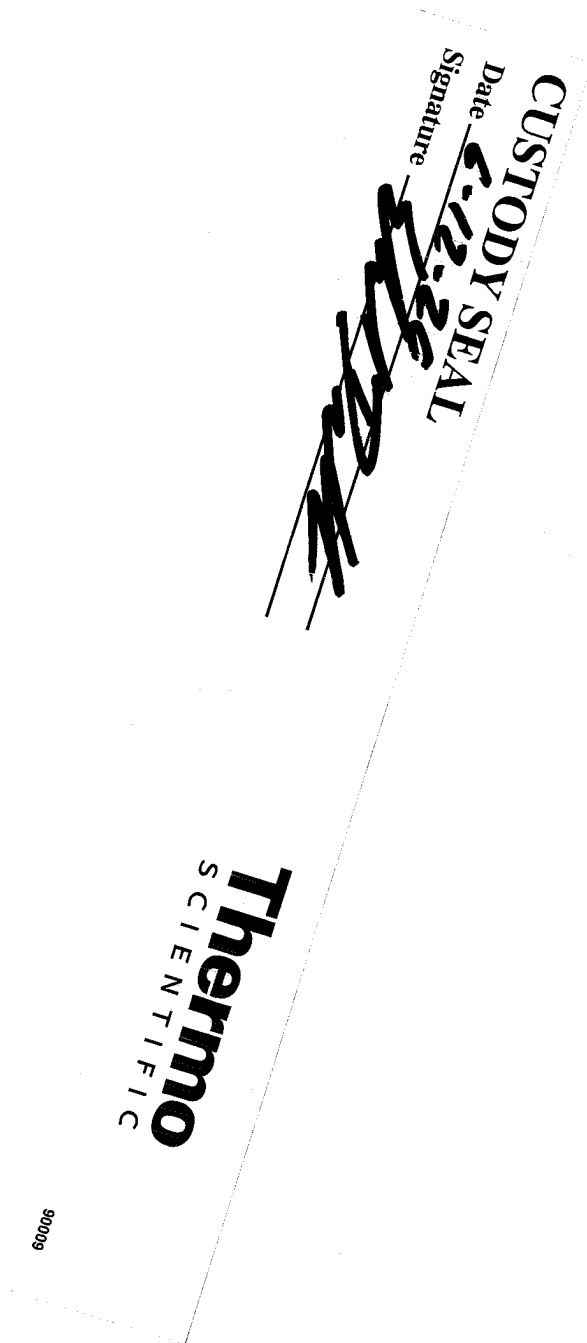
TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Total	200.7 / 6010	200.8 / 6020:
8RCRA	13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		6/2/03			



Inter-Office Shipment

IOS Number : **65375**

Date/Time: 06.12.2020 Created by: Jessica Kramer
Lab# From: **Midland** Delivery Priority:
Lab# To: **Houston** Air Bill No.: 77069808186

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
664366-001	W	Levey Well	06.12.2020 13:20	SW8260C	VOCs by SW-846 8260C	06.15.2020	06.26.2020	JKR	BDCME BRBZ BRCLME	
664366-001	W	Levey Well	06.12.2020 13:20	E200.7	Recoverable Metals per ICP by EPA 200	06.15.2020	12.09.2020	JKR	CA K MG NA SI	
664366-001	W	Levey Well	06.12.2020 13:20	E300	Inorganic Anions by EPA 300/300.1	06.15.2020	06.14.2020 13:20	JKR	BR CL F NO2N NO3N SC	
664366-001	W	Levey Well	06.12.2020 13:20	SM4500-H	pH by SM4500-H	06.15.2020	06.12.2020 13:35	JKR		
664366-001	W	Levey Well	06.12.2020 13:20	SM2540C	TDS by SM2540C	06.15.2020	06.19.2020	JKR	TDS	
664366-001	W	Levey Well	06.12.2020 13:20	SM2320B	Alkalinity by SM2320B	06.15.2020	06.26.2020	JKR	ALK ALKB ALKC	
664366-001	W	Levey Well	06.12.2020 13:20	SM1030E	Cation-Anion Balance Calculation	06.15.2020	07.12.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Jessica Kramer

Date Relinquished: 06.12.2020

Received By: 
Jhyrom Edralin

Date Received: 06.13.2020

Cooler Temperature: 1.5



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 65375

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Jessica Kramer

Date Sent: 06.12.2020 04.39 PM

Received By: Jhyrom Edralin

Date Received: 06.13.2020 10.40 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 06.13.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 06.12.2020 04.32.00 PM

Work Order #: 664366

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : r8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	0
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10bdh1991

Checklist completed by:



Brianna Teel

Date: 06.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.12.2020



Certificate of Analysis Summary 665192

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.23.2020 14:49
Report Date: 06.24.2020 17:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665192-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.23.2020 11:50					
Alkalinity by SM2320B SUB: T104704215-20-34	Extracted: 06.24.2020 12:00 Analyzed: 06.24.2020 12:47 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1190 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1190 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-34	Extracted: Analyzed: 06.24.2020 16:32 Units/RL: % RL					
Cation-Anion Balance	8.40					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-34	Extracted: 06.24.2020 09:30 Analyzed: 06.24.2020 11:28 Units/RL: mg/L RL					
Bromide	0.586 0.500					
Chloride	398 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	0.136 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	33.3 0.500					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 665192

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Tue 06.23.2020 14:49
 Report Date: 06.24.2020 17:36
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665192-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.23.2020 11:50					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-34	Extracted: 06.24.2020 09:30 Analyzed: 06.24.2020 15:27 Units/RL: mg/L RL					
Calcium	361 D 10.0					
Magnesium	66.3 0.200					
Potassium	5.48 0.500					
Silica	59.4 1.07					
Sodium	98.2 0.500					
TDS by SM2540C SUB: T104704215-20-34	Extracted: Analyzed: 06.24.2020 10:00 Units/RL: mg/L RL					
Total Dissolved Solids	1920 5.00					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 665192

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.23.2020 14:49
Report Date: 06.24.2020 17:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665192-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.23.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.24.2020 10:21 Analyzed: 06.24.2020 12:44 Units/RL: mg/L RL					
Benzene	0.00599 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00103 0.00100					
Sec-Butylbenzene	<0.00100 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00153 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 665192

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.23.2020 14:49
Report Date: 06.24.2020 17:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665192-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.23.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.24.2020 10:21 Analyzed: 06.24.2020 12:44 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0232 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0137 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0193 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 665192

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.23.2020 14:49
Report Date: 06.24.2020 17:36
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665192-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.23.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-34	Extracted: 06.24.2020 10:21 Analyzed: 06.24.2020 12:44 Units/RL: mg/L RL					
Toluene	0.0311 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.135 0.00100					
1,3,5-Trimethylbenzene	0.0385 0.00100					
o-Xylene	0.0116 0.00100					
m,p-Xylenes	0.0771 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0887 0.00100					
pH by SM4500-H SUB: T104704215-20-34	Extracted: Analyzed: 06.24.2020 15:13 Units/RL: Deg C RL					
Temperature	20.6 K					
pH by SM4500-H SUB: T104704215-20-34	Extracted: Analyzed: 06.24.2020 15:13 Units/RL: SU RL					
pH	6.23 K					

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Jessica Kramer
Project Manager



Analytical Report 665192

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

06.24.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.24.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: XENCO Report No(s): **665192**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 665192. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 665192 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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Sample Cross Reference 665192

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	06.23.2020 11:50		665192-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 665192

Report Date: 06.24.2020
Date Received: 06.23.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129855 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 665192-001.

Lab Sample ID 665192-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Dichlorodifluoromethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 665192-001.



Certificate of Analytical Results 665192

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.23.2020 14:49

Lab Sample Id: 665192-001

Date Collected: 06.23.2020 11:50

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 06.24.2020 12:00

Seq Number: 3129827

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1190	4.00	mg/L	06.24.2020 12:47		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1190	4.00	mg/L	06.24.2020 12:47		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	06.24.2020 12:47	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	06.24.2020 12:47	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3129863

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	8.40		%	06.24.2020 16:32		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 06.24.2020 09:30

Seq Number: 3129859

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.586	0.500	mg/L	06.24.2020 11:28		1
Chloride	16887-00-6	398	0.500	mg/L	06.24.2020 11:28		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	06.24.2020 11:39	UD	10
Nitrate as N	14797-55-8	0.136	0.100	mg/L	06.24.2020 11:28		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	06.24.2020 11:28	U	1
Sulfate	14808-79-8	33.3	0.500	mg/L	06.24.2020 11:28		1



Certificate of Analytical Results 665192

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.23.2020 14:49

Lab Sample Id: 665192-001

Date Collected: 06.23.2020 11:50

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3129805

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1920	5.00	mg/L	06.24.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3129847

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.23		SU	06.24.2020 15:13	K	1
Temperature	TEMP	20.6		Deg C	06.24.2020 15:13	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 06.24.2020 09:30

Seq Number: 3129856

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	361	10.0	mg/L	06.24.2020 15:36	D	50
Magnesium	7439-95-4	66.3	0.200	mg/L	06.24.2020 15:27		1
Potassium	7440-09-7	5.48	0.500	mg/L	06.24.2020 15:27		1
Silica	7631-86-9	59.4	1.07	mg/L	06.24.2020 15:27		1
Sodium	7440-23-5	98.2	0.500	mg/L	06.24.2020 15:27		1



Certificate of Analytical Results 665192

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.23.2020 14:49

Lab Sample Id: 665192-001

Date Collected: 06.23.2020 11:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.24.2020 10:21

Seq Number: 3129855

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00599	0.00100	mg/L	06.24.2020 12:44		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	06.24.2020 12:44	U	1
n-Butylbenzene	104-51-8	0.00103	0.00100	mg/L	06.24.2020 12:44		1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	06.24.2020 12:44	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	06.24.2020 12:44	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00153	0.00100	mg/L	06.24.2020 12:44		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	06.24.2020 12:44	UHX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Ethylbenzene	100-41-4	0.0232	0.00100	mg/L	06.24.2020 12:44		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1



Certificate of Analytical Results 665192

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.23.2020 14:49

Lab Sample Id: 665192-001

Date Collected: 06.23.2020 11:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 06.24.2020 10:21

Seq Number: 3129855

SUB: T104704215-20-34

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0137	0.00100	mg/L	06.24.2020 12:44		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	06.24.2020 12:44	U	1
n-Propylbenzene	103-65-1	0.0193	0.00100	mg/L	06.24.2020 12:44		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Toluene	108-88-3	0.0311	0.00100	mg/L	06.24.2020 12:44		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	06.24.2020 12:44	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	06.24.2020 12:44	U	1
1,2,4-Trimethylbenzene	95-63-6	0.135	0.00100	mg/L	06.24.2020 12:44		1
1,3,5-Trimethylbenzene	108-67-8	0.0385	0.00100	mg/L	06.24.2020 12:44		1
o-Xylene	95-47-6	0.0116	0.00100	mg/L	06.24.2020 12:44		1
m,p-Xylenes	179601-23-1	0.0771	0.0100	mg/L	06.24.2020 12:44		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	06.24.2020 12:44	U	1
Total Xylenes	1330-20-7	0.0887	0.00100	mg/L	06.24.2020 12:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	75-131	06.24.2020 12:44	
1,2-Dichloroethane-D4	17060-07-0	104	%	63-144	06.24.2020 12:44	
Toluene-D8	2037-26-5	100	%	80-117	06.24.2020 12:44	
4-Bromofluorobenzene	460-00-4	98	%	74-124	06.24.2020 12:44	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum
Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3129827

MB Sample Id: 7706101-1-BLK

Matrix: Water

LCS Sample Id: 7706101-1-BKS

Prep Method: SM2320P

Date Prep: 06.24.2020

LCSD Sample Id: 7706101-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	257	103	260	104	85-115	1	20	mg/L	06.24.2020 12:27	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3129827

Matrix: Water

MB Sample Id: 7706101-1-BLK

Prep Method: SM2320P

Date Prep: 06.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	06.24.2020 12:20	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	06.24.2020 12:20	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	06.24.2020 12:20	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3129827

Matrix: Water

Parent Sample Id: 665192-001

MD Sample Id: 665192-001 D

Prep Method: SM2320P

Date Prep: 06.24.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1190	1190	0	20	mg/L	06.24.2020 13:01	
Alkalinity, Bicarbonate (as CaCO ₃)	1190	1190	0	20	mg/L	06.24.2020 13:01	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.24.2020 13:01	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	06.24.2020 13:01	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129859

Matrix: Water

MB Sample Id: 7706063-1-BLK

LCS Sample Id: 7706063-1-BKS

Prep Method: E300P

Date Prep: 06.24.2020

LCSD Sample Id: 7706063-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	06.24.2020 08:30	
Chloride	<0.500	10.0	10.2	102	10.1	101	90-110	1	20	mg/L	06.24.2020 08:30	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	06.24.2020 08:30	
Nitrate as N	<0.100	10.0	10.0	100	10.1	101	90-110	1	20	mg/L	06.24.2020 08:30	
Nitrite as N	<0.100	10.0	9.97	100	10.0	100	90-110	0	20	mg/L	06.24.2020 08:30	
Sulfate	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	06.24.2020 08:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129859

Matrix: Water

Prep Method: E300P

Date Prep: 06.24.2020

Parent Sample Id: 665119-005

MS Sample Id: 665119-005 S

MSD Sample Id: 665119-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	06.24.2020 12:02	
Chloride	12.1	10.0	21.7	96	21.7	96	90-110	0	20	mg/L	06.24.2020 12:02	
Fluoride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	06.24.2020 12:02	
Nitrate as N	0.120	10.0	10.1	100	10.1	100	90-110	0	20	mg/L	06.24.2020 12:02	
Nitrite as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	06.24.2020 12:02	
Sulfate	58.4	10.0	67.2	88	67.1	87	90-110	0	20	mg/L	06.24.2020 12:02	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129859

Matrix: Water

Prep Method: E300P

Date Prep: 06.24.2020

Parent Sample Id: 665119-006

MS Sample Id: 665119-006 S

MSD Sample Id: 665119-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	06.24.2020 12:36	
Chloride	12.0	10.0	21.4	94	21.4	94	90-110	0	20	mg/L	06.24.2020 12:36	
Fluoride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	06.24.2020 12:36	
Nitrate as N	0.133	10.0	10.1	100	10.1	100	90-110	0	20	mg/L	06.24.2020 12:36	
Nitrite as N	0.102	10.0	10.2	101	10.2	101	90-110	0	20	mg/L	06.24.2020 12:36	
Sulfate	58.4	10.0	67.2	88	67.3	89	90-110	0	20	mg/L	06.24.2020 12:36	X

Analytical Method: TDS by SM2540C

Seq Number: 3129805

Matrix: Water

MB Sample Id: 3129805-1-BLK

LCS Sample Id: 3129805-1-BKS

LCSD Sample Id: 3129805-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	983	98	987	99	80-120	0	10	mg/L	06.24.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3129805

Matrix: Water

Parent Sample Id: 665192-001

MD Sample Id: 665192-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1920	1910	1	10	mg/L	06.24.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3129847

Matrix: Water

Parent Sample Id: 665114-001

MD Sample Id: 665114-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	0.970	0.980	1	20	SU	06.24.2020 15:13	
Temperature	21.3	21.5	1	20	Deg C	06.24.2020 15:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3129856

Matrix: Water

Prep Method: E200.7P

Date Prep: 06.24.2020

MB Sample Id: 7706087-1-BLK

LCS Sample Id: 7706087-1-BKS

LCSD Sample Id: 7706087-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.2	97	24.3	97	85-115	0	20	mg/L	06.24.2020 14:41	
Magnesium	<0.200	25.0	24.9	100	25.0	100	85-115	0	20	mg/L	06.24.2020 14:41	
Potassium	<0.500	10.0	9.85	99	9.89	99	85-115	0	20	mg/L	06.24.2020 14:41	
Silica	<1.07	21.4	21.8	102	22.0	103	85-115	1	20	mg/L	06.24.2020 14:41	
Sodium	<0.500	25.0	24.5	98	24.6	98	85-115	0	20	mg/L	06.24.2020 14:41	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3129856

Matrix: Drinking Water

Prep Method: E200.7P

Date Prep: 06.24.2020

Parent Sample Id: 664915-002

MS Sample Id: 664915-002 S

MSD Sample Id: 664915-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	118	25.0	146	112	148	120	70-130	1	20	mg/L	06.24.2020 14:54	
Magnesium	15.2	25.0	39.0	95	39.4	97	70-130	1	20	mg/L	06.24.2020 14:54	
Potassium	4.05	10.0	13.9	99	14.0	100	70-130	1	20	mg/L	06.24.2020 14:54	
Silica	33.7	21.4	56.5	107	57.1	109	70-130	1	20	mg/L	06.24.2020 14:54	
Sodium	61.8	25.0	87.3	102	88.3	106	70-130	1	20	mg/L	06.24.2020 14:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129855

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.24.2020

MB Sample Id: 7706118-1-BLK

LCS Sample Id: 7706118-1-BKS

LCSD Sample Id: 7706118-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0504	101	0.0488	98	66-142	3	25	mg/L	06.24.2020 09:57	
Bromobenzene	<0.00100	0.0500	0.0495	99	0.0485	97	75-125	2	25	mg/L	06.24.2020 09:57	
Bromochloromethane	<0.00100	0.0500	0.0487	97	0.0470	94	60-140	4	25	mg/L	06.24.2020 09:57	
Bromodichloromethane	<0.00100	0.0500	0.0490	98	0.0474	95	75-125	3	25	mg/L	06.24.2020 09:57	
Bromoform	<0.00500	0.0500	0.0491	98	0.0502	100	75-125	2	25	mg/L	06.24.2020 09:57	
Methyl bromide	<0.00500	0.0500	0.0424	85	0.0406	81	60-140	4	25	mg/L	06.24.2020 09:57	
2-Butanone	<0.0500	0.250	0.225	90	0.241	96	60-140	7	25	mg/L	06.24.2020 09:57	
n-Butylbenzene	<0.00100	0.0500	0.0484	97	0.0472	94	75-125	3	25	mg/L	06.24.2020 09:57	
Sec-Butylbenzene	<0.00100	0.0500	0.0458	92	0.0449	90	75-125	2	25	mg/L	06.24.2020 09:57	
tert-Butylbenzene	<0.00100	0.0500	0.0503	101	0.0495	99	75-125	2	25	mg/L	06.24.2020 09:57	
Carbon Tetrachloride	<0.00500	0.0500	0.0498	100	0.0480	96	62-125	4	25	mg/L	06.24.2020 09:57	
Chlorobenzene	<0.00100	0.0500	0.0487	97	0.0477	95	60-133	2	25	mg/L	06.24.2020 09:57	
Chloroethane	<0.0100	0.0500	0.0381	76	0.0366	73	60-140	4	25	mg/L	06.24.2020 09:57	
Chloroform	<0.00100	0.0500	0.0481	96	0.0467	93	70-130	3	25	mg/L	06.24.2020 09:57	
Methyl Chloride	<0.0100	0.0500	0.0532	106	0.0513	103	60-140	4	25	mg/L	06.24.2020 09:57	
2-Chlorotoluene	<0.00100	0.0500	0.0493	99	0.0481	96	73-125	2	25	mg/L	06.24.2020 09:57	
4-Chlorotoluene	<0.00100	0.0500	0.0506	101	0.0492	98	74-125	3	25	mg/L	06.24.2020 09:57	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0503	101	0.0493	99	75-125	2	25	mg/L	06.24.2020 09:57	
Dibromochloromethane	<0.00500	0.0500	0.0476	95	0.0468	94	73-125	2	25	mg/L	06.24.2020 09:57	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0425	85	0.0471	94	59-125	10	25	mg/L	06.24.2020 09:57	
1,2-Dibromoethane	<0.00500	0.0500	0.0488	98	0.0496	99	73-125	2	25	mg/L	06.24.2020 09:57	
Methylene Bromide	<0.00100	0.0500	0.0478	96	0.0474	95	69-127	1	25	mg/L	06.24.2020 09:57	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0494	99	0.0488	98	75-125	1	25	mg/L	06.24.2020 09:57	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0483	97	0.0476	95	75-125	1	25	mg/L	06.24.2020 09:57	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0502	100	0.0487	97	75-125	3	25	mg/L	06.24.2020 09:57	
Dichlorodifluoromethane	<0.00100	0.0500	0.0753	151	0.0727	145	60-140	4	25	mg/L	06.24.2020 09:57	H
1,1-Dichloroethane	<0.00100	0.0500	0.0501	100	0.0480	96	72-125	4	25	mg/L	06.24.2020 09:57	
1,2-Dichloroethane	<0.00100	0.0500	0.0477	95	0.0467	93	68-127	2	25	mg/L	06.24.2020 09:57	
1,1-Dichloroethene	<0.00100	0.0500	0.0492	98	0.0470	94	59-172	5	25	mg/L	06.24.2020 09:57	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0482	96	0.0461	92	75-125	4	25	mg/L	06.24.2020 09:57	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0491	98	0.0475	95	75-125	3	25	mg/L	06.24.2020 09:57	
1,2-Dichloropropane	<0.00500	0.0500	0.0517	103	0.0505	101	74-125	2	25	mg/L	06.24.2020 09:57	
1,3-Dichloropropane	<0.00500	0.0500	0.0505	101	0.0506	101	75-125	0	25	mg/L	06.24.2020 09:57	
2,2-Dichloropropane	<0.00500	0.0500	0.0501	100	0.0478	96	75-125	5	25	mg/L	06.24.2020 09:57	
1,1-Dichloropropene	<0.00500	0.0500	0.0553	111	0.0526	105	75-125	5	25	mg/L	06.24.2020 09:57	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0516	103	0.0502	100	74-125	3	25	mg/L	06.24.2020 09:57	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0481	96	0.0471	94	66-125	2	25	mg/L	06.24.2020 09:57	
Ethylbenzene	<0.00100	0.0500	0.0493	99	0.0477	95	75-125	3	25	mg/L	06.24.2020 09:57	
Hexachlorobutadiene	<0.00500	0.0500	0.0493	99	0.0507	101	75-125	3	25	mg/L	06.24.2020 09:57	
Isopropylbenzene	<0.00100	0.0500	0.0477	95	0.0469	94	75-125	2	25	mg/L	06.24.2020 09:57	
Methylene Chloride	<0.00500	0.0500	0.0495	99	0.0476	95	75-125	4	25	mg/L	06.24.2020 09:57	
MTBE	<0.00500	0.0500	0.0504	101	0.0508	102	65-135	1	25	mg/L	06.24.2020 09:57	
Naphthalene	<0.0100	0.0500	0.0438	88	0.0518	104	70-130	17	25	mg/L	06.24.2020 09:57	
n-Propylbenzene	<0.00100	0.0500	0.0509	102	0.0494	99	75-125	3	25	mg/L	06.24.2020 09:57	
Styrene	<0.00100	0.0500	0.0504	101	0.0494	99	75-125	2	25	mg/L	06.24.2020 09:57	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0505	101	0.0498	100	72-125	1	25	mg/L	06.24.2020 09:57	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0458	92	0.0483	97	74-125	5	25	mg/L	06.24.2020 09:57	
Tetrachloroethylene	<0.00100	0.0500	0.0471	94	0.0462	92	71-125	2	25	mg/L	06.24.2020 09:57	
Toluene	<0.00100	0.0500	0.0485	97	0.0471	94	59-139	3	25	mg/L	06.24.2020 09:57	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0484	97	0.0559	112	75-137	14	25	mg/L	06.24.2020 09:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129855

MB Sample Id: 7706118-1-BLK

Matrix: Water

LCS Sample Id: 7706118-1-BKS

Prep Method: SW5030B

Date Prep: 06.24.2020

LCSD Sample Id: 7706118-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0478	96	0.0508	102	75-135	6	25	mg/L	06.24.2020 09:57	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0502	100	0.0484	97	75-125	4	25	mg/L	06.24.2020 09:57	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0504	101	0.0493	99	75-127	2	25	mg/L	06.24.2020 09:57	
Trichloroethylene	<0.00500	0.0500	0.0512	102	0.0492	98	62-137	4	25	mg/L	06.24.2020 09:57	
Trichlorofluoromethane	<0.00100	0.0500	0.0527	105	0.0499	100	60-140	5	25	mg/L	06.24.2020 09:57	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0468	94	0.0487	97	75-125	4	25	mg/L	06.24.2020 09:57	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0505	101	0.0497	99	75-125	2	25	mg/L	06.24.2020 09:57	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0508	102	0.0498	100	70-125	2	25	mg/L	06.24.2020 09:57	
o-Xylene	<0.00100	0.0500	0.0507	101	0.0493	99	75-125	3	25	mg/L	06.24.2020 09:57	
m,p-Xylenes	<0.0100	0.100	0.101	101	0.0987	99	75-125	2	25	mg/L	06.24.2020 09:57	
Vinyl Chloride	<0.00200	0.0500	0.0519	104	0.0489	98	60-140	6	25	mg/L	06.24.2020 09:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	107		99		97		75-131			%	06.24.2020 09:57	
1,2-Dichloroethane-D4	107		101		99		63-144			%	06.24.2020 09:57	
Toluene-D8	97		100		99		80-117			%	06.24.2020 09:57	
4-Bromofluorobenzene	99		98		98		74-124			%	06.24.2020 09:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129855

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.24.2020

Parent Sample Id: 665192-001

MS Sample Id: 665192-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00599	0.0500	0.0561	100	66-142	mg/L	06.24.2020 10:46	
Bromobenzene	<0.00100	0.0500	0.0491	98	75-125	mg/L	06.24.2020 10:46	
Bromochloromethane	<0.00100	0.0500	0.0516	103	60-140	mg/L	06.24.2020 10:46	
Bromodichloromethane	<0.00100	0.0500	0.0493	99	75-125	mg/L	06.24.2020 10:46	
Bromoform	<0.00500	0.0500	0.0511	102	75-125	mg/L	06.24.2020 10:46	
Methyl bromide	<0.00500	0.0500	0.0384	77	60-140	mg/L	06.24.2020 10:46	
2-Butanone	<0.0500	0.250	0.266	106	60-140	mg/L	06.24.2020 10:46	
n-Butylbenzene	0.00103	0.0500	0.0500	98	75-125	mg/L	06.24.2020 10:46	
Sec-Butylbenzene	<0.00100	0.0500	0.0476	95	75-125	mg/L	06.24.2020 10:46	
tert-Butylbenzene	<0.00100	0.0500	0.0503	101	75-125	mg/L	06.24.2020 10:46	
Carbon Tetrachloride	<0.00500	0.0500	0.0511	102	62-125	mg/L	06.24.2020 10:46	
Chlorobenzene	<0.00100	0.0500	0.0494	99	60-133	mg/L	06.24.2020 10:46	
Chloroethane	<0.0100	0.0500	0.0402	80	60-140	mg/L	06.24.2020 10:46	
Chloroform	<0.00100	0.0500	0.0505	101	70-130	mg/L	06.24.2020 10:46	
Methyl Chloride	<0.0100	0.0500	0.0543	109	60-140	mg/L	06.24.2020 10:46	
2-Chlorotoluene	<0.00100	0.0500	0.0599	120	73-125	mg/L	06.24.2020 10:46	
4-Chlorotoluene	<0.00100	0.0500	0.0534	107	74-125	mg/L	06.24.2020 10:46	
p-Cymene (p-Isopropyltoluene)	0.00153	0.0500	0.0513	100	75-125	mg/L	06.24.2020 10:46	
Dibromochloromethane	<0.00500	0.0500	0.0490	98	73-125	mg/L	06.24.2020 10:46	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0453	91	59-125	mg/L	06.24.2020 10:46	
1,2-Dibromoethane	<0.00500	0.0500	0.0517	103	73-125	mg/L	06.24.2020 10:46	
Methylene Bromide	<0.00100	0.0500	0.0496	99	69-127	mg/L	06.24.2020 10:46	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0489	98	75-125	mg/L	06.24.2020 10:46	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0488	98	75-125	mg/L	06.24.2020 10:46	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0492	98	75-125	mg/L	06.24.2020 10:46	
Dichlorodifluoromethane	<0.00100	0.0500	0.0706	141	60-140	mg/L	06.24.2020 10:46	X
1,1-Dichloroethane	<0.00100	0.0500	0.0518	104	72-125	mg/L	06.24.2020 10:46	
1,2-Dichloroethane	<0.00100	0.0500	0.0490	98	68-127	mg/L	06.24.2020 10:46	
1,1-Dichloroethene	<0.00100	0.0500	0.0512	102	59-172	mg/L	06.24.2020 10:46	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0507	101	75-125	mg/L	06.24.2020 10:46	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0516	103	75-125	mg/L	06.24.2020 10:46	
1,2-Dichloropropane	<0.00500	0.0500	0.0536	107	74-125	mg/L	06.24.2020 10:46	
1,3-Dichloropropane	<0.00500	0.0500	0.0529	106	75-125	mg/L	06.24.2020 10:46	
2,2-Dichloropropane	<0.00500	0.0500	0.0521	104	75-125	mg/L	06.24.2020 10:46	
1,1-Dichloropropene	<0.00500	0.0500	0.0577	115	75-125	mg/L	06.24.2020 10:46	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0542	108	74-125	mg/L	06.24.2020 10:46	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0504	101	66-125	mg/L	06.24.2020 10:46	
Ethylbenzene	0.0232	0.0500	0.0706	95	75-125	mg/L	06.24.2020 10:46	
Hexachlorobutadiene	<0.00500	0.0500	0.0504	101	75-125	mg/L	06.24.2020 10:46	
Isopropylbenzene	0.0137	0.0500	0.0618	96	75-125	mg/L	06.24.2020 10:46	
Methylene Chloride	<0.00500	0.0500	0.0526	105	75-125	mg/L	06.24.2020 10:46	
MTBE	<0.00500	0.0500	0.0562	112	65-135	mg/L	06.24.2020 10:46	
Naphthalene	<0.0100	0.0500	0.0517	103	70-130	mg/L	06.24.2020 10:46	
n-Propylbenzene	0.0193	0.0500	0.0674	96	75-125	mg/L	06.24.2020 10:46	
Styrene	<0.00100	0.0500	0.0510	102	75-125	mg/L	06.24.2020 10:46	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0518	104	72-125	mg/L	06.24.2020 10:46	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0473	95	74-125	mg/L	06.24.2020 10:46	
Tetrachloroethylene	<0.00100	0.0500	0.0471	94	71-125	mg/L	06.24.2020 10:46	
Toluene	0.0311	0.0500	0.0759	90	59-139	mg/L	06.24.2020 10:46	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0558	112	75-137	mg/L	06.24.2020 10:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3129855

Matrix: Water

Prep Method: SW5030B

Date Prep: 06.24.2020

Parent Sample Id: 665192-001

MS Sample Id: 665192-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0522	104	75-135	mg/L	06.24.2020 10:46	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0518	104	75-125	mg/L	06.24.2020 10:46	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0526	105	75-127	mg/L	06.24.2020 10:46	
Trichloroethylene	<0.00500	0.0500	0.0517	103	62-137	mg/L	06.24.2020 10:46	
Trichlorofluoromethane	<0.00100	0.0500	0.0516	103	60-140	mg/L	06.24.2020 10:46	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0477	95	75-125	mg/L	06.24.2020 10:46	
1,2,4-Trimethylbenzene	0.135	0.0500	0.173	76	75-125	mg/L	06.24.2020 10:46	
1,3,5-Trimethylbenzene	0.0385	0.0500	0.0859	95	70-125	mg/L	06.24.2020 10:46	
o-Xylene	0.0116	0.0500	0.0622	101	75-125	mg/L	06.24.2020 10:46	
m,p-Xylenes	0.0771	0.100	0.169	92	75-125	mg/L	06.24.2020 10:46	
Vinyl Chloride	<0.00200	0.0500	0.0515	103	60-140	mg/L	06.24.2020 10:46	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	102		75-131	%	06.24.2020 10:46
1,2-Dichloroethane-D4	100		63-144	%	06.24.2020 10:46
Toluene-D8	99		80-117	%	06.24.2020 10:46
4-Bromofluorobenzene	96		74-124	%	06.24.2020 10:46

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No. 005192

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-443-8800) Tampa, FL (813-620-2030)

www.xenco.com Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/PST ☐ P&P ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level V ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: ☐	

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

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Well Ice:	Yes ☒ No ☐
Temperature (°C):	20.0	Thermometer #:	122		
Received In tact:	Yes ☒ No ☐	Correction Factor:	-0.4		
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	1		
Sample Custody Seals:	Yes ☒ No ☐				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers
Levey Well	GW	6/23/2020	11:50	7	

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

TAT starts the day received by the lab, if received by 4:30pm
Sample Comments
24hr

Total 200.7 / 6010 200.8 / 6020:

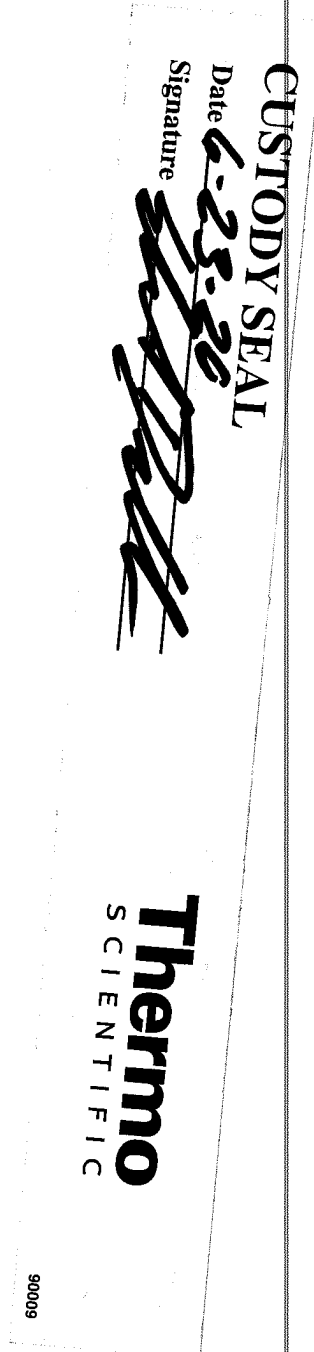
Circle Method(s) and Metal(s) to be analyzed

BRORA 13BPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: BRORA Sb As Ba Be Cd Cr Co Cu Pb Mn Mc 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 \$8 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/23/20	<i>[Signature]</i>	<i>[Signature]</i>	6/23/20



Inter-Office Shipment

IOS Number : **65847**

Date/Time: 06.23.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770782806120

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
665192-001	W	Levey Well	06.23.2020 11:50	SW8260C	VOCs by SW-846 8260C	06.24.2020	07.07.2020	JKR	BDCME BRBZ BRCLME	
665192-001	W	Levey Well	06.23.2020 11:50	E200.7	Recoverable Metals per ICP by EPA 200	06.24.2020	12.20.2020	JKR	CA K MG NA SI	
665192-001	W	Levey Well	06.23.2020 11:50	E300	Inorganic Anions by EPA 300/300.1	06.24.2020	06.25.2020 11:50	JKR	BR CL F NO2N NO3N SC	
665192-001	W	Levey Well	06.23.2020 11:50	SM4500-H	pH by SM4500-H	06.24.2020	06.23.2020 12:05	JKR		
665192-001	W	Levey Well	06.23.2020 11:50	SM2540C	TDS by SM2540C	06.24.2020	06.30.2020	JKR	TDS	
665192-001	W	Levey Well	06.23.2020 11:50	SM2320B	Alkalinity by SM2320B	06.24.2020	07.07.2020	JKR	ALK ALKB ALKC	
665192-001	W	Levey Well	06.23.2020 11:50	SM1030E	Cation-Anion Balance Calculation	06.24.2020	07.23.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 06.23.2020

Received By:



Shadi Alshrouf

Date Received: 06.24.2020

Cooler Temperature: 1.8



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 65847

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 06.23.2020 03.19 PM

Received By: Shadi Alshrouf

Date Received: 06.24.2020 09.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Shadi Alshrouf

Date: 06.24.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 06.23.2020 02.49.00 PM

Work Order #: 665192

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10bdh1991

Checklist completed by:



Brianna Teel

Date: 06.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.24.2020

Certificate of Analysis Summary 665973

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.30.2020 15:40
Report Date: 07.02.2020 17:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665973-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.30.2020 14:10					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 07.01.2020 11:08 Analyzed: 07.01.2020 12:28 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1170 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1170 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 07.01.2020 17:49 Units/RL: % RL					
Cation-Anion Balance	2.60					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 07.01.2020 10:00 Analyzed: 07.01.2020 14:15 Units/RL: mg/L RL					
Bromide	0.695 0.500					
Chloride	431 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	0.149 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	37.9 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 665973

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.30.2020 15:40
Report Date: 07.02.2020 17:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	665973-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	06.30.2020 14:10					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	07.01.2020 10:45					
	Analyzed:	07.01.2020 14:37					
	Units/RL:	mg/L RL					
	Calcium	437 D 4.00					
	Magnesium	78.6 0.200					
	Potassium	6.70 0.500					
	Silica	69.4 1.07					
	Sodium	113 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	07.01.2020 13:39					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1830 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 665973

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.30.2020 15:40
Report Date: 07.02.2020 17:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665973-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.30.2020 14:10					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.01.2020 11:22 Analyzed: 07.01.2020 13:59 Units/RL: mg/L RL					
Benzene	0.00720 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00105 0.00100					
Sec-Butylbenzene	0.00306 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00176 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 665973

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.30.2020 15:40
Report Date: 07.02.2020 17:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665973-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.30.2020 14:10					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.01.2020 11:22 Analyzed: 07.01.2020 13:59 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0276 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0152 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0169 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 665973

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Tue 06.30.2020 15:40
Report Date: 07.02.2020 17:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 665973-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 06.30.2020 14:10					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.01.2020 11:22 Analyzed: 07.01.2020 13:59 Units/RL: mg/L RL					
Toluene	0.0450 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.119 0.00100					
1,3,5-Trimethylbenzene	0.0339 0.00100					
o-Xylene	0.0138 0.00100					
m,p-Xylenes	0.0923 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.106 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.01.2020 14:31 Units/RL: Deg C RL					
Temperature	21.9 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.01.2020 14:31 Units/RL: SU RL					
pH	6.39 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Analytical Report 665973

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

07.02.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.02.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **665973**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 665973. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 665973 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 665973

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	06.30.2020 14:10		665973-001



Xenco

CASE NARRATIVE**Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 665973

Report Date: 07.02.2020
Date Received: 06.30.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3130515 VOCs by SW-846 8260C

Lab Sample ID 665973-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Dichlorodifluoromethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 665973-001.

Dichlorodifluoromethane, Methyl Chloride recovered above QC limits in the Blank Spike and Duplicate. Samples in the analytical batch are: 665973-001.



Certificate of Analytical Results 665973

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.30.2020 15:40

Lab Sample Id: 665973-001

Date Collected: 06.30.2020 14:10

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 07.01.2020 11:08

Seq Number: 3130508

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO ₃)	1640192	1170	4.00	mg/L	07.01.2020 12:28		1
Alkalinity, Bicarbonate (as CaCO ₃)	471-34-1	1170	4.00	mg/L	07.01.2020 12:28		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	07.01.2020 12:28	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	07.01.2020 12:28	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3130546

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	2.60		%	07.01.2020 17:49		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 07.01.2020 10:00

Seq Number: 3130544

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.695	0.500	mg/L	07.01.2020 14:15		1
Chloride	16887-00-6	431	0.500	mg/L	07.01.2020 14:15		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	07.01.2020 14:26	UD	10
Nitrate as N	14797-55-8	0.149	0.100	mg/L	07.01.2020 14:15		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	07.01.2020 14:15	U	1
Sulfate	14808-79-8	37.9	0.500	mg/L	07.01.2020 14:15		1



Certificate of Analytical Results 665973

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.30.2020 15:40

Lab Sample Id: 665973-001

Date Collected: 06.30.2020 14:10

Analytical Method: TDS by SM2540C

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3130482

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1830	5.00	mg/L	07.01.2020 13:39		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3130513

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.39		SU	07.01.2020 14:31	K	1
Temperature	TEMP	21.9		Deg C	07.01.2020 14:31	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 07.01.2020 10:45

Seq Number: 3130543

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	437	4.00	mg/L	07.01.2020 17:37	D	20
Magnesium	7439-95-4	78.6	0.200	mg/L	07.01.2020 14:37		1
Potassium	7440-09-7	6.70	0.500	mg/L	07.01.2020 14:37		1
Silica	7631-86-9	69.4	1.07	mg/L	07.01.2020 14:37		1
Sodium	7440-23-5	113	0.500	mg/L	07.01.2020 14:37		1



Certificate of Analytical Results 665973

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.30.2020 15:40

Lab Sample Id: 665973-001

Date Collected: 06.30.2020 14:10

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.01.2020 11:22

Seq Number: 3130515

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00720	0.00100	mg/L	07.01.2020 13:59		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	07.01.2020 13:59	U	1
n-Butylbenzene	104-51-8	0.00105	0.00100	mg/L	07.01.2020 13:59		1
Sec-Butylbenzene	135-98-8	0.00306	0.00100	mg/L	07.01.2020 13:59		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	07.01.2020 13:59	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	07.01.2020 13:59	UH	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00176	0.00100	mg/L	07.01.2020 13:59		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	07.01.2020 13:59	UHX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Ethylbenzene	100-41-4	0.0276	0.00100	mg/L	07.01.2020 13:59		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1



Certificate of Analytical Results 665973

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 06.30.2020 15:40

Lab Sample Id: 665973-001

Date Collected: 06.30.2020 14:10

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.01.2020 11:22

Seq Number: 3130515

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0152	0.00100	mg/L	07.01.2020 13:59		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	07.01.2020 13:59	U	1
n-Propylbenzene	103-65-1	0.0169	0.00100	mg/L	07.01.2020 13:59		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Toluene	108-88-3	0.0450	0.00100	mg/L	07.01.2020 13:59		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	07.01.2020 13:59	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	07.01.2020 13:59	U	1
1,2,4-Trimethylbenzene	95-63-6	0.119	0.00100	mg/L	07.01.2020 13:59		1
1,3,5-Trimethylbenzene	108-67-8	0.0339	0.00100	mg/L	07.01.2020 13:59		1
o-Xylene	95-47-6	0.0138	0.00100	mg/L	07.01.2020 13:59		1
m,p-Xylenes	179601-23-1	0.0923	0.0100	mg/L	07.01.2020 13:59		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	07.01.2020 13:59	U	1
Total Xylenes	1330-20-7	0.106	0.00100	mg/L	07.01.2020 13:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	94	%	75-131	07.01.2020 13:59	
1,2-Dichloroethane-D4	17060-07-0	95	%	63-144	07.01.2020 13:59	
Toluene-D8	2037-26-5	100	%	80-117	07.01.2020 13:59	
4-Bromofluorobenzene	460-00-4	99	%	74-124	07.01.2020 13:59	

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3130508

MB Sample Id: 7706519-1-BLK

Matrix: Water

LCS Sample Id: 7706519-1-BKS

Prep Method: SM2320P

Date Prep: 07.01.2020

LCSD Sample Id: 7706519-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	261	104	263	105	85-115	1	20	mg/L	07.01.2020 12:07	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3130508

Matrix: Water

MB Sample Id: 7706519-1-BLK

Prep Method: SM2320P

Date Prep: 07.01.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	07.01.2020 12:00	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	07.01.2020 12:00	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	07.01.2020 12:00	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3130508

Matrix: Water

Parent Sample Id: 665973-001

MD Sample Id: 665973-001 D

Prep Method: SM2320P

Date Prep: 07.01.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1170	1170	0	20	mg/L	07.01.2020 12:41	
Alkalinity, Bicarbonate (as CaCO3)	1170	1170	0	20	mg/L	07.01.2020 12:41	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.01.2020 12:41	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.01.2020 12:41	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3130544

Matrix: Water

MB Sample Id: 7706511-1-BLK

LCS Sample Id: 7706511-1-BKS

Prep Method: SW9056P

Date Prep: 07.01.2020

LCSD Sample Id: 7706511-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	07.01.2020 10:02	
Chloride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.01.2020 10:02	
Fluoride	<0.500	10.0	10.6	106	10.7	107	90-110	1	20	mg/L	07.01.2020 10:02	
Nitrate as N	<0.100	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	07.01.2020 10:02	
Nitrite as N	<0.100	10.0	9.97	100	10.0	100	90-110	0	20	mg/L	07.01.2020 10:02	
Sulfate	<0.500	10.0	10.3	103	10.4	104	90-110	1	20	mg/L	07.01.2020 10:02	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3130544

Matrix: Surface Water

Prep Method: SW9056P

Date Prep: 07.01.2020

Parent Sample Id: 665786-038

MS Sample Id: 665786-038 S

MSD Sample Id: 665786-038 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	07.01.2020 10:35	
Chloride	3.15	10.0	12.6	95	12.6	95	90-110	0	20	mg/L	07.01.2020 10:35	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.01.2020 10:35	
Nitrate as N	0.946	10.0	11.1	102	11.1	102	90-110	0	20	mg/L	07.01.2020 10:35	
Nitrite as N	<0.100	10.0	9.98	100	10.0	100	90-110	0	20	mg/L	07.01.2020 10:35	
Sulfate	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	07.01.2020 10:35	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3130544

Matrix: Surface Water

Prep Method: SW9056P

Date Prep: 07.01.2020

Parent Sample Id: 665786-039

MS Sample Id: 665786-039 S

MSD Sample Id: 665786-039 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	07.01.2020 11:08	
Chloride	16.4	10.0	25.6	92	25.6	92	90-110	0	20	mg/L	07.01.2020 11:08	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.01.2020 11:08	
Nitrate as N	2.47	10.0	12.6	101	12.7	102	90-110	1	20	mg/L	07.01.2020 11:08	
Nitrite as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	07.01.2020 11:08	
Sulfate	3.96	10.0	14.2	102	14.2	102	90-110	0	20	mg/L	07.01.2020 11:08	

Analytical Method: TDS by SM2540C

Seq Number: 3130482

Matrix: Water

MB Sample Id: 3130482-1-BLK

LCS Sample Id: 3130482-1-BKS

LCSD Sample Id: 3130482-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1030	103	1030	103	80-120	0	10	mg/L	07.01.2020 13:39	

Analytical Method: TDS by SM2540C

Seq Number: 3130482

Matrix: Water

Parent Sample Id: 665973-001

MD Sample Id: 665973-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1830	1980	8	10	mg/L	07.01.2020 13:39	

Analytical Method: pH by SM4500-H

Seq Number: 3130513

Matrix: Ground Water

Parent Sample Id: 665758-001

MD Sample Id: 665758-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.38	6.38	0	20	SU	07.01.2020 14:31	
Temperature	20.8	21.0	1	20	Deg C	07.01.2020 14:31	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3130543

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.01.2020

MB Sample Id: 7706532-1-BLK

LCS Sample Id: 7706532-1-BKS

LCSD Sample Id: 7706532-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.6	94	23.7	95	85-115	0	20	mg/L	07.01.2020 14:28	
Magnesium	<0.200	25.0	24.0	96	24.0	96	85-115	0	20	mg/L	07.01.2020 14:28	
Potassium	<0.500	10.0	9.42	94	9.43	94	85-115	0	20	mg/L	07.01.2020 14:28	
Silica	<1.07	21.4	20.7	97	20.8	97	85-115	0	20	mg/L	07.01.2020 14:28	
Sodium	<0.500	25.0	23.4	94	23.5	94	85-115	0	20	mg/L	07.01.2020 14:28	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3130543

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.01.2020

Parent Sample Id: 665973-001

MS Sample Id: 665973-001 S

MSD Sample Id: 665973-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	414	25.0	432	72	434	80	70-130	0	20	mg/L	07.01.2020 14:41	
Magnesium	78.6	25.0	103	98	103	98	70-130	0	20	mg/L	07.01.2020 14:41	
Potassium	6.70	10.0	17.2	105	17.2	105	70-130	0	20	mg/L	07.01.2020 14:41	
Silica	69.4	21.4	95.4	121	95.7	123	70-130	0	20	mg/L	07.01.2020 14:41	
Sodium	113	25.0	137	96	137	96	70-130	0	20	mg/L	07.01.2020 14:41	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3130543

Matrix: Waste Water

Prep Method: E200.7P

Date Prep: 07.01.2020

Parent Sample Id: 665502-001

MS Sample Id: 665502-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	45.4	25.0	70.8	102	70-130	mg/L	07.01.2020 16:29	
Magnesium	24.9	25.0	50.5	102	70-130	mg/L	07.01.2020 16:29	
Potassium	6.02	10.0	16.3	103	70-130	mg/L	07.01.2020 16:29	
Silica	16.2	21.4	39.4	108	70-130	mg/L	07.01.2020 16:29	
Sodium	42.0	25.0	67.2	101	70-130	mg/L	07.01.2020 16:29	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3130515

MB Sample Id: 7706577-1-BLK

Matrix: Water

LCS Sample Id: 7706577-1-BKS

Prep Method: SW5030B

Date Prep: 07.01.2020

LCSD Sample Id: 7706577-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0516	103	0.0491	98	66-142	5	25	mg/L	07.01.2020 10:47	
Bromobenzene	<0.00100	0.0500	0.0498	100	0.0495	99	75-125	1	25	mg/L	07.01.2020 10:47	
Bromochloromethane	<0.00100	0.0500	0.0504	101	0.0467	93	60-140	8	25	mg/L	07.01.2020 10:47	
Bromodichloromethane	<0.00100	0.0500	0.0506	101	0.0476	95	75-125	6	25	mg/L	07.01.2020 10:47	
Bromoform	<0.00500	0.0500	0.0526	105	0.0526	105	75-125	0	25	mg/L	07.01.2020 10:47	
Methyl bromide	<0.00500	0.0500	0.0532	106	0.0473	95	60-140	12	25	mg/L	07.01.2020 10:47	
2-Butanone	<0.0500	0.250	0.273	109	0.278	111	60-140	2	25	mg/L	07.01.2020 10:47	
n-Butylbenzene	<0.00100	0.0500	0.0498	100	0.0493	99	75-125	1	25	mg/L	07.01.2020 10:47	
Sec-Butylbenzene	<0.00100	0.0500	0.0477	95	0.0463	93	75-125	3	25	mg/L	07.01.2020 10:47	
tert-Butylbenzene	<0.00100	0.0500	0.0512	102	0.0510	102	75-125	0	25	mg/L	07.01.2020 10:47	
Carbon Tetrachloride	<0.00500	0.0500	0.0553	111	0.0501	100	62-125	10	25	mg/L	07.01.2020 10:47	
Chlorobenzene	<0.00100	0.0500	0.0505	101	0.0488	98	60-133	3	25	mg/L	07.01.2020 10:47	
Chloroethane	<0.0100	0.0500	0.0467	93	0.0422	84	60-140	10	25	mg/L	07.01.2020 10:47	
Chloroform	<0.00100	0.0500	0.0505	101	0.0466	93	70-130	8	25	mg/L	07.01.2020 10:47	
Methyl Chloride	<0.0100	0.0500	0.0780	156	0.0706	141	60-140	10	25	mg/L	07.01.2020 10:47	H
2-Chlorotoluene	<0.00100	0.0500	0.0506	101	0.0487	97	73-125	4	25	mg/L	07.01.2020 10:47	
4-Chlorotoluene	<0.00100	0.0500	0.0517	103	0.0499	100	74-125	4	25	mg/L	07.01.2020 10:47	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0530	106	0.0520	104	75-125	2	25	mg/L	07.01.2020 10:47	
Dibromochloromethane	<0.00500	0.0500	0.0502	100	0.0491	98	73-125	2	25	mg/L	07.01.2020 10:47	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0466	93	0.0491	98	59-125	5	25	mg/L	07.01.2020 10:47	
1,2-Dibromoethane	<0.00500	0.0500	0.0543	109	0.0545	109	73-125	0	25	mg/L	07.01.2020 10:47	
Methylene Bromide	<0.00100	0.0500	0.0493	99	0.0470	94	69-127	5	25	mg/L	07.01.2020 10:47	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0498	100	0.0490	98	75-125	2	25	mg/L	07.01.2020 10:47	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0495	99	0.0484	97	75-125	2	25	mg/L	07.01.2020 10:47	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0499	100	0.0490	98	75-125	2	25	mg/L	07.01.2020 10:47	
Dichlorodifluoromethane	<0.00100	0.0500	0.113	226	0.101	202	60-140	11	25	mg/L	07.01.2020 10:47	H
1,1-Dichloroethane	<0.00100	0.0500	0.0521	104	0.0475	95	72-125	9	25	mg/L	07.01.2020 10:47	
1,2-Dichloroethane	<0.00100	0.0500	0.0497	99	0.0480	96	68-127	3	25	mg/L	07.01.2020 10:47	
1,1-Dichloroethene	<0.00100	0.0500	0.0544	109	0.0491	98	59-172	10	25	mg/L	07.01.2020 10:47	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0511	102	0.0474	95	75-125	8	25	mg/L	07.01.2020 10:47	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0516	103	0.0474	95	75-125	8	25	mg/L	07.01.2020 10:47	
1,2-Dichloropropane	<0.00500	0.0500	0.0535	107	0.0505	101	74-125	6	25	mg/L	07.01.2020 10:47	
1,3-Dichloropropane	<0.00500	0.0500	0.0546	109	0.0544	109	75-125	0	25	mg/L	07.01.2020 10:47	
2,2-Dichloropropane	<0.00500	0.0500	0.0550	110	0.0495	99	75-125	11	25	mg/L	07.01.2020 10:47	
1,1-Dichloropropene	<0.00500	0.0500	0.0621	124	0.0568	114	75-125	9	25	mg/L	07.01.2020 10:47	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0555	111	0.0534	107	74-125	4	25	mg/L	07.01.2020 10:47	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0529	106	0.0523	105	66-125	1	25	mg/L	07.01.2020 10:47	
Ethylbenzene	<0.00100	0.0500	0.0516	103	0.0499	100	75-125	3	25	mg/L	07.01.2020 10:47	
Hexachlorobutadiene	<0.00500	0.0500	0.0456	91	0.0489	98	75-125	7	25	mg/L	07.01.2020 10:47	
Isopropylbenzene	<0.00100	0.0500	0.0516	103	0.0500	100	75-125	3	25	mg/L	07.01.2020 10:47	
Methylene Chloride	<0.00500	0.0500	0.0493	99	0.0458	92	75-125	7	25	mg/L	07.01.2020 10:47	
MTBE	<0.00500	0.0500	0.0572	114	0.0559	112	65-135	2	25	mg/L	07.01.2020 10:47	
Naphthalene	<0.0100	0.0500	0.0509	102	0.0576	115	70-130	12	25	mg/L	07.01.2020 10:47	
n-Propylbenzene	<0.00100	0.0500	0.0529	106	0.0512	102	75-125	3	25	mg/L	07.01.2020 10:47	
Styrene	<0.00100	0.0500	0.0519	104	0.0506	101	75-125	3	25	mg/L	07.01.2020 10:47	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0520	104	0.0510	102	72-125	2	25	mg/L	07.01.2020 10:47	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0497	99	0.0501	100	74-125	1	25	mg/L	07.01.2020 10:47	
Tetrachloroethylene	<0.00100	0.0500	0.0524	105	0.0504	101	71-125	4	25	mg/L	07.01.2020 10:47	
Toluene	<0.00100	0.0500	0.0514	103	0.0493	99	59-139	4	25	mg/L	07.01.2020 10:47	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0468	94	0.0531	106	75-137	13	25	mg/L	07.01.2020 10:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3130515

MB Sample Id: 7706577-1-BLK

Matrix: Water

LCS Sample Id: 7706577-1-BKS

Prep Method: SW5030B

Date Prep: 07.01.2020

LCSD Sample Id: 7706577-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0502	100	0.0524	105	75-135	4	25	mg/L	07.01.2020 10:47	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0539	108	0.0493	99	75-125	9	25	mg/L	07.01.2020 10:47	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0526	105	0.0521	104	75-127	1	25	mg/L	07.01.2020 10:47	
Trichloroethylene	<0.00500	0.0500	0.0544	109	0.0515	103	62-137	5	25	mg/L	07.01.2020 10:47	
Trichlorofluoromethane	<0.00100	0.0500	0.0666	133	0.0594	119	60-140	11	25	mg/L	07.01.2020 10:47	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0512	102	0.0524	105	75-125	2	25	mg/L	07.01.2020 10:47	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0532	106	0.0517	103	75-125	3	25	mg/L	07.01.2020 10:47	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0536	107	0.0521	104	70-125	3	25	mg/L	07.01.2020 10:47	
o-Xylene	<0.00100	0.0500	0.0520	104	0.0507	101	75-125	3	25	mg/L	07.01.2020 10:47	
m,p-Xylenes	<0.0100	0.100	0.106	106	0.103	103	75-125	3	25	mg/L	07.01.2020 10:47	
Vinyl Chloride	<0.00200	0.0500	0.0696	139	0.0616	123	60-140	12	25	mg/L	07.01.2020 10:47	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	104		99		95		75-131			%	07.01.2020 10:47	
1,2-Dichloroethane-D4	98		95		93		63-144			%	07.01.2020 10:47	
Toluene-D8	97		99		100		80-117			%	07.01.2020 10:47	
4-Bromofluorobenzene	101		98		100		74-124			%	07.01.2020 10:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3130515

Parent Sample Id: 665973-001

Matrix: Water

MS Sample Id: 665973-001 S

Prep Method: SW5030B

Date Prep: 07.01.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00720	0.0500	0.0490	84	66-142	mg/L	07.01.2020 11:37	
Bromobenzene	<0.00100	0.0500	0.0428	86	75-125	mg/L	07.01.2020 11:37	
Bromochloromethane	<0.00100	0.0500	0.0421	84	60-140	mg/L	07.01.2020 11:37	
Bromodichloromethane	<0.00100	0.0500	0.0409	82	75-125	mg/L	07.01.2020 11:37	
Bromoform	<0.00500	0.0500	0.0470	94	75-125	mg/L	07.01.2020 11:37	
Methyl bromide	<0.00500	0.0500	0.0397	79	60-140	mg/L	07.01.2020 11:37	
2-Butanone	<0.0500	0.250	0.271	108	60-140	mg/L	07.01.2020 11:37	
n-Butylbenzene	0.00105	0.0500	0.0436	85	75-125	mg/L	07.01.2020 11:37	
Sec-Butylbenzene	0.00306	0.0500	0.0422	78	75-125	mg/L	07.01.2020 11:37	
tert-Butylbenzene	<0.00100	0.0500	0.0437	87	75-125	mg/L	07.01.2020 11:37	
Carbon Tetrachloride	<0.00500	0.0500	0.0438	88	62-125	mg/L	07.01.2020 11:37	
Chlorobenzene	<0.00100	0.0500	0.0415	83	60-133	mg/L	07.01.2020 11:37	
Chloroethane	<0.0100	0.0500	0.0399	80	60-140	mg/L	07.01.2020 11:37	
Chloroform	<0.00100	0.0500	0.0419	84	70-130	mg/L	07.01.2020 11:37	
Methyl Chloride	<0.0100	0.0500	0.0650	130	60-140	mg/L	07.01.2020 11:37	
2-Chlorotoluene	<0.00100	0.0500	0.0533	107	73-125	mg/L	07.01.2020 11:37	
4-Chlorotoluene	<0.00100	0.0500	0.0470	94	74-125	mg/L	07.01.2020 11:37	
p-Cymene (p-Isopropyltoluene)	0.00176	0.0500	0.0459	88	75-125	mg/L	07.01.2020 11:37	
Dibromochloromethane	<0.00500	0.0500	0.0430	86	73-125	mg/L	07.01.2020 11:37	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0474	95	59-125	mg/L	07.01.2020 11:37	
1,2-Dibromoethane	<0.00500	0.0500	0.0492	98	73-125	mg/L	07.01.2020 11:37	
Methylene Bromide	<0.00100	0.0500	0.0416	83	69-127	mg/L	07.01.2020 11:37	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0441	88	75-125	mg/L	07.01.2020 11:37	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0429	86	75-125	mg/L	07.01.2020 11:37	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0434	87	75-125	mg/L	07.01.2020 11:37	
Dichlorodifluoromethane	<0.00100	0.0500	0.0815	163	60-140	mg/L	07.01.2020 11:37	X
1,1-Dichloroethane	<0.00100	0.0500	0.0424	85	72-125	mg/L	07.01.2020 11:37	
1,2-Dichloroethane	<0.00100	0.0500	0.0421	84	68-127	mg/L	07.01.2020 11:37	
1,1-Dichloroethene	<0.00100	0.0500	0.0435	87	59-172	mg/L	07.01.2020 11:37	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0429	86	75-125	mg/L	07.01.2020 11:37	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0423	85	75-125	mg/L	07.01.2020 11:37	
1,2-Dichloropropane	<0.00500	0.0500	0.0450	90	74-125	mg/L	07.01.2020 11:37	
1,3-Dichloropropane	<0.00500	0.0500	0.0489	98	75-125	mg/L	07.01.2020 11:37	
2,2-Dichloropropane	<0.00500	0.0500	0.0450	90	75-125	mg/L	07.01.2020 11:37	
1,1-Dichloropropene	<0.00500	0.0500	0.0504	101	75-125	mg/L	07.01.2020 11:37	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0466	93	74-125	mg/L	07.01.2020 11:37	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0460	92	66-125	mg/L	07.01.2020 11:37	
Ethylbenzene	0.0276	0.0500	0.0689	83	75-125	mg/L	07.01.2020 11:37	
Hexachlorobutadiene	<0.00500	0.0500	0.0382	76	75-125	mg/L	07.01.2020 11:37	
Isopropylbenzene	0.0152	0.0500	0.0576	85	75-125	mg/L	07.01.2020 11:37	
Methylene Chloride	<0.00500	0.0500	0.0402	80	75-125	mg/L	07.01.2020 11:37	
MTBE	<0.00500	0.0500	0.0521	104	65-135	mg/L	07.01.2020 11:37	
Naphthalene	<0.0100	0.0500	0.0561	112	70-130	mg/L	07.01.2020 11:37	
n-Propylbenzene	0.0169	0.0500	0.0614	89	75-125	mg/L	07.01.2020 11:37	
Styrene	<0.00100	0.0500	0.0432	86	75-125	mg/L	07.01.2020 11:37	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0435	87	72-125	mg/L	07.01.2020 11:37	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0475	95	74-125	mg/L	07.01.2020 11:37	
Tetrachloroethylene	<0.00100	0.0500	0.0419	84	71-125	mg/L	07.01.2020 11:37	
Toluene	0.0450	0.0500	0.0824	75	59-139	mg/L	07.01.2020 11:37	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0473	95	75-137	mg/L	07.01.2020 11:37	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3130515

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.01.2020

Parent Sample Id: 665973-001

MS Sample Id: 665973-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0477	95	75-135	mg/L	07.01.2020 11:37	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0436	87	75-125	mg/L	07.01.2020 11:37	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0467	93	75-127	mg/L	07.01.2020 11:37	
Trichloroethylene	<0.00500	0.0500	0.0439	88	62-137	mg/L	07.01.2020 11:37	
Trichlorofluoromethane	<0.00100	0.0500	0.0517	103	60-140	mg/L	07.01.2020 11:37	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0500	100	75-125	mg/L	07.01.2020 11:37	
1,2,4-Trimethylbenzene	0.119	0.0500	0.162	86	75-125	mg/L	07.01.2020 11:37	
1,3,5-Trimethylbenzene	0.0339	0.0500	0.0795	91	70-125	mg/L	07.01.2020 11:37	
o-Xylene	0.0138	0.0500	0.0560	84	75-125	mg/L	07.01.2020 11:37	
m,p-Xylenes	0.0923	0.100	0.171	79	75-125	mg/L	07.01.2020 11:37	
Vinyl Chloride	<0.00200	0.0500	0.0554	111	60-140	mg/L	07.01.2020 11:37	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		75-131	%	07.01.2020 11:37
1,2-Dichloroethane-D4	94		63-144	%	07.01.2020 11:37
Toluene-D8	100		80-117	%	07.01.2020 11:37
4-Bromofluorobenzene	100		74-124	%	07.01.2020 11:37

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

965976

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Milano, LX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Hobbs, NM (505-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

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

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	-107.7						
Received intact:	Yes	No					
Cooler Custody Seals:	Yes	No	N/A		Correction Factor:		
Sample Custody Seals:	Yes	No	N/A		Total Containers:		

[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PP1

51

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

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		6/5/12	2		
3			4		
5		10/21	6		

Inter-Office Shipment

IOS Number : **66411**

Date/Time: 06.30.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770842685385

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
665973-001	W	Levey Well	06.30.2020 14:10	SW8260C	VOCs by SW-846 8260C	07.01.2020	07.14.2020	JKR	BDCME BRBZ BRCLME	
665973-001	W	Levey Well	06.30.2020 14:10	E200.7	Recoverable Metals per ICP by EPA 200	07.01.2020	12.27.2020	JKR	CA K MG NA SI	
665973-001	W	Levey Well	06.30.2020 14:10	E300	Inorganic Anions by EPA 300/300.1	07.01.2020	07.02.2020 14:10	JKR	BR CL F NO2N NO3N SC	
665973-001	W	Levey Well	06.30.2020 14:10	SM4500-H	pH by SM4500-H	07.01.2020	06.30.2020 14:25	JKR		
665973-001	W	Levey Well	06.30.2020 14:10	SM2540C	TDS by SM2540C	07.01.2020	07.07.2020	JKR	TDS	
665973-001	W	Levey Well	06.30.2020 14:10	SM2320B	Alkalinity by SM2320B	07.01.2020	07.14.2020	JKR	ALK ALKB ALKC	
665973-001	W	Levey Well	06.30.2020 14:10	SM1030E	Cation-Anion Balance Calculation	07.01.2020	07.30.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Did not receive a 500 container

Relinquished By:



Brianna Teel

Date Relinquished: 06.30.2020

Received By:



Jhyrom Edralin

Date Received: 07.01.2020

Cooler Temperature: 2.3

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 66411

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 06.30.2020 05.05 PM

Received By: Jhyrom Edralin

Date Received: 07.01.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	limited sample 665885 and 665946
#14 All samples received within hold time?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Did not receive a 500 container

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 07.01.2020

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 06.30.2020 03.40.21 PM

Work Order #: 665973

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	Yes Missing 500 container
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 06.30.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.30.2020



Xenco

Certificate of Analysis Summary 666784

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.09.2020 16:00
Report Date: 07.10.2020 17:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 666784-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.09.2020 13:15					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 07.10.2020 10:17 Analyzed: 07.10.2020 11:05 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1170 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1170 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 07.10.2020 17:05 Units/RL: % RL					
Cation-Anion Balance	1.50					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 07.10.2020 08:19 Analyzed: 07.10.2020 10:29 Units/RL: mg/L RL					
Bromide	0.647 0.500					
Chloride	413 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	0.147 0.100					
Nitrite as N	0.215 0.100					
Sulfate	40.5 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 666784

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.09.2020 16:00
Report Date: 07.10.2020 17:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	666784-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	07.09.2020 13:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	07.10.2020 09:45					
	Analyzed:	07.10.2020 14:39					
	Units/RL:	mg/L RL					
Calcium		421 D 10.0					
Magnesium		78.5 0.200					
Potassium		6.58 0.500					
Silica		69.6 1.07					
Sodium		114 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	07.10.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1790 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer



Xenco

Certificate of Analysis Summary 666784

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.09.2020 16:00
Report Date: 07.10.2020 17:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 666784-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.09.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.10.2020 10:14 Analyzed: 07.10.2020 10:58 Units/RL: mg/L RL					
Benzene	0.00529 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00253 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00136 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 666784

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.09.2020 16:00
Report Date: 07.10.2020 17:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 666784-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.09.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.10.2020 10:14 Analyzed: 07.10.2020 10:58 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0203 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0118 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0156 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 666784

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.09.2020 16:00
Report Date: 07.10.2020 17:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 666784-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.09.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.10.2020 10:14 Analyzed: 07.10.2020 10:58 Units/RL: mg/L RL					
Toluene	0.0272 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.118 0.00100					
1,3,5-Trimethylbenzene	0.0328 0.00100					
o-Xylene	0.0103 0.00100					
m,p-Xylenes	0.0700 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0803 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.10.2020 13:27 Units/RL: Deg C RL					
Temperature	22.6 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.10.2020 13:27 Units/RL: SU RL					
pH	6.37 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Analytical Report 666784

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

07.10.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.10.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **666784**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 666784. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 666784 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 666784

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	07.09.2020 13:15		666784-001

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 666784

Report Date: 07.10.2020
Date Received: 07.09.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 666784

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.09.2020 16:00

Lab Sample Id: 666784-001

Date Collected: 07.09.2020 13:15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 07.10.2020 10:17

Seq Number: 3131264

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1170	4.00	mg/L	07.10.2020 11:05		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1170	4.00	mg/L	07.10.2020 11:05		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	07.10.2020 11:05	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	07.10.2020 11:05	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3131339

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.50		%	07.10.2020 17:05		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 07.10.2020 08:19

Seq Number: 3131292

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.647	0.500	mg/L	07.10.2020 10:29		1
Chloride	16887-00-6	413	0.500	mg/L	07.10.2020 10:29		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	07.10.2020 10:40	UD	10
Nitrate as N	14797-55-8	0.147	0.100	mg/L	07.10.2020 10:29		1
Nitrite as N	14797-65-0	0.215	0.100	mg/L	07.10.2020 10:29		1
Sulfate	14808-79-8	40.5	0.500	mg/L	07.10.2020 10:29		1



Certificate of Analytical Results 666784

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.09.2020 16:00

Lab Sample Id: 666784-001

Date Collected: 07.09.2020 13:15

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3131231

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1790	5.00	mg/L	07.10.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3131287

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.37		SU	07.10.2020 13:27	K	1
Temperature	TEMP	22.6		Deg C	07.10.2020 13:27	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 07.10.2020 09:45

Seq Number: 3131336

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	421	10.0	mg/L	07.10.2020 14:43	D	50
Magnesium	7439-95-4	78.5	0.200	mg/L	07.10.2020 14:39		1
Potassium	7440-09-7	6.58	0.500	mg/L	07.10.2020 14:39		1
Silica	7631-86-9	69.6	1.07	mg/L	07.10.2020 14:39		1
Sodium	7440-23-5	114	0.500	mg/L	07.10.2020 14:39		1



Certificate of Analytical Results 666784

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.09.2020 16:00

Lab Sample Id: 666784-001

Date Collected: 07.09.2020 13:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.10.2020 10:14

Seq Number: 3131311

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00529	0.00100	mg/L	07.10.2020 10:58		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	07.10.2020 10:58	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Sec-Butylbenzene	135-98-8	0.00253	0.00100	mg/L	07.10.2020 10:58		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	07.10.2020 10:58	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	07.10.2020 10:58	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00136	0.00100	mg/L	07.10.2020 10:58		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Ethylbenzene	100-41-4	0.0203	0.00100	mg/L	07.10.2020 10:58		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1



Certificate of Analytical Results 666784

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.09.2020 16:00

Lab Sample Id: 666784-001

Date Collected: 07.09.2020 13:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.10.2020 10:14

Seq Number: 3131311

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0118	0.00100	mg/L	07.10.2020 10:58		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	07.10.2020 10:58	U	1
n-Propylbenzene	103-65-1	0.0156	0.00100	mg/L	07.10.2020 10:58		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Toluene	108-88-3	0.0272	0.00100	mg/L	07.10.2020 10:58		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	07.10.2020 10:58	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	07.10.2020 10:58	U	1
1,2,4-Trimethylbenzene	95-63-6	0.118	0.00100	mg/L	07.10.2020 10:58		1
1,3,5-Trimethylbenzene	108-67-8	0.0328	0.00100	mg/L	07.10.2020 10:58		1
o-Xylene	95-47-6	0.0103	0.00100	mg/L	07.10.2020 10:58		1
m,p-Xylenes	179601-23-1	0.0700	0.0100	mg/L	07.10.2020 10:58		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	07.10.2020 10:58	U	1
Total Xylenes	1330-20-7	0.0803	0.00100	mg/L	07.10.2020 10:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	07.10.2020 10:58	
1,2-Dichloroethane-D4	17060-07-0	99	%	63-144	07.10.2020 10:58	
Toluene-D8	2037-26-5	100	%	80-117	07.10.2020 10:58	
4-Bromofluorobenzene	460-00-4	99	%	74-124	07.10.2020 10:58	

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Xenco

QC Summary 666784

Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131264

MB Sample Id: 7707084-1-BLK

Matrix: Water

LCS Sample Id: 7707084-1-BKS

Prep Method: SM2320P

Date Prep: 07.10.2020

LCSD Sample Id: 7707084-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	258	103	259	104	85-115	0	20	mg/L	07.10.2020 10:45	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131264

Matrix: Water

MB Sample Id: 7707084-1-BLK

Prep Method: SM2320P

Date Prep: 07.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	07.10.2020 10:38	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	07.10.2020 10:38	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	07.10.2020 10:38	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131264

Matrix: Water

Parent Sample Id: 666784-001

MD Sample Id: 666784-001 D

Prep Method: SM2320P

Date Prep: 07.10.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1170	1170	0	20	mg/L	07.10.2020 11:18	
Alkalinity, Bicarbonate (as CaCO3)	1170	1170	0	20	mg/L	07.10.2020 11:18	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.10.2020 11:18	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.10.2020 11:18	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3131292

Matrix: Water

MB Sample Id: 7707057-1-BLK

LCS Sample Id: 7707057-1-BKS

Prep Method: SW9056P

Date Prep: 07.10.2020

LCSD Sample Id: 7707057-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.7	107	90-110	2	20	mg/L	07.10.2020 08:28	
Chloride	<0.500	10.0	10.7	107	10.8	108	90-110	1	20	mg/L	07.10.2020 08:28	
Fluoride	<0.500	10.0	10.8	108	11.0	110	90-110	2	20	mg/L	07.10.2020 08:28	
Nitrate as N	<0.100	10.0	10.5	105	10.7	107	90-110	2	20	mg/L	07.10.2020 08:28	
Nitrite as N	<0.100	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	07.10.2020 08:28	
Sulfate	<0.500	10.0	10.4	104	10.6	106	90-110	2	20	mg/L	07.10.2020 08:28	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3131292

Matrix: Water

Prep Method: E300P

Date Prep: 07.10.2020

Parent Sample Id: 666809-001

MS Sample Id: 666809-001 S

MSD Sample Id: 666809-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	07.10.2020 10:51	
Chloride	0.668	10.0	10.2	95	10.2	95	90-110	0	20	mg/L	07.10.2020 10:51	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.10.2020 10:51	
Nitrate as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	07.10.2020 10:51	
Nitrite as N	<0.100	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	07.10.2020 10:51	
Sulfate	<0.500	10.0	10.0	100	10.1	101	90-110	1	20	mg/L	07.10.2020 10:51	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3131292

Matrix: Water

Prep Method: E300P

Date Prep: 07.10.2020

Parent Sample Id: 666809-002

MS Sample Id: 666809-002 S

MSD Sample Id: 666809-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	07.10.2020 11:24	
Chloride	0.702	10.0	10.1	94	10.1	94	90-110	0	20	mg/L	07.10.2020 11:24	
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	07.10.2020 11:24	
Nitrate as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	07.10.2020 11:24	
Nitrite as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	07.10.2020 11:24	
Sulfate	<0.500	10.0	9.95	100	9.95	100	90-110	0	20	mg/L	07.10.2020 11:24	

Analytical Method: TDS by SM2540C

Seq Number: 3131231

Matrix: Water

MB Sample Id: 3131231-1-BLK

LCS Sample Id: 3131231-1-BKS

LCSD Sample Id: 3131231-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	992	99	984	98	80-120	1	10	mg/L	07.10.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3131231

Matrix: Water

Parent Sample Id: 666532-002

MD Sample Id: 666532-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	355	329	8	10	mg/L	07.10.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3131231

Matrix: Water

Parent Sample Id: 666784-001

MD Sample Id: 666784-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1790	1700	5	10	mg/L	07.10.2020 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: pH by SM4500-H

Seq Number: 3131287

Matrix: Ground Water

Parent Sample Id: 665970-001

MD Sample Id: 665970-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.75	6.76	0	20	SU	07.10.2020 13:27	
Temperature	21.9	22.0	0	20	Deg C	07.10.2020 13:27	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3131336

Matrix: Water

MB Sample Id: 7707081-1-BLK

LCS Sample Id: 7707081-1-BKS

Prep Method: E200.7P

Date Prep: 07.10.2020

LCSD Sample Id: 7707081-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.0	96	23.9	96	85-115	0	20	mg/L	07.10.2020 14:01	
Magnesium	<0.200	25.0	24.0	96	24.0	96	85-115	0	20	mg/L	07.10.2020 14:01	
Potassium	<0.500	10.0	9.46	95	9.50	95	85-115	0	20	mg/L	07.10.2020 14:01	
Silica	<1.07	21.4	22.5	105	22.5	105	85-115	0	20	mg/L	07.10.2020 14:01	
Sodium	<0.500	25.0	24.3	97	24.3	97	85-115	0	20	mg/L	07.10.2020 14:01	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3131336

Matrix: Storm Water

Parent Sample Id: 666504-001

MS Sample Id: 666504-001 S

Prep Method: E200.7P

Date Prep: 07.10.2020

MSD Sample Id: 666504-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	25.8	25.0	49.0	93	48.8	92	70-130	0	20	mg/L	07.10.2020 14:14	
Magnesium	1.16	25.0	24.9	95	24.8	95	70-130	0	20	mg/L	07.10.2020 14:14	
Potassium	3.69	10.0	13.1	94	13.1	94	70-130	0	20	mg/L	07.10.2020 14:14	
Silica	5.54	21.4	26.8	99	26.6	98	70-130	1	20	mg/L	07.10.2020 14:14	
Sodium	3.20	25.0	27.1	96	26.9	95	70-130	1	20	mg/L	07.10.2020 14:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3131311

MB Sample Id: 7707115-1-BLK

Matrix: Water

LCS Sample Id: 7707115-1-BKS

Prep Method: SW5030B

Date Prep: 07.09.2020

LCSD Sample Id: 7707115-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0452	90	0.0461	92	66-142	2	25	mg/L	07.10.2020 01:06	
Bromobenzene	<0.00100	0.0500	0.0444	89	0.0459	92	75-125	3	25	mg/L	07.10.2020 01:06	
Bromochloromethane	<0.00100	0.0500	0.0443	89	0.0450	90	60-140	2	25	mg/L	07.10.2020 01:06	
Bromodichloromethane	<0.00100	0.0500	0.0457	91	0.0467	93	75-125	2	25	mg/L	07.10.2020 01:06	
Bromoform	<0.00500	0.0500	0.0472	94	0.0472	94	75-125	0	25	mg/L	07.10.2020 01:06	
Methyl bromide	<0.00500	0.0500	0.0412	82	0.0437	87	60-140	6	25	mg/L	07.10.2020 01:06	
2-Butanone	<0.0500	0.250	0.241	96	0.236	94	60-140	2	25	mg/L	07.10.2020 01:06	
n-Butylbenzene	<0.00100	0.0500	0.0452	90	0.0473	95	75-125	5	25	mg/L	07.10.2020 01:06	
Sec-Butylbenzene	<0.00100	0.0500	0.0472	94	0.0488	98	75-125	3	25	mg/L	07.10.2020 01:06	
tert-Butylbenzene	<0.00100	0.0500	0.0470	94	0.0490	98	75-125	4	25	mg/L	07.10.2020 01:06	
Carbon Tetrachloride	<0.00500	0.0500	0.0469	94	0.0476	95	62-125	1	25	mg/L	07.10.2020 01:06	
Chlorobenzene	<0.00100	0.0500	0.0440	88	0.0450	90	60-133	2	25	mg/L	07.10.2020 01:06	
Chloroethane	<0.0100	0.0500	0.0465	93	0.0469	94	60-140	1	25	mg/L	07.10.2020 01:06	
Chloroform	<0.00100	0.0500	0.0451	90	0.0455	91	70-130	1	25	mg/L	07.10.2020 01:06	
Methyl Chloride	<0.0100	0.0500	0.0387	77	0.0385	77	60-140	1	25	mg/L	07.10.2020 01:06	
2-Chlorotoluene	<0.00100	0.0500	0.0447	89	0.0463	93	73-125	4	25	mg/L	07.10.2020 01:06	
4-Chlorotoluene	<0.00100	0.0500	0.0450	90	0.0467	93	74-125	4	25	mg/L	07.10.2020 01:06	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0474	95	0.0493	99	75-125	4	25	mg/L	07.10.2020 01:06	
Dibromochloromethane	<0.00500	0.0500	0.0479	96	0.0477	95	73-125	0	25	mg/L	07.10.2020 01:06	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0428	86	0.0433	87	59-125	1	25	mg/L	07.10.2020 01:06	
1,2-Dibromoethane	<0.00500	0.0500	0.0478	96	0.0475	95	73-125	1	25	mg/L	07.10.2020 01:06	
Methylene Bromide	<0.00100	0.0500	0.0428	86	0.0441	88	69-127	3	25	mg/L	07.10.2020 01:06	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0453	91	0.0465	93	75-125	3	25	mg/L	07.10.2020 01:06	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0447	89	0.0460	92	75-125	3	25	mg/L	07.10.2020 01:06	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0438	88	0.0448	90	75-125	2	25	mg/L	07.10.2020 01:06	
Dichlorodifluoromethane	<0.00100	0.0500	0.0342	68	0.0338	68	60-140	1	25	mg/L	07.10.2020 01:06	
1,1-Dichloroethane	<0.00100	0.0500	0.0444	89	0.0452	90	72-125	2	25	mg/L	07.10.2020 01:06	
1,2-Dichloroethane	<0.00100	0.0500	0.0434	87	0.0438	88	68-127	1	25	mg/L	07.10.2020 01:06	
1,1-Dichloroethene	<0.00100	0.0500	0.0425	85	0.0436	87	59-172	3	25	mg/L	07.10.2020 01:06	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0476	95	0.0486	97	75-125	2	25	mg/L	07.10.2020 01:06	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0424	85	0.0434	87	75-125	2	25	mg/L	07.10.2020 01:06	
1,2-Dichloropropane	<0.00500	0.0500	0.0483	97	0.0491	98	74-125	2	25	mg/L	07.10.2020 01:06	
1,3-Dichloropropane	<0.00500	0.0500	0.0481	96	0.0492	98	75-125	2	25	mg/L	07.10.2020 01:06	
2,2-Dichloropropane	<0.00500	0.0500	0.0419	84	0.0418	84	75-125	0	25	mg/L	07.10.2020 01:06	
1,1-Dichloropropene	<0.00500	0.0500	0.0481	96	0.0490	98	75-125	2	25	mg/L	07.10.2020 01:06	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0483	97	0.0492	98	74-125	2	25	mg/L	07.10.2020 01:06	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0478	96	0.0484	97	66-125	1	25	mg/L	07.10.2020 01:06	
Ethylbenzene	<0.00100	0.0500	0.0454	91	0.0464	93	75-125	2	25	mg/L	07.10.2020 01:06	
Hexachlorobutadiene	<0.00500	0.0500	0.0429	86	0.0447	89	75-125	4	25	mg/L	07.10.2020 01:06	
Isopropylbenzene	<0.00100	0.0500	0.0467	93	0.0481	96	75-125	3	25	mg/L	07.10.2020 01:06	
Methylene Chloride	0.00434	0.0500	0.0445	89	0.0453	91	75-125	2	25	mg/L	07.10.2020 01:06	
MTBE	<0.00500	0.0500	0.0536	107	0.0541	108	65-135	1	25	mg/L	07.10.2020 01:06	
Naphthalene	<0.0100	0.0500	0.0481	96	0.0496	99	70-130	3	25	mg/L	07.10.2020 01:06	
n-Propylbenzene	<0.00100	0.0500	0.0452	90	0.0471	94	75-125	4	25	mg/L	07.10.2020 01:06	
Styrene	<0.00100	0.0500	0.0474	95	0.0484	97	75-125	2	25	mg/L	07.10.2020 01:06	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0481	96	0.0489	98	72-125	2	25	mg/L	07.10.2020 01:06	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0437	87	0.0448	90	74-125	2	25	mg/L	07.10.2020 01:06	
Tetrachloroethylene	<0.00100	0.0500	0.0425	85	0.0432	86	71-125	2	25	mg/L	07.10.2020 01:06	
Toluene	<0.00100	0.0500	0.0448	90	0.0463	93	59-139	3	25	mg/L	07.10.2020 01:06	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0470	94	0.0485	97	75-137	3	25	mg/L	07.10.2020 01:06	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Xenco

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3131311

MB Sample Id: 7707115-1-BLK

Matrix: Water

LCS Sample Id: 7707115-1-BKS

Prep Method: SW5030B

Date Prep: 07.09.2020

LCSD Sample Id: 7707115-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0463	93	0.0481	96	75-135	4	25	mg/L	07.10.2020 01:06	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0468	94	0.0477	95	75-125	2	25	mg/L	07.10.2020 01:06	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0480	96	0.0497	99	75-127	3	25	mg/L	07.10.2020 01:06	
Trichloroethylene	<0.00500	0.0500	0.0466	93	0.0469	94	62-137	1	25	mg/L	07.10.2020 01:06	
Trichlorofluoromethane	<0.00100	0.0500	0.0402	80	0.0404	81	60-140	0	25	mg/L	07.10.2020 01:06	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0443	89	0.0453	91	75-125	2	25	mg/L	07.10.2020 01:06	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0479	96	0.0493	99	75-125	3	25	mg/L	07.10.2020 01:06	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0471	94	0.0482	96	70-125	2	25	mg/L	07.10.2020 01:06	
o-Xylene	<0.00100	0.0500	0.0456	91	0.0467	93	75-125	2	25	mg/L	07.10.2020 01:06	
m,p-Xylenes	<0.0100	0.100	0.0929	93	0.0964	96	75-125	4	25	mg/L	07.10.2020 01:06	
Vinyl Chloride	<0.00200	0.0500	0.0408	82	0.0412	82	60-140	1	25	mg/L	07.10.2020 01:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	106		96		97		75-131	%	07.10.2020 01:06
1,2-Dichloroethane-D4	107		94		94		63-144	%	07.10.2020 01:06
Toluene-D8	96		100		100		80-117	%	07.10.2020 01:06
4-Bromofluorobenzene	101		98		100		74-124	%	07.10.2020 01:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3131311

Parent Sample Id: 666279-001

Matrix: Water

MS Sample Id: 666279-001 S

Prep Method: SW5030B

Date Prep: 07.09.2020

MSD Sample Id: 666279-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	1.00	0.939	94	0.918	92	66-142	2	25	mg/L	07.10.2020 01:53	
Bromobenzene	<0.0200	1.00	0.941	94	0.935	94	75-125	1	25	mg/L	07.10.2020 01:53	
Bromochloromethane	<0.0200	1.00	0.936	94	0.892	89	60-140	5	25	mg/L	07.10.2020 01:53	
Bromodichloromethane	<0.0200	1.00	0.947	95	0.924	92	75-125	2	25	mg/L	07.10.2020 01:53	
Bromoform	<0.100	1.00	0.970	97	0.952	95	75-125	2	25	mg/L	07.10.2020 01:53	
Methyl bromide	<0.100	1.00	0.924	92	0.884	88	60-140	4	25	mg/L	07.10.2020 01:53	
2-Butanone	<1.00	5.00	4.65	93	4.52	90	60-140	3	25	mg/L	07.10.2020 01:53	
n-Butylbenzene	<0.0200	1.00	0.967	97	0.945	95	75-125	2	25	mg/L	07.10.2020 01:53	
Sec-Butylbenzene	<0.0200	1.00	1.03	103	0.993	99	75-125	4	25	mg/L	07.10.2020 01:53	
tert-Butylbenzene	<0.0200	1.00	1.02	102	1.01	101	75-125	1	25	mg/L	07.10.2020 01:53	
Carbon Tetrachloride	<0.100	1.00	0.989	99	0.931	93	62-125	6	25	mg/L	07.10.2020 01:53	
Chlorobenzene	<0.0200	1.00	0.921	92	0.902	90	60-133	2	25	mg/L	07.10.2020 01:53	
Chloroethane	<0.200	1.00	0.976	98	0.919	92	60-140	6	25	mg/L	07.10.2020 01:53	
Chloroform	<0.0200	1.00	0.932	93	0.892	89	70-130	4	25	mg/L	07.10.2020 01:53	
Methyl Chloride	<0.200	1.00	0.787	79	0.765	77	60-140	3	25	mg/L	07.10.2020 01:53	
2-Chlorotoluene	<0.0200	1.00	0.965	97	0.935	94	73-125	3	25	mg/L	07.10.2020 01:53	
4-Chlorotoluene	<0.0200	1.00	0.980	98	0.941	94	74-125	4	25	mg/L	07.10.2020 01:53	
p-Cymene (p-Isopropyltoluene)	<0.0200	1.00	1.02	102	0.987	99	75-125	3	25	mg/L	07.10.2020 01:53	
Dibromochloromethane	<0.100	1.00	0.993	99	0.964	96	73-125	3	25	mg/L	07.10.2020 01:53	
1,2-Dibromo-3-Chloropropane	<0.0200	1.00	0.886	89	0.900	90	59-125	2	25	mg/L	07.10.2020 01:53	
1,2-Dibromoethane	<0.100	1.00	0.991	99	0.980	98	73-125	1	25	mg/L	07.10.2020 01:53	
Methylene Bromide	<0.0200	1.00	0.897	90	0.875	88	69-127	2	25	mg/L	07.10.2020 01:53	
1,2-Dichlorobenzene	<0.0200	1.00	0.962	96	0.945	95	75-125	2	25	mg/L	07.10.2020 01:53	
1,3-Dichlorobenzene	<0.0200	1.00	0.958	96	0.939	94	75-125	2	25	mg/L	07.10.2020 01:53	
1,4-Dichlorobenzene	<0.0200	1.00	0.930	93	0.909	91	75-125	2	25	mg/L	07.10.2020 01:53	
Dichlorodifluoromethane	<0.0200	1.00	0.712	71	0.669	67	60-140	6	25	mg/L	07.10.2020 01:53	
1,1-Dichloroethane	<0.0200	1.00	0.930	93	0.895	90	72-125	4	25	mg/L	07.10.2020 01:53	
1,2-Dichloroethane	<0.0200	1.00	0.896	90	0.867	87	68-127	3	25	mg/L	07.10.2020 01:53	
1,1-Dichloroethene	0.00960	1.00	0.927	92	0.891	88	59-172	4	25	mg/L	07.10.2020 01:53	
cis-1,2-Dichloroethylene	7.46	1.00	7.92	46	8.24	78	75-125	4	25	mg/L	07.10.2020 01:53	X
trans-1,2-dichloroethylene	0.0468	1.00	0.929	88	0.902	86	75-125	3	25	mg/L	07.10.2020 01:53	
1,2-Dichloropropane	<0.100	1.00	0.992	99	0.973	97	74-125	2	25	mg/L	07.10.2020 01:53	
1,3-Dichloropropane	<0.100	1.00	0.996	100	0.981	98	75-125	2	25	mg/L	07.10.2020 01:53	
2,2-Dichloropropane	<0.100	1.00	0.852	85	0.817	82	75-125	4	25	mg/L	07.10.2020 01:53	
1,1-Dichloropropene	<0.100	1.00	1.01	101	0.966	97	75-125	4	25	mg/L	07.10.2020 01:53	
cis-1,3-Dichloropropene	<0.100	1.00	0.977	98	0.971	97	74-125	1	25	mg/L	07.10.2020 01:53	
trans-1,3-dichloropropene	<0.100	1.00	1.00	100	0.985	99	66-125	2	25	mg/L	07.10.2020 01:53	
Ethylbenzene	<0.0200	1.00	0.966	97	0.934	93	75-125	3	25	mg/L	07.10.2020 01:53	
Hexachlorobutadiene	<0.100	1.00	0.912	91	0.897	90	75-125	2	25	mg/L	07.10.2020 01:53	
Isopropylbenzene	0.00600	1.00	1.00	99	0.969	96	75-125	3	25	mg/L	07.10.2020 01:53	
Methylene Chloride	<0.100	1.00	0.919	92	0.880	88	75-125	4	25	mg/L	07.10.2020 01:53	
MTBE	<0.100	1.00	1.10	110	1.08	108	65-135	2	25	mg/L	07.10.2020 01:53	
Naphthalene	<0.200	1.00	0.987	99	1.02	102	70-130	3	25	mg/L	07.10.2020 01:53	
n-Propylbenzene	<0.0200	1.00	0.987	99	0.952	95	75-125	4	25	mg/L	07.10.2020 01:53	
Styrene	<0.0200	1.00	1.00	100	0.963	96	75-125	4	25	mg/L	07.10.2020 01:53	
1,1,1,2-Tetrachloroethane	<0.0200	1.00	1.00	100	0.984	98	72-125	2	25	mg/L	07.10.2020 01:53	
1,1,2,2-Tetrachloroethane	<0.0200	1.00	0.922	92	0.924	92	74-125	0	25	mg/L	07.10.2020 01:53	
Tetrachloroethylene	0.166	1.00	1.05	88	1.04	87	71-125	1	25	mg/L	07.10.2020 01:53	
Toluene	<0.0200	1.00	0.939	94	0.921	92	59-139	2	25	mg/L	07.10.2020 01:53	
1,2,3-Trichlorobenzene	<0.100	1.00	0.983	98	0.994	99	75-137	1	25	mg/L	07.10.2020 01:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3131311

Parent Sample Id: 666279-001

Matrix: Water

MS Sample Id: 666279-001 S

Prep Method: SW5030B

Date Prep: 07.09.2020

MSD Sample Id: 666279-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.100	1.00	0.988	99	0.978	98	75-135	1	25	mg/L	07.10.2020 01:53	
1,1,1-Trichloroethane	<0.100	1.00	0.973	97	0.924	92	75-125	5	25	mg/L	07.10.2020 01:53	
1,1,2-Trichloroethane	<0.0200	1.00	1.02	102	0.985	99	75-127	3	25	mg/L	07.10.2020 01:53	
Trichloroethylene	0.265	1.00	1.25	99	1.24	98	62-137	1	25	mg/L	07.10.2020 01:53	
Trichlorofluoromethane	<0.0200	1.00	0.850	85	0.793	79	60-140	7	25	mg/L	07.10.2020 01:53	
1,2,3-Trichloropropane	<0.0200	1.00	0.929	93	0.922	92	75-125	1	25	mg/L	07.10.2020 01:53	
1,2,4-Trimethylbenzene	<0.0200	1.00	1.02	102	1.00	100	75-125	2	25	mg/L	07.10.2020 01:53	
1,3,5-Trimethylbenzene	<0.0200	1.00	0.997	100	0.976	98	70-125	2	25	mg/L	07.10.2020 01:53	
o-Xylene	<0.0200	1.00	0.978	98	0.939	94	75-125	4	25	mg/L	07.10.2020 01:53	
m,p-Xylenes	<0.200	2.00	1.99	100	1.91	96	75-125	4	25	mg/L	07.10.2020 01:53	
Vinyl Chloride	1.76	1.00	2.54	78	2.54	78	60-140	0	25	mg/L	07.10.2020 01:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		95		75-131	%	07.10.2020 01:53
1,2-Dichloroethane-D4	97		94		63-144	%	07.10.2020 01:53
Toluene-D8	100		101		80-117	%	07.10.2020 01:53
4-Bromofluorobenzene	100		100		74-124	%	07.10.2020 01:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 505-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)

Work Order No

LB 0794

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

Project Name:	Levey Well Hobbs NM	ANALYSIS REQUEST										Work Order Notes
Project Number:	03B1417001	Turn Around										
		Routine ☐										
P.O. Number:	03B1417001	Rush: 24 hr										
Sampler's Name:	Shane Diller	Due Date:										

SAMPLE RECEIPT		Temp Blank:		Yes	No	Wet Ice:	Yes	No
Temperature (°C):	20/22	Thermometer ID						
Received intact:	Yes	No	N/A					
Cooler Custody Seals:	Yes	No	N/A	Correction Factor: -0.4				
Sample Custody Seals:	Yes	No	N/A	Total Containers:				

Number of Containers

For: F, Cl, SO₄, B

For: Ca, K, Mg, Na, Si

Activity

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

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

of service. Xencro 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 Xencro. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xencro, but not analyzed. These terms will be enforced unless previously negotiated. Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencro 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 Xencro. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xencro, 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
		7/9/20			

Inter-Office Shipment

IOS Number : **66852**

Date/Time: 07.09.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.:

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
666784-001	W	Levey Well	07.09.2020 13:15	SW8260C	VOCs by SW-846 8260C	07.10.2020	07.23.2020	JKR	BDCME BRBZ BRCLME	
666784-001	W	Levey Well	07.09.2020 13:15	E200.7	Recoverable Metals per ICP by EPA 200	07.10.2020	01.05.2021	JKR	CA K MG NA SI	
666784-001	W	Levey Well	07.09.2020 13:15	E300	Inorganic Anions by EPA 300/300.1	07.10.2020	07.11.2020 13:15	JKR	BR CL F NO2N NO3N S	
666784-001	W	Levey Well	07.09.2020 13:15	SM4500-H	pH by SM4500-H	07.10.2020	07.09.2020 13:30	JKR		
666784-001	W	Levey Well	07.09.2020 13:15	SM2540C	TDS by SM2540C	07.10.2020	07.16.2020	JKR	TDS	
666784-001	W	Levey Well	07.09.2020 13:15	SM2320B	Alkalinity by SM2320B	07.10.2020	07.23.2020	JKR	ALK ALKB ALKC	
666784-001	W	Levey Well	07.09.2020 13:15	SM1030E	Cation-Anion Balance Calculation	07.10.2020	08.08.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Received By: _____

Date Relinquished: 07.09.2020

Date Received: _____

Cooler Temperature: _____

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 07.09.2020 04.00.00 PM

Work Order #: 666784

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 07.09.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.10.2020

Certificate of Analysis Summary 667455

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.16.2020 15:49
Report Date: 07.29.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 667455-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.16.2020 13:15					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 07.17.2020 10:31 Analyzed: 07.17.2020 11:22 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1170 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1170 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 07.29.2020 13:56 Units/RL: % RL					
Cation-Anion Balance	1.90					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 07.17.2020 08:19 Analyzed: 07.17.2020 10:59 Units/RL: mg/L RL					
Bromide	0.657 0.500					
Chloride	390 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	0.128 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	40.6 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 667455

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.16.2020 15:49
Report Date: 07.29.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	667455-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	07.16.2020 13:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	07.17.2020 10:00					
	Analyzed:	07.28.2020 15:55					
	Units/RL:	mg/L RL					
	Calcium	402 D 10.0					
	Magnesium	77.6 0.200					
	Potassium	7.01 0.500					
	Silica	68.6 1.07					
	Sodium	114 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	07.17.2020 10:06					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1890 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 667455

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

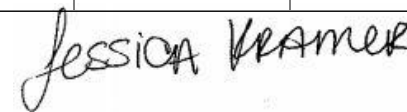
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.16.2020 15:49
Report Date: 07.29.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 667455-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.16.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.17.2020 15:14 Analyzed: 07.17.2020 15:30 Units/RL: mg/L RL					
Benzene	0.00536 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00148 0.00100					
Sec-Butylbenzene	0.00252 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00133 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 667455

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

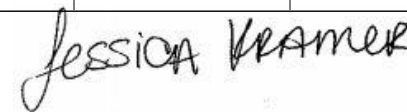
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.16.2020 15:49
Report Date: 07.29.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 667455-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.16.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.17.2020 15:14 Analyzed: 07.17.2020 15:30 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0204 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0117 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0142 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 667455

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 07.16.2020 15:49
 Report Date: 07.29.2020 14:13
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 667455-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.16.2020 13:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.17.2020 15:14 Analyzed: 07.17.2020 15:30 Units/RL: mg/L RL					
Toluene	0.0316 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0944 0.00100					
1,3,5-Trimethylbenzene	0.0273 0.00100					
o-Xylene	0.0103 0.00100					
m,p-Xylenes	0.0684 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0787 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.17.2020 14:09 Units/RL: Deg C RL					
Temperature	24.3 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.17.2020 14:09 Units/RL: SU RL					
pH	6.34 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 667455

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

07.29.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.29.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **667455**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667455. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 667455 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 667455

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	07.16.2020 13:15		667455-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 667455

Report Date: 07.29.2020
Date Received: 07.16.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 667455

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.16.2020 15:49

Lab Sample Id: 667455-001

Date Collected: 07.16.2020 13:15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 07.17.2020 10:31

Seq Number: 3131951

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1170	4.00	mg/L	07.17.2020 11:22		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1170	4.00	mg/L	07.17.2020 11:22		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	07.17.2020 11:22	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	07.17.2020 11:22	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3132903

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.90		%	07.29.2020 13:56		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 07.17.2020 08:19

Seq Number: 3131912

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.657	0.500	mg/L	07.17.2020 10:59		1
Chloride	16887-00-6	390	0.500	mg/L	07.17.2020 10:59		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	07.17.2020 11:09	UD	10
Nitrate as N	14797-55-8	0.128	0.100	mg/L	07.17.2020 10:59		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	07.17.2020 10:59	U	1
Sulfate	14808-79-8	40.6	0.500	mg/L	07.17.2020 10:59		1



Certificate of Analytical Results 667455

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.16.2020 15:49

Lab Sample Id: 667455-001

Date Collected: 07.16.2020 13:15

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3131899

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1890	5.00	mg/L	07.17.2020 10:06		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3131972

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.34		SU	07.17.2020 14:09	K	1
Temperature	TEMP	24.3		Deg C	07.17.2020 14:09	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 07.17.2020 10:00

Seq Number: 3132873

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	402	10.0	mg/L	07.28.2020 15:59	D	50
Magnesium	7439-95-4	77.6	0.200	mg/L	07.28.2020 15:55		1
Potassium	7440-09-7	7.01	0.500	mg/L	07.28.2020 15:55		1
Silica	7631-86-9	68.6	1.07	mg/L	07.28.2020 15:55		1
Sodium	7440-23-5	114	0.500	mg/L	07.28.2020 15:55		1



Certificate of Analytical Results 667455

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.16.2020 15:49

Lab Sample Id: 667455-001

Date Collected: 07.16.2020 13:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.17.2020 15:14

Seq Number: 3132014

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00536	0.00100	mg/L	07.17.2020 15:30		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	07.17.2020 15:30	U	1
n-Butylbenzene	104-51-8	0.00148	0.00100	mg/L	07.17.2020 15:30		1
Sec-Butylbenzene	135-98-8	0.00252	0.00100	mg/L	07.17.2020 15:30		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	07.17.2020 15:30	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	07.17.2020 15:30	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00133	0.00100	mg/L	07.17.2020 15:30		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Ethylbenzene	100-41-4	0.0204	0.00100	mg/L	07.17.2020 15:30		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1



Certificate of Analytical Results 667455

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.16.2020 15:49

Lab Sample Id: 667455-001

Date Collected: 07.16.2020 13:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.17.2020 15:14

Seq Number: 3132014

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0117	0.00100	mg/L	07.17.2020 15:30		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	07.17.2020 15:30	U	1
n-Propylbenzene	103-65-1	0.0142	0.00100	mg/L	07.17.2020 15:30		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Toluene	108-88-3	0.0316	0.00100	mg/L	07.17.2020 15:30		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	07.17.2020 15:30	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	07.17.2020 15:30	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0944	0.00100	mg/L	07.17.2020 15:30		1
1,3,5-Trimethylbenzene	108-67-8	0.0273	0.00100	mg/L	07.17.2020 15:30		1
o-Xylene	95-47-6	0.0103	0.00100	mg/L	07.17.2020 15:30		1
m,p-Xylenes	179601-23-1	0.0684	0.0100	mg/L	07.17.2020 15:30		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	07.17.2020 15:30	U	1
Total Xylenes	1330-20-7	0.0787	0.00100	mg/L	07.17.2020 15:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	96	%	75-131	07.17.2020 15:30	
1,2-Dichloroethane-D4	17060-07-0	97	%	63-144	07.17.2020 15:30	
Toluene-D8	2037-26-5	99	%	80-117	07.17.2020 15:30	
4-Bromofluorobenzene	460-00-4	99	%	74-124	07.17.2020 15:30	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131951

MB Sample Id: 7707541-1-BLK

Matrix: Water

LCS Sample Id: 7707541-1-BKS

Prep Method: SM2320P

Date Prep: 07.17.2020

LCSD Sample Id: 7707541-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	256	102	259	104	85-115	1	20	mg/L	07.17.2020 11:01	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131951

Matrix: Water

MB Sample Id: 7707541-1-BLK

Prep Method: SM2320P

Date Prep: 07.17.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	07.17.2020 10:54	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	07.17.2020 10:54	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	07.17.2020 10:54	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3131951

Matrix: Water

Parent Sample Id: 667455-001

MD Sample Id: 667455-001 D

Prep Method: SM2320P

Date Prep: 07.17.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1170	1160	1	20	mg/L	07.17.2020 11:35	
Alkalinity, Bicarbonate (as CaCO ₃)	1170	1160	1	20	mg/L	07.17.2020 11:35	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	07.17.2020 11:35	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	07.17.2020 11:35	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3131912

Matrix: Water

MB Sample Id: 7707517-1-BLK

LCS Sample Id: 7707517-1-BKS

Prep Method: E300P

Date Prep: 07.17.2020

LCSD Sample Id: 7707517-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.17.2020 08:15	
Chloride	<0.500	10.0	10.7	107	10.6	106	90-110	1	20	mg/L	07.17.2020 08:15	
Fluoride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	07.17.2020 08:15	
Nitrate as N	<0.100	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.17.2020 08:15	
Nitrite as N	<0.100	10.0	9.93	99	9.97	100	90-110	0	20	mg/L	07.17.2020 08:15	
Sulfate	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	07.17.2020 08:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3131912

Matrix: Water

Prep Method: E300P

Date Prep: 07.17.2020

Parent Sample Id: 666916-001

MS Sample Id: 666916-001 S

MSD Sample Id: 666916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	3.68	10.0	13.2	95	13.2	95	90-110	0	20	mg/L	07.17.2020 09:33	
Chloride	366	10.0	369	30	369	30	90-110	0	20	mg/L	07.17.2020 09:33	X
Fluoride	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	07.17.2020 09:33	
Nitrate as N	0.800	10.0	10.9	101	10.9	101	90-110	0	20	mg/L	07.17.2020 09:33	
Nitrite as N	<0.100	10.0	8.98	90	9.03	90	90-110	1	20	mg/L	07.17.2020 09:33	
Sulfate	448	200	661	107	662	107	90-110	0	20	mg/L	07.17.2020 10:03	

Analytical Method: TDS by SM2540C

Seq Number: 3131899

Matrix: Water

MB Sample Id: 3131899-1-BLK

LCS Sample Id: 3131899-1-BKS

LCSD Sample Id: 3131899-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1020	102	1070	107	80-120	5	10	mg/L	07.17.2020 10:06	

Analytical Method: TDS by SM2540C

Seq Number: 3131899

Matrix: Water

Parent Sample Id: 667455-001

MD Sample Id: 667455-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1890	1870	1	10	mg/L	07.17.2020 10:06	

Analytical Method: pH by SM4500-H

Seq Number: 3131972

Matrix: Water

Parent Sample Id: 667426-001

MD Sample Id: 667426-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	9.24	9.23	0	20	SU	07.17.2020 14:09	
Temperature	21.4	21.4	0	20	Deg C	07.17.2020 14:09	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3132873

Matrix: Water

MB Sample Id: 7707549-1-BLK

LCS Sample Id: 7707549-1-BKS

Prep Method: E200.7P

Date Prep: 07.17.2020

LCSD Sample Id: 7707549-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	24.8	99	24.9	100	85-115	0	20	mg/L	07.28.2020 15:13	
Magnesium	<0.200	25.0	24.7	99	24.8	99	85-115	0	20	mg/L	07.28.2020 15:13	
Potassium	<0.500	10.0	9.75	98	9.79	98	85-115	0	20	mg/L	07.28.2020 15:13	
Silica	<1.07	21.4	21.4	100	21.5	100	85-115	0	20	mg/L	07.28.2020 15:13	
Sodium	<0.500	25.0	24.9	100	24.9	100	85-115	0	20	mg/L	07.28.2020 15:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3132873

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.17.2020

Parent Sample Id: 667153-001

MS Sample Id: 667153-001 S

MSD Sample Id: 667153-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	27.3	25.0	53.7	106	53.9	106	70-130	0	20	mg/L	07.28.2020 15:25	
Magnesium	47.1	25.0	73.7	106	74.1	108	70-130	1	20	mg/L	07.28.2020 15:25	
Potassium	12.6	10.0	23.3	107	23.4	108	70-130	0	20	mg/L	07.28.2020 15:25	
Silica	48.1	21.4	72.3	113	72.3	113	70-130	0	20	mg/L	07.28.2020 15:25	
Sodium	105	25.0	133	112	133	112	70-130	0	20	mg/L	07.28.2020 15:25	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132014

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.17.2020

MB Sample Id: 7707607-1-BLK

LCS Sample Id: 7707607-1-BKS

LCSD Sample Id: 7707607-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0487	97	0.0471	94	66-142	3	25	mg/L	07.17.2020 10:50	
Bromobenzene	<0.00100	0.0500	0.0502	100	0.0483	97	75-125	4	25	mg/L	07.17.2020 10:50	
Bromochloromethane	<0.00100	0.0500	0.0471	94	0.0460	92	60-140	2	25	mg/L	07.17.2020 10:50	
Bromodichloromethane	<0.00100	0.0500	0.0465	93	0.0455	91	75-125	2	25	mg/L	07.17.2020 10:50	
Bromoform	<0.00500	0.0500	0.0517	103	0.0518	104	75-125	0	25	mg/L	07.17.2020 10:50	
Methyl bromide	<0.00500	0.0500	0.0536	107	0.0502	100	60-140	7	25	mg/L	07.17.2020 10:50	
2-Butanone	<0.0500	0.250	0.227	91	0.244	98	60-140	7	25	mg/L	07.17.2020 10:50	
n-Butylbenzene	<0.00100	0.0500	0.0484	97	0.0473	95	75-125	2	25	mg/L	07.17.2020 10:50	
Sec-Butylbenzene	<0.00100	0.0500	0.0464	93	0.0452	90	75-125	3	25	mg/L	07.17.2020 10:50	
tert-Butylbenzene	<0.00100	0.0500	0.0521	104	0.0511	102	75-125	2	25	mg/L	07.17.2020 10:50	
Carbon Tetrachloride	<0.00500	0.0500	0.0489	98	0.0472	94	62-125	4	25	mg/L	07.17.2020 10:50	
Chlorobenzene	<0.00100	0.0500	0.0484	97	0.0472	94	60-133	3	25	mg/L	07.17.2020 10:50	
Chloroethane	<0.0100	0.0500	0.0417	83	0.0402	80	60-140	4	25	mg/L	07.17.2020 10:50	
Chloroform	<0.00100	0.0500	0.0466	93	0.0452	90	70-130	3	25	mg/L	07.17.2020 10:50	
Methyl Chloride	<0.0100	0.0500	0.0549	110	0.0526	105	60-140	4	25	mg/L	07.17.2020 10:50	
2-Chlorotoluene	<0.00100	0.0500	0.0490	98	0.0473	95	73-125	4	25	mg/L	07.17.2020 10:50	
4-Chlorotoluene	<0.00100	0.0500	0.0500	100	0.0482	96	74-125	4	25	mg/L	07.17.2020 10:50	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0517	103	0.0505	101	75-125	2	25	mg/L	07.17.2020 10:50	
Dibromochloromethane	<0.00500	0.0500	0.0491	98	0.0489	98	73-125	0	25	mg/L	07.17.2020 10:50	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0423	85	0.0458	92	59-125	8	25	mg/L	07.17.2020 10:50	
1,2-Dibromoethane	<0.00500	0.0500	0.0505	101	0.0522	104	73-125	3	25	mg/L	07.17.2020 10:50	
Methylene Bromide	<0.00100	0.0500	0.0457	91	0.0463	93	69-127	1	25	mg/L	07.17.2020 10:50	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0497	99	0.0483	97	75-125	3	25	mg/L	07.17.2020 10:50	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0488	98	0.0473	95	75-125	3	25	mg/L	07.17.2020 10:50	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0493	99	0.0478	96	75-125	3	25	mg/L	07.17.2020 10:50	
Dichlorodifluoromethane	<0.00100	0.0500	0.0631	126	0.0614	123	60-140	3	25	mg/L	07.17.2020 10:50	
1,1-Dichloroethane	<0.00100	0.0500	0.0473	95	0.0460	92	72-125	3	25	mg/L	07.17.2020 10:50	
1,2-Dichloroethane	<0.00100	0.0500	0.0451	90	0.0444	89	68-127	2	25	mg/L	07.17.2020 10:50	
1,1-Dichloroethene	<0.00100	0.0500	0.0483	97	0.0463	93	59-172	4	25	mg/L	07.17.2020 10:50	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0504	101	0.0481	96	75-125	5	25	mg/L	07.17.2020 10:50	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0465	93	0.0446	89	75-125	4	25	mg/L	07.17.2020 10:50	
1,2-Dichloropropane	<0.00500	0.0500	0.0513	103	0.0495	99	74-125	4	25	mg/L	07.17.2020 10:50	
1,3-Dichloropropane	<0.00500	0.0500	0.0524	105	0.0530	106	75-125	1	25	mg/L	07.17.2020 10:50	
2,2-Dichloropropane	<0.00500	0.0500	0.0483	97	0.0465	93	75-125	4	25	mg/L	07.17.2020 10:50	
1,1-Dichloropropene	<0.00500	0.0500	0.0539	108	0.0526	105	75-125	2	25	mg/L	07.17.2020 10:50	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0528	106	0.0521	104	74-125	1	25	mg/L	07.17.2020 10:50	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0509	102	0.0505	101	66-125	1	25	mg/L	07.17.2020 10:50	
Ethylbenzene	0.000230	0.0500	0.0497	99	0.0489	98	75-125	2	25	mg/L	07.17.2020 10:50	
Hexachlorobutadiene	<0.00500	0.0500	0.0483	97	0.0482	96	75-125	0	25	mg/L	07.17.2020 10:50	
Isopropylbenzene	<0.00100	0.0500	0.0502	100	0.0490	98	75-125	2	25	mg/L	07.17.2020 10:50	
Methylene Chloride	<0.00500	0.0500	0.0475	95	0.0462	92	75-125	3	25	mg/L	07.17.2020 10:50	
MTBE	<0.00500	0.0500	0.0544	109	0.0551	110	65-135	1	25	mg/L	07.17.2020 10:50	
Naphthalene	<0.0100	0.0500	0.0511	102	0.0575	115	70-130	12	25	mg/L	07.17.2020 10:50	
n-Propylbenzene	<0.00100	0.0500	0.0512	102	0.0493	99	75-125	4	25	mg/L	07.17.2020 10:50	
Styrene	<0.00100	0.0500	0.0517	103	0.0504	101	75-125	3	25	mg/L	07.17.2020 10:50	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0503	101	0.0499	100	72-125	1	25	mg/L	07.17.2020 10:50	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0457	91	0.0463	93	74-125	1	25	mg/L	07.17.2020 10:50	
Tetrachloroethylene	<0.00100	0.0500	0.0487	97	0.0474	95	71-125	3	25	mg/L	07.17.2020 10:50	
Toluene	0.000850	0.0500	0.0513	103	0.0502	100	59-139	2	25	mg/L	07.17.2020 10:50	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0489	98	0.0538	108	75-137	10	25	mg/L	07.17.2020 10:50	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132014

MB Sample Id: 7707607-1-BLK

Matrix: Water

LCS Sample Id: 7707607-1-BKS

Prep Method: SW5030B

Date Prep: 07.17.2020

LCSD Sample Id: 7707607-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0508	102	0.0527	105	75-135	4	25	mg/L	07.17.2020 10:50	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0481	96	0.0471	94	75-125	2	25	mg/L	07.17.2020 10:50	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0510	102	0.0513	103	75-127	1	25	mg/L	07.17.2020 10:50	
Trichloroethylene	<0.00500	0.0500	0.0496	99	0.0490	98	62-137	1	25	mg/L	07.17.2020 10:50	
Trichlorofluoromethane	<0.00100	0.0500	0.0515	103	0.0496	99	60-140	4	25	mg/L	07.17.2020 10:50	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0484	97	0.0492	98	75-125	2	25	mg/L	07.17.2020 10:50	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0527	105	0.0512	102	75-125	3	25	mg/L	07.17.2020 10:50	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0516	103	0.0503	101	70-125	3	25	mg/L	07.17.2020 10:50	
o-Xylene	0.000290	0.0500	0.0514	103	0.0498	100	75-125	3	25	mg/L	07.17.2020 10:50	
m,p-Xylenes	0.000520	0.100	0.105	105	0.101	101	75-125	4	25	mg/L	07.17.2020 10:50	
Vinyl Chloride	<0.00200	0.0500	0.0489	98	0.0474	95	60-140	3	25	mg/L	07.17.2020 10:50	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	106		95		94		75-131			%	07.17.2020 10:50	
1,2-Dichloroethane-D4	106		94		94		63-144			%	07.17.2020 10:50	
Toluene-D8	96		100		100		80-117			%	07.17.2020 10:50	
4-Bromofluorobenzene	104		99		99		74-124			%	07.17.2020 10:50	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132014

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.17.2020

Parent Sample Id: 667369-002

MS Sample Id: 667369-002 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0463	93	66-142	mg/L	07.17.2020 11:52	
Bromobenzene	<0.00100	0.0500	0.0474	95	75-125	mg/L	07.17.2020 11:52	
Bromochloromethane	<0.00100	0.0500	0.0464	93	60-140	mg/L	07.17.2020 11:52	
Bromodichloromethane	<0.00100	0.0500	0.0450	90	75-125	mg/L	07.17.2020 11:52	
Bromoform	<0.00500	0.0500	0.0486	97	75-125	mg/L	07.17.2020 11:52	
Methyl bromide	<0.00500	0.0500	0.0515	103	60-140	mg/L	07.17.2020 11:52	
2-Butanone	<0.0500	0.250	0.219	88	60-140	mg/L	07.17.2020 11:52	
n-Butylbenzene	<0.00100	0.0500	0.0461	92	75-125	mg/L	07.17.2020 11:52	
Sec-Butylbenzene	<0.00100	0.0500	0.0437	87	75-125	mg/L	07.17.2020 11:52	
tert-Butylbenzene	<0.00100	0.0500	0.0496	99	75-125	mg/L	07.17.2020 11:52	
Carbon Tetrachloride	<0.00500	0.0500	0.0460	92	62-125	mg/L	07.17.2020 11:52	
Chlorobenzene	<0.00100	0.0500	0.0460	92	60-133	mg/L	07.17.2020 11:52	
Chloroethane	<0.0100	0.0500	0.0415	83	60-140	mg/L	07.17.2020 11:52	
Chloroform	<0.00100	0.0500	0.0453	91	70-130	mg/L	07.17.2020 11:52	
Methyl Chloride	<0.0100	0.0500	0.0535	107	60-140	mg/L	07.17.2020 11:52	
2-Chlorotoluene	<0.00100	0.0500	0.0466	93	73-125	mg/L	07.17.2020 11:52	
4-Chlorotoluene	<0.00100	0.0500	0.0477	95	74-125	mg/L	07.17.2020 11:52	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0488	98	75-125	mg/L	07.17.2020 11:52	
Dibromochloromethane	<0.00500	0.0500	0.0470	94	73-125	mg/L	07.17.2020 11:52	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0393	79	59-125	mg/L	07.17.2020 11:52	
1,2-Dibromoethane	<0.00500	0.0500	0.0491	98	73-125	mg/L	07.17.2020 11:52	
Methylene Bromide	<0.00100	0.0500	0.0452	90	69-127	mg/L	07.17.2020 11:52	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0471	94	75-125	mg/L	07.17.2020 11:52	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0466	93	75-125	mg/L	07.17.2020 11:52	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0468	94	75-125	mg/L	07.17.2020 11:52	
Dichlorodifluoromethane	<0.00100	0.0500	0.0568	114	60-140	mg/L	07.17.2020 11:52	
1,1-Dichloroethane	<0.00100	0.0500	0.0460	92	72-125	mg/L	07.17.2020 11:52	
1,2-Dichloroethane	<0.00100	0.0500	0.0440	88	68-127	mg/L	07.17.2020 11:52	
1,1-Dichloroethene	<0.00100	0.0500	0.0454	91	59-172	mg/L	07.17.2020 11:52	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0488	98	75-125	mg/L	07.17.2020 11:52	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0447	89	75-125	mg/L	07.17.2020 11:52	
1,2-Dichloropropane	<0.00500	0.0500	0.0491	98	74-125	mg/L	07.17.2020 11:52	
1,3-Dichloropropane	<0.00500	0.0500	0.0505	101	75-125	mg/L	07.17.2020 11:52	
2,2-Dichloropropane	<0.00500	0.0500	0.0463	93	75-125	mg/L	07.17.2020 11:52	
1,1-Dichloropropene	<0.00500	0.0500	0.0511	102	75-125	mg/L	07.17.2020 11:52	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0507	101	74-125	mg/L	07.17.2020 11:52	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0488	98	66-125	mg/L	07.17.2020 11:52	
Ethylbenzene	<0.00100	0.0500	0.0470	94	75-125	mg/L	07.17.2020 11:52	
Hexachlorobutadiene	<0.00500	0.0500	0.0460	92	75-125	mg/L	07.17.2020 11:52	
Isopropylbenzene	<0.00100	0.0500	0.0473	95	75-125	mg/L	07.17.2020 11:52	
Methylene Chloride	<0.00500	0.0500	0.0444	89	75-125	mg/L	07.17.2020 11:52	
MTBE	<0.00500	0.0500	0.0527	105	65-135	mg/L	07.17.2020 11:52	
Naphthalene	<0.0100	0.0500	0.0447	89	70-130	mg/L	07.17.2020 11:52	
n-Propylbenzene	<0.00100	0.0500	0.0476	95	75-125	mg/L	07.17.2020 11:52	
Styrene	<0.00100	0.0500	0.0490	98	75-125	mg/L	07.17.2020 11:52	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0487	97	72-125	mg/L	07.17.2020 11:52	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0436	87	74-125	mg/L	07.17.2020 11:52	
Tetrachloroethylene	<0.00100	0.0500	0.0456	91	71-125	mg/L	07.17.2020 11:52	
Toluene	0.000520	0.0500	0.0484	96	59-139	mg/L	07.17.2020 11:52	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0439	88	75-137	mg/L	07.17.2020 11:52	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132014

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.17.2020

Parent Sample Id: 667369-002

MS Sample Id: 667369-002 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0467	93	75-135	mg/L	07.17.2020 11:52	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0463	93	75-125	mg/L	07.17.2020 11:52	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0490	98	75-127	mg/L	07.17.2020 11:52	
Trichloroethylene	<0.00500	0.0500	0.0471	94	62-137	mg/L	07.17.2020 11:52	
Trichlorofluoromethane	<0.00100	0.0500	0.0479	96	60-140	mg/L	07.17.2020 11:52	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0461	92	75-125	mg/L	07.17.2020 11:52	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0500	100	75-125	mg/L	07.17.2020 11:52	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0493	99	70-125	mg/L	07.17.2020 11:52	
o-Xylene	<0.00100	0.0500	0.0487	97	75-125	mg/L	07.17.2020 11:52	
m,p-Xylenes	0.000340	0.100	0.0990	99	75-125	mg/L	07.17.2020 11:52	
Vinyl Chloride	<0.00200	0.0500	0.0466	93	60-140	mg/L	07.17.2020 11:52	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	95		75-131	%	07.17.2020 11:52
1,2-Dichloroethane-D4	91		63-144	%	07.17.2020 11:52
Toluene-D8	99		80-117	%	07.17.2020 11:52
4-Bromofluorobenzene	99		74-124	%	07.17.2020 11:52

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-1111

Chain of Custody

Work Order No.:

007455

Project Manager:		Beaux Jennings	Bill to: (if different)	
Company Name:		Ensolum LLC	Company Name:	
Address:		705 W Wadley #210	Address:	
City, State ZIP:		Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com	

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

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>			TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U													
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																		
1631 / 245.1 / 7470 / 7471 : Hg																																		

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/10/1549			

Inter-Office Shipment

IOS Number : **67267**

Date/Time: 07.16.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 770978045210

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
667455-001	W	Levey Well	07.16.2020 13:15	SW8260C	VOCs by SW-846 8260C	07.17.2020	07.30.2020	JKR	BDCME BRBZ BRCLME	
667455-001	W	Levey Well	07.16.2020 13:15	E200.7	Recoverable Metals per ICP by EPA 200	07.17.2020	01.12.2021	JKR	CA K MG NA SI	
667455-001	W	Levey Well	07.16.2020 13:15	E300	Inorganic Anions by EPA 300/300.1	07.17.2020	07.18.2020 13:15	JKR	BR CL F NO2N NO3N SC	
667455-001	W	Levey Well	07.16.2020 13:15	SM4500-H	pH by SM4500-H	07.17.2020	07.16.2020 13:30	JKR		
667455-001	W	Levey Well	07.16.2020 13:15	SM2540C	TDS by SM2540C	07.17.2020	07.23.2020	JKR	TDS	
667455-001	W	Levey Well	07.16.2020 13:15	SM2320B	Alkalinity by SM2320B	07.17.2020	07.30.2020	JKR	ALK ALKB ALKC	
667455-001	W	Levey Well	07.16.2020 13:15	SM1030E	Cation-Anion Balance Calculation	07.17.2020	08.15.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 07.16.2020

Received By:



Jhyrom Edralin

Date Received: 07.17.2020

Cooler Temperature: 1.2

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 67267

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sent By: Brianna Teel

Date Sent: 07.16.2020 04.01 PM

Received By: Jhyrom Edralin

Date Received: 07.17.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 07.17.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 07.16.2020 03.49.00 PM

Work Order #: 667455

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 07.16.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.17.2020

Certificate of Analysis Summary 668015

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 07.23.2020 13:19
 Report Date: 07.31.2020 14:13
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668015-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.23.2020 10:30					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 07.24.2020 10:46 Analyzed: 07.24.2020 11:47 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1160 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1160 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 07.31.2020 13:49 Units/RL: % RL					
Cation-Anion Balance	1.10					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 07.24.2020 10:10 Analyzed: 07.24.2020 10:22 Units/RL: mg/L RL					
Bromide	0.621 0.500					
Chloride	396 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	0.175 0.100					
Nitrite as N	0.169 0.100					
Sulfate	36.5 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668015

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.23.2020 13:19
Report Date: 07.31.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668015-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	07.23.2020 10:30					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	07.24.2020 10:00					
	Analyzed:	07.30.2020 18:42					
	Units/RL:	mg/L RL					
	Calcium	419 D 10.0					
	Magnesium	74.0 0.200					
	Potassium	6.58 0.500					
	Silica	66.4 1.07					
	Sodium	111 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	07.24.2020 10:01					
	Units/RL:	mg/L RL					
Total Dissolved Solids		2000 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.23.2020 13:19
Report Date: 07.31.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668015-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	07.23.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted:	07.24.2020 09:20					
	Analyzed:	07.24.2020 14:11					
	Units/RL:	mg/L RL					
Benzene		0.00452 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		<0.00100 0.00100					
Sec-Butylbenzene		0.00199 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00112 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 668015

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

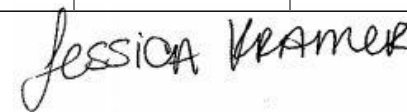
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.23.2020 13:19
Report Date: 07.31.2020 14:13
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668015-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.23.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.24.2020 09:20 Analyzed: 07.24.2020 14:11 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0174 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.00991 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0113 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668015

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 07.23.2020 13:19
 Report Date: 07.31.2020 14:13
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668015-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.23.2020 10:30					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.24.2020 09:20 Analyzed: 07.24.2020 14:11 Units/RL: mg/L RL					
Toluene	0.0268 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0775 0.00100					
1,3,5-Trimethylbenzene	0.0224 0.00100					
o-Xylene	0.00895 0.00100					
m,p-Xylenes	0.0602 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0692 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.24.2020 13:54 Units/RL: Deg C RL					
Temperature	24.8 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.24.2020 13:54 Units/RL: SU RL					
pH	6.22 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 668015

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

07.31.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.31.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **668015**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 668015. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 668015 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 668015

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	07.23.2020 10:30		668015-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 668015

Report Date: 07.31.2020
Date Received: 07.23.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668015

Ensolum, Dallas, TX Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.23.2020 13:19

Lab Sample Id: 668015-001

Date Collected: 07.23.2020 10:30

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 07.24.2020 10:46

Seq Number: 3132577

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1160	4.00	mg/L	07.24.2020 11:47		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1160	4.00	mg/L	07.24.2020 11:47		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	07.24.2020 11:47	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	07.24.2020 11:47	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3133184

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.10		%	07.31.2020 13:49		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 07.24.2020 10:10

Seq Number: 3132555

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.621	0.500	mg/L	07.24.2020 10:22		1
Chloride	16887-00-6	396	0.500	mg/L	07.24.2020 10:22		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	07.24.2020 10:32	UD	10
Nitrate as N	14797-55-8	0.175	0.100	mg/L	07.24.2020 10:22		1
Nitrite as N	14797-65-0	0.169	0.100	mg/L	07.24.2020 10:22		1
Sulfate	14808-79-8	36.5	0.500	mg/L	07.24.2020 10:22		1



Certificate of Analytical Results 668015

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well**
Lab Sample Id: 668015-001

Matrix: Water
Date Collected: 07.23.2020 10:30

Date Received:07.23.2020 13:19

Analytical Method: TDS by SM2540C

Tech: YAV
Analyst: YAV
Seq Number: 3132514

% Moisture:

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	2000	5.00	mg/L	07.24.2020 10:01		1

Analytical Method: pH by SM4500-H

Tech: KBU
Analyst: KBU
Seq Number: 3132565

% Moisture:

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.22		SU	07.24.2020 13:54	K	1
Temperature	TEMP	24.8		Deg C	07.24.2020 13:54	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Tech: MLI
Analyst: DEP
Seq Number: 3133139

Prep Method: E200.7P
% Moisture:

Date Prep: 07.24.2020 10:00

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	419	10.0	mg/L	07.28.2020 17:06	D	50
Magnesium	7439-95-4	74.0	0.200	mg/L	07.30.2020 18:42		1
Potassium	7440-09-7	6.58	0.500	mg/L	07.30.2020 18:42		1
Silica	7631-86-9	66.4	1.07	mg/L	07.30.2020 18:42		1
Sodium	7440-23-5	111	0.500	mg/L	07.30.2020 18:42		1



Certificate of Analytical Results 668015

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.23.2020 13:19

Lab Sample Id: 668015-001

Date Collected: 07.23.2020 10:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: NAL

% Moisture:

Analyst: SAD

Date Prep: 07.24.2020 09:20

Seq Number: 3132595

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00452	0.00100	mg/L	07.24.2020 14:11		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	07.24.2020 14:11	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Sec-Butylbenzene	135-98-8	0.00199	0.00100	mg/L	07.24.2020 14:11		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	07.24.2020 14:11	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	07.24.2020 14:11	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00112	0.00100	mg/L	07.24.2020 14:11		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Ethylbenzene	100-41-4	0.0174	0.00100	mg/L	07.24.2020 14:11		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1



Certificate of Analytical Results 668015

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.23.2020 13:19

Lab Sample Id: 668015-001

Date Collected: 07.23.2020 10:30

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: NAL

% Moisture:

Analyst: SAD

Date Prep: 07.24.2020 09:20

Seq Number: 3132595

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.00991	0.00100	mg/L	07.24.2020 14:11		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	07.24.2020 14:11	U	1
n-Propylbenzene	103-65-1	0.0113	0.00100	mg/L	07.24.2020 14:11		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Toluene	108-88-3	0.0268	0.00100	mg/L	07.24.2020 14:11		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	07.24.2020 14:11	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	07.24.2020 14:11	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0775	0.00100	mg/L	07.24.2020 14:11		1
1,3,5-Trimethylbenzene	108-67-8	0.0224	0.00100	mg/L	07.24.2020 14:11		1
o-Xylene	95-47-6	0.00895	0.00100	mg/L	07.24.2020 14:11		1
m,p-Xylenes	179601-23-1	0.0602	0.0100	mg/L	07.24.2020 14:11		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	07.24.2020 14:11	U	1
Total Xylenes	1330-20-7	0.0692	0.00100	mg/L	07.24.2020 14:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	75-131	07.24.2020 14:11	
1,2-Dichloroethane-D4	17060-07-0	98	%	63-144	07.24.2020 14:11	
Toluene-D8	2037-26-5	100	%	80-117	07.24.2020 14:11	
4-Bromofluorobenzene	460-00-4	98	%	74-124	07.24.2020 14:11	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3132577

MB Sample Id: 7707996-1-BLK

Matrix: Water

LCS Sample Id: 7707996-1-BKS

Prep Method: SM2320P

Date Prep: 07.24.2020

LCSD Sample Id: 7707996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	255	102	257	103	85-115	1	20	mg/L	07.24.2020 11:26	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3132577

Matrix: Water

MB Sample Id: 7707996-1-BLK

Prep Method: SM2320P

Date Prep: 07.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	07.24.2020 11:19	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	07.24.2020 11:19	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	07.24.2020 11:19	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3132577

Matrix: Water

Parent Sample Id: 668015-001

MD Sample Id: 668015-001 D

Prep Method: SM2320P

Date Prep: 07.24.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1160	1160	0	20	mg/L	07.24.2020 12:00	
Alkalinity, Bicarbonate (as CaCO3)	1160	1160	0	20	mg/L	07.24.2020 12:00	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.24.2020 12:00	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.24.2020 12:00	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3132577

Matrix: Water

Parent Sample Id: 668089-005

MD Sample Id: 668089-005 D

Prep Method: SM2320P

Date Prep: 07.24.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	554	552	0	20	mg/L	07.24.2020 13:32	
Alkalinity, Bicarbonate (as CaCO3)	554	552	0	20	mg/L	07.24.2020 13:32	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.24.2020 13:32	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	07.24.2020 13:32	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3132555

Matrix: Water

Prep Method: E300P

Date Prep: 07.24.2020

MB Sample Id: 7707991-1-BLK

LCS Sample Id: 7707991-1-BKS

LCSD Sample Id: 7707991-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.24.2020 08:22	
Chloride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	07.24.2020 08:22	
Fluoride	<0.500	10.0	10.8	108	10.9	109	90-110	1	20	mg/L	07.24.2020 08:22	
Nitrate as N	<0.100	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	07.24.2020 08:22	
Nitrite as N	<0.100	10.0	9.96	100	9.97	100	90-110	0	20	mg/L	07.24.2020 08:22	
Sulfate	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.24.2020 08:22	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3132555

Matrix: Drinking Water

Prep Method: E300P

Date Prep: 07.24.2020

Parent Sample Id: 667984-001

MS Sample Id: 667984-001 S

MSD Sample Id: 667984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.558	10.0	10.8	102	10.8	102	90-110	0	20	mg/L	07.24.2020 10:52	
Chloride	30.0	10.0	39.1	91	39.0	90	90-110	0	20	mg/L	07.24.2020 10:52	
Fluoride	2.00	10.0	12.2	102	12.2	102	90-110	0	20	mg/L	07.24.2020 10:52	
Nitrate as N	5.07	10.0	15.2	101	15.2	101	90-110	0	20	mg/L	07.24.2020 10:52	
Nitrite as N	0.171	10.0	10.0	98	10.0	98	90-110	0	20	mg/L	07.24.2020 10:52	
Sulfate	158	10.0	164	60	164	60	90-110	0	20	mg/L	07.24.2020 10:52	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3132555

Matrix: Ground Water

Prep Method: SW9056P

Date Prep: 07.24.2020

Parent Sample Id: 667986-001

MS Sample Id: 667986-001 S

MSD Sample Id: 667986-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	07.24.2020 17:29	
Chloride	7.44	10.0	16.9	95	16.9	95	90-110	0	20	mg/L	07.24.2020 17:29	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.24.2020 17:29	
Nitrate as N	2.50	10.0	12.7	102	12.7	102	90-110	0	20	mg/L	07.24.2020 17:29	
Nitrite as N	0.133	10.0	9.87	97	9.90	98	90-110	0	20	mg/L	07.24.2020 17:29	
Sulfate	2.24	10.0	12.4	102	12.5	103	90-110	1	20	mg/L	07.24.2020 17:29	

Analytical Method: TDS by SM2540C

Seq Number: 3132514

Matrix: Water

MB Sample Id: 3132514-1-BLK

LCS Sample Id: 3132514-1-BKS

LCSD Sample Id: 3132514-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1000	100	80-120	1	10	mg/L	07.24.2020 10:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: TDS by SM2540C

Seq Number: 3132514

Matrix: Water

Parent Sample Id: 668015-001

MD Sample Id: 668015-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2000	1920	4	10	mg/L	07.24.2020 10:01	

Analytical Method: pH by SM4500-H

Seq Number: 3132565

Matrix: Surface Water

Parent Sample Id: 667990-001

MD Sample Id: 667990-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.07	8.08	0	20	SU	07.24.2020 13:54	
Temperature	23.2	23.2	0	20	Deg C	07.24.2020 13:54	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3133139

Matrix: Water

MB Sample Id: 7708006-1-BLK

LCS Sample Id: 7708006-1-BKS

Prep Method: E200.7P

Date Prep: 07.24.2020

LCSD Sample Id: 7708006-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.1	92	23.0	92	85-115	0	20	mg/L	07.30.2020 18:33	
Magnesium	<0.200	25.0	23.2	93	23.1	92	85-115	0	20	mg/L	07.30.2020 18:33	
Potassium	<0.500	10.0	9.30	93	9.26	93	85-115	0	20	mg/L	07.30.2020 18:33	
Silica	<1.07	21.4	20.3	95	20.4	95	85-115	0	20	mg/L	07.30.2020 18:33	
Sodium	<0.500	25.0	23.3	93	23.3	93	85-115	0	20	mg/L	07.30.2020 18:33	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3133139

Matrix: Drinking Water

Parent Sample Id: 667910-001

MS Sample Id: 667910-001 S

Prep Method: E200.7P

Date Prep: 07.24.2020

MSD Sample Id: 667910-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	140	25.0	167	108	168	112	70-130	1	20	mg/L	07.30.2020 18:46	
Magnesium	45.6	25.0	71.1	102	71.3	103	70-130	0	20	mg/L	07.30.2020 18:46	
Potassium	8.29	10.0	18.8	105	18.9	106	70-130	1	20	mg/L	07.30.2020 18:46	
Silica	52.5	21.4	77.0	114	77.0	114	70-130	0	20	mg/L	07.30.2020 18:46	
Sodium	161	25.0	189	112	189	112	70-130	0	20	mg/L	07.30.2020 18:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3133139

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.24.2020

Parent Sample Id: 667786-001

MS Sample Id: 667786-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	<0.200	25.0	26.4	106	70-130	mg/L	07.28.2020 20:53	
Magnesium	<0.200	25.0	27.5	110	70-130	mg/L	07.28.2020 20:53	
Potassium	<0.500	10.0	10.6	106	70-130	mg/L	07.28.2020 20:53	
Silica	<1.07	21.4	23.1	108	70-130	mg/L	07.28.2020 20:53	
Sodium	<0.500	25.0	26.7	107	70-130	mg/L	07.28.2020 20:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132595

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.24.2020

MB Sample Id: 7708033-1-BLK

LCS Sample Id: 7708033-1-BKS

LCSD Sample Id: 7708033-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0432	86	0.0435	87	66-142	1	25	mg/L	07.24.2020 10:14	
Bromobenzene	<0.00100	0.0500	0.0469	94	0.0470	94	75-125	0	25	mg/L	07.24.2020 10:14	
Bromochloromethane	<0.00100	0.0500	0.0437	87	0.0427	85	60-140	2	25	mg/L	07.24.2020 10:14	
Bromodichloromethane	<0.00100	0.0500	0.0428	86	0.0425	85	75-125	1	25	mg/L	07.24.2020 10:14	
Bromoform	<0.00500	0.0500	0.0518	104	0.0522	104	75-125	1	25	mg/L	07.24.2020 10:14	
Methyl bromide	<0.00500	0.0500	0.0549	110	0.0526	105	60-140	4	25	mg/L	07.24.2020 10:14	
2-Butanone	<0.0500	0.250	0.248	99	0.260	104	60-140	5	25	mg/L	07.24.2020 10:14	
n-Butylbenzene	<0.00100	0.0500	0.0440	88	0.0444	89	75-125	1	25	mg/L	07.24.2020 10:14	
Sec-Butylbenzene	<0.00100	0.0500	0.0429	86	0.0426	85	75-125	1	25	mg/L	07.24.2020 10:14	
tert-Butylbenzene	<0.00100	0.0500	0.0484	97	0.0483	97	75-125	0	25	mg/L	07.24.2020 10:14	
Carbon Tetrachloride	<0.00500	0.0500	0.0422	84	0.0418	84	62-125	1	25	mg/L	07.24.2020 10:14	
Chlorobenzene	<0.00100	0.0500	0.0447	89	0.0455	91	60-133	2	25	mg/L	07.24.2020 10:14	
Chloroethane	<0.0100	0.0500	0.0406	81	0.0396	79	60-140	2	25	mg/L	07.24.2020 10:14	
Chloroform	<0.00100	0.0500	0.0413	83	0.0410	82	70-130	1	25	mg/L	07.24.2020 10:14	
Methyl Chloride	<0.0100	0.0500	0.0543	109	0.0521	104	60-140	4	25	mg/L	07.24.2020 10:14	
2-Chlorotoluene	<0.00100	0.0500	0.0448	90	0.0442	88	73-125	1	25	mg/L	07.24.2020 10:14	
4-Chlorotoluene	<0.00100	0.0500	0.0461	92	0.0453	91	74-125	2	25	mg/L	07.24.2020 10:14	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0481	96	0.0478	96	75-125	1	25	mg/L	07.24.2020 10:14	
Dibromochloromethane	<0.00500	0.0500	0.0477	95	0.0477	95	73-125	0	25	mg/L	07.24.2020 10:14	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0411	82	0.0434	87	59-125	5	25	mg/L	07.24.2020 10:14	
1,2-Dibromoethane	<0.00500	0.0500	0.0486	97	0.0493	99	73-125	1	25	mg/L	07.24.2020 10:14	
Methylene Bromide	<0.00100	0.0500	0.0427	85	0.0437	87	69-127	2	25	mg/L	07.24.2020 10:14	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0471	94	0.0469	94	75-125	0	25	mg/L	07.24.2020 10:14	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0463	93	0.0460	92	75-125	1	25	mg/L	07.24.2020 10:14	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0470	94	0.0463	93	75-125	2	25	mg/L	07.24.2020 10:14	
Dichlorodifluoromethane	<0.00100	0.0500	0.0634	127	0.0591	118	60-140	7	25	mg/L	07.24.2020 10:14	
1,1-Dichloroethane	<0.00100	0.0500	0.0413	83	0.0407	81	72-125	1	25	mg/L	07.24.2020 10:14	
1,2-Dichloroethane	<0.00100	0.0500	0.0406	81	0.0404	81	68-127	0	25	mg/L	07.24.2020 10:14	
1,1-Dichloroethene	<0.00100	0.0500	0.0393	79	0.0387	77	59-172	2	25	mg/L	07.24.2020 10:14	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0447	89	0.0441	88	75-125	1	25	mg/L	07.24.2020 10:14	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0397	79	0.0395	79	75-125	1	25	mg/L	07.24.2020 10:14	
1,2-Dichloropropane	<0.00500	0.0500	0.0456	91	0.0459	92	74-125	1	25	mg/L	07.24.2020 10:14	
1,3-Dichloropropane	<0.00500	0.0500	0.0493	99	0.0497	99	75-125	1	25	mg/L	07.24.2020 10:14	
2,2-Dichloropropane	<0.00500	0.0500	0.0417	83	0.0412	82	75-125	1	25	mg/L	07.24.2020 10:14	
1,1-Dichloropropene	<0.00500	0.0500	0.0462	92	0.0456	91	75-125	1	25	mg/L	07.24.2020 10:14	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0482	96	0.0488	98	74-125	1	25	mg/L	07.24.2020 10:14	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0468	94	0.0479	96	66-125	2	25	mg/L	07.24.2020 10:14	
Ethylbenzene	<0.00100	0.0500	0.0455	91	0.0457	91	75-125	0	25	mg/L	07.24.2020 10:14	
Hexachlorobutadiene	<0.00500	0.0500	0.0456	91	0.0485	97	75-125	6	25	mg/L	07.24.2020 10:14	
Isopropylbenzene	<0.00100	0.0500	0.0464	93	0.0468	94	75-125	1	25	mg/L	07.24.2020 10:14	
Methylene Chloride	<0.00500	0.0500	0.0402	80	0.0406	81	75-125	1	25	mg/L	07.24.2020 10:14	
MTBE	<0.00500	0.0500	0.0508	102	0.0518	104	65-135	2	25	mg/L	07.24.2020 10:14	
Naphthalene	<0.0100	0.0500	0.0507	101	0.0572	114	70-130	12	25	mg/L	07.24.2020 10:14	
n-Propylbenzene	<0.00100	0.0500	0.0464	93	0.0458	92	75-125	1	25	mg/L	07.24.2020 10:14	
Styrene	<0.00100	0.0500	0.0484	97	0.0481	96	75-125	1	25	mg/L	07.24.2020 10:14	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0479	96	0.0482	96	72-125	1	25	mg/L	07.24.2020 10:14	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0442	88	0.0447	89	74-125	1	25	mg/L	07.24.2020 10:14	
Tetrachloroethylene	<0.00100	0.0500	0.0448	90	0.0453	91	71-125	1	25	mg/L	07.24.2020 10:14	
Toluene	<0.00100	0.0500	0.0457	91	0.0455	91	59-139	0	25	mg/L	07.24.2020 10:14	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0473	95	0.0529	106	75-137	11	25	mg/L	07.24.2020 10:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132595

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.24.2020

MB Sample Id: 7708033-1-BLK

LCS Sample Id: 7708033-1-BKS

LCSD Sample Id: 7708033-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0493	99	0.0527	105	75-135	7	25	mg/L	07.24.2020 10:14	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0420	84	0.0415	83	75-125	1	25	mg/L	07.24.2020 10:14	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0485	97	0.0487	97	75-127	0	25	mg/L	07.24.2020 10:14	
Trichloroethylene	<0.00500	0.0500	0.0436	87	0.0444	89	62-137	2	25	mg/L	07.24.2020 10:14	
Trichlorofluoromethane	<0.00100	0.0500	0.0518	104	0.0487	97	60-140	6	25	mg/L	07.24.2020 10:14	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0460	92	0.0472	94	75-125	3	25	mg/L	07.24.2020 10:14	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0484	97	0.0487	97	75-125	1	25	mg/L	07.24.2020 10:14	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0478	96	0.0474	95	70-125	1	25	mg/L	07.24.2020 10:14	
o-Xylene	<0.00100	0.0500	0.0479	96	0.0475	95	75-125	1	25	mg/L	07.24.2020 10:14	
m,p-Xylenes	<0.0100	0.100	0.0971	97	0.0966	97	75-125	1	25	mg/L	07.24.2020 10:14	
Vinyl Chloride	<0.00200	0.0500	0.0488	98	0.0460	92	60-140	6	25	mg/L	07.24.2020 10:14	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	98		92		88		75-131			%	07.24.2020 10:14	
1,2-Dichloroethane-D4	100		92		93		63-144			%	07.24.2020 10:14	
Toluene-D8	94		99		98		80-117			%	07.24.2020 10:14	
4-Bromofluorobenzene	102		97		96		74-124			%	07.24.2020 10:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132595

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 667887-005

MS Sample Id: 667887-005 S

Date Prep: 07.24.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0428	86	66-142	mg/L	07.24.2020 11:03	
Bromobenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	07.24.2020 11:03	
Bromochloromethane	<0.00100	0.0500	0.0415	83	60-140	mg/L	07.24.2020 11:03	
Bromodichloromethane	<0.00100	0.0500	0.0423	85	75-125	mg/L	07.24.2020 11:03	
Bromoform	<0.00500	0.0500	0.0528	106	75-125	mg/L	07.24.2020 11:03	
Methyl bromide	<0.00500	0.0500	0.0526	105	60-140	mg/L	07.24.2020 11:03	
2-Butanone	<0.0500	0.250	0.220	88	60-140	mg/L	07.24.2020 11:03	
n-Butylbenzene	<0.00100	0.0500	0.0484	97	75-125	mg/L	07.24.2020 11:03	
Sec-Butylbenzene	<0.00100	0.0500	0.0463	93	75-125	mg/L	07.24.2020 11:03	
tert-Butylbenzene	<0.00100	0.0500	0.0524	105	75-125	mg/L	07.24.2020 11:03	
Carbon Tetrachloride	<0.00500	0.0500	0.0407	81	62-125	mg/L	07.24.2020 11:03	
Chlorobenzene	<0.00100	0.0500	0.0463	93	60-133	mg/L	07.24.2020 11:03	
Chloroethane	<0.0100	0.0500	0.0394	79	60-140	mg/L	07.24.2020 11:03	
Chloroform	<0.00100	0.0500	0.0402	80	70-130	mg/L	07.24.2020 11:03	
Methyl Chloride	<0.0100	0.0500	0.0516	103	60-140	mg/L	07.24.2020 11:03	
2-Chlorotoluene	<0.00100	0.0500	0.0481	96	73-125	mg/L	07.24.2020 11:03	
4-Chlorotoluene	<0.00100	0.0500	0.0487	97	74-125	mg/L	07.24.2020 11:03	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0519	104	75-125	mg/L	07.24.2020 11:03	
Dibromochloromethane	<0.00500	0.0500	0.0481	96	73-125	mg/L	07.24.2020 11:03	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0457	91	59-125	mg/L	07.24.2020 11:03	
1,2-Dibromoethane	<0.00500	0.0500	0.0501	100	73-125	mg/L	07.24.2020 11:03	
Methylene Bromide	<0.00100	0.0500	0.0420	84	69-127	mg/L	07.24.2020 11:03	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0507	101	75-125	mg/L	07.24.2020 11:03	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0495	99	75-125	mg/L	07.24.2020 11:03	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0497	99	75-125	mg/L	07.24.2020 11:03	
Dichlorodifluoromethane	<0.00100	0.0500	0.0586	117	60-140	mg/L	07.24.2020 11:03	
1,1-Dichloroethane	<0.00100	0.0500	0.0401	80	72-125	mg/L	07.24.2020 11:03	
1,2-Dichloroethane	<0.00100	0.0500	0.0403	81	68-127	mg/L	07.24.2020 11:03	
1,1-Dichloroethene	<0.00100	0.0500	0.0383	77	59-172	mg/L	07.24.2020 11:03	
cis-1,2-Dichloroethylene	0.00692	0.0500	0.0507	88	75-125	mg/L	07.24.2020 11:03	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0390	78	75-125	mg/L	07.24.2020 11:03	
1,2-Dichloropropane	<0.00500	0.0500	0.0455	91	74-125	mg/L	07.24.2020 11:03	
1,3-Dichloropropane	<0.00500	0.0500	0.0503	101	75-125	mg/L	07.24.2020 11:03	
2,2-Dichloropropane	<0.00500	0.0500	0.0401	80	75-125	mg/L	07.24.2020 11:03	
1,1-Dichloropropene	<0.00500	0.0500	0.0446	89	75-125	mg/L	07.24.2020 11:03	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0478	96	74-125	mg/L	07.24.2020 11:03	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0484	97	66-125	mg/L	07.24.2020 11:03	
Ethylbenzene	<0.00100	0.0500	0.0468	94	75-125	mg/L	07.24.2020 11:03	
Hexachlorobutadiene	<0.00500	0.0500	0.0534	107	75-125	mg/L	07.24.2020 11:03	
Isopropylbenzene	<0.00100	0.0500	0.0475	95	75-125	mg/L	07.24.2020 11:03	
Methylene Chloride	<0.00500	0.0500	0.0384	77	75-125	mg/L	07.24.2020 11:03	
MTBE	<0.00500	0.0500	0.0501	100	65-135	mg/L	07.24.2020 11:03	
Naphthalene	<0.0100	0.0500	0.0594	119	70-130	mg/L	07.24.2020 11:03	
n-Propylbenzene	<0.00100	0.0500	0.0499	100	75-125	mg/L	07.24.2020 11:03	
Styrene	<0.00100	0.0500	0.0489	98	75-125	mg/L	07.24.2020 11:03	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0495	99	72-125	mg/L	07.24.2020 11:03	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0480	96	74-125	mg/L	07.24.2020 11:03	
Tetrachloroethylene	0.00334	0.0500	0.0495	92	71-125	mg/L	07.24.2020 11:03	
Toluene	<0.00100	0.0500	0.0466	93	59-139	mg/L	07.24.2020 11:03	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0571	114	75-137	mg/L	07.24.2020 11:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3132595

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 667887-005

MS Sample Id: 667887-005 S

Date Prep: 07.24.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0568	114	75-135	mg/L	07.24.2020 11:03	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0404	81	75-125	mg/L	07.24.2020 11:03	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0492	98	75-127	mg/L	07.24.2020 11:03	
Trichloroethylene	<0.00500	0.0500	0.0452	90	62-137	mg/L	07.24.2020 11:03	
Trichlorofluoromethane	<0.00100	0.0500	0.0482	96	60-140	mg/L	07.24.2020 11:03	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0509	102	75-125	mg/L	07.24.2020 11:03	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0527	105	75-125	mg/L	07.24.2020 11:03	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0511	102	70-125	mg/L	07.24.2020 11:03	
o-Xylene	<0.00100	0.0500	0.0489	98	75-125	mg/L	07.24.2020 11:03	
m,p-Xylenes	<0.0100	0.100	0.0983	98	75-125	mg/L	07.24.2020 11:03	
Vinyl Chloride	<0.00200	0.0500	0.0460	92	60-140	mg/L	07.24.2020 11:03	

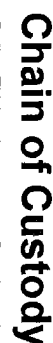
Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	90		75-131	%	07.24.2020 11:03
1,2-Dichloroethane-D4	93		63-144	%	07.24.2020 11:03
Toluene-D8	101		80-117	%	07.24.2020 11:03
4-Bromofluorobenzene	100		74-124	%	07.24.2020 11:03

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Work Order No:

5102070

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0380 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111

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Work Order Comments

Program: UST/PT ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

[illegible]

Number of Containers	
Elements: F, Cl, SO₄, B	
Metals: Ca, K, Mg, Na, Si	
Quantity	
TAT starts the day received by the lab, if received by 4:30pm	

[illegible]

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
8RCRA	13PPM	Texas 11
Al	Sb	As
Ba	Be	B
Cd	Ca	Cr
Co	Cu	Fe
Pb	Mg	Mn
Mo	Ni	K
Se	Ag	SiO ₂
Na	Sr	Ti
Sn	U	V
Zn		
TCLP / SPLP 6010:	8RCRA	Sb
As	Ba	Be
B	Cd	Cr
Co	Cu	Pb
Mn	Mo	Ni
Se	Ag	Ti
U		
1631 / 245.1 / 7470	7471	Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/28/20			

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Signature [Handwritten Signature]

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90009

Inter-Office Shipment

IOS Number : **67592**

Date/Time: 07.23.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 7710791313036

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
668015-001	W	Levey Well	07.23.2020 10:30	SW8260C	VOCs by SW-846 8260C	07.24.2020	08.06.2020	JKR	BDCME BRBZ BRCLME	
668015-001	W	Levey Well	07.23.2020 10:30	E200.7	Recoverable Metals per ICP by EPA 200	07.24.2020	01.19.2021	JKR	CA K MG NA SI	
668015-001	W	Levey Well	07.23.2020 10:30	E300	Inorganic Anions by EPA 300/300.1	07.24.2020	07.25.2020 10:30	JKR	BR CL F NO2N NO3N SC	
668015-001	W	Levey Well	07.23.2020 10:30	SM4500-H	pH by SM4500-H	07.24.2020	07.23.2020 10:45	JKR		
668015-001	W	Levey Well	07.23.2020 10:30	SM2540C	TDS by SM2540C	07.24.2020	07.30.2020	JKR	TDS	
668015-001	W	Levey Well	07.23.2020 10:30	SM2320B	Alkalinity by SM2320B	07.24.2020	08.06.2020	JKR	ALK ALKB ALKC	
668015-001	W	Levey Well	07.23.2020 10:30	SM1030E	Cation-Anion Balance Calculation	07.24.2020	08.22.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 07.23.2020

Received By:



Monica Benavides

Date Received: 07.24.2020

Cooler Temperature: 2.4

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 67592

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-188

Sent By: Brianna Teel

Date Sent: 07.23.2020 01.35 PM

Received By: Jhyrom Edralin

Date Received: 07.24.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Benavides

Date: 07.24.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 07.23.2020 01.19.00 PM

Work Order #: 668015

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 07.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.24.2020

Certificate of Analysis Summary 668666

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 07.30.2020 13:45
 Report Date: 07.31.2020 18:02
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668666-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.30.2020 11:15					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 07.31.2020 11:25 Analyzed: 07.31.2020 12:16 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1170 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1170 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 07.31.2020 17:31 Units/RL: % RL					
Cation-Anion Balance	3.70					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 07.31.2020 10:00 Analyzed: 07.31.2020 10:35 Units/RL: mg/L RL					
Bromide	0.669 0.500					
Chloride	390 0.500					
Fluoride	0.625 0.500					
Nitrate as N	0.181 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	39.3 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668666

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.30.2020 13:45
Report Date: 07.31.2020 18:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668666-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	07.30.2020 11:15					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	07.31.2020 10:00					
	Analyzed:	07.31.2020 16:26					
	Units/RL:	mg/L RL					
	Calcium	397 D 10.0					
	Magnesium	71.4 0.200					
	Potassium	5.59 0.500					
	Silica	60.1 1.07					
	Sodium	103 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	07.31.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1910 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668666

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

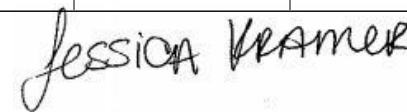
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.30.2020 13:45
Report Date: 07.31.2020 18:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668666-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.30.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.31.2020 10:25 Analyzed: 07.31.2020 15:25 Units/RL: mg/L RL					
Benzene	0.00539 X 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00210 X 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00123 X 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668666

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

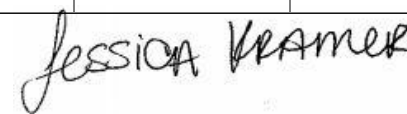
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.30.2020 13:45
Report Date: 07.31.2020 18:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668666-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.30.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.31.2020 10:25 Analyzed: 07.31.2020 15:25 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0197 X 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0111 X 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0124 X 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 668666

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

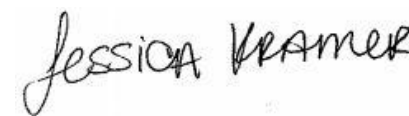
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 07.30.2020 13:45
Report Date: 07.31.2020 18:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668666-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 07.30.2020 11:15					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 07.31.2020 10:25 Analyzed: 07.31.2020 15:25 Units/RL: mg/L RL					
Toluene	0.0302 X 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0751 X 0.00100					
1,3,5-Trimethylbenzene	0.0215 X 0.00100					
o-Xylene	0.0100 X 0.00100					
m,p-Xylenes	0.0641 X 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0741 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.31.2020 13:59 Units/RL: Deg C RL					
Temperature	22.6 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 07.31.2020 13:59 Units/RL: SU RL					
pH	6.18 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 668666

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

07.31.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.31.2020

Project Manager: **Beaux Jennings****Ensolum**

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **668666****Levey Well Hobbs NM**

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 668666. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 668666 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 668666

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	07.30.2020 11:15		668666-001



CASE NARRATIVE

Client Name: Ensolum**Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 668666Report Date: 07.31.2020
Date Received: 07.30.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3133245 VOCs by SW-846 8260C

Lab Sample ID 668666-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropene, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropene, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Dibromochloromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, MTBE, Methylene Bromide, Methylene Chloride, Sec-Butylbenzene, Styrene, Tetrachloroethylene, Toluene, Trichloroethylene, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, m,p-Xylenes, n-Butylbenzene, n-Propylbenzene, o-Xylene, p-Cymene (p-Isopropyltoluene), tert-Butylbenzene, trans-1,2-dichloroethylene, trans-1,3-dichloropropene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 668666-001.

The Laboratory Control Sample for 1,1-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, Bromodichloromethane, Methylene Chloride, cis-1,2-Dichloroethylene, 1,2,3-Trichloropropane, 1,2-Dichloroethane, 1,3-Dichloropropane, Bromochloromethane, Carbon Tetrachloride, Toluene, trans-1,2-dichloroethylene, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2-Chlorotoluene, Benzene, MTBE, Tetrachloroethylene, m,p-Xylenes, tert-Butylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Bromobenzene, Chloroform, Sec-Butylbenzene, Trichloroethylene, cis-1,3-Dichloropropene, n-Butylbenzene, trans-1,3-dichloropropene, 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethene, Ethylbenzene, Isopropylbenzene, Methylene Bromide, o-Xylene, 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2,3-Trichlorobenzene, 4-Chlorotoluene, Chlorobenzene, Dibromochloromethane, Hexachlorobutadiene, Styrene, n-Propylbenzene, p-Cymene (p-Isopropyltoluene), 1,1,2-Trichloroethane, 1,1-Dichloropropene, Bromoform, Chloroethane is within laboratory Control Limits, therefore the data was accepted.

Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 668666-001.



Certificate of Analytical Results 668666

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.30.2020 13:45

Lab Sample Id: 668666-001

Date Collected: 07.30.2020 11:15

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 07.31.2020 11:25

Seq Number: 3133180

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1170	4.00	mg/L	07.31.2020 12:16		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1170	4.00	mg/L	07.31.2020 12:16		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	07.31.2020 12:16	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	07.31.2020 12:16	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3133243

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.70		%	07.31.2020 17:31		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 07.31.2020 10:00

Seq Number: 3133209

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.669	0.500	mg/L	07.31.2020 10:35		1
Chloride	16887-00-6	390	0.500	mg/L	07.31.2020 10:35		1
Fluoride	16984-48-8	0.625	0.500	mg/L	07.31.2020 10:35		1
Nitrate as N	14797-55-8	0.181	0.100	mg/L	07.31.2020 10:35		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	07.31.2020 10:35	U	1
Sulfate	14808-79-8	39.3	0.500	mg/L	07.31.2020 10:35		1



Certificate of Analytical Results 668666

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well**
Lab Sample Id: 668666-001

Matrix: Water
Date Collected: 07.30.2020 11:15

Date Received:07.30.2020 13:45

Analytical Method: TDS by SM2540C

Tech: YAV
Analyst: YAV
Seq Number: 3133221

% Moisture:

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1910	5.00	mg/L	07.31.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU
Analyst: KBU
Seq Number: 3133214

% Moisture:

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.18		SU	07.31.2020 13:59	K	1
Temperature	TEMP	22.6		Deg C	07.31.2020 13:59	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Tech: MLI
Analyst: DEP
Seq Number: 3133239

Prep Method: E200.7P
% Moisture:

Date Prep: 07.31.2020 10:00

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	397	10.0	mg/L	07.31.2020 16:31	D	50
Magnesium	7439-95-4	71.4	0.200	mg/L	07.31.2020 16:26		1
Potassium	7440-09-7	5.59	0.500	mg/L	07.31.2020 16:26		1
Silica	7631-86-9	60.1	1.07	mg/L	07.31.2020 16:26		1
Sodium	7440-23-5	103	0.500	mg/L	07.31.2020 16:26		1



Certificate of Analytical Results 668666

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.30.2020 13:45

Lab Sample Id: 668666-001

Date Collected: 07.30.2020 11:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.31.2020 10:25

Seq Number: 3133245

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00539	0.00100	mg/L	07.31.2020 15:25	X	1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	07.31.2020 15:25	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	07.31.2020 15:25	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Sec-Butylbenzene	135-98-8	0.00210	0.00100	mg/L	07.31.2020 15:25	X	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	07.31.2020 15:25	UX	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	07.31.2020 15:25	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00123	0.00100	mg/L	07.31.2020 15:25	X	1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	07.31.2020 15:25	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	07.31.2020 15:25	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Ethylbenzene	100-41-4	0.0197	0.00100	mg/L	07.31.2020 15:25	X	1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1



Certificate of Analytical Results 668666

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 07.30.2020 13:45

Lab Sample Id: 668666-001

Date Collected: 07.30.2020 11:15

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 07.31.2020 10:25

Seq Number: 3133245

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0111	0.00100	mg/L	07.31.2020 15:25	X	1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	07.31.2020 15:25	U	1
n-Propylbenzene	103-65-1	0.0124	0.00100	mg/L	07.31.2020 15:25	X	1
Styrene	100-42-5	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Toluene	108-88-3	0.0302	0.00100	mg/L	07.31.2020 15:25	X	1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	07.31.2020 15:25	UX	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	07.31.2020 15:25	UX	1
1,2,4-Trimethylbenzene	95-63-6	0.0751	0.00100	mg/L	07.31.2020 15:25	X	1
1,3,5-Trimethylbenzene	108-67-8	0.0215	0.00100	mg/L	07.31.2020 15:25	X	1
o-Xylene	95-47-6	0.0100	0.00100	mg/L	07.31.2020 15:25	X	1
m,p-Xylenes	179601-23-1	0.0641	0.0100	mg/L	07.31.2020 15:25	X	1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	07.31.2020 15:25	U	1
Total Xylenes	1330-20-7	0.0741	0.00100	mg/L	07.31.2020 15:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	75-131	07.31.2020 15:25	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	07.31.2020 15:25	
Toluene-D8	2037-26-5	99	%	80-117	07.31.2020 15:25	
4-Bromofluorobenzene	460-00-4	97	%	74-124	07.31.2020 15:25	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3133180

MB Sample Id: 7708466-1-BLK

Matrix: Water

LCS Sample Id: 7708466-1-BKS

Prep Method: SM2320P

Date Prep: 07.31.2020

LCSD Sample Id: 7708466-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	255	102	258	103	85-115	1	20	mg/L	07.31.2020 11:56	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3133180

Matrix: Water

MB Sample Id: 7708466-1-BLK

Prep Method: SM2320P

Date Prep: 07.31.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	07.31.2020 11:49	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	07.31.2020 11:49	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	07.31.2020 11:49	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3133180

Matrix: Water

Parent Sample Id: 668666-001

MD Sample Id: 668666-001 D

Prep Method: SM2320P

Date Prep: 07.31.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1170	1170	0	20	mg/L	07.31.2020 12:29	
Alkalinity, Bicarbonate (as CaCO ₃)	1170	1170	0	20	mg/L	07.31.2020 12:29	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	07.31.2020 12:29	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	07.31.2020 12:29	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3133209

Matrix: Water

MB Sample Id: 7708454-1-BLK

LCS Sample Id: 7708454-1-BKS

Prep Method: SW9056P

Date Prep: 07.31.2020

LCSD Sample Id: 7708454-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	07.31.2020 09:47	
Chloride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	07.31.2020 09:47	
Fluoride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	07.31.2020 09:47	
Nitrate as N	<0.100	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.31.2020 09:47	
Nitrite as N	<0.100	10.0	9.86	99	9.88	99	90-110	0	20	mg/L	07.31.2020 09:47	
Sulfate	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	07.31.2020 09:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3133209

Matrix: Drinking Water

Prep Method: E300P

Date Prep: 07.31.2020

Parent Sample Id: 668696-001

MS Sample Id: 668696-001 S

MSD Sample Id: 668696-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	07.31.2020 11:11	
Chloride	3.78	10.0	13.4	96	13.4	96	90-110	0	20	mg/L	07.31.2020 11:11	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	07.31.2020 11:11	
Nitrate as N	0.325	10.0	10.5	102	10.5	102	90-110	0	20	mg/L	07.31.2020 11:11	
Nitrite as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	07.31.2020 11:11	
Sulfate	0.530	10.0	10.7	102	10.7	102	90-110	0	20	mg/L	07.31.2020 11:11	

Analytical Method: TDS by SM2540C

Seq Number: 3133221

Matrix: Water

MB Sample Id: 3133221-1-BLK

LCS Sample Id: 3133221-1-BKS

LCSD Sample Id: 3133221-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1010	101	80-120	0	10	mg/L	07.31.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3133214

Matrix: Water

Parent Sample Id: 668363-001

MD Sample Id: 668363-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1700	1720	1	10	mg/L	07.31.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3133214

Matrix: Storm Water

Parent Sample Id: 668597-001

MD Sample Id: 668597-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.97	6.96	0	20	SU	07.31.2020 13:59	
Temperature	21.8	21.9	0	20	Deg C	07.31.2020 13:59	

Analytical Method: pH by SM4500-H

Seq Number: 3133214

Matrix: Waste Water

Parent Sample Id: 668747-003

MD Sample Id: 668747-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.38	7.38	0	20	SU	07.31.2020 13:59	
Temperature	22.3	22.4	0	20	Deg C	07.31.2020 13:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3133239

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.31.2020

MB Sample Id: 7708462-1-BLK

LCS Sample Id: 7708462-1-BKS

LCSD Sample Id: 7708462-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.4	94	23.4	94	85-115	0	20	mg/L	07.31.2020 15:48	
Magnesium	<0.200	25.0	23.4	94	23.4	94	85-115	0	20	mg/L	07.31.2020 15:48	
Potassium	<0.500	10.0	9.11	91	9.17	92	85-115	1	20	mg/L	07.31.2020 15:48	
Silica	<1.07	21.4	19.8	93	19.9	93	85-115	1	20	mg/L	07.31.2020 15:48	
Sodium	<0.500	25.0	22.7	91	22.7	91	85-115	0	20	mg/L	07.31.2020 15:48	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3133239

Matrix: Water

Prep Method: E200.7P

Date Prep: 07.31.2020

Parent Sample Id: 668540-001

MS Sample Id: 668540-001 S

MSD Sample Id: 668540-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	1.65	25.0	25.9	97	25.9	97	70-130	0	20	mg/L	07.31.2020 16:01	
Magnesium	<0.200	25.0	24.1	96	24.1	96	70-130	0	20	mg/L	07.31.2020 16:01	
Potassium	<0.500	10.0	9.59	96	9.58	96	70-130	0	20	mg/L	07.31.2020 16:01	
Silica	<1.07	21.4	20.9	98	20.9	98	70-130	0	20	mg/L	07.31.2020 16:01	
Sodium	<0.500	25.0	23.8	95	23.8	95	70-130	0	20	mg/L	07.31.2020 16:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3133245

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.31.2020

MB Sample Id: 7708531-1-BLK

LCS Sample Id: 7708531-1-BKS

LCSD Sample Id: 7708531-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0444	89	0.0438	88	66-142	1	25	mg/L	07.31.2020 10:46	
Bromobenzene	<0.00100	0.0500	0.0474	95	0.0436	87	75-125	8	25	mg/L	07.31.2020 10:46	
Bromochloromethane	<0.00100	0.0500	0.0443	89	0.0442	88	60-140	0	25	mg/L	07.31.2020 10:46	
Bromodichloromethane	<0.00100	0.0500	0.0452	90	0.0447	89	75-125	1	25	mg/L	07.31.2020 10:46	
Bromoform	<0.00500	0.0500	0.0471	94	0.0479	96	75-125	2	25	mg/L	07.31.2020 10:46	
Methyl bromide	<0.00500	0.0500	0.0596	119	0.0580	116	60-140	3	25	mg/L	07.31.2020 10:46	
2-Butanone	<0.0500	0.250	0.226	90	0.241	96	60-140	6	25	mg/L	07.31.2020 10:46	
n-Butylbenzene	<0.00100	0.0500	0.0461	92	0.0414	83	75-125	11	25	mg/L	07.31.2020 10:46	
Sec-Butylbenzene	<0.00100	0.0500	0.0427	85	0.0390	78	75-125	9	25	mg/L	07.31.2020 10:46	
tert-Butylbenzene	<0.00100	0.0500	0.0473	95	0.0435	87	75-125	8	25	mg/L	07.31.2020 10:46	
Carbon Tetrachloride	<0.00500	0.0500	0.0440	88	0.0432	86	62-125	2	25	mg/L	07.31.2020 10:46	
Chlorobenzene	<0.00100	0.0500	0.0455	91	0.0442	88	60-133	3	25	mg/L	07.31.2020 10:46	
Chloroethane	<0.0100	0.0500	0.0429	86	0.0420	84	60-140	2	25	mg/L	07.31.2020 10:46	
Chloroform	<0.00100	0.0500	0.0436	87	0.0432	86	70-130	1	25	mg/L	07.31.2020 10:46	
Methyl Chloride	<0.0100	0.0500	0.0591	118	0.0562	112	60-140	5	25	mg/L	07.31.2020 10:46	
2-Chlorotoluene	<0.00100	0.0500	0.0463	93	0.0424	85	73-125	9	25	mg/L	07.31.2020 10:46	
4-Chlorotoluene	<0.00100	0.0500	0.0471	94	0.0429	86	74-125	9	25	mg/L	07.31.2020 10:46	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0471	94	0.0426	85	75-125	10	25	mg/L	07.31.2020 10:46	
Dibromochloromethane	<0.00500	0.0500	0.0445	89	0.0445	89	73-125	0	25	mg/L	07.31.2020 10:46	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0415	83	0.0429	86	59-125	3	25	mg/L	07.31.2020 10:46	
1,2-Dibromoethane	<0.00500	0.0500	0.0458	92	0.0462	92	73-125	1	25	mg/L	07.31.2020 10:46	
Methylene Bromide	<0.00100	0.0500	0.0455	91	0.0463	93	69-127	2	25	mg/L	07.31.2020 10:46	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0475	95	0.0443	89	75-125	7	25	mg/L	07.31.2020 10:46	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0469	94	0.0432	86	75-125	8	25	mg/L	07.31.2020 10:46	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0484	97	0.0442	88	75-125	9	25	mg/L	07.31.2020 10:46	
Dichlorodifluoromethane	<0.00100	0.0500	0.0789	158	0.0746	149	60-140	6	25	mg/L	07.31.2020 10:46	H
1,1-Dichloroethane	<0.00100	0.0500	0.0456	91	0.0443	89	72-125	3	25	mg/L	07.31.2020 10:46	
1,2-Dichloroethane	<0.00100	0.0500	0.0450	90	0.0450	90	68-127	0	25	mg/L	07.31.2020 10:46	
1,1-Dichloroethene	<0.00100	0.0500	0.0439	88	0.0426	85	59-172	3	25	mg/L	07.31.2020 10:46	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0447	89	0.0440	88	75-125	2	25	mg/L	07.31.2020 10:46	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0436	87	0.0424	85	75-125	3	25	mg/L	07.31.2020 10:46	
1,2-Dichloropropane	<0.00500	0.0500	0.0459	92	0.0459	92	74-125	0	25	mg/L	07.31.2020 10:46	
1,3-Dichloropropane	<0.00500	0.0500	0.0468	94	0.0467	93	75-125	0	25	mg/L	07.31.2020 10:46	
2,2-Dichloropropane	<0.00500	0.0500	0.0459	92	0.0439	88	75-125	4	25	mg/L	07.31.2020 10:46	
1,1-Dichloropropene	<0.00500	0.0500	0.0466	93	0.0462	92	75-125	1	25	mg/L	07.31.2020 10:46	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0464	93	0.0455	91	74-125	2	25	mg/L	07.31.2020 10:46	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0452	90	0.0443	89	66-125	2	25	mg/L	07.31.2020 10:46	
Ethylbenzene	<0.00100	0.0500	0.0437	87	0.0424	85	75-125	3	25	mg/L	07.31.2020 10:46	
Hexachlorobutadiene	<0.00500	0.0500	0.0514	103	0.0475	95	75-125	8	25	mg/L	07.31.2020 10:46	
Isopropylbenzene	<0.00100	0.0500	0.0443	89	0.0430	86	75-125	3	25	mg/L	07.31.2020 10:46	
Methylene Chloride	<0.00500	0.0500	0.0433	87	0.0419	84	75-125	3	25	mg/L	07.31.2020 10:46	
MTBE	<0.00500	0.0500	0.0468	94	0.0477	95	65-135	2	25	mg/L	07.31.2020 10:46	
Naphthalene	<0.0100	0.0500	0.0497	99	0.0511	102	70-130	3	25	mg/L	07.31.2020 10:46	
n-Propylbenzene	<0.00100	0.0500	0.0473	95	0.0430	86	75-125	10	25	mg/L	07.31.2020 10:46	
Styrene	<0.00100	0.0500	0.0439	88	0.0430	86	75-125	2	25	mg/L	07.31.2020 10:46	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0470	94	0.0456	91	72-125	3	25	mg/L	07.31.2020 10:46	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0465	93	0.0451	90	74-125	3	25	mg/L	07.31.2020 10:46	
Tetrachloroethylene	<0.00100	0.0500	0.0472	94	0.0451	90	71-125	5	25	mg/L	07.31.2020 10:46	
Toluene	<0.00100	0.0500	0.0444	89	0.0431	86	59-139	3	25	mg/L	07.31.2020 10:46	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0502	100	0.0490	98	75-137	2	25	mg/L	07.31.2020 10:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3133245

MB Sample Id: 7708531-1-BLK

Matrix: Water

LCS Sample Id: 7708531-1-BKS

Prep Method: SW5030B

Date Prep: 07.31.2020

LCSD Sample Id: 7708531-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0501	100	0.0479	96	75-135	4	25	mg/L	07.31.2020 10:46	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0451	90	0.0439	88	75-125	3	25	mg/L	07.31.2020 10:46	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0444	89	0.0457	91	75-127	3	25	mg/L	07.31.2020 10:46	
Trichloroethylene	<0.00500	0.0500	0.0448	90	0.0435	87	62-137	3	25	mg/L	07.31.2020 10:46	
Trichlorofluoromethane	<0.00100	0.0500	0.0564	113	0.0546	109	60-140	3	25	mg/L	07.31.2020 10:46	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0478	96	0.0465	93	75-125	3	25	mg/L	07.31.2020 10:46	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0460	92	0.0418	84	75-125	10	25	mg/L	07.31.2020 10:46	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0456	91	0.0411	82	70-125	10	25	mg/L	07.31.2020 10:46	
o-Xylene	<0.00100	0.0500	0.0451	90	0.0431	86	75-125	5	25	mg/L	07.31.2020 10:46	
m,p-Xylenes	<0.0100	0.100	0.0908	91	0.0875	88	75-125	4	25	mg/L	07.31.2020 10:46	
Vinyl Chloride	<0.00200	0.0500	0.0570	114	0.0548	110	60-140	4	25	mg/L	07.31.2020 10:46	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	97		97		97		75-131			%	07.31.2020 10:46	
1,2-Dichloroethane-D4	94		96		96		63-144			%	07.31.2020 10:46	
Toluene-D8	99		99		98		80-117			%	07.31.2020 10:46	
4-Bromofluorobenzene	102		100		96		74-124			%	07.31.2020 10:46	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3133245

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.31.2020

Parent Sample Id: 668666-001

MS Sample Id: 668666-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00539	0.0500	0.0309	51	66-142	mg/L	07.31.2020 12:54	X
Bromobenzene	<0.00100	0.0500	0.0266	53	75-125	mg/L	07.31.2020 12:54	X
Bromochloromethane	<0.00100	0.0500	0.0236	47	60-140	mg/L	07.31.2020 12:54	X
Bromodichloromethane	<0.00100	0.0500	0.0255	51	75-125	mg/L	07.31.2020 12:54	X
Bromoform	<0.00500	0.0500	0.0324	65	75-125	mg/L	07.31.2020 12:54	X
Methyl bromide	<0.00500	0.0500	0.0335	67	60-140	mg/L	07.31.2020 12:54	
2-Butanone	<0.0500	0.250	0.234	94	60-140	mg/L	07.31.2020 12:54	
n-Butylbenzene	<0.00100	0.0500	0.0255	51	75-125	mg/L	07.31.2020 12:54	X
Sec-Butylbenzene	0.00210	0.0500	0.0265	49	75-125	mg/L	07.31.2020 12:54	X
tert-Butylbenzene	<0.00100	0.0500	0.0286	57	75-125	mg/L	07.31.2020 12:54	X
Carbon Tetrachloride	<0.00500	0.0500	0.0284	57	62-125	mg/L	07.31.2020 12:54	X
Chlorobenzene	<0.00100	0.0500	0.0260	52	60-133	mg/L	07.31.2020 12:54	X
Chloroethane	<0.0100	0.0500	0.0275	55	60-140	mg/L	07.31.2020 12:54	X
Chloroform	<0.00100	0.0500	0.0250	50	70-130	mg/L	07.31.2020 12:54	X
Methyl Chloride	<0.0100	0.0500	0.0369	74	60-140	mg/L	07.31.2020 12:54	
2-Chlorotoluene	<0.00100	0.0500	0.0330	66	73-125	mg/L	07.31.2020 12:54	X
4-Chlorotoluene	<0.00100	0.0500	0.0287	57	74-125	mg/L	07.31.2020 12:54	X
p-Cymene (p-Isopropyltoluene)	0.00123	0.0500	0.0280	54	75-125	mg/L	07.31.2020 12:54	X
Dibromochloromethane	<0.00500	0.0500	0.0272	54	73-125	mg/L	07.31.2020 12:54	X
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0397	79	59-125	mg/L	07.31.2020 12:54	
1,2-Dibromoethane	<0.00500	0.0500	0.0294	59	73-125	mg/L	07.31.2020 12:54	X
Methylene Bromide	<0.00100	0.0500	0.0277	55	69-127	mg/L	07.31.2020 12:54	X
1,2-Dichlorobenzene	<0.00100	0.0500	0.0271	54	75-125	mg/L	07.31.2020 12:54	X
1,3-Dichlorobenzene	<0.00100	0.0500	0.0265	53	75-125	mg/L	07.31.2020 12:54	X
1,4-Dichlorobenzene	<0.00100	0.0500	0.0268	54	75-125	mg/L	07.31.2020 12:54	X
Dichlorodifluoromethane	<0.00100	0.0500	0.0521	104	60-140	mg/L	07.31.2020 12:54	
1,1-Dichloroethane	<0.00100	0.0500	0.0263	53	72-125	mg/L	07.31.2020 12:54	X
1,2-Dichloroethane	<0.00100	0.0500	0.0261	52	68-127	mg/L	07.31.2020 12:54	X
1,1-Dichloroethene	<0.00100	0.0500	0.0280	56	59-172	mg/L	07.31.2020 12:54	X
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0254	51	75-125	mg/L	07.31.2020 12:54	X
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0262	52	75-125	mg/L	07.31.2020 12:54	X
1,2-Dichloropropane	<0.00500	0.0500	0.0270	54	74-125	mg/L	07.31.2020 12:54	X
1,3-Dichloropropane	<0.00500	0.0500	0.0288	58	75-125	mg/L	07.31.2020 12:54	X
2,2-Dichloropropane	<0.00500	0.0500	0.0278	56	75-125	mg/L	07.31.2020 12:54	X
1,1-Dichloropropene	<0.00500	0.0500	0.0300	60	75-125	mg/L	07.31.2020 12:54	X
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0260	52	74-125	mg/L	07.31.2020 12:54	X
trans-1,3-dichloropropene	<0.00500	0.0500	0.0261	52	66-125	mg/L	07.31.2020 12:54	X
Ethylbenzene	0.0197	0.0500	0.0436	48	75-125	mg/L	07.31.2020 12:54	X
Hexachlorobutadiene	<0.00500	0.0500	0.0237	47	75-125	mg/L	07.31.2020 12:54	X
Isopropylbenzene	0.0111	0.0500	0.0369	52	75-125	mg/L	07.31.2020 12:54	X
Methylene Chloride	<0.00500	0.0500	0.0232	46	75-125	mg/L	07.31.2020 12:54	X
MTBE	<0.00500	0.0500	0.0291	58	65-135	mg/L	07.31.2020 12:54	X
Naphthalene	<0.0100	0.0500	0.0417	83	70-130	mg/L	07.31.2020 12:54	
n-Propylbenzene	0.0124	0.0500	0.0389	53	75-125	mg/L	07.31.2020 12:54	X
Styrene	<0.00100	0.0500	0.0251	50	75-125	mg/L	07.31.2020 12:54	X
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0272	54	72-125	mg/L	07.31.2020 12:54	X
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0344	69	74-125	mg/L	07.31.2020 12:54	X
Tetrachloroethylene	<0.00100	0.0500	0.0295	59	71-125	mg/L	07.31.2020 12:54	X
Toluene	0.0302	0.0500	0.0536	47	59-139	mg/L	07.31.2020 12:54	X
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0337	67	75-137	mg/L	07.31.2020 12:54	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3133245

Matrix: Water

Prep Method: SW5030B

Date Prep: 07.31.2020

Parent Sample Id: 668666-001

MS Sample Id: 668666-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0296	59	75-135	mg/L	07.31.2020 12:54	X
1,1,1-Trichloroethane	<0.00500	0.0500	0.0286	57	75-125	mg/L	07.31.2020 12:54	X
1,1,2-Trichloroethane	<0.00100	0.0500	0.0285	57	75-127	mg/L	07.31.2020 12:54	X
Trichloroethylene	<0.00500	0.0500	0.0276	55	62-137	mg/L	07.31.2020 12:54	X
Trichlorofluoromethane	<0.00100	0.0500	0.0378	76	60-140	mg/L	07.31.2020 12:54	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0369	74	75-125	mg/L	07.31.2020 12:54	X
1,2,4-Trimethylbenzene	0.0751	0.0500	0.0941	38	75-125	mg/L	07.31.2020 12:54	X
1,3,5-Trimethylbenzene	0.0215	0.0500	0.0459	49	70-125	mg/L	07.31.2020 12:54	X
o-Xylene	0.0100	0.0500	0.0351	50	75-125	mg/L	07.31.2020 12:54	X
m,p-Xylenes	0.0641	0.100	0.109	45	75-125	mg/L	07.31.2020 12:54	X
Vinyl Chloride	<0.00200	0.0500	0.0355	71	60-140	mg/L	07.31.2020 12:54	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	97		75-131	%	07.31.2020 12:54
1,2-Dichloroethane-D4	99		63-144	%	07.31.2020 12:54
Toluene-D8	100		80-117	%	07.31.2020 12:54
4-Bromofluorobenzene	99		74-124	%	07.31.2020 12:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No.:

108104

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 888-7550
Hobbs, NM (575) 392-7550

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Project Manager:		Beaux Jennings	Bill to: (if different)	
Company Name:		Ensolum LLC	Company Name:	
Address:		705 W Wadley #210	Address:	
City, State ZIP:		Midland TX	City, State ZIP:	
Phone:		432-230-3344	Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐	
State of Project:	
Reporting: Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: _____	

[illegible]

Person Collecting Sample EP Cole-Pamer
Date Collected 7/20/20
Time Collected _____
Sample No. 11
CUSTODY SEAL

Inter-Office Shipment

IOS Number : **67988**

Date/Time: 07.30.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771140223807

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
668666-001	W	Levey Well	07.30.2020 11:15	SW8260C	VOCs by SW-846 8260C	07.31.2020	08.13.2020	JKR	BDCME BRBZ BRCLME	
668666-001	W	Levey Well	07.30.2020 11:15	SM4500-H	pH by SM4500-H	07.31.2020	07.30.2020 11:30	JKR		
668666-001	W	Levey Well	07.30.2020 11:15	E300	Inorganic Anions by EPA 300/300.1	07.31.2020	08.01.2020 11:15	JKR	BR CL F NO2N NO3N S	
668666-001	W	Levey Well	07.30.2020 11:15	SM2320B	Alkalinity by SM2320B	07.31.2020	08.13.2020	JKR	ALK ALKB ALKC	
668666-001	W	Levey Well	07.30.2020 11:15	SM1030E	Cation-Anion Balance Calculation	07.31.2020	08.29.2020	JKR	Cation-Anion Balance	
668666-001	W	Levey Well	07.30.2020 11:15	SM2540C	TDS by SM2540C	07.31.2020	08.06.2020	JKR	TDS	
668666-001	W	Levey Well	07.30.2020 11:15	E200.7	Recoverable Metals per ICP by EPA 200	07.31.2020	01.26.2021	JKR	CA K MG NA SI	

Inter Office Shipment or Sample Comments:

Relinquished By:



Jessica Kramer

Date Relinquished: 07.30.2020

Received By:



Jhyrom Edralin

Date Received: 07.31.2020

Cooler Temperature: 2.7

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 67988

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-188

Sent By: Brianna Teel

Date Sent: 07.30.2020 01.58 PM

Received By: Jhyrom Edralin

Date Received: 07.31.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.7	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	No	Sample 668616 and 668666 1 vial is broken
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 07.31.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 07.30.2020 01.45.00 PM

Work Order #: 668666

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 07.30.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.30.2020

Certificate of Analysis Summary 669516

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 08.07.2020 13:15
Report Date: 08.11.2020 09:28
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669516-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.07.2020 11:05					
Alkalinity by SM2320B SUB: T104704215-20-36	Extracted: 08.10.2020 10:34 Analyzed: 08.10.2020 11:30 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1150 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1150 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-36	Extracted: Analyzed: 08.10.2020 17:07 Units/RL: % RL					
Cation-Anion Balance	0.900					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-36	Extracted: 08.08.2020 10:00 Analyzed: 08.08.2020 10:17 Units/RL: mg/L RL					
Bromide	0.631 0.500					
Chloride	387 0.500					
Fluoride	0.526 0.500					
Nitrate as N	0.186 0.100					
Nitrite as N	1.75 D 1.00					
Sulfate	36.1 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 669516

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 08.07.2020 13:15
Report Date: 08.11.2020 09:28
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669516-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.07.2020 11:05					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-36	Extracted:	08.10.2020 09:30					
	Analyzed:	08.10.2020 13:24					
	Units/RL:	mg/L RL					
	Calcium	404 DX 10.0					
	Magnesium	79.5 0.200					
	Potassium	6.73 0.500					
	Silica	65.3 X 1.07					
	Sodium	111 0.500					
TDS by SM2540C SUB: T104704215-20-36	Extracted:						
	Analyzed:	08.10.2020 09:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1810 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 08.07.2020 13:15
Report Date: 08.11.2020 09:28
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669516-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.07.2020 11:05					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 08.08.2020 12:00 Analyzed: 08.08.2020 15:41 Units/RL: mg/L RL					
Benzene	0.00558 X 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00215 X 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00114 X 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 669516

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

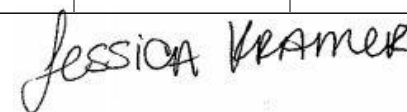
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 08.07.2020 13:15
 Report Date: 08.11.2020 09:28
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669516-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.07.2020 11:05					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 08.08.2020 12:00 Analyzed: 08.08.2020 15:41 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0200 X 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0110 X 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0118 X 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 669516

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 08.07.2020 13:15
 Report Date: 08.11.2020 09:28
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669516-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.07.2020 11:05					
VOCs by SW-846 8260C SUB: T104704215-20-36	Extracted: 08.08.2020 12:00 Analyzed: 08.08.2020 15:41 Units/RL: mg/L RL					
Toluene	0.0300 X 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0707 X 0.00100					
1,3,5-Trimethylbenzene	0.0209 X 0.00100					
o-Xylene	0.00987 X 0.00100					
m,p-Xylenes	0.0628 X 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0727 0.00100					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 08.10.2020 13:36 Units/RL: Deg C RL					
Temperature	23.3 K					
pH by SM4500-H SUB: T104704215-20-36	Extracted: Analyzed: 08.10.2020 13:36 Units/RL: SU RL					
pH	6.12 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 669516

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

08.11.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.11.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **669516**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669516. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669516 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 669516

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	08.07.2020 11:05		669516-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
 Work Order Number(s): 669516

Report Date: 08.11.2020
 Date Received: 08.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134003 VOCs by SW-846 8260C

Lab Sample ID 669516-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropene, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Chlorobenzene, Chloroethane, Chloroform, Dibromochloromethane, Dichlorodifluoromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, Methyl bromide, Methylene Bromide, Methylene Chloride, Sec-Butylbenzene, Styrene, Tetrachloroethylene, Toluene, Trichloroethylene, Trichlorofluoromethane, Vinyl Chloride, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, m,p-Xylenes, n-Butylbenzene, n-Propylbenzene, o-Xylene, p-Cymene (p-Isopropyltoluene), tert-Butylbenzene, trans-1,2-dichloroethylene, trans-1,3-dichloropropene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669516-001.

The Laboratory Control Sample for 1,1-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, Bromodichloromethane, Methylene Chloride, cis-1,2-Dichloroethylene, 1,2,3-Trichloropropane, 1,2-Dichloroethane, 1,3-Dichloropropane, Bromochloromethane, Toluene, trans-1,2-dichloroethylene, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2-Chlorotoluene, Benzene, Tetrachloroethylene, m,p-Xylenes, tert-Butylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Bromobenzene, Chloroform, Sec-Butylbenzene, Trichloroethylene, cis-1,3-Dichloropropene, n-Butylbenzene, trans-1,3-dichloropropene, 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethene, Ethylbenzene, Isopropylbenzene, Methyl bromide, Methylene Bromide, Trichlorofluoromethane, o-Xylene, 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, Dichlorodifluoromethane, 1,2,3-Trichlorobenzene, 4-Chlorotoluene, Chlorobenzene, Dibromochloromethane, Hexachlorobutadiene, Styrene, n-Propylbenzene, p-Cymene (p-Isopropyltoluene), 1,1,2-Trichloroethane, 1,1-Dichloropropene, Bromoform, Chloroethane, Vinyl Chloride is within laboratory Control Limits, therefore the data was accepted.



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 669516

Report Date: 08.11.2020
Date Received: 08.07.2020

Batch: LBA-3134067 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 669516-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium, Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669516-001.

The Laboratory Control Sample for Silica, Calcium is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 669516

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.07.2020 13:15

Lab Sample Id: 669516-001

Date Collected: 08.07.2020 11:05

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 08.10.2020 10:34

Seq Number: 3134026

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1150	4.00	mg/L	08.10.2020 11:30		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1150	4.00	mg/L	08.10.2020 11:30		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	08.10.2020 11:30	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	08.10.2020 11:30	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3134070

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	0.900		%	08.10.2020 17:07		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 08.08.2020 10:00

Seq Number: 3134063

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.631	0.500	mg/L	08.08.2020 10:17		1
Chloride	16887-00-6	387	0.500	mg/L	08.08.2020 10:17		1
Fluoride	16984-48-8	0.526	0.500	mg/L	08.08.2020 10:17		1
Nitrate as N	14797-55-8	0.186	0.100	mg/L	08.08.2020 10:17		1
Nitrite as N	14797-65-0	1.75	1.00	mg/L	08.08.2020 10:29	D	10
Sulfate	14808-79-8	36.1	0.500	mg/L	08.08.2020 10:17		1



Certificate of Analytical Results 669516

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.07.2020 13:15

Lab Sample Id: 669516-001

Date Collected: 08.07.2020 11:05

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3133972

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1810	5.00	mg/L	08.10.2020 09:00		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3134029

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.12		SU	08.10.2020 13:36	K	1
Temperature	TEMP	23.3		Deg C	08.10.2020 13:36	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 08.10.2020 09:30

Seq Number: 3134067

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	404	10.0	mg/L	08.10.2020 13:45	DX	50
Magnesium	7439-95-4	79.5	0.200	mg/L	08.10.2020 13:24		1
Potassium	7440-09-7	6.73	0.500	mg/L	08.10.2020 13:24		1
Silica	7631-86-9	65.3	1.07	mg/L	08.10.2020 13:24	X	1
Sodium	7440-23-5	111	0.500	mg/L	08.10.2020 13:24		1



Certificate of Analytical Results 669516

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.07.2020 13:15

Lab Sample Id: 669516-001

Date Collected: 08.07.2020 11:05

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 08.08.2020 12:00

Seq Number: 3134003

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00558	0.00100	mg/L	08.08.2020 15:41	X	1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	08.08.2020 15:41	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Sec-Butylbenzene	135-98-8	0.00215	0.00100	mg/L	08.08.2020 15:41	X	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	08.08.2020 15:41	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	08.08.2020 15:41	UX	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	08.08.2020 15:41	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00114	0.00100	mg/L	08.08.2020 15:41	X	1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	08.08.2020 15:41	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
Ethylbenzene	100-41-4	0.0200	0.00100	mg/L	08.08.2020 15:41	X	1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1



Certificate of Analytical Results 669516

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.07.2020 13:15

Lab Sample Id: 669516-001

Date Collected: 08.07.2020 11:05

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 08.08.2020 12:00

Seq Number: 3134003

SUB: T104704215-20-36

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0110	0.00100	mg/L	08.08.2020 15:41	X	1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	08.08.2020 15:41	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	08.08.2020 15:41	U	1
n-Propylbenzene	103-65-1	0.0118	0.00100	mg/L	08.08.2020 15:41	X	1
Styrene	100-42-5	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Toluene	108-88-3	0.0300	0.00100	mg/L	08.08.2020 15:41	X	1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	08.08.2020 15:41	UX	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	08.08.2020 15:41	UX	1
1,2,4-Trimethylbenzene	95-63-6	0.0707	0.00100	mg/L	08.08.2020 15:41	X	1
1,3,5-Trimethylbenzene	108-67-8	0.0209	0.00100	mg/L	08.08.2020 15:41	X	1
o-Xylene	95-47-6	0.00987	0.00100	mg/L	08.08.2020 15:41	X	1
m,p-Xylenes	179601-23-1	0.0628	0.0100	mg/L	08.08.2020 15:41	X	1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	08.08.2020 15:41	UX	1
Total Xylenes	1330-20-7	0.0727	0.00100	mg/L	08.08.2020 15:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	08.08.2020 15:41	
1,2-Dichloroethane-D4	17060-07-0	100	%	63-144	08.08.2020 15:41	
Toluene-D8	2037-26-5	97	%	80-117	08.08.2020 15:41	
4-Bromofluorobenzene	460-00-4	98	%	74-124	08.08.2020 15:41	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134026

MB Sample Id: 7709052-1-BLK

Matrix: Water

LCS Sample Id: 7709052-1-BKS

Prep Method: SM2320P

Date Prep: 08.10.2020

LCSD Sample Id: 7709052-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	252	101	255	102	85-115	1	20	mg/L	08.10.2020 11:10	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134026

Matrix: Water

MB Sample Id: 7709052-1-BLK

Prep Method: SM2320P

Date Prep: 08.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	mg/L	08.10.2020 11:03	
Alkalinity, Carbonate (as CaCO3)	<4.00	mg/L	08.10.2020 11:03	
Alkalinity, hydroxide (as CaCO3)	<4.00	mg/L	08.10.2020 11:03	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134026

Matrix: Water

Parent Sample Id: 669516-001

MD Sample Id: 669516-001 D

Prep Method: SM2320P

Date Prep: 08.10.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO3)	1150	1150	0	20	mg/L	08.10.2020 11:43	
Alkalinity, Bicarbonate (as CaCO3)	1150	1150	0	20	mg/L	08.10.2020 11:43	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	mg/L	08.10.2020 11:43	
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	20	mg/L	08.10.2020 11:43	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134063

Matrix: Water

MB Sample Id: 7709049-1-BLK

LCS Sample Id: 7709049-1-BKS

Prep Method: SW9056P

Date Prep: 08.08.2020

LCSD Sample Id: 7709049-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.08.2020 09:53	
Chloride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	08.08.2020 09:53	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.08.2020 09:53	
Nitrate as N	<0.100	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.08.2020 09:53	
Nitrite as N	<0.100	10.0	9.57	96	9.63	96	90-110	1	20	mg/L	08.08.2020 09:53	
Sulfate	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.08.2020 09:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134063

Matrix: Surface Water

Prep Method: SW9056P

Date Prep: 08.08.2020

Parent Sample Id: 669497-001

MS Sample Id: 669497-001 S

MSD Sample Id: 669497-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	08.08.2020 10:53	
Chloride	21.6	10.0	30.9	93	30.9	93	90-110	0	20	mg/L	08.08.2020 10:53	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.08.2020 10:53	
Nitrate as N	1.34	10.0	11.5	102	11.5	102	90-110	0	20	mg/L	08.08.2020 10:53	
Nitrite as N	0.132	10.0	9.83	97	9.85	97	90-110	0	20	mg/L	08.08.2020 10:53	
Sulfate	26.0	10.0	35.9	99	35.9	99	90-110	0	20	mg/L	08.08.2020 10:53	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134063

Matrix: Surface Water

Prep Method: SW9056P

Date Prep: 08.08.2020

Parent Sample Id: 669497-002

MS Sample Id: 669497-002 S

MSD Sample Id: 669497-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.0	100	10.0	100	90-110	0	20	mg/L	08.08.2020 11:29	
Chloride	21.4	10.0	30.4	90	30.5	91	90-110	0	20	mg/L	08.08.2020 11:29	
Fluoride	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	08.08.2020 11:29	
Nitrate as N	1.30	10.0	11.2	99	11.2	99	90-110	0	20	mg/L	08.08.2020 11:29	
Nitrite as N	0.135	10.0	9.60	95	9.58	94	90-110	0	20	mg/L	08.08.2020 11:29	
Sulfate	25.4	10.0	34.9	95	34.9	95	90-110	0	20	mg/L	08.08.2020 11:29	

Analytical Method: TDS by SM2540C

Seq Number: 3133972

Matrix: Water

MB Sample Id: 3133972-1-BLK

LCS Sample Id: 3133972-1-BKS

LCSD Sample Id: 3133972-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	990	99	986	99	80-120	0	10	mg/L	08.10.2020 09:00	

Analytical Method: TDS by SM2540C

Seq Number: 3133972

Matrix: Water

Parent Sample Id: 669516-001

MD Sample Id: 669516-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1810	1840	2	10	mg/L	08.10.2020 09:00	

Analytical Method: pH by SM4500-H

Seq Number: 3134029

Matrix: Water

Parent Sample Id: 669467-001

MD Sample Id: 669467-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.60	7.61	0	20	SU	08.10.2020 13:36	
Temperature	23.2	23.2	0	20	Deg C	08.10.2020 13:36	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3134067

Matrix: Water

Prep Method: E200.7P

Date Prep: 08.10.2020

MB Sample Id: 7709057-1-BLK

LCS Sample Id: 7709057-1-BKS

LCSD Sample Id: 7709057-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	25.4	102	25.5	102	85-115	0	20	mg/L	08.10.2020 13:11	
Magnesium	<0.200	25.0	24.6	98	24.8	99	85-115	1	20	mg/L	08.10.2020 13:11	
Potassium	<0.500	10.0	10.0	100	10.1	101	85-115	1	20	mg/L	08.10.2020 13:11	
Silica	<1.07	21.4	21.3	100	21.3	100	85-115	0	20	mg/L	08.10.2020 13:11	
Sodium	<0.500	25.0	24.7	99	24.7	99	85-115	0	20	mg/L	08.10.2020 13:11	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3134067

Matrix: Water

Prep Method: E200.7P

Date Prep: 08.10.2020

Parent Sample Id: 669516-001

MS Sample Id: 669516-001 S

MSD Sample Id: 669516-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	413	25.0	457	176	456	172	70-130	0	20	mg/L	08.10.2020 13:28	X
Magnesium	79.5	25.0	105	102	104	98	70-130	1	20	mg/L	08.10.2020 13:28	
Potassium	6.73	10.0	17.9	112	18.0	113	70-130	1	20	mg/L	08.10.2020 13:28	
Silica	65.3	21.4	95.7	142	95.5	141	70-130	0	20	mg/L	08.10.2020 13:28	X
Sodium	111	25.0	141	120	141	120	70-130	0	20	mg/L	08.10.2020 13:28	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134003

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.08.2020

MB Sample Id: 7709067-1-BLK

LCS Sample Id: 7709067-1-BKS

LCSD Sample Id: 7709067-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0536	107	0.0528	106	66-142	2	25	mg/L	08.08.2020 11:45	
Bromobenzene	<0.00100	0.0500	0.0521	104	0.0528	106	75-125	1	25	mg/L	08.08.2020 11:45	
Bromochloromethane	<0.00100	0.0500	0.0521	104	0.0523	105	60-140	0	25	mg/L	08.08.2020 11:45	
Bromodichloromethane	<0.00100	0.0500	0.0538	108	0.0534	107	75-125	1	25	mg/L	08.08.2020 11:45	
Bromoform	<0.00500	0.0500	0.0547	109	0.0562	112	75-125	3	25	mg/L	08.08.2020 11:45	
Methyl bromide	<0.00500	0.0500	0.0430	86	0.0408	82	60-140	5	25	mg/L	08.08.2020 11:45	
2-Butanone	<0.0500	0.250	0.319	128	0.338	135	60-140	6	25	mg/L	08.08.2020 11:45	
n-Butylbenzene	<0.00100	0.0500	0.0538	108	0.0542	108	75-125	1	25	mg/L	08.08.2020 11:45	
Sec-Butylbenzene	<0.00100	0.0500	0.0540	108	0.0549	110	75-125	2	25	mg/L	08.08.2020 11:45	
tert-Butylbenzene	<0.00100	0.0500	0.0534	107	0.0543	109	75-125	2	25	mg/L	08.08.2020 11:45	
Carbon Tetrachloride	<0.00500	0.0500	0.0552	110	0.0550	110	62-125	0	25	mg/L	08.08.2020 11:45	
Chlorobenzene	<0.00100	0.0500	0.0529	106	0.0525	105	60-133	1	25	mg/L	08.08.2020 11:45	
Chloroethane	<0.0100	0.0500	0.0520	104	0.0519	104	60-140	0	25	mg/L	08.08.2020 11:45	
Chloroform	<0.00100	0.0500	0.0531	106	0.0528	106	70-130	1	25	mg/L	08.08.2020 11:45	
Methyl Chloride	<0.0100	0.0500	0.0476	95	0.0475	95	60-140	0	25	mg/L	08.08.2020 11:45	
2-Chlorotoluene	<0.00100	0.0500	0.0525	105	0.0528	106	73-125	1	25	mg/L	08.08.2020 11:45	
4-Chlorotoluene	<0.00100	0.0500	0.0521	104	0.0529	106	74-125	2	25	mg/L	08.08.2020 11:45	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0539	108	0.0540	108	75-125	0	25	mg/L	08.08.2020 11:45	
Dibromochloromethane	<0.00500	0.0500	0.0555	111	0.0557	111	73-125	0	25	mg/L	08.08.2020 11:45	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0523	105	0.0535	107	59-125	2	25	mg/L	08.08.2020 11:45	
1,2-Dibromoethane	<0.00500	0.0500	0.0548	110	0.0554	111	73-125	1	25	mg/L	08.08.2020 11:45	
Methylene Bromide	<0.00100	0.0500	0.0527	105	0.0514	103	69-127	2	25	mg/L	08.08.2020 11:45	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0523	105	0.0538	108	75-125	3	25	mg/L	08.08.2020 11:45	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0524	105	0.0532	106	75-125	2	25	mg/L	08.08.2020 11:45	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0511	102	0.0525	105	75-125	3	25	mg/L	08.08.2020 11:45	
Dichlorodifluoromethane	<0.00100	0.0500	0.0546	109	0.0506	101	60-140	8	25	mg/L	08.08.2020 11:45	
1,1-Dichloroethane	<0.00100	0.0500	0.0521	104	0.0524	105	72-125	1	25	mg/L	08.08.2020 11:45	
1,2-Dichloroethane	<0.00100	0.0500	0.0518	104	0.0512	102	68-127	1	25	mg/L	08.08.2020 11:45	
1,1-Dichloroethene	<0.00100	0.0500	0.0532	106	0.0533	107	59-172	0	25	mg/L	08.08.2020 11:45	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0536	107	0.0527	105	75-125	2	25	mg/L	08.08.2020 11:45	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0518	104	0.0511	102	75-125	1	25	mg/L	08.08.2020 11:45	
1,2-Dichloropropane	<0.00500	0.0500	0.0546	109	0.0546	109	74-125	0	25	mg/L	08.08.2020 11:45	
1,3-Dichloropropane	<0.00500	0.0500	0.0543	109	0.0550	110	75-125	1	25	mg/L	08.08.2020 11:45	
2,2-Dichloropropane	<0.00500	0.0500	0.0548	110	0.0543	109	75-125	1	25	mg/L	08.08.2020 11:45	
1,1-Dichloropropene	<0.00500	0.0500	0.0572	114	0.0560	112	75-125	2	25	mg/L	08.08.2020 11:45	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0548	110	0.0550	110	74-125	0	25	mg/L	08.08.2020 11:45	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0558	112	0.0566	113	66-125	1	25	mg/L	08.08.2020 11:45	
Ethylbenzene	<0.00100	0.0500	0.0532	106	0.0531	106	75-125	0	25	mg/L	08.08.2020 11:45	
Hexachlorobutadiene	<0.00500	0.0500	0.0591	118	0.0616	123	75-125	4	25	mg/L	08.08.2020 11:45	
Isopropylbenzene	<0.00100	0.0500	0.0533	107	0.0535	107	75-125	0	25	mg/L	08.08.2020 11:45	
Methylene Chloride	<0.00500	0.0500	0.0440	88	0.0442	88	75-125	0	25	mg/L	08.08.2020 11:45	
MTBE	<0.00500	0.0500	0.0569	114	0.0575	115	65-135	1	25	mg/L	08.08.2020 11:45	
Naphthalene	<0.0100	0.0500	0.0547	109	0.0583	117	70-130	6	25	mg/L	08.08.2020 11:45	
n-Propylbenzene	<0.00100	0.0500	0.0533	107	0.0542	108	75-125	2	25	mg/L	08.08.2020 11:45	
Styrene	<0.00100	0.0500	0.0530	106	0.0537	107	75-125	1	25	mg/L	08.08.2020 11:45	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0558	112	0.0562	112	72-125	1	25	mg/L	08.08.2020 11:45	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0535	107	0.0548	110	74-125	2	25	mg/L	08.08.2020 11:45	
Tetrachloroethylene	<0.00100	0.0500	0.0529	106	0.0532	106	71-125	1	25	mg/L	08.08.2020 11:45	
Toluene	<0.00100	0.0500	0.0526	105	0.0531	106	59-139	1	25	mg/L	08.08.2020 11:45	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0586	117	0.0591	118	75-137	1	25	mg/L	08.08.2020 11:45	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134003

MB Sample Id: 7709067-1-BLK

Matrix: Water

LCS Sample Id: 7709067-1-BKS

Prep Method: SW5030B

Date Prep: 08.08.2020

LCSD Sample Id: 7709067-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0574	115	0.0596	119	75-135	4	25	mg/L	08.08.2020 11:45	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0533	107	0.0530	106	75-125	1	25	mg/L	08.08.2020 11:45	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0545	109	0.0546	109	75-127	0	25	mg/L	08.08.2020 11:45	
Trichloroethylene	<0.00500	0.0500	0.0544	109	0.0545	109	62-137	0	25	mg/L	08.08.2020 11:45	
Trichlorofluoromethane	<0.00100	0.0500	0.0547	109	0.0527	105	60-140	4	25	mg/L	08.08.2020 11:45	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0541	108	0.0555	111	75-125	3	25	mg/L	08.08.2020 11:45	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0530	106	0.0532	106	75-125	0	25	mg/L	08.08.2020 11:45	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0529	106	0.0534	107	70-125	1	25	mg/L	08.08.2020 11:45	
o-Xylene	<0.00100	0.0500	0.0528	106	0.0536	107	75-125	2	25	mg/L	08.08.2020 11:45	
m,p-Xylenes	<0.0100	0.100	0.105	105	0.107	107	75-125	2	25	mg/L	08.08.2020 11:45	
Vinyl Chloride	<0.00200	0.0500	0.0530	106	0.0511	102	60-140	4	25	mg/L	08.08.2020 11:45	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	103		98		98		75-131			%	08.08.2020 11:45	
1,2-Dichloroethane-D4	104		99		98		63-144			%	08.08.2020 11:45	
Toluene-D8	101		100		100		80-117			%	08.08.2020 11:45	
4-Bromofluorobenzene	105		99		98		74-124			%	08.08.2020 11:45	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134003

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.08.2020

Parent Sample Id: 669516-001

MS Sample Id: 669516-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00558	0.0500	0.0336	56	66-142	mg/L	08.08.2020 12:32	X
Bromobenzene	<0.00100	0.0500	0.0255	51	75-125	mg/L	08.08.2020 12:32	X
Bromochloromethane	<0.00100	0.0500	0.0257	51	60-140	mg/L	08.08.2020 12:32	X
Bromodichloromethane	<0.00100	0.0500	0.0276	55	75-125	mg/L	08.08.2020 12:32	X
Bromoform	<0.00500	0.0500	0.0313	63	75-125	mg/L	08.08.2020 12:32	X
Methyl bromide	<0.00500	0.0500	0.0157	31	60-140	mg/L	08.08.2020 12:32	X
2-Butanone	<0.0500	0.250	0.280	112	60-140	mg/L	08.08.2020 12:32	
n-Butylbenzene	<0.00100	0.0500	0.0273	55	75-125	mg/L	08.08.2020 12:32	X
Sec-Butylbenzene	0.00215	0.0500	0.0288	53	75-125	mg/L	08.08.2020 12:32	X
tert-Butylbenzene	<0.00100	0.0500	0.0270	54	75-125	mg/L	08.08.2020 12:32	X
Carbon Tetrachloride	<0.00500	0.0500	0.0309	62	62-125	mg/L	08.08.2020 12:32	
Chlorobenzene	<0.00100	0.0500	0.0274	55	60-133	mg/L	08.08.2020 12:32	X
Chloroethane	<0.0100	0.0500	0.0284	57	60-140	mg/L	08.08.2020 12:32	X
Chloroform	<0.00100	0.0500	0.0290	58	70-130	mg/L	08.08.2020 12:32	X
Methyl Chloride	<0.0100	0.0500	0.0377	75	60-140	mg/L	08.08.2020 12:32	
2-Chlorotoluene	<0.00100	0.0500	0.0320	64	73-125	mg/L	08.08.2020 12:32	X
4-Chlorotoluene	<0.00100	0.0500	0.0275	55	74-125	mg/L	08.08.2020 12:32	X
p-Cymene (p-Isopropyltoluene)	0.00114	0.0500	0.0276	53	75-125	mg/L	08.08.2020 12:32	X
Dibromochloromethane	<0.00500	0.0500	0.0287	57	73-125	mg/L	08.08.2020 12:32	X
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0393	79	59-125	mg/L	08.08.2020 12:32	
1,2-Dibromoethane	<0.00500	0.0500	0.0316	63	73-125	mg/L	08.08.2020 12:32	X
Methylene Bromide	<0.00100	0.0500	0.0294	59	69-127	mg/L	08.08.2020 12:32	X
1,2-Dichlorobenzene	<0.00100	0.0500	0.0259	52	75-125	mg/L	08.08.2020 12:32	X
1,3-Dichlorobenzene	<0.00100	0.0500	0.0252	50	75-125	mg/L	08.08.2020 12:32	X
1,4-Dichlorobenzene	<0.00100	0.0500	0.0248	50	75-125	mg/L	08.08.2020 12:32	X
Dichlorodifluoromethane	<0.00100	0.0500	0.0253	51	60-140	mg/L	08.08.2020 12:32	X
1,1-Dichloroethane	<0.00100	0.0500	0.0289	58	72-125	mg/L	08.08.2020 12:32	X
1,2-Dichloroethane	<0.00100	0.0500	0.0279	56	68-127	mg/L	08.08.2020 12:32	X
1,1-Dichloroethene	<0.00100	0.0500	0.0291	58	59-172	mg/L	08.08.2020 12:32	X
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0287	57	75-125	mg/L	08.08.2020 12:32	X
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0285	57	75-125	mg/L	08.08.2020 12:32	X
1,2-Dichloropropane	<0.00500	0.0500	0.0292	58	74-125	mg/L	08.08.2020 12:32	X
1,3-Dichloropropane	<0.00500	0.0500	0.0300	60	75-125	mg/L	08.08.2020 12:32	X
2,2-Dichloropropane	<0.00500	0.0500	0.0304	61	75-125	mg/L	08.08.2020 12:32	X
1,1-Dichloropropene	<0.00500	0.0500	0.0316	63	75-125	mg/L	08.08.2020 12:32	X
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0287	57	74-125	mg/L	08.08.2020 12:32	X
trans-1,3-dichloropropene	<0.00500	0.0500	0.0287	57	66-125	mg/L	08.08.2020 12:32	X
Ethylbenzene	0.0200	0.0500	0.0470	54	75-125	mg/L	08.08.2020 12:32	X
Hexachlorobutadiene	<0.00500	0.0500	0.0285	57	75-125	mg/L	08.08.2020 12:32	X
Isopropylbenzene	0.0110	0.0500	0.0387	55	75-125	mg/L	08.08.2020 12:32	X
Methylene Chloride	<0.00500	0.0500	0.0175	35	75-125	mg/L	08.08.2020 12:32	X
MTBE	<0.00500	0.0500	0.0336	67	65-135	mg/L	08.08.2020 12:32	
Naphthalene	<0.0100	0.0500	0.0378	76	70-130	mg/L	08.08.2020 12:32	
n-Propylbenzene	0.0118	0.0500	0.0381	53	75-125	mg/L	08.08.2020 12:32	X
Styrene	<0.00100	0.0500	0.0274	55	75-125	mg/L	08.08.2020 12:32	X
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0279	56	72-125	mg/L	08.08.2020 12:32	X
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0335	67	74-125	mg/L	08.08.2020 12:32	X
Tetrachloroethylene	<0.00100	0.0500	0.0280	56	71-125	mg/L	08.08.2020 12:32	X
Toluene	0.0300	0.0500	0.0565	53	59-139	mg/L	08.08.2020 12:32	X
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0339	68	75-137	mg/L	08.08.2020 12:32	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134003

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.08.2020

Parent Sample Id: 669516-001

MS Sample Id: 669516-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0307	61	75-135	mg/L	08.08.2020 12:32	X
1,1,1-Trichloroethane	<0.00500	0.0500	0.0301	60	75-125	mg/L	08.08.2020 12:32	X
1,1,2-Trichloroethane	<0.00100	0.0500	0.0307	61	75-127	mg/L	08.08.2020 12:32	X
Trichloroethylene	<0.00500	0.0500	0.0297	59	62-137	mg/L	08.08.2020 12:32	X
Trichlorofluoromethane	<0.00100	0.0500	0.0284	57	60-140	mg/L	08.08.2020 12:32	X
1,2,3-Trichloropropane	<0.00100	0.0500	0.0345	69	75-125	mg/L	08.08.2020 12:32	X
1,2,4-Trimethylbenzene	0.0707	0.0500	0.0927	44	75-125	mg/L	08.08.2020 12:32	X
1,3,5-Trimethylbenzene	0.0209	0.0500	0.0465	51	70-125	mg/L	08.08.2020 12:32	X
o-Xylene	0.00987	0.0500	0.0369	54	75-125	mg/L	08.08.2020 12:32	X
m,p-Xylenes	0.0628	0.100	0.116	53	75-125	mg/L	08.08.2020 12:32	X
Vinyl Chloride	<0.00200	0.0500	0.0289	58	60-140	mg/L	08.08.2020 12:32	X

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	08.08.2020 12:32
1,2-Dichloroethane-D4	100		63-144	%	08.08.2020 12:32
Toluene-D8	98		80-117	%	08.08.2020 12:32
4-Bromofluorobenzene	97		74-124	%	08.08.2020 12:32

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 392-7550
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No.:

V49514

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	(210) 219-8858	Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ ARC ☐ Superfund ☐ State of Project: Reporting: level II ☐ level III ☐ PST/UST ☐ RRP ☐ level IV ☐ Deliverables: EDD ☐ ADaPT ☐ Other:	

Project Name:		Levey Well		Hobbs NM		Turn Around		ANALYSIS REQUEST										Work Order Notes	
Project Number:		03B141700-1				Routine ☐													
P.O. Number:		03B141700-1				Rush: <i>24 hrs</i>													
Sampler's Name:		<i>Kelly Lawry</i>				Due Date:													
SAMPLE RECEIPT								Temp Blank:		Yes ☒ No		Wet Ice:		Yes ☒ No					
Temperature (°C):		<i>33.89</i>				Thermometer ID													
Received In tact:		<i>(Yes)</i>		No															
Cooler Custody Seals:		<i>Yes</i>		No		N/A		Correction Factor:											
Sample Custody Seals:		<i>Yes</i>		No		N/A		Total Containers:											
Number of Containers																			
F, Cl, SO ₄ , B																			
Ca, K, Mg, Na, Si																			
ty																			
TAT starts the day received by the lab, if received by 4:30pm																			

[illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metals(s) to be analyzed																											
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 ₂	Na	Sr	Ti	Sn	U	V	Zn
TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	B	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 Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencro 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 Xencro. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xencro, 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>[Signature]</i>	<i>[Signature]</i>	3/7/02	2		
3			4		
5		1/3/05	6		

CUSTODY SEAL
Date 08/07/2023
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **68480**

Date/Time: 08.07.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771209578727

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
669516-001	W	Levey Well	08.07.2020 11:05	SW8260C	VOCs by SW-846 8260C	08.10.2020	08.21.2020	JKR	BDCME BRBZ BRCLME	
669516-001	W	Levey Well	08.07.2020 11:05	E200.7	Recoverable Metals per ICP by EPA 200	08.10.2020	02.03.2021	JKR	CA K MG NA SI	
669516-001	W	Levey Well	08.07.2020 11:05	E300	Inorganic Anions by EPA 300/300.1	08.10.2020	08.09.2020 11:05	JKR	BR CL F NO2N NO3N SC	
669516-001	W	Levey Well	08.07.2020 11:05	SM4500-H	pH by SM4500-H	08.10.2020	08.07.2020 11:20	JKR		
669516-001	W	Levey Well	08.07.2020 11:05	SM2540C	TDS by SM2540C	08.10.2020	08.14.2020	JKR	TDS	
669516-001	W	Levey Well	08.07.2020 11:05	SM2320B	Alkalinity by SM2320B	08.10.2020	08.21.2020	JKR	ALK ALKB ALKC	
669516-001	W	Levey Well	08.07.2020 11:05	SM1030E	Cation-Anion Balance Calculation	08.10.2020	09.06.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 08.07.2020

Received By:



Jhyrom Edralin

Date Received: 08.08.2020

Cooler Temperature: 2.5

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 68480

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-188

Sent By: Brianna Teel

Date Sent: 08.07.2020 01.22 PM

Received By: Jhyrom Edralin

Date Received: 08.08.2020 09.40 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 08.08.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 08.07.2020 01.15.00 PM

Work Order #: 669516

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 08.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.10.2020

Certificate of Analysis Summary 669985

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 08.13.2020 14:19
 Report Date: 08.14.2020 20:19
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669985-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.13.2020 12:05					
Alkalinity by SM2320B SUB: T104704215-20-37	Extracted: 08.14.2020 11:27 Analyzed: 08.14.2020 12:24 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1150 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1150 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-37	Extracted: Analyzed: 08.14.2020 17:10 Units/RL: % RL					
Cation-Anion Balance	5.00					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-37	Extracted: 08.14.2020 10:15 Analyzed: 08.14.2020 10:44 Units/RL: mg/L RL					
Bromide	0.713 0.500					
Chloride	408 0.500					
Fluoride	0.505 0.500					
Nitrate as N	0.191 0.100					
Nitrite as N	1.45 D 1.00					
Sulfate	34.9 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 669985

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 08.13.2020 14:19
Report Date: 08.14.2020 20:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669985-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.13.2020 12:05					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-37	Extracted:	08.14.2020 09:30					
	Analyzed:	08.14.2020 14:26					
	Units/RL:	mg/L RL					
	Calcium	368 D 10.0					
	Magnesium	75.1 0.200					
	Potassium	6.54 0.500					
	Silica	66.0 1.07					
	Sodium	115 0.500					
TDS by SM2540C SUB: T104704215-20-37	Extracted:						
	Analyzed:	08.14.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1980 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 669985

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

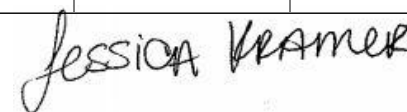
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 08.13.2020 14:19
 Report Date: 08.14.2020 20:19
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669985-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.13.2020 12:05					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted:	08.14.2020 12:00					
	Analyzed:	08.14.2020 16:58					
	Units/RL:	mg/L RL					
Benzene		0.00533 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		<0.00100 0.00100					
Sec-Butylbenzene		0.00196 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00115 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 669985

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

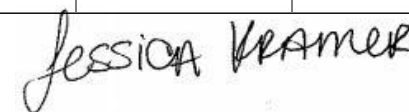
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 08.13.2020 14:19
Report Date: 08.14.2020 20:19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 669985-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.13.2020 12:05					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted: 08.14.2020 12:00 Analyzed: 08.14.2020 16:58 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0195 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0107 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0119 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

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Certificate of Analysis Summary 669985

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 08.13.2020 14:19
 Report Date: 08.14.2020 20:19
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669985-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.13.2020 12:05					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted:	08.14.2020 12:00					
	Analyzed:	08.14.2020 16:58					
	Units/RL:	mg/L RL					
	Toluene	0.0300 0.00100					
	1,2,3-Trichlorobenzene	<0.00500 0.00500					
	1,2,4-Trichlorobenzene	<0.00500 0.00500					
	1,1,1-Trichloroethane	<0.00500 0.00500					
	1,1,2-Trichloroethane	<0.00100 0.00100					
	Trichloroethylene	<0.00500 0.00500					
	Trichlorofluoromethane	<0.00100 0.00100					
	1,2,3-Trichloropropane	<0.00100 0.00100					
	1,2,4-Trimethylbenzene	0.0710 0.00100					
	1,3,5-Trimethylbenzene	0.0206 0.00100					
	o-Xylene	0.00978 0.00100					
	m,p-Xylenes	0.0622 0.0100					
	Vinyl Chloride	<0.00200 0.00200					
	Total Xylenes	0.0720 0.00100					
pH by SM4500-H SUB: T104704215-20-37	Extracted:						
	Analyzed:	08.14.2020 14:32					
	Units/RL:	Deg C RL					
	Temperature	23.1 K					
pH by SM4500-H SUB: T104704215-20-37	Extracted:						
	Analyzed:	08.14.2020 14:32					
	Units/RL:	SU RL					
	pH	6.26 K					

BRL - Below Reporting Limit

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Analytical Report 669985

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

08.14.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.14.2020

Project Manager: **Beaux Jennings****Ensolum**

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **669985****Levey Well Hobbs NM**

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669985. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669985 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 669985

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	08.13.2020 12:05		669985-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 669985

Report Date: 08.14.2020
Date Received: 08.13.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134659 VOCs by SW-846 8260C

Hexachlorobutadiene recovered above QC limits Analyte was not detected in any of the associated samples and therefore the data was accepted. Dichlorodifluoromethane recovered above QC limits in the Blank Spike and Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 669985-001.



Certificate of Analytical Results 669985

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.13.2020 14:19

Lab Sample Id: 669985-001

Date Collected: 08.13.2020 12:05

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 08.14.2020 11:27

Seq Number: 3134599

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1150	4.00	mg/L	08.14.2020 12:24		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1150	4.00	mg/L	08.14.2020 12:24		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	08.14.2020 12:24	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	08.14.2020 12:24	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3134655

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	5.00		%	08.14.2020 17:10		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 08.14.2020 10:15

Seq Number: 3134644

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.713	0.500	mg/L	08.14.2020 10:44		1
Chloride	16887-00-6	408	0.500	mg/L	08.14.2020 10:44		1
Fluoride	16984-48-8	0.505	0.500	mg/L	08.14.2020 10:44		1
Nitrate as N	14797-55-8	0.191	0.100	mg/L	08.14.2020 10:44		1
Nitrite as N	14797-65-0	1.45	1.00	mg/L	08.14.2020 10:56	D	10
Sulfate	14808-79-8	34.9	0.500	mg/L	08.14.2020 10:44		1



Certificate of Analytical Results 669985

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well** Matrix: Water Date Received:08.13.2020 14:19
Lab Sample Id: 669985-001 Date Collected: 08.13.2020 12:05

Analytical Method: TDS by SM2540C
Tech: YAV % Moisture:
Analyst: YAV
Seq Number: 3134596 SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1980	5.00	mg/L	08.14.2020 10:00		1

Analytical Method: pH by SM4500-H
Tech: KBU % Moisture:
Analyst: KBU
Seq Number: 3134610 SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.26		SU	08.14.2020 14:32	K	1
Temperature	TEMP	23.1		Deg C	08.14.2020 14:32	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7
Tech: MLI Prep Method: E200.7P
Analyst: DEP Date Prep: 08.14.2020 09:30 % Moisture:
Seq Number: 3134636 SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	368	10.0	mg/L	08.14.2020 14:51	D	50
Magnesium	7439-95-4	75.1	0.200	mg/L	08.14.2020 14:26		1
Potassium	7440-09-7	6.54	0.500	mg/L	08.14.2020 14:26		1
Silica	7631-86-9	66.0	1.07	mg/L	08.14.2020 14:26		1
Sodium	7440-23-5	115	0.500	mg/L	08.14.2020 14:26		1



Certificate of Analytical Results 669985

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.13.2020 14:19

Lab Sample Id: 669985-001

Date Collected: 08.13.2020 12:05

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 08.14.2020 12:00

Seq Number: 3134659

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00533	0.00100	mg/L	08.14.2020 16:58		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	08.14.2020 16:58	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Sec-Butylbenzene	135-98-8	0.00196	0.00100	mg/L	08.14.2020 16:58		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	08.14.2020 16:58	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	08.14.2020 16:58	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00115	0.00100	mg/L	08.14.2020 16:58		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	08.14.2020 16:58	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Ethylbenzene	100-41-4	0.0195	0.00100	mg/L	08.14.2020 16:58		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	08.14.2020 16:58	UH	1



Certificate of Analytical Results 669985

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.13.2020 14:19

Lab Sample Id: 669985-001

Date Collected: 08.13.2020 12:05

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 08.14.2020 12:00

Seq Number: 3134659

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0107	0.00100	mg/L	08.14.2020 16:58		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	08.14.2020 16:58	U	1
n-Propylbenzene	103-65-1	0.0119	0.00100	mg/L	08.14.2020 16:58		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Toluene	108-88-3	0.0300	0.00100	mg/L	08.14.2020 16:58		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	08.14.2020 16:58	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	08.14.2020 16:58	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0710	0.00100	mg/L	08.14.2020 16:58		1
1,3,5-Trimethylbenzene	108-67-8	0.0206	0.00100	mg/L	08.14.2020 16:58		1
o-Xylene	95-47-6	0.00978	0.00100	mg/L	08.14.2020 16:58		1
m,p-Xylenes	179601-23-1	0.0622	0.0100	mg/L	08.14.2020 16:58		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	08.14.2020 16:58	U	1
Total Xylenes	1330-20-7	0.0720	0.00100	mg/L	08.14.2020 16:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	08.14.2020 16:58	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	08.14.2020 16:58	
Toluene-D8	2037-26-5	100	%	80-117	08.14.2020 16:58	
4-Bromofluorobenzene	460-00-4	97	%	74-124	08.14.2020 16:58	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134599

MB Sample Id: 7709465-1-BLK

Matrix: Water

LCS Sample Id: 7709465-1-BKS

Prep Method: SM2320P

Date Prep: 08.14.2020

LCSD Sample Id: 7709465-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	253	101	256	102	85-115	1	20	mg/L	08.14.2020 12:05	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134599

Matrix: Water

MB Sample Id: 7709465-1-BLK

Prep Method: SM2320P

Date Prep: 08.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	08.14.2020 11:58	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	08.14.2020 11:58	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	08.14.2020 11:58	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134599

Matrix: Water

Parent Sample Id: 669985-001

MD Sample Id: 669985-001 D

Prep Method: SM2320P

Date Prep: 08.14.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1150	1150	0	20	mg/L	08.14.2020 12:38	
Alkalinity, Bicarbonate (as CaCO ₃)	1150	1150	0	20	mg/L	08.14.2020 12:38	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.14.2020 12:38	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.14.2020 12:38	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3134599

Matrix: Water

Parent Sample Id: 670000-010

MD Sample Id: 670000-010 D

Prep Method: SM2320P

Date Prep: 08.14.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	113	113	0	20	mg/L	08.14.2020 13:54	
Alkalinity, Bicarbonate (as CaCO ₃)	113	113	0	20	mg/L	08.14.2020 13:54	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.14.2020 13:54	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.14.2020 13:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134644

Matrix: Water

Prep Method: E300P

Date Prep: 08.14.2020

MB Sample Id: 7709449-1-BLK

LCS Sample Id: 7709449-1-BKS

LCSD Sample Id: 7709449-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	08.14.2020 10:19	
Chloride	<0.500	10.0	10.9	109	10.8	108	90-110	1	20	mg/L	08.14.2020 10:19	
Fluoride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	08.14.2020 10:19	
Nitrate as N	<0.100	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	08.14.2020 10:19	
Nitrite as N	<0.100	10.0	9.77	98	9.77	98	90-110	0	20	mg/L	08.14.2020 10:19	
Sulfate	<0.500	10.0	10.6	106	10.5	105	90-110	1	20	mg/L	08.14.2020 10:19	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134644

Matrix: Water

Prep Method: E300P

Date Prep: 08.14.2020

Parent Sample Id: 670000-001

MS Sample Id: 670000-001 S

MSD Sample Id: 670000-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.150	10.0	10.1	100	10.1	100	90-110	0	20	mg/L	08.14.2020 12:47	
Chloride	23.4	10.0	32.4	90	32.3	89	90-110	0	20	mg/L	08.14.2020 12:47	X
Fluoride	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	08.14.2020 12:47	
Nitrate as N	0.173	10.0	9.98	98	9.97	98	90-110	0	20	mg/L	08.14.2020 12:47	
Nitrite as N	0.120	10.0	10.2	101	10.2	101	90-110	0	20	mg/L	08.14.2020 12:47	
Sulfate	24.5	10.0	33.9	94	33.9	94	90-110	0	20	mg/L	08.14.2020 12:47	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3134644

Matrix: Water

Prep Method: E300P

Date Prep: 08.14.2020

Parent Sample Id: 670000-002

MS Sample Id: 670000-002 S

MSD Sample Id: 670000-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.155	10.0	9.95	98	9.96	98	90-110	0	20	mg/L	08.14.2020 13:24	
Chloride	23.3	10.0	32.4	91	32.3	90	90-110	0	20	mg/L	08.14.2020 13:24	
Fluoride	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	08.14.2020 13:24	
Nitrate as N	0.158	10.0	9.84	97	9.86	97	90-110	0	20	mg/L	08.14.2020 13:24	
Nitrite as N	0.125	10.0	9.98	99	10.0	99	90-110	0	20	mg/L	08.14.2020 13:24	
Sulfate	24.4	10.0	33.8	94	33.8	94	90-110	0	20	mg/L	08.14.2020 13:24	

Analytical Method: TDS by SM2540C

Seq Number: 3134596

Matrix: Water

MB Sample Id: 3134596-1-BLK

LCS Sample Id: 3134596-1-BKS

LCSD Sample Id: 3134596-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1010	101	80-120	0	10	mg/L	08.14.2020 10:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: TDS by SM2540C

Seq Number: 3134596

Matrix: Water

Parent Sample Id: 669985-001

MD Sample Id: 669985-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1980	1970	1	10	mg/L	08.14.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3134610

Matrix: Water

Parent Sample Id: 669985-001

MD Sample Id: 669985-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.26	6.27	0	20	SU	08.14.2020 14:32	
Temperature	23.1	23.1	0	20	Deg C	08.14.2020 14:32	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3134636

Matrix: Water

MB Sample Id: 7709457-1-BLK

LCS Sample Id: 7709457-1-BKS

Prep Method: E200.7P

Date Prep: 08.14.2020

LCSD Sample Id: 7709457-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.2	93	23.1	92	85-115	0	20	mg/L	08.14.2020 13:44	
Magnesium	<0.200	25.0	23.5	94	23.3	93	85-115	1	20	mg/L	08.14.2020 13:44	
Potassium	<0.500	10.0	9.41	94	9.36	94	85-115	1	20	mg/L	08.14.2020 13:44	
Silica	<1.07	21.4	20.6	96	20.6	96	85-115	0	20	mg/L	08.14.2020 13:44	
Sodium	<0.500	25.0	24.0	96	24.0	96	85-115	0	20	mg/L	08.14.2020 13:44	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3134636

Matrix: Waste Water

Parent Sample Id: 669806-001

MS Sample Id: 669806-001 S

Prep Method: E200.7P

Date Prep: 08.14.2020

MSD Sample Id: 669806-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	20.5	25.0	45.1	98	45.0	98	70-130	0	20	mg/L	08.14.2020 13:56	
Magnesium	2.74	25.0	27.5	99	27.5	99	70-130	0	20	mg/L	08.14.2020 13:56	
Potassium	43.7	10.0	55.1	114	54.9	112	70-130	0	20	mg/L	08.14.2020 13:56	
Silica	40.4	21.4	63.8	109	63.7	109	70-130	0	20	mg/L	08.14.2020 13:56	
Sodium	327	25.0	354	108	354	108	70-130	0	20	mg/L	08.14.2020 13:56	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134659

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.14.2020

MB Sample Id: 7709505-1-BLK

LCS Sample Id: 7709505-1-BKS

LCSD Sample Id: 7709505-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0564	113	0.0542	108	66-142	4	25	mg/L	08.14.2020 12:01	
Bromobenzene	<0.00100	0.0500	0.0560	112	0.0502	100	75-125	11	25	mg/L	08.14.2020 12:01	
Bromochloromethane	<0.00100	0.0500	0.0556	111	0.0523	105	60-140	6	25	mg/L	08.14.2020 12:01	
Bromodichloromethane	<0.00100	0.0500	0.0548	110	0.0531	106	75-125	3	25	mg/L	08.14.2020 12:01	
Bromoform	<0.00500	0.0500	0.0594	119	0.0531	106	75-125	11	25	mg/L	08.14.2020 12:01	
Methyl bromide	<0.00500	0.0500	0.0524	105	0.0531	106	60-140	1	25	mg/L	08.14.2020 12:01	
2-Butanone	<0.0500	0.250	0.343	137	0.303	121	60-140	12	25	mg/L	08.14.2020 12:01	
n-Butylbenzene	<0.00100	0.0500	0.0551	110	0.0484	97	75-125	13	25	mg/L	08.14.2020 12:01	
Sec-Butylbenzene	<0.00100	0.0500	0.0518	104	0.0456	91	75-125	13	25	mg/L	08.14.2020 12:01	
tert-Butylbenzene	<0.00100	0.0500	0.0578	116	0.0510	102	75-125	13	25	mg/L	08.14.2020 12:01	
Carbon Tetrachloride	<0.00500	0.0500	0.0572	114	0.0546	109	62-125	5	25	mg/L	08.14.2020 12:01	
Chlorobenzene	<0.00100	0.0500	0.0565	113	0.0511	102	60-133	10	25	mg/L	08.14.2020 12:01	
Chloroethane	<0.0100	0.0500	0.0458	92	0.0461	92	60-140	1	25	mg/L	08.14.2020 12:01	
Chloroform	<0.00100	0.0500	0.0568	114	0.0549	110	70-130	3	25	mg/L	08.14.2020 12:01	
Methyl Chloride	<0.0100	0.0500	0.0688	138	0.0680	136	60-140	1	25	mg/L	08.14.2020 12:01	
2-Chlorotoluene	<0.00100	0.0500	0.0565	113	0.0503	101	73-125	12	25	mg/L	08.14.2020 12:01	
4-Chlorotoluene	<0.00100	0.0500	0.0561	112	0.0500	100	74-125	11	25	mg/L	08.14.2020 12:01	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0560	112	0.0494	99	75-125	13	25	mg/L	08.14.2020 12:01	
Dibromochloromethane	<0.00500	0.0500	0.0576	115	0.0518	104	73-125	11	25	mg/L	08.14.2020 12:01	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0538	108	0.0431	86	59-125	22	25	mg/L	08.14.2020 12:01	
1,2-Dibromoethane	<0.00500	0.0500	0.0589	118	0.0527	105	73-125	11	25	mg/L	08.14.2020 12:01	
Methylene Bromide	<0.00100	0.0500	0.0561	112	0.0535	107	69-127	5	25	mg/L	08.14.2020 12:01	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0564	113	0.0501	100	75-125	12	25	mg/L	08.14.2020 12:01	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0559	112	0.0493	99	75-125	13	25	mg/L	08.14.2020 12:01	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0562	112	0.0503	101	75-125	11	25	mg/L	08.14.2020 12:01	
Dichlorodifluoromethane	<0.00100	0.0500	0.0784	157	0.0772	154	60-140	2	25	mg/L	08.14.2020 12:01	H
1,1-Dichloroethane	<0.00100	0.0500	0.0570	114	0.0548	110	72-125	4	25	mg/L	08.14.2020 12:01	
1,2-Dichloroethane	<0.00100	0.0500	0.0543	109	0.0520	104	68-127	4	25	mg/L	08.14.2020 12:01	
1,1-Dichloroethene	<0.00100	0.0500	0.0598	120	0.0581	116	59-172	3	25	mg/L	08.14.2020 12:01	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0558	112	0.0531	106	75-125	5	25	mg/L	08.14.2020 12:01	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0567	113	0.0544	109	75-125	4	25	mg/L	08.14.2020 12:01	
1,2-Dichloropropane	<0.00500	0.0500	0.0570	114	0.0550	110	74-125	4	25	mg/L	08.14.2020 12:01	
1,3-Dichloropropane	<0.00500	0.0500	0.0605	121	0.0544	109	75-125	11	25	mg/L	08.14.2020 12:01	
2,2-Dichloropropane	<0.00500	0.0500	0.0552	110	0.0538	108	75-125	3	25	mg/L	08.14.2020 12:01	
1,1-Dichloropropene	<0.00500	0.0500	0.0614	123	0.0586	117	75-125	5	25	mg/L	08.14.2020 12:01	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0572	114	0.0545	109	74-125	5	25	mg/L	08.14.2020 12:01	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0569	114	0.0511	102	66-125	11	25	mg/L	08.14.2020 12:01	
Ethylbenzene	0.000150	0.0500	0.0557	111	0.0507	101	75-125	9	25	mg/L	08.14.2020 12:01	
Hexachlorobutadiene	<0.00500	0.0500	0.0649	130	0.0545	109	75-125	17	25	mg/L	08.14.2020 12:01	H
Isopropylbenzene	<0.00100	0.0500	0.0549	110	0.0499	100	75-125	10	25	mg/L	08.14.2020 12:01	
Methylene Chloride	<0.00500	0.0500	0.0469	94	0.0469	94	75-125	0	25	mg/L	08.14.2020 12:01	
MTBE	<0.00500	0.0500	0.0574	115	0.0533	107	65-135	7	25	mg/L	08.14.2020 12:01	
Naphthalene	<0.0100	0.0500	0.0600	120	0.0467	93	70-130	25	25	mg/L	08.14.2020 12:01	
n-Propylbenzene	<0.00100	0.0500	0.0577	115	0.0516	103	75-125	11	25	mg/L	08.14.2020 12:01	
Styrene	<0.00100	0.0500	0.0556	111	0.0514	103	75-125	8	25	mg/L	08.14.2020 12:01	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0584	117	0.0523	105	72-125	11	25	mg/L	08.14.2020 12:01	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0565	113	0.0492	98	74-125	14	25	mg/L	08.14.2020 12:01	
Tetrachloroethylene	<0.00100	0.0500	0.0571	114	0.0513	103	71-125	11	25	mg/L	08.14.2020 12:01	
Toluene	<0.00100	0.0500	0.0573	115	0.0522	104	59-139	9	25	mg/L	08.14.2020 12:01	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0598	120	0.0472	94	75-137	24	25	mg/L	08.14.2020 12:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134659

MB Sample Id: 7709505-1-BLK

Matrix: Water

LCS Sample Id: 7709505-1-BKS

Prep Method: SW5030B

Date Prep: 08.14.2020

LCSD Sample Id: 7709505-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0605	121	0.0508	102	75-135	17	25	mg/L	08.14.2020 12:01	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0556	111	0.0533	107	75-125	4	25	mg/L	08.14.2020 12:01	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0574	115	0.0521	104	75-127	10	25	mg/L	08.14.2020 12:01	
Trichloroethylene	<0.00500	0.0500	0.0568	114	0.0537	107	62-137	6	25	mg/L	08.14.2020 12:01	
Trichlorofluoromethane	<0.00100	0.0500	0.0589	118	0.0577	115	60-140	2	25	mg/L	08.14.2020 12:01	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0595	119	0.0497	99	75-125	18	25	mg/L	08.14.2020 12:01	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0558	112	0.0494	99	75-125	12	25	mg/L	08.14.2020 12:01	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0567	113	0.0499	100	70-125	13	25	mg/L	08.14.2020 12:01	
o-Xylene	<0.00100	0.0500	0.0573	115	0.0519	104	75-125	10	25	mg/L	08.14.2020 12:01	
m,p-Xylenes	<0.0100	0.100	0.114	114	0.104	104	75-125	9	25	mg/L	08.14.2020 12:01	
Vinyl Chloride	<0.00200	0.0500	0.0616	123	0.0612	122	60-140	1	25	mg/L	08.14.2020 12:01	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	100		100		101		75-131			%	08.14.2020 12:01	
1,2-Dichloroethane-D4	101		101		96		63-144			%	08.14.2020 12:01	
Toluene-D8	100		102		99		80-117			%	08.14.2020 12:01	
4-Bromofluorobenzene	99		98		96		74-124			%	08.14.2020 12:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134659

Parent Sample Id: 669860-014

Matrix: Water

MS Sample Id: 669860-014 S

Prep Method: SW5030B

Date Prep: 08.14.2020

MSD Sample Id: 669860-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0502	100	0.0492	98	66-142	2	25	mg/L	08.14.2020 12:58	
Bromobenzene	<0.00100	0.0500	0.0475	95	0.0494	99	75-125	4	25	mg/L	08.14.2020 12:58	
Bromochloromethane	<0.00100	0.0500	0.0500	100	0.0487	97	60-140	3	25	mg/L	08.14.2020 12:58	
Bromodichloromethane	<0.00100	0.0500	0.0490	98	0.0486	97	75-125	1	25	mg/L	08.14.2020 12:58	
Bromoform	<0.00500	0.0500	0.0520	104	0.0518	104	75-125	0	25	mg/L	08.14.2020 12:58	
Methyl bromide	<0.00500	0.0500	0.0453	91	0.0455	91	60-140	0	25	mg/L	08.14.2020 12:58	
2-Butanone	<0.0500	0.250	0.271	108	0.275	110	60-140	1	25	mg/L	08.14.2020 12:58	
n-Butylbenzene	<0.00100	0.0500	0.0473	95	0.0484	97	75-125	2	25	mg/L	08.14.2020 12:58	
Sec-Butylbenzene	<0.00100	0.0500	0.0446	89	0.0455	91	75-125	2	25	mg/L	08.14.2020 12:58	
tert-Butylbenzene	<0.00100	0.0500	0.0497	99	0.0507	101	75-125	2	25	mg/L	08.14.2020 12:58	
Carbon Tetrachloride	<0.00500	0.0500	0.0512	102	0.0507	101	62-125	1	25	mg/L	08.14.2020 12:58	
Chlorobenzene	<0.00100	0.0500	0.0495	99	0.0488	98	60-133	1	25	mg/L	08.14.2020 12:58	
Chloroethane	<0.0100	0.0500	0.0440	88	0.0432	86	60-140	2	25	mg/L	08.14.2020 12:58	
Chloroform	<0.00100	0.0500	0.0504	101	0.0499	100	70-130	1	25	mg/L	08.14.2020 12:58	
Methyl Chloride	<0.0100	0.0500	0.0633	127	0.0615	123	60-140	3	25	mg/L	08.14.2020 12:58	
2-Chlorotoluene	<0.00100	0.0500	0.0479	96	0.0490	98	73-125	2	25	mg/L	08.14.2020 12:58	
4-Chlorotoluene	<0.00100	0.0500	0.0482	96	0.0491	98	74-125	2	25	mg/L	08.14.2020 12:58	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0481	96	0.0489	98	75-125	2	25	mg/L	08.14.2020 12:58	
Dibromochloromethane	<0.00500	0.0500	0.0500	100	0.0498	100	73-125	0	25	mg/L	08.14.2020 12:58	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0475	95	0.0478	96	59-125	1	25	mg/L	08.14.2020 12:58	
1,2-Dibromoethane	<0.00500	0.0500	0.0513	103	0.0508	102	73-125	1	25	mg/L	08.14.2020 12:58	
Methylene Bromide	<0.00100	0.0500	0.0497	99	0.0490	98	69-127	1	25	mg/L	08.14.2020 12:58	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0487	97	0.0498	100	75-125	2	25	mg/L	08.14.2020 12:58	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0480	96	0.0484	97	75-125	1	25	mg/L	08.14.2020 12:58	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0496	99	75-125	3	25	mg/L	08.14.2020 12:58	
Dichlorodifluoromethane	<0.00100	0.0500	0.0710	142	0.0702	140	60-140	1	25	mg/L	08.14.2020 12:58	X
1,1-Dichloroethane	<0.00100	0.0500	0.0514	103	0.0511	102	72-125	1	25	mg/L	08.14.2020 12:58	
1,2-Dichloroethane	<0.00100	0.0500	0.0488	98	0.0485	97	68-127	1	25	mg/L	08.14.2020 12:58	
1,1-Dichloroethene	<0.00100	0.0500	0.0547	109	0.0546	109	59-172	0	25	mg/L	08.14.2020 12:58	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0498	100	0.0497	99	75-125	0	25	mg/L	08.14.2020 12:58	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0510	102	0.0506	101	75-125	1	25	mg/L	08.14.2020 12:58	
1,2-Dichloropropane	<0.00500	0.0500	0.0499	100	0.0507	101	74-125	2	25	mg/L	08.14.2020 12:58	
1,3-Dichloropropane	<0.00500	0.0500	0.0531	106	0.0515	103	75-125	3	25	mg/L	08.14.2020 12:58	
2,2-Dichloropropane	<0.00500	0.0500	0.0503	101	0.0492	98	75-125	2	25	mg/L	08.14.2020 12:58	
1,1-Dichloropropene	<0.00500	0.0500	0.0554	111	0.0542	108	75-125	2	25	mg/L	08.14.2020 12:58	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0503	101	0.0495	99	74-125	2	25	mg/L	08.14.2020 12:58	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0483	97	0.0482	96	66-125	0	25	mg/L	08.14.2020 12:58	
Ethylbenzene	<0.00100	0.0500	0.0489	98	0.0485	97	75-125	1	25	mg/L	08.14.2020 12:58	
Hexachlorobutadiene	<0.00500	0.0500	0.0553	111	0.0559	112	75-125	1	25	mg/L	08.14.2020 12:58	
Isopropylbenzene	<0.00100	0.0500	0.0483	97	0.0478	96	75-125	1	25	mg/L	08.14.2020 12:58	
Methylene Chloride	<0.00500	0.0500	0.0412	82	0.0407	81	75-125	1	25	mg/L	08.14.2020 12:58	
MTBE	<0.00500	0.0500	0.0503	101	0.0513	103	65-135	2	25	mg/L	08.14.2020 12:58	
Naphthalene	<0.0100	0.0500	0.0506	101	0.0523	105	70-130	3	25	mg/L	08.14.2020 12:58	
n-Propylbenzene	<0.00100	0.0500	0.0496	99	0.0507	101	75-125	2	25	mg/L	08.14.2020 12:58	
Styrene	<0.00100	0.0500	0.0485	97	0.0489	98	75-125	1	25	mg/L	08.14.2020 12:58	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0500	100	0.0500	100	72-125	0	25	mg/L	08.14.2020 12:58	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0498	100	0.0500	100	74-125	0	25	mg/L	08.14.2020 12:58	
Tetrachloroethylene	<0.00100	0.0500	0.0505	101	0.0497	99	71-125	2	25	mg/L	08.14.2020 12:58	
Toluene	<0.00100	0.0500	0.0499	100	0.0500	100	59-139	0	25	mg/L	08.14.2020 12:58	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0514	103	0.0519	104	75-137	1	25	mg/L	08.14.2020 12:58	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3134659

Parent Sample Id: 669860-014

Matrix: Water

MS Sample Id: 669860-014 S

Prep Method: SW5030B

Date Prep: 08.14.2020

MSD Sample Id: 669860-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0525	105	0.0538	108	75-135	2	25	mg/L	08.14.2020 12:58	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0499	100	0.0499	100	75-125	0	25	mg/L	08.14.2020 12:58	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0501	100	0.0511	102	75-127	2	25	mg/L	08.14.2020 12:58	
Trichloroethylene	<0.00500	0.0500	0.0507	101	0.0496	99	62-137	2	25	mg/L	08.14.2020 12:58	
Trichlorofluoromethane	<0.00100	0.0500	0.0545	109	0.0527	105	60-140	3	25	mg/L	08.14.2020 12:58	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0501	100	0.0517	103	75-125	3	25	mg/L	08.14.2020 12:58	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0479	96	0.0490	98	75-125	2	25	mg/L	08.14.2020 12:58	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0486	97	0.0489	98	70-125	1	25	mg/L	08.14.2020 12:58	
o-Xylene	<0.00100	0.0500	0.0494	99	0.0495	99	75-125	0	25	mg/L	08.14.2020 12:58	
m,p-Xylenes	<0.0100	0.100	0.0995	100	0.0996	100	75-125	0	25	mg/L	08.14.2020 12:58	
Vinyl Chloride	<0.00200	0.0500	0.0567	113	0.0553	111	60-140	3	25	mg/L	08.14.2020 12:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	100		101		75-131	%	08.14.2020 12:58
1,2-Dichloroethane-D4	99		100		63-144	%	08.14.2020 12:58
Toluene-D8	101		102		80-117	%	08.14.2020 12:58
4-Bromofluorobenzene	96		98		74-124	%	08.14.2020 12:58

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

96985

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-1111

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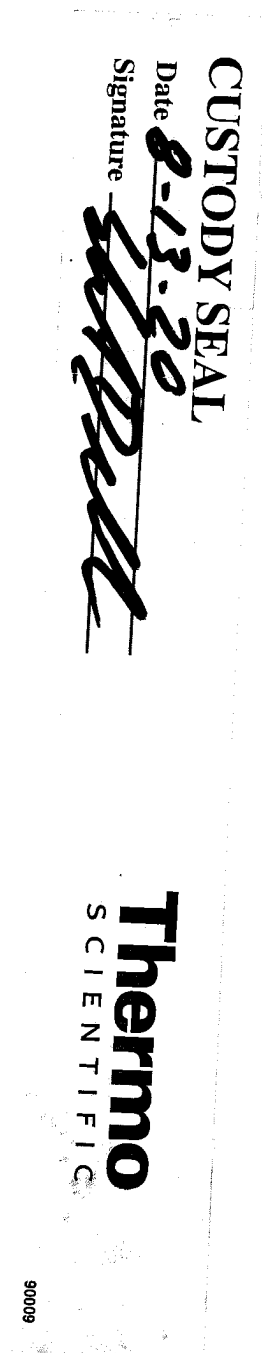
Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	432-230-3344	Email:	bjennings@ensolum.com

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

Project Name:				Levey Well		Hobbs NM		Turn Around		ANALYSIS REQUEST												Work Order Notes			
Project Number:				03B1417001				Routine		☐															
P.O. Number:				03B1417001				Rush: 24 hr <td colspan="12"></td>																	
Sampler's Name:				Shane Diller				Due Date:																	
SAMPLE RECEIPT				Temp Blank:		Yes ☒ No		Wet Ice:		☒ No															
Temperature (°C):				20/1.0		Thermometer ID																			
Received In tact:				Yes ☒ No						Thermometer ID															
Cooler Custody Seals:				Yes ☒ No		Correction Factor:		0.04																	
Sample Custody Seals:				Yes ☒ No		Total Containers:																			
Sample Identification				Matrix		Date Sampled		Time Sampled		Depth														TAT starts the day received by the lab, if received by 4:30pm	
Levey Well				GW		8-13-20		1,205		—															
																								Sample Comments	
																								24hr	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencro 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 Xencro. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xencro, but not analyzed. These terms will be enforced unless previously negotiated.

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM		Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn			
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010:		8RCRA		Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg			
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.											
Relinquished by: (Signature)		Received by: (Signature)		Date/Time		Relinquished by: (Signature)		Received by: (Signature)		Date/Time	
1 				8/13/20		2					
3						4					
5				18/10		6					



Inter-Office Shipment

IOS Number : **68768**

Date/Time: 08.13.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771258915077

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
669985-001	W	Levey Well	08.13.2020 12:05	SW8260C	VOCs by SW-846 8260C	08.14.2020	08.27.2020	JKR	BDCME BRBZ BRCLME	
669985-001	W	Levey Well	08.13.2020 12:05	E200.7	Recoverable Metals per ICP by EPA 200	08.14.2020	02.09.2021	JKR	CA K MG NA SI	
669985-001	W	Levey Well	08.13.2020 12:05	E300	Inorganic Anions by EPA 300/300.1	08.14.2020	08.15.2020 12:05	JKR	BR CL F NO2N NO3N SC	
669985-001	W	Levey Well	08.13.2020 12:05	SM4500-H	pH by SM4500-H	08.14.2020	08.13.2020 12:05	JKR		
669985-001	W	Levey Well	08.13.2020 12:05	SM2540C	TDS by SM2540C	08.14.2020	08.20.2020	JKR	TDS	
669985-001	W	Levey Well	08.13.2020 12:05	SM2320B	Alkalinity by SM2320B	08.14.2020	08.27.2020	JKR	ALK ALKB ALKC	
669985-001	W	Levey Well	08.13.2020 12:05	SM1030E	Cation-Anion Balance Calculation	08.14.2020	09.12.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 08.13.2020

Received By:



Monica Benavides

Date Received: 08.14.2020

Cooler Temperature: 1.1



Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 68768

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-203

Sent By: Brianna Teel

Date Sent: 08.13.2020 02.26 PM

Received By: Monica Benavides

Date Received: 08.14.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Benavides

Date: 08.14.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 08.13.2020 02:19.00 PM

Work Order #: 669985

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 08.13.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.14.2020

Certificate of Analysis Summary 670671

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 08.21.2020 08:52
 Report Date: 08.24.2020 17:38
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 670671-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.20.2020 15:50					
Alkalinity by SM2320B SUB: T104704215-20-37	Extracted: 08.24.2020 10:44 Analyzed: 08.24.2020 14:13 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1090 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1090 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-37	Extracted: Analyzed: 08.24.2020 17:35 Units/RL: % RL					
Cation-Anion Balance	4.40					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-37	Extracted: 08.22.2020 10:30 Analyzed: 08.22.2020 13:06 Units/RL: mg/L RL					
Bromide	0.690 0.500					
Chloride	449 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.164 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	38.7 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 670671



Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 08.21.2020 08:52
Report Date: 08.24.2020 17:38
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	670671-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.20.2020 15:50					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-37	Extracted:	08.23.2020 11:30					
	Analyzed:	08.23.2020 17:46					
	Units/RL:	mg/L RL					
	Calcium	389 D 10.0					
	Magnesium	69.0 0.200					
	Potassium	5.99 0.500					
	Silica	58.3 1.07					
	Sodium	113 0.500					
TDS by SM2540C SUB: T104704215-20-37	Extracted:						
	Analyzed:	08.24.2020 09:02					
	Units/RL:	mg/L RL					
Total Dissolved Solids		2000 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 670671

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

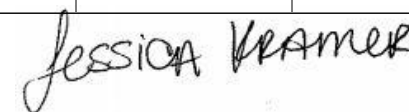
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 08.21.2020 08:52
 Report Date: 08.24.2020 17:38
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	670671-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	08.20.2020 15:50					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted:	08.22.2020 16:00					
	Analyzed:	08.22.2020 17:12					
	Units/RL:	mg/L RL					
Benzene		0.00749 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		<0.00100 0.00100					
Sec-Butylbenzene		0.00292 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00168 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 670671

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

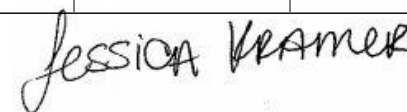
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Fri 08.21.2020 08:52
 Report Date: 08.24.2020 17:38
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 670671-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.20.2020 15:50					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted: 08.22.2020 16:00 Analyzed: 08.22.2020 17:12 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0269 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0150 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0161 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

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Certificate of Analysis Summary 670671

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 08.21.2020 08:52
Report Date: 08.24.2020 17:38
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 670671-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 08.20.2020 15:50					
VOCs by SW-846 8260C SUB: T104704215-20-37	Extracted: 08.22.2020 16:00 Analyzed: 08.22.2020 17:12 Units/RL: mg/L RL					
Toluene	0.0400 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0988 0.00100					
1,3,5-Trimethylbenzene	0.0295 0.00100					
o-Xylene	0.0128 0.00100					
m,p-Xylenes	0.0864 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0992 0.00100					
pH by SM4500-H SUB: T104704215-20-37	Extracted: Analyzed: 08.24.2020 13:33 Units/RL: Deg C RL					
Temperature	24.3 K					
pH by SM4500-H SUB: T104704215-20-37	Extracted: Analyzed: 08.24.2020 13:33 Units/RL: SU RL					
pH	6.18 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 670671

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

08.24.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.24.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **670671**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670671. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670671 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 670671

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	08.20.2020 15:50		670671-001



CASE NARRATIVE

Client Name: Ensolum

Project Name: Levey Well Hobbs NM

Project ID: 03B1417001
Work Order Number(s): 670671

Report Date: 08.24.2020
Date Received: 08.21.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3135339 VOCs by SW-846 8260C

Dichlorodifluoromethane recovered above QC limits in the Blank Spike Duplicate. Analyte was not detected in any of the associated samples and therefore the data was accepted. Samples in the analytical batch are: 670671-001.



Certificate of Analytical Results 670671

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.21.2020 08:52

Lab Sample Id: 670671-001

Date Collected: 08.20.2020 15:50

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 08.24.2020 10:44

Seq Number: 3135405

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1090	4.00	mg/L	08.24.2020 14:13		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1090	4.00	mg/L	08.24.2020 14:13		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	08.24.2020 14:13	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	08.24.2020 14:13	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3135408

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	4.40		%	08.24.2020 17:35		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 08.22.2020 10:30

Seq Number: 3135314

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.690	0.500	mg/L	08.22.2020 13:06		1
Chloride	16887-00-6	449	0.500	mg/L	08.22.2020 13:06		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	08.22.2020 13:06	U	1
Nitrate as N	14797-55-8	0.164	0.100	mg/L	08.22.2020 13:06		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	08.22.2020 13:06	U	1
Sulfate	14808-79-8	38.7	0.500	mg/L	08.22.2020 13:06		1



Certificate of Analytical Results 670671

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well**
Lab Sample Id: 670671-001

Matrix: Water
Date Collected: 08.20.2020 15:50

Date Received:08.21.2020 08:52

Analytical Method: TDS by SM2540C

Tech: YAV
Analyst: YAV
Seq Number: 3135393

% Moisture:

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	2000	5.00	mg/L	08.24.2020 09:02		1

Analytical Method: pH by SM4500-H

Tech: KBU
Analyst: KBU
Seq Number: 3135375

% Moisture:

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.18		SU	08.24.2020 13:33	K	1
Temperature	TEMP	24.3		Deg C	08.24.2020 13:33	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Tech: MLI
Analyst: DEP
Seq Number: 3135335

Prep Method: E200.7P
% Moisture:

Date Prep: 08.23.2020 11:30

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	389	10.0	mg/L	08.23.2020 18:07	D	50
Magnesium	7439-95-4	69.0	0.200	mg/L	08.23.2020 17:46		1
Potassium	7440-09-7	5.99	0.500	mg/L	08.23.2020 17:46		1
Silica	7631-86-9	58.3	1.07	mg/L	08.23.2020 17:46		1
Sodium	7440-23-5	113	0.500	mg/L	08.23.2020 17:46		1



Certificate of Analytical Results 670671

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.21.2020 08:52

Lab Sample Id: 670671-001

Date Collected: 08.20.2020 15:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 08.22.2020 16:00

Seq Number: 3135339

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00749	0.00100	mg/L	08.22.2020 17:12		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	08.22.2020 17:12	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Sec-Butylbenzene	135-98-8	0.00292	0.00100	mg/L	08.22.2020 17:12		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	08.22.2020 17:12	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	08.22.2020 17:12	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00168	0.00100	mg/L	08.22.2020 17:12		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	08.22.2020 17:12	UH	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Ethylbenzene	100-41-4	0.0269	0.00100	mg/L	08.22.2020 17:12		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1



Certificate of Analytical Results 670671

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 08.21.2020 08:52

Lab Sample Id: 670671-001

Date Collected: 08.20.2020 15:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 08.22.2020 16:00

Seq Number: 3135339

SUB: T104704215-20-37

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0150	0.00100	mg/L	08.22.2020 17:12		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	08.22.2020 17:12	U	1
n-Propylbenzene	103-65-1	0.0161	0.00100	mg/L	08.22.2020 17:12		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Toluene	108-88-3	0.0400	0.00100	mg/L	08.22.2020 17:12		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	08.22.2020 17:12	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	08.22.2020 17:12	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0988	0.00100	mg/L	08.22.2020 17:12		1
1,3,5-Trimethylbenzene	108-67-8	0.0295	0.00100	mg/L	08.22.2020 17:12		1
o-Xylene	95-47-6	0.0128	0.00100	mg/L	08.22.2020 17:12		1
m,p-Xylenes	179601-23-1	0.0864	0.0100	mg/L	08.22.2020 17:12		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	08.22.2020 17:12	U	1
Total Xylenes	1330-20-7	0.0992	0.00100	mg/L	08.22.2020 17:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	75-131	08.22.2020 17:12	
1,2-Dichloroethane-D4	17060-07-0	99	%	63-144	08.22.2020 17:12	
Toluene-D8	2037-26-5	101	%	80-117	08.22.2020 17:12	
4-Bromofluorobenzene	460-00-4	98	%	74-124	08.22.2020 17:12	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3135405

MB Sample Id: 7710021-1-BLK

Matrix: Water

LCS Sample Id: 7710021-1-BKS

Prep Method: SM2320P

Date Prep: 08.24.2020

LCSD Sample Id: 7710021-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	261	104	263	105	85-115	1	20	mg/L	08.24.2020 13:53	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3135405

Matrix: Water

MB Sample Id: 7710021-1-BLK

Prep Method: SM2320P

Date Prep: 08.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	08.24.2020 13:46	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	08.24.2020 13:46	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	08.24.2020 13:46	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3135405

Matrix: Water

Parent Sample Id: 670613-006

MD Sample Id: 670613-006 D

Prep Method: SM2320P

Date Prep: 08.24.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	121	121	0	20	mg/L	08.24.2020 15:46	
Alkalinity, Bicarbonate (as CaCO ₃)	121	121	0	20	mg/L	08.24.2020 15:46	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.24.2020 15:46	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.24.2020 15:46	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3135405

Matrix: Water

Parent Sample Id: 670671-001

MD Sample Id: 670671-001 D

Prep Method: SM2320P

Date Prep: 08.24.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1090	1080	1	20	mg/L	08.24.2020 14:25	
Alkalinity, Bicarbonate (as CaCO ₃)	1090	1080	1	20	mg/L	08.24.2020 14:25	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.24.2020 14:25	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	08.24.2020 14:25	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3135314

Matrix: Water

Prep Method: E300P

Date Prep: 08.22.2020

MB Sample Id: 7710000-1-BLK

LCS Sample Id: 7710000-1-BKS

LCSD Sample Id: 7710000-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	08.22.2020 10:24	
Chloride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	08.22.2020 10:24	
Fluoride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	08.22.2020 10:24	
Nitrate as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	08.22.2020 10:24	
Nitrite as N	<0.100	10.0	10.1	101	10.2	102	90-110	1	20	mg/L	08.22.2020 10:24	
Sulfate	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	08.22.2020 10:24	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3135314

Matrix: Water

Prep Method: E300P

Date Prep: 08.22.2020

Parent Sample Id: 670672-001

MS Sample Id: 670672-001 S

MSD Sample Id: 670672-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.634	10.0	10.6	100	10.6	100	90-110	0	20	mg/L	08.22.2020 11:18	
Chloride	339	200	546	104	546	104	90-110	0	20	mg/L	08.22.2020 11:54	
Fluoride	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	08.22.2020 11:18	
Nitrate as N	0.410	10.0	10.2	98	10.2	98	90-110	0	20	mg/L	08.22.2020 11:18	
Nitrite as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	08.22.2020 11:18	
Sulfate	68.3	10.0	76.6	83	76.7	84	90-110	0	20	mg/L	08.22.2020 11:18	X

Analytical Method: TDS by SM2540C

Seq Number: 3135393

Matrix: Water

MB Sample Id: 3135393-1-BLK

LCS Sample Id: 3135393-1-BKS

LCSD Sample Id: 3135393-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	994	99	995	100	80-120	0	10	mg/L	08.24.2020 09:02	

Analytical Method: TDS by SM2540C

Seq Number: 3135393

Matrix: Water

Parent Sample Id: 670671-001

MD Sample Id: 670671-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2000	2150	7	10	mg/L	08.24.2020 09:02	

Analytical Method: pH by SM4500-H

Seq Number: 3135375

Matrix: Water

Parent Sample Id: 670512-001

MD Sample Id: 670512-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.41	7.42	0	20	SU	08.24.2020 13:33	
Temperature	25.0	25.2	1	20	Deg C	08.24.2020 13:33	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

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Analytical Method: pH by SM4500-H

Seq Number: 3135375

Matrix: Waste Water

Parent Sample Id: 670546-001

MD Sample Id: 670546-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	8.01	8.02	0	20	SU	08.24.2020 13:33	
Temperature	24.0	24.2	1	20	Deg C	08.24.2020 13:33	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3135335

Matrix: Water

Prep Method: E200.7P

Date Prep: 08.23.2020

MB Sample Id: 7709995-1-BLK

LCS Sample Id: 7709995-1-BKS

LCSD Sample Id: 7709995-1-BS D

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	22.5	90	22.3	89	85-115	1	20	mg/L	08.23.2020 17:04	
Magnesium	<0.200	25.0	22.7	91	22.6	90	85-115	0	20	mg/L	08.23.2020 17:04	
Potassium	<0.500	10.0	9.19	92	9.14	91	85-115	1	20	mg/L	08.23.2020 17:04	
Silica	<1.07	21.4	19.4	91	19.5	91	85-115	1	20	mg/L	08.23.2020 17:04	
Sodium	<0.500	25.0	22.9	92	22.9	92	85-115	0	20	mg/L	08.23.2020 17:04	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3135335

Matrix: Drinking Water

Prep Method: E200.7P

Date Prep: 08.23.2020

Parent Sample Id: 670401-001

MS Sample Id: 670401-001 S

MSD Sample Id: 670401-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	132	25.0	156	96	155	92	70-130	1	20	mg/L	08.23.2020 17:17	
Magnesium	20.0	25.0	42.8	91	42.6	90	70-130	0	20	mg/L	08.23.2020 17:17	
Potassium	8.76	10.0	18.6	98	18.4	96	70-130	1	20	mg/L	08.23.2020 17:17	
Silica	26.1	21.4	47.0	98	46.6	96	70-130	1	20	mg/L	08.23.2020 17:17	
Sodium	78.8	25.0	104	101	103	97	70-130	1	20	mg/L	08.23.2020 17:17	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3135335

Matrix: Surface Water

Prep Method: E200.7P

Date Prep: 08.23.2020

Parent Sample Id: 670360-003

MS Sample Id: 670360-003 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	1.56	25.0	24.4	91	70-130	mg/L	08.23.2020 18:57	
Magnesium	0.453	25.0	23.6	93	70-130	mg/L	08.23.2020 18:57	
Potassium	0.112	10.0	9.52	94	70-130	mg/L	08.23.2020 18:57	
Silica	6.72	21.4	27.1	95	70-130	mg/L	08.23.2020 18:57	
Sodium	2.66	25.0	26.2	94	70-130	mg/L	08.23.2020 18:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3135339

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.22.2020

MB Sample Id: 7710018-1-BLK

LCS Sample Id: 7710018-1-BKS

LCSD Sample Id: 7710018-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0539	108	0.0554	111	66-142	3	25	mg/L	08.22.2020 14:03	
Bromobenzene	<0.00100	0.0500	0.0505	101	0.0524	105	75-125	4	25	mg/L	08.22.2020 14:03	
Bromochloromethane	<0.00100	0.0500	0.0538	108	0.0538	108	60-140	0	25	mg/L	08.22.2020 14:03	
Bromodichloromethane	<0.00100	0.0500	0.0544	109	0.0550	110	75-125	1	25	mg/L	08.22.2020 14:03	
Bromoform	<0.00500	0.0500	0.0548	110	0.0565	113	75-125	3	25	mg/L	08.22.2020 14:03	
Methyl bromide	<0.00500	0.0500	0.0551	110	0.0568	114	60-140	3	25	mg/L	08.22.2020 14:03	
2-Butanone	<0.0500	0.250	0.255	102	0.281	112	60-140	10	25	mg/L	08.22.2020 14:03	
n-Butylbenzene	<0.00100	0.0500	0.0504	101	0.0534	107	75-125	6	25	mg/L	08.22.2020 14:03	
Sec-Butylbenzene	<0.00100	0.0500	0.0526	105	0.0549	110	75-125	4	25	mg/L	08.22.2020 14:03	
tert-Butylbenzene	<0.00100	0.0500	0.0519	104	0.0542	108	75-125	4	25	mg/L	08.22.2020 14:03	
Carbon Tetrachloride	<0.00500	0.0500	0.0571	114	0.0597	119	62-125	4	25	mg/L	08.22.2020 14:03	
Chlorobenzene	<0.00100	0.0500	0.0530	106	0.0553	111	60-133	4	25	mg/L	08.22.2020 14:03	
Chloroethane	<0.0100	0.0500	0.0515	103	0.0547	109	60-140	6	25	mg/L	08.22.2020 14:03	
Chloroform	<0.00100	0.0500	0.0552	110	0.0563	113	70-130	2	25	mg/L	08.22.2020 14:03	
Methyl Chloride	<0.0100	0.0500	0.0562	112	0.0584	117	60-140	4	25	mg/L	08.22.2020 14:03	
2-Chlorotoluene	<0.00100	0.0500	0.0525	105	0.0541	108	73-125	3	25	mg/L	08.22.2020 14:03	
4-Chlorotoluene	<0.00100	0.0500	0.0534	107	0.0539	108	74-125	1	25	mg/L	08.22.2020 14:03	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0529	106	0.0556	111	75-125	5	25	mg/L	08.22.2020 14:03	
Dibromochloromethane	<0.00500	0.0500	0.0545	109	0.0563	113	73-125	3	25	mg/L	08.22.2020 14:03	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0487	97	0.0530	106	59-125	8	25	mg/L	08.22.2020 14:03	
1,2-Dibromoethane	<0.00500	0.0500	0.0524	105	0.0542	108	73-125	3	25	mg/L	08.22.2020 14:03	
Methylene Bromide	<0.00100	0.0500	0.0514	103	0.0531	106	69-127	3	25	mg/L	08.22.2020 14:03	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0536	107	0.0538	108	75-125	0	25	mg/L	08.22.2020 14:03	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0532	106	0.0543	109	75-125	2	25	mg/L	08.22.2020 14:03	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0531	106	0.0539	108	75-125	1	25	mg/L	08.22.2020 14:03	
Dichlorodifluoromethane	<0.00100	0.0500	0.0698	140	0.0719	144	60-140	3	25	mg/L	08.22.2020 14:03	H
1,1-Dichloroethane	<0.00100	0.0500	0.0530	106	0.0548	110	72-125	3	25	mg/L	08.22.2020 14:03	
1,2-Dichloroethane	<0.00100	0.0500	0.0521	104	0.0530	106	68-127	2	25	mg/L	08.22.2020 14:03	
1,1-Dichloroethene	<0.00100	0.0500	0.0552	110	0.0584	117	59-172	6	25	mg/L	08.22.2020 14:03	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0540	108	0.0558	112	75-125	3	25	mg/L	08.22.2020 14:03	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0548	110	0.0567	113	75-125	3	25	mg/L	08.22.2020 14:03	
1,2-Dichloropropane	<0.00500	0.0500	0.0546	109	0.0556	111	74-125	2	25	mg/L	08.22.2020 14:03	
1,3-Dichloropropane	<0.00500	0.0500	0.0509	102	0.0535	107	75-125	5	25	mg/L	08.22.2020 14:03	
2,2-Dichloropropane	<0.00500	0.0500	0.0568	114	0.0594	119	75-125	4	25	mg/L	08.22.2020 14:03	
1,1-Dichloropropene	<0.00500	0.0500	0.0575	115	0.0604	121	75-125	5	25	mg/L	08.22.2020 14:03	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0554	111	0.0572	114	74-125	3	25	mg/L	08.22.2020 14:03	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0534	107	0.0559	112	66-125	5	25	mg/L	08.22.2020 14:03	
Ethylbenzene	<0.00100	0.0500	0.0526	105	0.0546	109	75-125	4	25	mg/L	08.22.2020 14:03	
Hexachlorobutadiene	<0.00500	0.0500	0.0496	99	0.0537	107	75-125	8	25	mg/L	08.22.2020 14:03	
Isopropylbenzene	<0.00100	0.0500	0.0519	104	0.0552	110	75-125	6	25	mg/L	08.22.2020 14:03	
Methylene Chloride	<0.00500	0.0500	0.0497	99	0.0495	99	75-125	0	25	mg/L	08.22.2020 14:03	
MTBE	<0.00500	0.0500	0.0551	110	0.0577	115	65-135	5	25	mg/L	08.22.2020 14:03	
Naphthalene	<0.0100	0.0500	0.0498	100	0.0550	110	70-130	10	25	mg/L	08.22.2020 14:03	
n-Propylbenzene	<0.00100	0.0500	0.0527	105	0.0541	108	75-125	3	25	mg/L	08.22.2020 14:03	
Styrene	<0.00100	0.0500	0.0532	106	0.0544	109	75-125	2	25	mg/L	08.22.2020 14:03	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0541	108	0.0564	113	72-125	4	25	mg/L	08.22.2020 14:03	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0491	98	0.0508	102	74-125	3	25	mg/L	08.22.2020 14:03	
Tetrachloroethylene	<0.00100	0.0500	0.0499	100	0.0539	108	71-125	8	25	mg/L	08.22.2020 14:03	
Toluene	<0.00100	0.0500	0.0517	103	0.0545	109	59-139	5	25	mg/L	08.22.2020 14:03	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0527	105	0.0578	116	75-137	9	25	mg/L	08.22.2020 14:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3135339

MB Sample Id: 7710018-1-BLK

Matrix: Water

LCS Sample Id: 7710018-1-BKS

Prep Method: SW5030B

Date Prep: 08.22.2020

LCSD Sample Id: 7710018-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0537	107	0.0572	114	75-135	6	25	mg/L	08.22.2020 14:03	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0539	108	0.0570	114	75-125	6	25	mg/L	08.22.2020 14:03	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0516	103	0.0544	109	75-127	5	25	mg/L	08.22.2020 14:03	
Trichloroethylene	<0.00500	0.0500	0.0521	104	0.0552	110	62-137	6	25	mg/L	08.22.2020 14:03	
Trichlorofluoromethane	<0.00100	0.0500	0.0556	111	0.0587	117	60-140	5	25	mg/L	08.22.2020 14:03	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0502	100	0.0523	105	75-125	4	25	mg/L	08.22.2020 14:03	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0526	105	0.0539	108	75-125	2	25	mg/L	08.22.2020 14:03	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0529	106	0.0547	109	70-125	3	25	mg/L	08.22.2020 14:03	
o-Xylene	<0.00100	0.0500	0.0517	103	0.0547	109	75-125	6	25	mg/L	08.22.2020 14:03	
m,p-Xylenes	<0.0100	0.100	0.105	105	0.108	108	75-125	3	25	mg/L	08.22.2020 14:03	
Vinyl Chloride	<0.00200	0.0500	0.0564	113	0.0589	118	60-140	4	25	mg/L	08.22.2020 14:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	105		102		102		75-131	%	08.22.2020 14:03
1,2-Dichloroethane-D4	103		105		102		63-144	%	08.22.2020 14:03
Toluene-D8	99		99		101		80-117	%	08.22.2020 14:03
4-Bromofluorobenzene	104		98		98		74-124	%	08.22.2020 14:03

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3135339

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.22.2020

Parent Sample Id: 670764-001

MS Sample Id: 670764-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0527	105	66-142	mg/L	08.22.2020 14:50	
Bromobenzene	<0.00100	0.0500	0.0490	98	75-125	mg/L	08.22.2020 14:50	
Bromochloromethane	<0.00100	0.0500	0.0484	97	60-140	mg/L	08.22.2020 14:50	
Bromodichloromethane	<0.00100	0.0500	0.0523	105	75-125	mg/L	08.22.2020 14:50	
Bromoform	<0.00500	0.0500	0.0543	109	75-125	mg/L	08.22.2020 14:50	
Methyl bromide	<0.00500	0.0500	0.0521	104	60-140	mg/L	08.22.2020 14:50	
2-Butanone	<0.0500	0.250	0.241	96	60-140	mg/L	08.22.2020 14:50	
n-Butylbenzene	<0.00100	0.0500	0.0514	103	75-125	mg/L	08.22.2020 14:50	
Sec-Butylbenzene	<0.00100	0.0500	0.0532	106	75-125	mg/L	08.22.2020 14:50	
tert-Butylbenzene	<0.00100	0.0500	0.0525	105	75-125	mg/L	08.22.2020 14:50	
Carbon Tetrachloride	<0.00500	0.0500	0.0564	113	62-125	mg/L	08.22.2020 14:50	
Chlorobenzene	<0.00100	0.0500	0.0527	105	60-133	mg/L	08.22.2020 14:50	
Chloroethane	<0.0100	0.0500	0.0496	99	60-140	mg/L	08.22.2020 14:50	
Chloroform	<0.00100	0.0500	0.0518	104	70-130	mg/L	08.22.2020 14:50	
Methyl Chloride	<0.0100	0.0500	0.0537	107	60-140	mg/L	08.22.2020 14:50	
2-Chlorotoluene	<0.00100	0.0500	0.0519	104	73-125	mg/L	08.22.2020 14:50	
4-Chlorotoluene	<0.00100	0.0500	0.0511	102	74-125	mg/L	08.22.2020 14:50	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0536	107	75-125	mg/L	08.22.2020 14:50	
Dibromochloromethane	<0.00500	0.0500	0.0534	107	73-125	mg/L	08.22.2020 14:50	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0502	100	59-125	mg/L	08.22.2020 14:50	
1,2-Dibromoethane	<0.00500	0.0500	0.0526	105	73-125	mg/L	08.22.2020 14:50	
Methylene Bromide	<0.00100	0.0500	0.0503	101	69-127	mg/L	08.22.2020 14:50	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0517	103	75-125	mg/L	08.22.2020 14:50	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0519	104	75-125	mg/L	08.22.2020 14:50	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0519	104	75-125	mg/L	08.22.2020 14:50	
Dichlorodifluoromethane	<0.00100	0.0500	0.0673	135	60-140	mg/L	08.22.2020 14:50	
1,1-Dichloroethane	<0.00100	0.0500	0.0504	101	72-125	mg/L	08.22.2020 14:50	
1,2-Dichloroethane	<0.00100	0.0500	0.0505	101	68-127	mg/L	08.22.2020 14:50	
1,1-Dichloroethene	<0.00100	0.0500	0.0549	110	59-172	mg/L	08.22.2020 14:50	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0521	104	75-125	mg/L	08.22.2020 14:50	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0521	104	75-125	mg/L	08.22.2020 14:50	
1,2-Dichloropropane	<0.00500	0.0500	0.0532	106	74-125	mg/L	08.22.2020 14:50	
1,3-Dichloropropane	<0.00500	0.0500	0.0512	102	75-125	mg/L	08.22.2020 14:50	
2,2-Dichloropropane	<0.00500	0.0500	0.0551	110	75-125	mg/L	08.22.2020 14:50	
1,1-Dichloropropene	<0.00500	0.0500	0.0556	111	75-125	mg/L	08.22.2020 14:50	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0536	107	74-125	mg/L	08.22.2020 14:50	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0533	107	66-125	mg/L	08.22.2020 14:50	
Ethylbenzene	<0.00100	0.0500	0.0525	105	75-125	mg/L	08.22.2020 14:50	
Hexachlorobutadiene	<0.00500	0.0500	0.0515	103	75-125	mg/L	08.22.2020 14:50	
Isopropylbenzene	<0.00100	0.0500	0.0528	106	75-125	mg/L	08.22.2020 14:50	
Methylene Chloride	<0.00500	0.0500	0.0460	92	75-125	mg/L	08.22.2020 14:50	
MTBE	<0.00500	0.0500	0.0527	105	65-135	mg/L	08.22.2020 14:50	
Naphthalene	<0.0100	0.0500	0.0522	104	70-130	mg/L	08.22.2020 14:50	
n-Propylbenzene	<0.00100	0.0500	0.0525	105	75-125	mg/L	08.22.2020 14:50	
Styrene	<0.00100	0.0500	0.0522	104	75-125	mg/L	08.22.2020 14:50	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0535	107	72-125	mg/L	08.22.2020 14:50	
1,1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0484	97	74-125	mg/L	08.22.2020 14:50	
Tetrachloroethylene	<0.00100	0.0500	0.0526	105	71-125	mg/L	08.22.2020 14:50	
Toluene	<0.00100	0.0500	0.0513	103	59-139	mg/L	08.22.2020 14:50	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0556	111	75-137	mg/L	08.22.2020 14:50	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3135339

Matrix: Water

Prep Method: SW5030B

Date Prep: 08.22.2020

Parent Sample Id: 670764-001

MS Sample Id: 670764-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0550	110	75-135	mg/L	08.22.2020 14:50	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0533	107	75-125	mg/L	08.22.2020 14:50	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0522	104	75-127	mg/L	08.22.2020 14:50	
Trichloroethylene	<0.00500	0.0500	0.0521	104	62-137	mg/L	08.22.2020 14:50	
Trichlorofluoromethane	<0.00100	0.0500	0.0546	109	60-140	mg/L	08.22.2020 14:50	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0496	99	75-125	mg/L	08.22.2020 14:50	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0517	103	75-125	mg/L	08.22.2020 14:50	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0527	105	70-125	mg/L	08.22.2020 14:50	
o-Xylene	<0.00100	0.0500	0.0524	105	75-125	mg/L	08.22.2020 14:50	
m,p-Xylenes	<0.0100	0.100	0.106	106	75-125	mg/L	08.22.2020 14:50	
Vinyl Chloride	<0.00200	0.0500	0.0545	109	60-140	mg/L	08.22.2020 14:50	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	08.22.2020 14:50
1,2-Dichloroethane-D4	102		63-144	%	08.22.2020 14:50
Toluene-D8	101		80-117	%	08.22.2020 14:50
4-Bromofluorobenzene	97		74-124	%	08.22.2020 14:50

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Work Order No:

U70011

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

Work Order Comments			
Program: UST/ST ☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund ☐			
State of Project:			
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐			
Deliverables: EDD ☐ Adapt ☐ Other:			

Revised Date 051418 Rev. 2018.1

CUSTODY SEAL
Date 8-27-26
Signature [Signature]

CUSTODY SEAL
Date 8-27-26
Signature [Signature]

Thermo
SCIENTIFIC

Thermo
SCIENTIFIC

90006

Inter-Office Shipment

IOS Number : **69181**

Date/Time: 08.21.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771330290809

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
670671-001	W	Levey Well	08.20.2020 15:50	SW8260C	VOCs by SW-846 8260C	08.24.2020	09.03.2020	JKR	BDCME BRBZ BRCLME	
670671-001	W	Levey Well	08.20.2020 15:50	E200.7	Recoverable Metals per ICP by EPA 200	08.24.2020	02.16.2021	JKR	CA K MG NA SI	
670671-001	W	Levey Well	08.20.2020 15:50	E300	Inorganic Anions by EPA 300/300.1	08.24.2020	08.22.2020 15:50	JKR	BR CL F NO2N NO3N S	
670671-001	W	Levey Well	08.20.2020 15:50	SM4500-H	pH by SM4500-H	08.24.2020	08.20.2020 16:05	JKR		
670671-001	W	Levey Well	08.20.2020 15:50	SM2540C	TDS by SM2540C	08.24.2020	08.27.2020 15:50	JKR	TDS	
670671-001	W	Levey Well	08.20.2020 15:50	SM2320B	Alkalinity by SM2320B	08.24.2020	09.03.2020	JKR	ALK ALKB ALKC	
670671-001	W	Levey Well	08.20.2020 15:50	SM1030E	Cation-Anion Balance Calculation	08.24.2020	09.19.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 08.21.2020

Received By:



Jhyrom Edralin

Date Received: 08.22.2020

Cooler Temperature: 2.3

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 69181

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-203

Sent By: Brianna Teel

Date Sent: 08.21.2020 09.38 AM

Received By: Jhyrom Edralin

Date Received: 08.22.2020 09.30 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 08.22.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 08.21.2020 08.52.00 AM

Work Order #: 670671

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 08.21.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.21.2020

Certificate of Analysis Summary 671621

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Wed 09.02.2020 13:50
 Report Date: 09.03.2020 20:41
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 671621-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.02.2020 09:00					
Alkalinity by SM2320B SUB: T104704215-20-38	Extracted: 09.03.2020 11:21 Analyzed: 09.03.2020 15:28 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1030 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1030 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-38	Extracted: Analyzed: 09.03.2020 17:35 Units/RL: % RL					
Cation-Anion Balance	3.40					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-38	Extracted: 09.03.2020 09:30 Analyzed: 09.03.2020 11:14 Units/RL: mg/L RL					
Bromide	0.868 0.500					
Chloride	635 D 5.00					
Fluoride	<0.500 0.500					
Nitrate as N	0.159 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	48.1 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 671621

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Wed 09.02.2020 13:50
Report Date: 09.03.2020 20:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	671621-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.02.2020 09:00					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-38	Extracted:	09.03.2020 10:30					
	Analyzed:	09.03.2020 14:59					
	Units/RL:	mg/L RL					
	Calcium	422 D 10.0					
	Magnesium	77.9 D 10.0					
	Potassium	7.25 0.500					
	Silica	63.6 X 1.07					
	Sodium	168 0.500					
TDS by SM2540C SUB: T104704215-20-38	Extracted:						
	Analyzed:	09.03.2020 11:03					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1620 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 671621



Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Wed 09.02.2020 13:50
Report Date: 09.03.2020 20:41
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 671621-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.02.2020 09:00					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.03.2020 11:33 Analyzed: 09.03.2020 14:27 Units/RL: mg/L RL					
Benzene	0.00365 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00165 X 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	<0.00100 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 671621

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

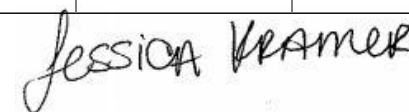
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Wed 09.02.2020 13:50
 Report Date: 09.03.2020 20:41
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 671621-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.02.2020 09:00					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.03.2020 11:33 Analyzed: 09.03.2020 14:27 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0132 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.00749 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.00761 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 671621

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Wed 09.02.2020 13:50
 Report Date: 09.03.2020 20:41
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 671621-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.02.2020 09:00					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.03.2020 11:33 Analyzed: 09.03.2020 14:27 Units/RL: mg/L RL					
Toluene	0.0199 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0483 0.00100					
1,3,5-Trimethylbenzene	0.0140 0.00100					
o-Xylene	0.00646 0.00100					
m,p-Xylenes	0.0412 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0477 0.00100					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.03.2020 13:37 Units/RL: Deg C RL					
Temperature	23.5 K					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.03.2020 13:37 Units/RL: SU RL					
pH	6.30 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 671621

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

09.03.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.03.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **671621**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 671621. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 671621 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 671621

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	09.02.2020 09:00		671621-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**Project ID: 03B1417001
Work Order Number(s): 671621Report Date: 09.03.2020
Date Received: 09.02.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3136333 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 671621-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Silica recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 671621-001.

The Laboratory Control Sample for Silica is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3136351 VOCs by SW-846 8260C

Lab Sample ID 671621-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Bromobenzene, Bromodichloromethane, Hexachlorobutadiene, Sec-Butylbenzene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 671621-001.

The Laboratory Control Sample for 1,3-Dichlorobenzene, Bromodichloromethane, 1,4-Dichlorobenzene, Bromobenzene, Sec-Butylbenzene, 1,2-Dichlorobenzene, Hexachlorobutadiene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 671621

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.02.2020 13:50

Lab Sample Id: 671621-001

Date Collected: 09.02.2020 09:00

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 09.03.2020 11:21

Seq Number: 3136315

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1030	4.00	mg/L	09.03.2020 15:28		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1030	4.00	mg/L	09.03.2020 15:28		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	09.03.2020 15:28	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	09.03.2020 15:28	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3136354

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.40		%	09.03.2020 17:35		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 09.03.2020 09:30

Seq Number: 3136344

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.868	0.500	mg/L	09.03.2020 11:14		1
Chloride	16887-00-6	635	5.00	mg/L	09.03.2020 11:26	D	10
Fluoride	16984-48-8	<0.500	0.500	mg/L	09.03.2020 15:13	U	1
Nitrate as N	14797-55-8	0.159	0.100	mg/L	09.03.2020 11:14		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	09.03.2020 11:14	U	1
Sulfate	14808-79-8	48.1	0.500	mg/L	09.03.2020 15:13		1



Certificate of Analytical Results 671621

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.02.2020 13:50

Lab Sample Id: 671621-001

Date Collected: 09.02.2020 09:00

Analytical Method: TDS by SM2540C

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3136285

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1620	5.00	mg/L	09.03.2020 11:03		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3136310

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.30		SU	09.03.2020 13:37	K	1
Temperature	TEMP	23.5		Deg C	09.03.2020 13:37	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 09.03.2020 10:30

Seq Number: 3136333

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	422	10.0	mg/L	09.03.2020 15:20	D	50
Magnesium	7439-95-4	77.9	10.0	mg/L	09.03.2020 15:20	D	50
Potassium	7440-09-7	7.25	0.500	mg/L	09.03.2020 14:59		1
Silica	7631-86-9	63.6	1.07	mg/L	09.03.2020 14:59	X	1
Sodium	7440-23-5	168	0.500	mg/L	09.03.2020 14:59		1



Certificate of Analytical Results 671621

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.02.2020 13:50

Lab Sample Id: 671621-001

Date Collected: 09.02.2020 09:00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.03.2020 11:33

Seq Number: 3136351

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00365	0.00100	mg/L	09.03.2020 14:27		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	09.03.2020 14:27	UX	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	UX	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	09.03.2020 14:27	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Sec-Butylbenzene	135-98-8	0.00165	0.00100	mg/L	09.03.2020 14:27	X	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	09.03.2020 14:27	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	09.03.2020 14:27	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	09.03.2020 14:27	UX	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	09.03.2020 14:27	UX	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	09.03.2020 14:27	UX	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Ethylbenzene	100-41-4	0.0132	0.00100	mg/L	09.03.2020 14:27		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	09.03.2020 14:27	UX	1



Certificate of Analytical Results 671621

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.02.2020 13:50

Lab Sample Id: 671621-001

Date Collected: 09.02.2020 09:00

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.03.2020 11:33

Seq Number: 3136351

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.00749	0.00100	mg/L	09.03.2020 14:27		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	09.03.2020 14:27	U	1
n-Propylbenzene	103-65-1	0.00761	0.00100	mg/L	09.03.2020 14:27		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Toluene	108-88-3	0.0199	0.00100	mg/L	09.03.2020 14:27		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	09.03.2020 14:27	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	09.03.2020 14:27	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0483	0.00100	mg/L	09.03.2020 14:27		1
1,3,5-Trimethylbenzene	108-67-8	0.0140	0.00100	mg/L	09.03.2020 14:27		1
o-Xylene	95-47-6	0.00646	0.00100	mg/L	09.03.2020 14:27		1
m,p-Xylenes	179601-23-1	0.0412	0.0100	mg/L	09.03.2020 14:27		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	09.03.2020 14:27	U	1
Total Xylenes	1330-20-7	0.0477	0.00100	mg/L	09.03.2020 14:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	75-131	09.03.2020 14:27	
1,2-Dichloroethane-D4	17060-07-0	104	%	63-144	09.03.2020 14:27	
Toluene-D8	2037-26-5	103	%	80-117	09.03.2020 14:27	
4-Bromofluorobenzene	460-00-4	106	%	74-124	09.03.2020 14:27	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136315

MB Sample Id: 7710734-1-BLK

Matrix: Water

LCS Sample Id: 7710734-1-BKS

Prep Method: SM2320P

Date Prep: 09.03.2020

LCSD Sample Id: 7710734-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	261	104	262	105	85-115	0	20	mg/L	09.03.2020 15:09	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136315

Matrix: Water

MB Sample Id: 7710734-1-BLK

Prep Method: SM2320P

Date Prep: 09.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	09.03.2020 15:01	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	09.03.2020 15:01	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	09.03.2020 15:01	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136315

Matrix: Water

Parent Sample Id: 671621-001

MD Sample Id: 671621-001 D

Prep Method: SM2320P

Date Prep: 09.03.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1030	1020	1	20	mg/L	09.03.2020 15:40	
Alkalinity, Bicarbonate (as CaCO ₃)	1030	1020	1	20	mg/L	09.03.2020 15:40	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.03.2020 15:40	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.03.2020 15:40	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3136344

Matrix: Water

MB Sample Id: 7710720-1-BLK

LCS Sample Id: 7710720-1-BKS

Prep Method: E300P

Date Prep: 09.03.2020

LCSD Sample Id: 7710720-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	09.03.2020 09:05	
Chloride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	09.03.2020 09:05	
Fluoride	<0.500	10.0	10.8	108	10.8	108	90-110	0	20	mg/L	09.03.2020 09:05	
Nitrate as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	09.03.2020 09:05	
Nitrite as N	<0.100	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	09.03.2020 09:05	
Sulfate	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	09.03.2020 09:05	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3136344

Matrix: Waste Water

Prep Method: E300P

Date Prep: 09.03.2020

Parent Sample Id: 671611-001

MS Sample Id: 671611-001 S

MSD Sample Id: 671611-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.0724	10.0	9.89	98	9.91	98	90-110	0	20	mg/L	09.03.2020 13:26	
Chloride	30.1	10.0	39.0	89	39.0	89	90-110	0	20	mg/L	09.03.2020 13:26	X
Nitrate as N	0.136	10.0	9.97	98	9.97	98	90-110	0	20	mg/L	09.03.2020 13:26	
Nitrite as N	0.251	10.0	10.4	101	10.5	102	90-110	1	20	mg/L	09.03.2020 13:26	

Analytical Method: TDS by SM2540C

Seq Number: 3136285

Matrix: Water

MB Sample Id: 3136285-1-BLK

LCS Sample Id: 3136285-1-BKS

LCSD Sample Id: 3136285-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1070	107	1070	107	80-120	0	10	mg/L	09.03.2020 11:03	

Analytical Method: TDS by SM2540C

Seq Number: 3136285

Matrix: Water

Parent Sample Id: 671621-001

MD Sample Id: 671621-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1620	1750	8	10	mg/L	09.03.2020 11:03	

Analytical Method: pH by SM4500-H

Seq Number: 3136310

Matrix: Water

Parent Sample Id: 671621-001

MD Sample Id: 671621-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.30	6.31	0	20	SU	09.03.2020 13:37	
Temperature	23.5	23.6	0	20	Deg C	09.03.2020 13:37	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3136333

Matrix: Water

MB Sample Id: 7710728-1-BLK

LCS Sample Id: 7710728-1-BKS

Prep Method: E200.7P

Date Prep: 09.03.2020

LCSD Sample Id: 7710728-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	22.8	91	22.8	91	85-115	0	20	mg/L	09.03.2020 14:51	
Magnesium	<0.200	25.0	22.6	90	22.5	90	85-115	0	20	mg/L	09.03.2020 14:51	
Potassium	<0.500	10.0	9.55	96	9.56	96	85-115	0	20	mg/L	09.03.2020 14:51	
Silica	<1.07	21.4	20.2	94	20.2	94	85-115	0	20	mg/L	09.03.2020 14:51	
Sodium	<0.500	25.0	23.7	95	23.7	95	85-115	0	20	mg/L	09.03.2020 14:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3136333

Matrix: Water

Prep Method: E200.7P

Date Prep: 09.03.2020

Parent Sample Id: 671621-001

MS Sample Id: 671621-001 S

MSD Sample Id: 671621-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	443	25.0	464	84	464	84	70-130	0	20	mg/L	09.03.2020 15:03	
Magnesium	81.3	25.0	107	103	107	103	70-130	0	20	mg/L	09.03.2020 15:03	
Potassium	7.25	10.0	18.3	111	18.3	111	70-130	0	20	mg/L	09.03.2020 15:03	
Silica	63.6	21.4	92.3	134	92.0	133	70-130	0	20	mg/L	09.03.2020 15:03	X
Sodium	168	25.0	197	116	197	116	70-130	0	20	mg/L	09.03.2020 15:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136351

MB Sample Id: 7710791-1-BLK

Matrix: Water

LCS Sample Id: 7710791-1-BKS

Prep Method: SW5030B

Date Prep: 09.03.2020

LCSD Sample Id: 7710791-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0510	102	0.0486	97	66-142	5	25	mg/L	09.03.2020 11:25	
Bromobenzene	<0.00100	0.0500	0.0485	97	0.0468	94	75-125	4	25	mg/L	09.03.2020 11:25	
Bromochloromethane	<0.00100	0.0500	0.0511	102	0.0485	97	60-140	5	25	mg/L	09.03.2020 11:25	
Bromodichloromethane	<0.00100	0.0500	0.0519	104	0.0471	94	75-125	10	25	mg/L	09.03.2020 11:25	
Bromoform	<0.00500	0.0500	0.0494	99	0.0510	102	75-125	3	25	mg/L	09.03.2020 11:25	
Methyl bromide	<0.00500	0.0500	0.0537	107	0.0489	98	60-140	9	25	mg/L	09.03.2020 11:25	
2-Butanone	<0.0500	0.250	0.229	92	0.234	94	60-140	2	25	mg/L	09.03.2020 11:25	
n-Butylbenzene	<0.00100	0.0500	0.0508	102	0.0491	98	75-125	3	25	mg/L	09.03.2020 11:25	
Sec-Butylbenzene	<0.00100	0.0500	0.0469	94	0.0450	90	75-125	4	25	mg/L	09.03.2020 11:25	
tert-Butylbenzene	<0.00100	0.0500	0.0512	102	0.0487	97	75-125	5	25	mg/L	09.03.2020 11:25	
Carbon Tetrachloride	<0.00500	0.0500	0.0536	107	0.0494	99	62-125	8	25	mg/L	09.03.2020 11:25	
Chlorobenzene	<0.00100	0.0500	0.0487	97	0.0466	93	60-133	4	25	mg/L	09.03.2020 11:25	
Chloroethane	<0.0100	0.0500	0.0470	94	0.0424	85	60-140	10	25	mg/L	09.03.2020 11:25	
Chloroform	<0.00100	0.0500	0.0523	105	0.0491	98	70-130	6	25	mg/L	09.03.2020 11:25	
Methyl Chloride	<0.0100	0.0500	0.0664	133	0.0588	118	60-140	12	25	mg/L	09.03.2020 11:25	
2-Chlorotoluene	<0.00100	0.0500	0.0499	100	0.0471	94	73-125	6	25	mg/L	09.03.2020 11:25	
4-Chlorotoluene	<0.00100	0.0500	0.0506	101	0.0482	96	74-125	5	25	mg/L	09.03.2020 11:25	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0502	100	0.0486	97	75-125	3	25	mg/L	09.03.2020 11:25	
Dibromochloromethane	<0.00500	0.0500	0.0488	98	0.0498	100	73-125	2	25	mg/L	09.03.2020 11:25	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0404	81	0.0450	90	59-125	11	25	mg/L	09.03.2020 11:25	
1,2-Dibromoethane	<0.00500	0.0500	0.0467	93	0.0489	98	73-125	5	25	mg/L	09.03.2020 11:25	
Methylene Bromide	<0.00100	0.0500	0.0515	103	0.0483	97	69-127	6	25	mg/L	09.03.2020 11:25	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0467	93	0.0464	93	75-125	1	25	mg/L	09.03.2020 11:25	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0471	94	0.0454	91	75-125	4	25	mg/L	09.03.2020 11:25	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0472	94	0.0461	92	75-125	2	25	mg/L	09.03.2020 11:25	
Dichlorodifluoromethane	<0.00100	0.0500	0.0647	129	0.0564	113	60-140	14	25	mg/L	09.03.2020 11:25	
1,1-Dichloroethane	<0.00100	0.0500	0.0562	112	0.0515	103	72-125	9	25	mg/L	09.03.2020 11:25	
1,2-Dichloroethane	<0.00100	0.0500	0.0528	106	0.0473	95	68-127	11	25	mg/L	09.03.2020 11:25	
1,1-Dichloroethene	<0.00100	0.0500	0.0548	110	0.0499	100	59-172	9	25	mg/L	09.03.2020 11:25	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0514	103	0.0481	96	75-125	7	25	mg/L	09.03.2020 11:25	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0536	107	0.0494	99	75-125	8	25	mg/L	09.03.2020 11:25	
1,2-Dichloropropane	<0.00500	0.0500	0.0532	106	0.0495	99	74-125	7	25	mg/L	09.03.2020 11:25	
1,3-Dichloropropane	<0.00500	0.0500	0.0485	97	0.0508	102	75-125	5	25	mg/L	09.03.2020 11:25	
2,2-Dichloropropane	<0.00500	0.0500	0.0549	110	0.0496	99	75-125	10	25	mg/L	09.03.2020 11:25	
1,1-Dichloropropene	<0.00500	0.0500	0.0542	108	0.0541	108	75-125	0	25	mg/L	09.03.2020 11:25	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0535	107	0.0515	103	74-125	4	25	mg/L	09.03.2020 11:25	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0483	97	0.0505	101	66-125	4	25	mg/L	09.03.2020 11:25	
Ethylbenzene	<0.00100	0.0500	0.0510	102	0.0478	96	75-125	6	25	mg/L	09.03.2020 11:25	
Hexachlorobutadiene	<0.00500	0.0500	0.0470	94	0.0499	100	75-125	6	25	mg/L	09.03.2020 11:25	
Isopropylbenzene	<0.00100	0.0500	0.0513	103	0.0473	95	75-125	8	25	mg/L	09.03.2020 11:25	
Methylene Chloride	<0.00500	0.0500	0.0569	114	0.0525	105	75-125	8	25	mg/L	09.03.2020 11:25	
MTBE	<0.00500	0.0500	0.0518	104	0.0526	105	65-135	2	25	mg/L	09.03.2020 11:25	
Naphthalene	<0.0100	0.0500	0.0411	82	0.0497	99	70-130	19	25	mg/L	09.03.2020 11:25	
n-Propylbenzene	<0.00100	0.0500	0.0517	103	0.0491	98	75-125	5	25	mg/L	09.03.2020 11:25	
Styrene	<0.00100	0.0500	0.0532	106	0.0492	98	75-125	8	25	mg/L	09.03.2020 11:25	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0475	95	0.0498	100	72-125	5	25	mg/L	09.03.2020 11:25	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0441	88	0.0452	90	74-125	2	25	mg/L	09.03.2020 11:25	
Tetrachloroethylene	<0.00100	0.0500	0.0487	97	0.0476	95	71-125	2	25	mg/L	09.03.2020 11:25	
Toluene	<0.00100	0.0500	0.0503	101	0.0488	98	59-139	3	25	mg/L	09.03.2020 11:25	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0411	82	0.0489	98	75-137	17	25	mg/L	09.03.2020 11:25	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136351

MB Sample Id: 7710791-1-BLK

Matrix: Water

LCS Sample Id: 7710791-1-BKS

Prep Method: SW5030B

Date Prep: 09.03.2020

LCSD Sample Id: 7710791-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0429	86	0.0479	96	75-135	11	25	mg/L	09.03.2020 11:25	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0553	111	0.0513	103	75-125	8	25	mg/L	09.03.2020 11:25	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0467	93	0.0491	98	75-127	5	25	mg/L	09.03.2020 11:25	
Trichloroethylene	<0.00500	0.0500	0.0534	107	0.0496	99	62-137	7	25	mg/L	09.03.2020 11:25	
Trichlorofluoromethane	<0.00100	0.0500	0.0655	131	0.0577	115	60-140	13	25	mg/L	09.03.2020 11:25	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0468	94	0.0478	96	75-125	2	25	mg/L	09.03.2020 11:25	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0520	104	0.0491	98	75-125	6	25	mg/L	09.03.2020 11:25	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0531	106	0.0497	99	70-125	7	25	mg/L	09.03.2020 11:25	
o-Xylene	<0.00100	0.0500	0.0527	105	0.0484	97	75-125	9	25	mg/L	09.03.2020 11:25	
m,p-Xylenes	<0.0100	0.100	0.104	104	0.0970	97	75-125	7	25	mg/L	09.03.2020 11:25	
Vinyl Chloride	<0.00200	0.0500	0.0623	125	0.0565	113	60-140	10	25	mg/L	09.03.2020 11:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	106		106		101		75-131	%	09.03.2020 11:25
1,2-Dichloroethane-D4	104		103		98		63-144	%	09.03.2020 11:25
Toluene-D8	99		99		99		80-117	%	09.03.2020 11:25
4-Bromofluorobenzene	105		100		98		74-124	%	09.03.2020 11:25

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

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Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136351

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.03.2020

Parent Sample Id: 671621-001

MS Sample Id: 671621-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00365	0.0500	0.0424	78	66-142	mg/L	09.03.2020 12:30	
Bromobenzene	<0.00100	0.0500	0.0363	73	75-125	mg/L	09.03.2020 12:30	X
Bromochloromethane	<0.00100	0.0500	0.0374	75	60-140	mg/L	09.03.2020 12:30	
Bromodichloromethane	<0.00100	0.0500	0.0365	73	75-125	mg/L	09.03.2020 12:30	X
Bromoform	<0.00500	0.0500	0.0424	85	75-125	mg/L	09.03.2020 12:30	
Methyl bromide	<0.00500	0.0500	0.0339	68	60-140	mg/L	09.03.2020 12:30	
2-Butanone	<0.0500	0.250	0.224	90	60-140	mg/L	09.03.2020 12:30	
n-Butylbenzene	<0.00100	0.0500	0.0391	78	75-125	mg/L	09.03.2020 12:30	
Sec-Butylbenzene	0.00165	0.0500	0.0369	71	75-125	mg/L	09.03.2020 12:30	X
tert-Butylbenzene	<0.00100	0.0500	0.0385	77	75-125	mg/L	09.03.2020 12:30	
Carbon Tetrachloride	<0.00500	0.0500	0.0394	79	62-125	mg/L	09.03.2020 12:30	
Chlorobenzene	<0.00100	0.0500	0.0365	73	60-133	mg/L	09.03.2020 12:30	
Chloroethane	<0.0100	0.0500	0.0355	71	60-140	mg/L	09.03.2020 12:30	
Chloroform	<0.00100	0.0500	0.0386	77	70-130	mg/L	09.03.2020 12:30	
Methyl Chloride	<0.0100	0.0500	0.0445	89	60-140	mg/L	09.03.2020 12:30	
2-Chlorotoluene	<0.00100	0.0500	0.0417	83	73-125	mg/L	09.03.2020 12:30	
4-Chlorotoluene	<0.00100	0.0500	0.0392	78	74-125	mg/L	09.03.2020 12:30	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0387	77	75-125	mg/L	09.03.2020 12:30	
Dibromochloromethane	<0.00500	0.0500	0.0394	79	73-125	mg/L	09.03.2020 12:30	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0397	79	59-125	mg/L	09.03.2020 12:30	
1,2-Dibromoethane	<0.00500	0.0500	0.0407	81	73-125	mg/L	09.03.2020 12:30	
Methylene Bromide	<0.00100	0.0500	0.0377	75	69-127	mg/L	09.03.2020 12:30	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0365	73	75-125	mg/L	09.03.2020 12:30	X
1,3-Dichlorobenzene	<0.00100	0.0500	0.0358	72	75-125	mg/L	09.03.2020 12:30	X
1,4-Dichlorobenzene	<0.00100	0.0500	0.0366	73	75-125	mg/L	09.03.2020 12:30	X
Dichlorodifluoromethane	<0.00100	0.0500	0.0397	79	60-140	mg/L	09.03.2020 12:30	
1,1-Dichloroethane	<0.00100	0.0500	0.0404	81	72-125	mg/L	09.03.2020 12:30	
1,2-Dichloroethane	<0.00100	0.0500	0.0376	75	68-127	mg/L	09.03.2020 12:30	
1,1-Dichloroethene	<0.00100	0.0500	0.0397	79	59-172	mg/L	09.03.2020 12:30	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0376	75	75-125	mg/L	09.03.2020 12:30	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0384	77	75-125	mg/L	09.03.2020 12:30	
1,2-Dichloropropane	<0.00500	0.0500	0.0397	79	74-125	mg/L	09.03.2020 12:30	
1,3-Dichloropropane	<0.00500	0.0500	0.0413	83	75-125	mg/L	09.03.2020 12:30	
2,2-Dichloropropane	<0.00500	0.0500	0.0409	82	75-125	mg/L	09.03.2020 12:30	
1,1-Dichloropropene	<0.00500	0.0500	0.0430	86	75-125	mg/L	09.03.2020 12:30	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0394	79	74-125	mg/L	09.03.2020 12:30	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0398	80	66-125	mg/L	09.03.2020 12:30	
Ethylbenzene	0.0132	0.0500	0.0543	82	75-125	mg/L	09.03.2020 12:30	
Hexachlorobutadiene	<0.00500	0.0500	0.0371	74	75-125	mg/L	09.03.2020 12:30	X
Isopropylbenzene	0.00749	0.0500	0.0468	79	75-125	mg/L	09.03.2020 12:30	
Methylene Chloride	<0.00500	0.0500	0.0380	76	75-125	mg/L	09.03.2020 12:30	
MTBE	<0.00500	0.0500	0.0437	87	65-135	mg/L	09.03.2020 12:30	
Naphthalene	<0.0100	0.0500	0.0403	81	70-130	mg/L	09.03.2020 12:30	
n-Propylbenzene	0.00761	0.0500	0.0476	80	75-125	mg/L	09.03.2020 12:30	
Styrene	<0.00100	0.0500	0.0382	76	75-125	mg/L	09.03.2020 12:30	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0389	78	72-125	mg/L	09.03.2020 12:30	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0398	80	74-125	mg/L	09.03.2020 12:30	
Tetrachloroethylene	<0.00100	0.0500	0.0378	76	71-125	mg/L	09.03.2020 12:30	
Toluene	0.0199	0.0500	0.0620	84	59-139	mg/L	09.03.2020 12:30	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0381	76	75-137	mg/L	09.03.2020 12:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136351

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.03.2020

Parent Sample Id: 671621-001

MS Sample Id: 671621-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0379	76	75-135	mg/L	09.03.2020 12:30	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0410	82	75-125	mg/L	09.03.2020 12:30	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0407	81	75-127	mg/L	09.03.2020 12:30	
Trichloroethylene	<0.00500	0.0500	0.0393	79	62-137	mg/L	09.03.2020 12:30	
Trichlorofluoromethane	<0.00100	0.0500	0.0438	88	60-140	mg/L	09.03.2020 12:30	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0408	82	75-125	mg/L	09.03.2020 12:30	
1,2,4-Trimethylbenzene	0.0483	0.0500	0.0963	96	75-125	mg/L	09.03.2020 12:30	
1,3,5-Trimethylbenzene	0.0140	0.0500	0.0561	84	70-125	mg/L	09.03.2020 12:30	
o-Xylene	0.00646	0.0500	0.0452	77	75-125	mg/L	09.03.2020 12:30	
m,p-Xylenes	0.0412	0.100	0.127	86	75-125	mg/L	09.03.2020 12:30	
Vinyl Chloride	<0.00200	0.0500	0.0469	94	60-140	mg/L	09.03.2020 12:30	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		75-131	%	09.03.2020 12:30
1,2-Dichloroethane-D4	98		63-144	%	09.03.2020 12:30
Toluene-D8	100		80-117	%	09.03.2020 12:30
4-Bromofluorobenzene	100		74-124	%	09.03.2020 12:30

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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) 555-3443 Lubbock, TX (806) 94-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 222-2222
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No:

$$\frac{142}{15} = 9.466666666666667$$

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	705 W. Wadley Ave, Suite 210	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ ~~Superfund~~ ☐

State of Project:

Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: ☐ (A)

[illegible]

CUSTODY SEAL

Date 4/2/24

Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **69842**

Date/Time: 09.02.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771431812681

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
671621-001	W	Levey Well	09.02.2020 09:00	SW8260C	VOCs by SW-846 8260C	09.03.2020	09.16.2020	JKR	BDCME BRBZ BRCLME	
671621-001	W	Levey Well	09.02.2020 09:00	E200.7	Recoverable Metals per ICP by EPA 200	09.03.2020	03.01.2021	JKR	CA K MG NA SI	
671621-001	W	Levey Well	09.02.2020 09:00	E300	Inorganic Anions by EPA 300/300.1	09.03.2020	09.04.2020 09:00	JKR	BR CL F NO2N NO3N SC	
671621-001	W	Levey Well	09.02.2020 09:00	SM4500-H	pH by SM4500-H	09.03.2020	09.02.2020 09:15	JKR		
671621-001	W	Levey Well	09.02.2020 09:00	SM2540C	TDS by SM2540C	09.03.2020	09.09.2020 09:00	JKR	TDS	
671621-001	W	Levey Well	09.02.2020 09:00	SM2320B	Alkalinity by SM2320B	09.03.2020	09.16.2020	JKR	ALK ALKB ALKC	
671621-001	W	Levey Well	09.02.2020 09:00	SM1030E	Cation-Anion Balance Calculation	09.03.2020	10.02.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 09.02.2020

Received By:



Jhyrom Edralin

Date Received: 09.03.2020

Cooler Temperature: 1.0

Xenco



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 69842

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-203

Sent By: Brianna Teel

Date Sent: 09.02.2020 02.07 PM

Received By: Jhyrom Edralin

Date Received: 09.03.2020 09.10 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 09.03.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 09.02.2020 01.50.00 PM

Work Order #: 671621

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 09.02.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.03.2020

Certificate of Analysis Summary 672238

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 09.10.2020 14:10
 Report Date: 09.12.2020 14:39
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672238-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.10.2020 11:50					
Alkalinity by SM2320B SUB: T104704215-20-38	Extracted: 09.11.2020 11:17 Analyzed: 09.11.2020 12:05 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1090 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1090 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-38	Extracted: Analyzed: 09.11.2020 17:38 Units/RL: % RL					
Cation-Anion Balance	4.20					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-38	Extracted: 09.11.2020 10:00 Analyzed: 09.11.2020 11:31 Units/RL: mg/L RL					
Bromide	0.714 0.500					
Chloride	499 0.500					
Fluoride	<5.00 5.00					
Nitrate as N	<0.100 0.100					
Nitrite as N	1.61 D 1.00					
Sulfate	41.9 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672238

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 09.10.2020 14:10
Report Date: 09.12.2020 14:39
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672238-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.10.2020 11:50					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-38	Extracted:	09.11.2020 10:30					
	Analyzed:	09.11.2020 15:25					
	Units/RL:	mg/L RL					
	Calcium	387 D 10.0					
	Magnesium	79.4 0.200					
	Potassium	6.53 0.500					
	Silica	65.4 1.07					
	Sodium	133 0.500					
TDS by SM2540C SUB: T104704215-20-38	Extracted:						
	Analyzed:	09.11.2020 11:09					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1980 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672238

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

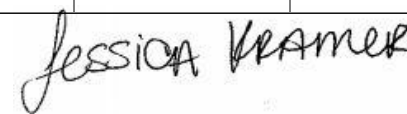
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 09.10.2020 14:10
Report Date: 09.12.2020 14:39
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672238-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.10.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.11.2020 10:30 Analyzed: 09.11.2020 15:18 Units/RL: mg/L RL					
Benzene	0.00676 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00271 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00150 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672238

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

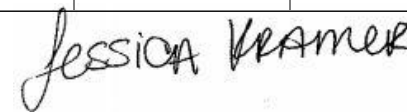
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 09.10.2020 14:10
Report Date: 09.12.2020 14:39
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672238-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.10.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.11.2020 10:30 Analyzed: 09.11.2020 15:18 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0246 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0132 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0136 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

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Certificate of Analysis Summary 672238

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 09.10.2020 14:10
 Report Date: 09.12.2020 14:39
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672238-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.10.2020 11:50					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.11.2020 10:30 Analyzed: 09.11.2020 15:18 Units/RL: mg/L RL					
Toluene	0.0358 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0785 0.00100					
1,3,5-Trimethylbenzene	0.0226 0.00100					
o-Xylene	0.0115 0.00100					
m,p-Xylenes	0.0760 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0875 0.00100					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.11.2020 11:55 Units/RL: Deg C RL					
Temperature	23.0 K					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.11.2020 11:55 Units/RL: SU RL					
pH	6.10 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 672238

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

09.12.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.12.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **672238**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672238. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672238 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 672238

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	09.10.2020 11:50		672238-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 672238

Report Date: 09.12.2020
Date Received: 09.10.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 672238

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.10.2020 14:10

Lab Sample Id: 672238-001

Date Collected: 09.10.2020 11:50

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 09.11.2020 11:17

Seq Number: 3136904

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1090	4.00	mg/L	09.11.2020 12:05		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1090	4.00	mg/L	09.11.2020 12:05		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	09.11.2020 12:05	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	09.11.2020 12:05	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3136967

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	4.20		%	09.11.2020 17:38		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 09.11.2020 10:00

Seq Number: 3136943

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.714	0.500	mg/L	09.11.2020 11:31		1
Chloride	16887-00-6	499	0.500	mg/L	09.11.2020 11:31		1
Fluoride	16984-48-8	<5.00	5.00	mg/L	09.11.2020 11:42	UD	10
Nitrate as N	14797-55-8	<0.100	0.100	mg/L	09.11.2020 11:31	U	1
Nitrite as N	14797-65-0	1.61	1.00	mg/L	09.11.2020 11:42	D	10
Sulfate	14808-79-8	41.9	0.500	mg/L	09.11.2020 11:31		1



Certificate of Analytical Results 672238

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.10.2020 14:10

Lab Sample Id: 672238-001

Date Collected: 09.10.2020 11:50

Analytical Method: TDS by SM2540C

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3136876

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1980	5.00	mg/L	09.11.2020 11:09		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3136884

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.10		SU	09.11.2020 11:55	K	1
Temperature	TEMP	23.0		Deg C	09.11.2020 11:55	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 09.11.2020 10:30

Seq Number: 3136963

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	387	10.0	mg/L	09.11.2020 15:29	D	50
Magnesium	7439-95-4	79.4	0.200	mg/L	09.11.2020 15:25		1
Potassium	7440-09-7	6.53	0.500	mg/L	09.11.2020 15:25		1
Silica	7631-86-9	65.4	1.07	mg/L	09.11.2020 15:25		1
Sodium	7440-23-5	133	0.500	mg/L	09.11.2020 15:25		1



Certificate of Analytical Results 672238

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.10.2020 14:10

Lab Sample Id: 672238-001

Date Collected: 09.10.2020 11:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 09.11.2020 10:30

Seq Number: 3136961

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00676	0.00100	mg/L	09.11.2020 15:18		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	09.11.2020 15:18	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Sec-Butylbenzene	135-98-8	0.00271	0.00100	mg/L	09.11.2020 15:18		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	09.11.2020 15:18	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	09.11.2020 15:18	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00150	0.00100	mg/L	09.11.2020 15:18		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Ethylbenzene	100-41-4	0.0246	0.00100	mg/L	09.11.2020 15:18		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1



Certificate of Analytical Results 672238

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.10.2020 14:10

Lab Sample Id: 672238-001

Date Collected: 09.10.2020 11:50

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 09.11.2020 10:30

Seq Number: 3136961

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0132	0.00100	mg/L	09.11.2020 15:18		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	09.11.2020 15:18	U	1
n-Propylbenzene	103-65-1	0.0136	0.00100	mg/L	09.11.2020 15:18		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Toluene	108-88-3	0.0358	0.00100	mg/L	09.11.2020 15:18		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	09.11.2020 15:18	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	09.11.2020 15:18	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0785	0.00100	mg/L	09.11.2020 15:18		1
1,3,5-Trimethylbenzene	108-67-8	0.0226	0.00100	mg/L	09.11.2020 15:18		1
o-Xylene	95-47-6	0.0115	0.00100	mg/L	09.11.2020 15:18		1
m,p-Xylenes	179601-23-1	0.0760	0.0100	mg/L	09.11.2020 15:18		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	09.11.2020 15:18	U	1
Total Xylenes	1330-20-7	0.0875	0.00100	mg/L	09.11.2020 15:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	75-131	09.11.2020 15:18	
1,2-Dichloroethane-D4	17060-07-0	110	%	63-144	09.11.2020 15:18	
Toluene-D8	2037-26-5	102	%	80-117	09.11.2020 15:18	
4-Bromofluorobenzene	460-00-4	103	%	74-124	09.11.2020 15:18	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136904

MB Sample Id: 7711138-1-BLK

Matrix: Water

LCS Sample Id: 7711138-1-BKS

Prep Method: SM2320P

Date Prep: 09.11.2020

LCSD Sample Id: 7711138-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	256	102	260	104	85-115	2	20	mg/L	09.11.2020 11:45	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136904

Matrix: Water

MB Sample Id: 7711138-1-BLK

Prep Method: SM2320P

Date Prep: 09.11.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	09.11.2020 11:39	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	09.11.2020 11:39	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	09.11.2020 11:39	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3136904

Matrix: Water

Parent Sample Id: 672238-001

MD Sample Id: 672238-001 D

Prep Method: SM2320P

Date Prep: 09.11.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1090	1090	0	20	mg/L	09.11.2020 12:18	
Alkalinity, Bicarbonate (as CaCO ₃)	1090	1090	0	20	mg/L	09.11.2020 12:18	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.11.2020 12:18	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.11.2020 12:18	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3136943

Matrix: Water

MB Sample Id: 7711133-1-BLK

LCS Sample Id: 7711133-1-BKS

Prep Method: SW9056P

Date Prep: 09.11.2020

LCSD Sample Id: 7711133-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.4	104	10.4	104	90-110	0	20	mg/L	09.11.2020 09:11	
Chloride	<0.500	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	09.11.2020 09:11	
Fluoride	<0.500	10.0	10.6	106	10.7	107	90-110	1	20	mg/L	09.11.2020 09:11	
Nitrate as N	<0.100	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	09.11.2020 09:11	
Nitrite as N	<0.100	10.0	10.4	104	10.5	105	90-110	1	20	mg/L	09.11.2020 09:11	
Sulfate	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	09.11.2020 09:11	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3136943

Matrix: Ground Water

Prep Method: E300P

Date Prep: 09.11.2020

Parent Sample Id: 672313-001

MS Sample Id: 672313-001 S

MSD Sample Id: 672313-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.581	10.0	10.8	102	10.8	102	90-110	0	20	mg/L	09.11.2020 12:29	
Chloride	175	10.0	182	70	181	60	90-110	1	20	mg/L	09.11.2020 12:29	X
Fluoride	0.265	10.0	10.6	103	10.6	103	90-110	0	20	mg/L	09.11.2020 12:29	
Nitrate as N	16.0	10.0	25.9	99	25.8	98	90-110	0	20	mg/L	09.11.2020 12:29	
Nitrite as N	0.0952	10.0	10.6	105	10.7	106	90-110	1	20	mg/L	09.11.2020 12:29	
Sulfate	119	10.0	127	80	127	80	90-110	0	20	mg/L	09.11.2020 12:29	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3136943

Matrix: Ground Water

Prep Method: E300P

Date Prep: 09.11.2020

Parent Sample Id: 672313-002

MS Sample Id: 672313-002 S

MSD Sample Id: 672313-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.21	10.0	11.3	101	11.3	101	90-110	0	20	mg/L	09.11.2020 13:28	
Chloride	343	10.0	347	40	347	40	90-110	0	20	mg/L	09.11.2020 13:28	X
Fluoride	0.265	10.0	10.4	101	10.5	102	90-110	1	20	mg/L	09.11.2020 13:28	
Nitrate as N	25.2	10.0	35.4	97	35.4	97	90-110	0	20	mg/L	09.11.2020 13:28	
Nitrite as N	0.0512	10.0	10.6	105	10.6	105	90-110	0	20	mg/L	09.11.2020 13:28	
Sulfate	171	10.0	178	70	178	70	90-110	0	20	mg/L	09.11.2020 13:28	X

Analytical Method: TDS by SM2540C

Seq Number: 3136876

Matrix: Water

MB Sample Id: 3136876-1-BLK

LCS Sample Id: 3136876-1-BKS

LCSD Sample Id: 3136876-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	930	93	927	93	80-120	0	10	mg/L	09.11.2020 11:09	

Analytical Method: TDS by SM2540C

Seq Number: 3136876

Matrix: Water

Parent Sample Id: 672238-001

MD Sample Id: 672238-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1980	1960	1	10	mg/L	09.11.2020 11:09	

Analytical Method: pH by SM4500-H

Seq Number: 3136884

Matrix: Water

Parent Sample Id: 672238-001

MD Sample Id: 672238-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.10	6.11	0	20	SU	09.11.2020 11:55	
Temperature	23.0	23.2	1	20	Deg C	09.11.2020 11:55	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3136963

Matrix: Water

Prep Method: E200.7P

Date Prep: 09.11.2020

MB Sample Id: 7711143-1-BLK

LCS Sample Id: 7711143-1-BKS

LCSD Sample Id: 7711143-1-BSL

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.3	93	23.3	93	85-115	0	20	mg/L	09.11.2020 13:21	
Magnesium	<0.200	25.0	24.0	96	24.0	96	85-115	0	20	mg/L	09.11.2020 13:21	
Potassium	<0.500	10.0	9.30	93	9.28	93	85-115	0	20	mg/L	09.11.2020 13:21	
Silica	<1.07	21.4	20.9	98	20.9	98	85-115	0	20	mg/L	09.11.2020 13:21	
Sodium	<0.500	25.0	23.6	94	23.5	94	85-115	0	20	mg/L	09.11.2020 13:21	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3136963

Matrix: Water

Prep Method: E200.7P

Date Prep: 09.11.2020

Parent Sample Id: 671811-001

MS Sample Id: 671811-001 S

MSD Sample Id: 671811-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	17.9	25.0	42.4	98	42.5	98	70-130	0	20	mg/L	09.11.2020 13:33	
Magnesium	0.362	25.0	26.3	104	26.3	104	70-130	0	20	mg/L	09.11.2020 13:33	
Potassium	1.24	10.0	11.1	99	11.1	99	70-130	0	20	mg/L	09.11.2020 13:33	
Silica	5.37	21.4	28.5	108	28.5	108	70-130	0	20	mg/L	09.11.2020 13:33	
Sodium	0.978	25.0	26.3	101	26.3	101	70-130	0	20	mg/L	09.11.2020 13:33	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136961

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.11.2020

MB Sample Id: 7711187-1-BLK

LCS Sample Id: 7711187-1-BKS

LCSD Sample Id: 7711187-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0490	98	0.0486	97	66-142	1	25	mg/L	09.11.2020 12:15	
Bromobenzene	<0.00100	0.0500	0.0472	94	0.0446	89	75-125	6	25	mg/L	09.11.2020 12:15	
Bromochloromethane	<0.00100	0.0500	0.0495	99	0.0499	100	60-140	1	25	mg/L	09.11.2020 12:15	
Bromodichloromethane	<0.00100	0.0500	0.0518	104	0.0521	104	75-125	1	25	mg/L	09.11.2020 12:15	
Bromoform	<0.00500	0.0500	0.0519	104	0.0531	106	75-125	2	25	mg/L	09.11.2020 12:15	
Methyl bromide	<0.00500	0.0500	0.0533	107	0.0526	105	60-140	1	25	mg/L	09.11.2020 12:15	
2-Butanone	<0.0500	0.250	0.297	119	0.319	128	60-140	7	25	mg/L	09.11.2020 12:15	
n-Butylbenzene	<0.00100	0.0500	0.0501	100	0.0473	95	75-125	6	25	mg/L	09.11.2020 12:15	
Sec-Butylbenzene	<0.00100	0.0500	0.0447	89	0.0421	84	75-125	6	25	mg/L	09.11.2020 12:15	
tert-Butylbenzene	<0.00100	0.0500	0.0495	99	0.0464	93	75-125	6	25	mg/L	09.11.2020 12:15	
Carbon Tetrachloride	<0.00500	0.0500	0.0492	98	0.0500	100	62-125	2	25	mg/L	09.11.2020 12:15	
Chlorobenzene	<0.00100	0.0500	0.0459	92	0.0452	90	60-133	2	25	mg/L	09.11.2020 12:15	
Chloroethane	<0.0100	0.0500	0.0456	91	0.0438	88	60-140	4	25	mg/L	09.11.2020 12:15	
Chloroform	<0.00100	0.0500	0.0524	105	0.0527	105	70-130	1	25	mg/L	09.11.2020 12:15	
Methyl Chloride	<0.0100	0.0500	0.0543	109	0.0527	105	60-140	3	25	mg/L	09.11.2020 12:15	
2-Chlorotoluene	<0.00100	0.0500	0.0485	97	0.0455	91	73-125	6	25	mg/L	09.11.2020 12:15	
4-Chlorotoluene	<0.00100	0.0500	0.0490	98	0.0458	92	74-125	7	25	mg/L	09.11.2020 12:15	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0469	94	0.0445	89	75-125	5	25	mg/L	09.11.2020 12:15	
Dibromochloromethane	<0.00500	0.0500	0.0508	102	0.0506	101	73-125	0	25	mg/L	09.11.2020 12:15	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0502	100	0.0484	97	59-125	4	25	mg/L	09.11.2020 12:15	
1,2-Dibromoethane	<0.00500	0.0500	0.0517	103	0.0523	105	73-125	1	25	mg/L	09.11.2020 12:15	
Methylene Bromide	<0.00100	0.0500	0.0515	103	0.0524	105	69-127	2	25	mg/L	09.11.2020 12:15	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0471	94	0.0446	89	75-125	5	25	mg/L	09.11.2020 12:15	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0460	92	0.0438	88	75-125	5	25	mg/L	09.11.2020 12:15	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0470	94	0.0444	89	75-125	6	25	mg/L	09.11.2020 12:15	
Dichlorodifluoromethane	<0.00100	0.0500	0.0523	105	0.0494	99	60-140	6	25	mg/L	09.11.2020 12:15	
1,1-Dichloroethane	<0.00100	0.0500	0.0537	107	0.0538	108	72-125	0	25	mg/L	09.11.2020 12:15	
1,2-Dichloroethane	<0.00100	0.0500	0.0525	105	0.0533	107	68-127	2	25	mg/L	09.11.2020 12:15	
1,1-Dichloroethene	<0.00100	0.0500	0.0512	102	0.0514	103	59-172	0	25	mg/L	09.11.2020 12:15	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0507	101	0.0510	102	75-125	1	25	mg/L	09.11.2020 12:15	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0519	104	0.0517	103	75-125	0	25	mg/L	09.11.2020 12:15	
1,2-Dichloropropane	<0.00500	0.0500	0.0529	106	0.0533	107	74-125	1	25	mg/L	09.11.2020 12:15	
1,3-Dichloropropane	<0.00500	0.0500	0.0530	106	0.0535	107	75-125	1	25	mg/L	09.11.2020 12:15	
2,2-Dichloropropane	<0.00500	0.0500	0.0560	112	0.0561	112	75-125	0	25	mg/L	09.11.2020 12:15	
1,1-Dichloropropene	<0.00500	0.0500	0.0516	103	0.0520	104	75-125	1	25	mg/L	09.11.2020 12:15	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0520	104	0.0522	104	74-125	0	25	mg/L	09.11.2020 12:15	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0505	101	0.0512	102	66-125	1	25	mg/L	09.11.2020 12:15	
Ethylbenzene	<0.00100	0.0500	0.0472	94	0.0461	92	75-125	2	25	mg/L	09.11.2020 12:15	
Hexachlorobutadiene	<0.00500	0.0500	0.0474	95	0.0460	92	75-125	3	25	mg/L	09.11.2020 12:15	
Isopropylbenzene	<0.00100	0.0500	0.0459	92	0.0448	90	75-125	2	25	mg/L	09.11.2020 12:15	
Methylene Chloride	<0.00500	0.0500	0.0467	93	0.0465	93	75-125	0	25	mg/L	09.11.2020 12:15	
MTBE	<0.00500	0.0500	0.0507	101	0.0524	105	65-135	3	25	mg/L	09.11.2020 12:15	
Naphthalene	<0.0100	0.0500	0.0517	103	0.0525	105	70-130	2	25	mg/L	09.11.2020 12:15	
n-Propylbenzene	<0.00100	0.0500	0.0507	101	0.0473	95	75-125	7	25	mg/L	09.11.2020 12:15	
Styrene	<0.00100	0.0500	0.0476	95	0.0471	94	75-125	1	25	mg/L	09.11.2020 12:15	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0480	96	0.0474	95	72-125	1	25	mg/L	09.11.2020 12:15	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0515	103	0.0507	101	74-125	2	25	mg/L	09.11.2020 12:15	
Tetrachloroethylene	<0.00100	0.0500	0.0464	93	0.0454	91	71-125	2	25	mg/L	09.11.2020 12:15	
Toluene	<0.00100	0.0500	0.0477	95	0.0468	94	59-139	2	25	mg/L	09.11.2020 12:15	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0490	98	0.0500	100	75-137	2	25	mg/L	09.11.2020 12:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136961

MB Sample Id: 7711187-1-BLK

Matrix: Water

LCS Sample Id: 7711187-1-BKS

Prep Method: SW5030B

Date Prep: 09.11.2020

LCSD Sample Id: 7711187-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0481	96	0.0474	95	75-135	1	25	mg/L	09.11.2020 12:15	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0571	114	0.0575	115	75-125	1	25	mg/L	09.11.2020 12:15	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0515	103	0.0521	104	75-127	1	25	mg/L	09.11.2020 12:15	
Trichloroethylene	<0.00500	0.0500	0.0515	103	0.0509	102	62-137	1	25	mg/L	09.11.2020 12:15	
Trichlorofluoromethane	<0.00100	0.0500	0.0552	110	0.0525	105	60-140	5	25	mg/L	09.11.2020 12:15	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0525	105	0.0514	103	75-125	2	25	mg/L	09.11.2020 12:15	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0472	94	0.0442	88	75-125	7	25	mg/L	09.11.2020 12:15	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0475	95	0.0448	90	70-125	6	25	mg/L	09.11.2020 12:15	
o-Xylene	<0.00100	0.0500	0.0470	94	0.0467	93	75-125	1	25	mg/L	09.11.2020 12:15	
m,p-Xylenes	<0.0100	0.100	0.0940	94	0.0926	93	75-125	2	25	mg/L	09.11.2020 12:15	
Vinyl Chloride	<0.00200	0.0500	0.0548	110	0.0525	105	60-140	4	25	mg/L	09.11.2020 12:15	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	106		109		111		75-131			%	09.11.2020 12:15	
1,2-Dichloroethane-D4	97		109		116		63-144			%	09.11.2020 12:15	
Toluene-D8	100		102		100		80-117			%	09.11.2020 12:15	
4-Bromofluorobenzene	107		104		102		74-124			%	09.11.2020 12:15	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136961

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.11.2020

Parent Sample Id: 672238-001

MS Sample Id: 672238-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00676	0.0500	0.0553	97	66-142	mg/L	09.11.2020 13:17	
Bromobenzene	<0.00100	0.0500	0.0435	87	75-125	mg/L	09.11.2020 13:17	
Bromochloromethane	<0.00100	0.0500	0.0489	98	60-140	mg/L	09.11.2020 13:17	
Bromodichloromethane	<0.00100	0.0500	0.0527	105	75-125	mg/L	09.11.2020 13:17	
Bromoform	<0.00500	0.0500	0.0515	103	75-125	mg/L	09.11.2020 13:17	
Methyl bromide	<0.00500	0.0500	0.0499	100	60-140	mg/L	09.11.2020 13:17	
2-Butanone	<0.0500	0.250	0.305	122	60-140	mg/L	09.11.2020 13:17	
n-Butylbenzene	<0.00100	0.0500	0.0473	95	75-125	mg/L	09.11.2020 13:17	
Sec-Butylbenzene	0.00271	0.0500	0.0423	79	75-125	mg/L	09.11.2020 13:17	
tert-Butylbenzene	<0.00100	0.0500	0.0451	90	75-125	mg/L	09.11.2020 13:17	
Carbon Tetrachloride	<0.00500	0.0500	0.0498	100	62-125	mg/L	09.11.2020 13:17	
Chlorobenzene	<0.00100	0.0500	0.0448	90	60-133	mg/L	09.11.2020 13:17	
Chloroethane	<0.0100	0.0500	0.0699	140	60-140	mg/L	09.11.2020 13:17	
Chloroform	<0.00100	0.0500	0.0525	105	70-130	mg/L	09.11.2020 13:17	
Methyl Chloride	<0.0100	0.0500	0.0620	124	60-140	mg/L	09.11.2020 13:17	
2-Chlorotoluene	<0.00100	0.0500	0.0513	103	73-125	mg/L	09.11.2020 13:17	
4-Chlorotoluene	<0.00100	0.0500	0.0472	94	74-125	mg/L	09.11.2020 13:17	
p-Cymene (p-Isopropyltoluene)	0.00150	0.0500	0.0439	85	75-125	mg/L	09.11.2020 13:17	
Dibromochloromethane	<0.00500	0.0500	0.0521	104	73-125	mg/L	09.11.2020 13:17	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0505	101	59-125	mg/L	09.11.2020 13:17	
1,2-Dibromoethane	<0.00500	0.0500	0.0528	106	73-125	mg/L	09.11.2020 13:17	
Methylene Bromide	<0.00100	0.0500	0.0515	103	69-127	mg/L	09.11.2020 13:17	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0441	88	75-125	mg/L	09.11.2020 13:17	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0429	86	75-125	mg/L	09.11.2020 13:17	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0435	87	75-125	mg/L	09.11.2020 13:17	
Dichlorodifluoromethane	<0.00100	0.0500	0.0442	88	60-140	mg/L	09.11.2020 13:17	
1,1-Dichloroethane	<0.00100	0.0500	0.0537	107	72-125	mg/L	09.11.2020 13:17	
1,2-Dichloroethane	<0.00100	0.0500	0.0530	106	68-127	mg/L	09.11.2020 13:17	
1,1-Dichloroethene	<0.00100	0.0500	0.0494	99	59-172	mg/L	09.11.2020 13:17	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0511	102	75-125	mg/L	09.11.2020 13:17	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0518	104	75-125	mg/L	09.11.2020 13:17	
1,2-Dichloropropane	<0.00500	0.0500	0.0561	112	74-125	mg/L	09.11.2020 13:17	
1,3-Dichloropropane	<0.00500	0.0500	0.0560	112	75-125	mg/L	09.11.2020 13:17	
2,2-Dichloropropane	<0.00500	0.0500	0.0552	110	75-125	mg/L	09.11.2020 13:17	
1,1-Dichloropropene	<0.00500	0.0500	0.0531	106	75-125	mg/L	09.11.2020 13:17	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0540	108	74-125	mg/L	09.11.2020 13:17	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0522	104	66-125	mg/L	09.11.2020 13:17	
Ethylbenzene	0.0246	0.0500	0.0699	91	75-125	mg/L	09.11.2020 13:17	
Hexachlorobutadiene	<0.00500	0.0500	0.0421	84	75-125	mg/L	09.11.2020 13:17	
Isopropylbenzene	0.0132	0.0500	0.0578	89	75-125	mg/L	09.11.2020 13:17	
Methylene Chloride	<0.00500	0.0500	0.0461	92	75-125	mg/L	09.11.2020 13:17	
MTBE	<0.00500	0.0500	0.0576	115	65-135	mg/L	09.11.2020 13:17	
Naphthalene	<0.0100	0.0500	0.0554	111	70-130	mg/L	09.11.2020 13:17	
n-Propylbenzene	0.0136	0.0500	0.0595	92	75-125	mg/L	09.11.2020 13:17	
Styrene	<0.00100	0.0500	0.0472	94	75-125	mg/L	09.11.2020 13:17	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0479	96	72-125	mg/L	09.11.2020 13:17	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0495	99	74-125	mg/L	09.11.2020 13:17	
Tetrachloroethylene	<0.00100	0.0500	0.0439	88	71-125	mg/L	09.11.2020 13:17	
Toluene	0.0358	0.0500	0.0807	90	59-139	mg/L	09.11.2020 13:17	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0526	105	75-137	mg/L	09.11.2020 13:17	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3136961

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.11.2020

Parent Sample Id: 672238-001

MS Sample Id: 672238-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0480	96	75-135	mg/L	09.11.2020 13:17	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0578	116	75-125	mg/L	09.11.2020 13:17	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0554	111	75-127	mg/L	09.11.2020 13:17	
Trichloroethylene	<0.00500	0.0500	0.0520	104	62-137	mg/L	09.11.2020 13:17	
Trichlorofluoromethane	<0.00100	0.0500	0.0495	99	60-140	mg/L	09.11.2020 13:17	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0489	98	75-125	mg/L	09.11.2020 13:17	
1,2,4-Trimethylbenzene	0.0785	0.0500	0.123	89	75-125	mg/L	09.11.2020 13:17	
1,3,5-Trimethylbenzene	0.0226	0.0500	0.0677	90	70-125	mg/L	09.11.2020 13:17	
o-Xylene	0.0115	0.0500	0.0584	94	75-125	mg/L	09.11.2020 13:17	
m,p-Xylenes	0.0760	0.100	0.166	90	75-125	mg/L	09.11.2020 13:17	
Vinyl Chloride	<0.00200	0.0500	0.0531	106	60-140	mg/L	09.11.2020 13:17	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	112		75-131	%	09.11.2020 13:17
1,2-Dichloroethane-D4	110		63-144	%	09.11.2020 13:17
Toluene-D8	101		80-117	%	09.11.2020 13:17
4-Bromofluorobenzene	99		74-124	%	09.11.2020 13:17

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

072200

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432) 704-5440 El Paso, TX (915) 555-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 392-7550

www.xenco.com

Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	(210) 219-8858	Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/ST ☐ PRP ☐ Brownfields ☐ ARC ☐ Superfund ☐	
State of Project:	
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDO ☐ ADAPT ☐ Other:	

Project Name:				Levey Well		Hobbs NM		Turn Around		ANALYSIS REQUEST										Work Order Notes			
Project Number:				03B1417001				Routine ☐															
P.O. Number:				03B1417001				Rush: 24 hrs <td colspan="10"></td>															
Sampler's Name:				Kelly Levey				Due Date:															
SAMPLE RECEIPT				Temp Blank:		Yes ☒ No		Wet Ice: ☒ No <th colspan="10"></th> <td colspan="2" rowspan="6">TAT starts the day received by the lab, if received by 4:30pm</td>												TAT starts the day received by the lab, if received by 4:30pm			
Temperature (°C):				1.0 1.0		Thermometer ID																	
Received Intact:				Yes No		<td colspan="10"></td>																	
Cooler Custody Seals:				Yes No N/A		Correction Factor: 0.1 <td colspan="10"></td>																	
Sample Custody Seals:				Yes No N/A		Total Containers:																	
Sample Identification				Matrix		Date Sampled		Time Sampled		Depth													
Levey Well				GW		09/10/20		1150		-													
N/A 09/10/2020 PL				Number of Containers								7											
				VOCs								X											
				Anions: F, Cl, SO4, B								X											
				Cations: Ca, K, Mg, Na, Si								X											
				pH								X											
				Alkalinity								X											
TDS								X															
														24 hrs									

Total	200.7 / 6010	200.8 / 6020:	
<i>Circle Method(s) and Metal(s) to be analyzed</i>	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 ₂ Na Sr Ti Sn U V Zn	
	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 : Hd

(Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenoco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco 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 Xenoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenoco, 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
		9/10/20			



Inter-Office Shipment

IOS Number : **70218**

Date/Time: 09.10.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771497609617

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
672238-001	W	Levey Well	09.10.2020 11:50	SW8260C	VOCs by SW-846 8260C	09.11.2020	09.24.2020	JKR	BDCME BRBZ BRCLME	
672238-001	W	Levey Well	09.10.2020 11:50	E200.7	Recoverable Metals per ICP by EPA 200	09.11.2020	03.09.2021	JKR	CA K MG NA SI	
672238-001	W	Levey Well	09.10.2020 11:50	E300	Inorganic Anions by EPA 300/300.1	09.11.2020	09.12.2020 11:50	JKR	BR CL F NO2N NO3N S	
672238-001	W	Levey Well	09.10.2020 11:50	SM4500-H	pH by SM4500-H	09.11.2020	09.10.2020 12:05	JKR		
672238-001	W	Levey Well	09.10.2020 11:50	SM2540C	TDS by SM2540C	09.11.2020	09.17.2020	JKR	TDS	
672238-001	W	Levey Well	09.10.2020 11:50	SM2320B	Alkalinity by SM2320B	09.11.2020	09.24.2020	JKR	ALK ALKB ALKC	
672238-001	W	Levey Well	09.10.2020 11:50	SM1030E	Cation-Anion Balance Calculation	09.11.2020	10.10.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 09.10.2020

Received By:



Jhyrom Edralin

Date Received: 09.11.2020

Cooler Temperature: 2.5



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 70218

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-203

Sent By: Brianna Teel

Date Sent: 09.10.2020 02.20 PM

Received By: Jhyrom Edralin

Date Received: 09.11.2020 09.40 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 09.11.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 09.10.2020 02.10.00 PM

Work Order #: 672238

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 09.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.11.2020

Certificate of Analysis Summary 672829

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 09.17.2020 13:35
 Report Date: 09.21.2020 13:37
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672829-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.17.2020 13:35					
Alkalinity by SM2320B SUB: T104704215-20-38	Extracted: 09.18.2020 11:58 Analyzed: 09.18.2020 12:48 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1110 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1110 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-38	Extracted: Analyzed: 09.21.2020 13:29 Units/RL: % RL					
Cation-Anion Balance	1.10					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-38	Extracted: 09.18.2020 10:00 Analyzed: 09.18.2020 13:00 Units/RL: mg/L RL					
Bromide	0.769 0.500					
Chloride	472 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.272 0.100					
Nitrite as N	1.06 D 1.00					
Sulfate	40.8 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672829

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 09.17.2020 13:35
Report Date: 09.21.2020 13:37
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672829-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.17.2020 13:35					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-38	Extracted:	09.18.2020 11:00					
	Analyzed:	09.20.2020 16:59					
	Units/RL:	mg/L RL					
	Calcium	467 D 10.0					
	Magnesium	73.4 0.200					
	Potassium	6.45 0.500					
	Silica	60.7 1.07					
	Sodium	119 0.500					
TDS by SM2540C SUB: T104704215-20-38	Extracted:						
	Analyzed:	09.18.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1930 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672829

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

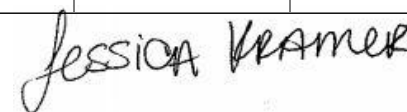
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 09.17.2020 13:35
Report Date: 09.21.2020 13:37
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672829-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.17.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted:	09.18.2020 12:58					
	Analyzed:	09.18.2020 15:13					
	Units/RL:	mg/L RL					
Benzene		0.00700 0.00100					
Bromobenzene		<0.00100 0.00100					
Bromochloromethane		<0.00100 0.00100					
Bromodichloromethane		<0.00100 0.00100					
Bromoform		<0.00500 0.00500					
Methyl bromide		<0.00500 0.00500					
2-Butanone		<0.0500 0.0500					
n-Butylbenzene		<0.00100 0.00100					
Sec-Butylbenzene		0.00285 0.00100					
tert-Butylbenzene		<0.00100 0.00100					
Carbon Tetrachloride		<0.00500 0.00500					
Chlorobenzene		<0.00100 0.00100					
Chloroethane		<0.0100 0.0100					
Chloroform		<0.00100 0.00100					
Methyl Chloride		<0.0100 0.0100					
2-Chlorotoluene		<0.00100 0.00100					
4-Chlorotoluene		<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)		0.00163 0.00100					
Dibromochloromethane		<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane		<0.00100 0.00100					
1,2-Dibromoethane		<0.00500 0.00500					
Methylene Bromide		<0.00100 0.00100					
1,2-Dichlorobenzene		<0.00100 0.00100					
1,3-Dichlorobenzene		<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672829

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

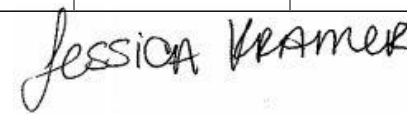
Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 09.17.2020 13:35
 Report Date: 09.21.2020 13:37
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672829-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.17.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.18.2020 12:58 Analyzed: 09.18.2020 15:13 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0266 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0146 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0147 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 672829

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 09.17.2020 13:35
 Report Date: 09.21.2020 13:37
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 672829-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.17.2020 13:35					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.18.2020 12:58 Analyzed: 09.18.2020 15:13 Units/RL: mg/L RL					
Toluene	0.0381 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0921 0.00100					
1,3,5-Trimethylbenzene	0.0262 0.00100					
o-Xylene	0.0136 0.00100					
m,p-Xylenes	0.0849 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.0985 0.00100					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.18.2020 14:22 Units/RL: Deg C RL					
Temperature	24.5 K					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.18.2020 14:22 Units/RL: SU RL					
pH	6.14 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 672829

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

09.21.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.21.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **672829**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672829. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672829 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 672829

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	09.17.2020 13:35		672829-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 672829

Report Date: 09.21.2020
Date Received: 09.17.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3137575 VOCs by SW-846 8260C

Lab Sample ID 672829-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloroethane recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 672829-001.

The Laboratory Control Sample for Chloroethane is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 672829

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.17.2020 13:35

Lab Sample Id: 672829-001

Date Collected: 09.17.2020 13:35

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 09.18.2020 11:58

Seq Number: 3137535

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1110	4.00	mg/L	09.18.2020 12:48		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1110	4.00	mg/L	09.18.2020 12:48		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	09.18.2020 12:48	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	09.18.2020 12:48	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3137662

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	1.10		%	09.21.2020 13:29		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 09.18.2020 10:00

Seq Number: 3137557

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.769	0.500	mg/L	09.18.2020 13:00		1
Chloride	16887-00-6	472	0.500	mg/L	09.18.2020 13:00		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	09.18.2020 13:00	U	1
Nitrate as N	14797-55-8	0.272	0.100	mg/L	09.18.2020 13:00		1
Nitrite as N	14797-65-0	1.06	1.00	mg/L	09.18.2020 13:11	D	10
Sulfate	14808-79-8	40.8	0.500	mg/L	09.18.2020 13:00		1



Certificate of Analytical Results 672829

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well**
Lab Sample Id: 672829-001

Matrix: Water
Date Collected: 09.17.2020 13:35

Date Received:09.17.2020 13:35

Analytical Method: TDS by SM2540C

Tech: YAV
Analyst: YAV
Seq Number: 3137502

% Moisture:

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1930	5.00	mg/L	09.18.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU
Analyst: KBU
Seq Number: 3137537

% Moisture:

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.14		SU	09.18.2020 14:22	K	1
Temperature	TEMP	24.5		Deg C	09.18.2020 14:22	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Tech: MLI
Analyst: DEP
Seq Number: 3137644

Prep Method: E200.7P
% Moisture:

Date Prep: 09.18.2020 11:00

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	467	10.0	mg/L	09.20.2020 20:23	D	50
Magnesium	7439-95-4	73.4	0.200	mg/L	09.20.2020 16:59		1
Potassium	7440-09-7	6.45	0.500	mg/L	09.20.2020 16:59		1
Silica	7631-86-9	60.7	1.07	mg/L	09.20.2020 16:59		1
Sodium	7440-23-5	119	0.500	mg/L	09.20.2020 16:59		1



Certificate of Analytical Results 672829

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.17.2020 13:35

Lab Sample Id: 672829-001

Date Collected: 09.17.2020 13:35

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.18.2020 12:58

Seq Number: 3137575

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00700	0.00100	mg/L	09.18.2020 15:13		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	09.18.2020 15:13	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Sec-Butylbenzene	135-98-8	0.00285	0.00100	mg/L	09.18.2020 15:13		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	09.18.2020 15:13	UX	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	09.18.2020 15:13	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00163	0.00100	mg/L	09.18.2020 15:13		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Ethylbenzene	100-41-4	0.0266	0.00100	mg/L	09.18.2020 15:13		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1



Certificate of Analytical Results 672829

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.17.2020 13:35

Lab Sample Id: 672829-001

Date Collected: 09.17.2020 13:35

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.18.2020 12:58

Seq Number: 3137575

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0146	0.00100	mg/L	09.18.2020 15:13		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	09.18.2020 15:13	U	1
n-Propylbenzene	103-65-1	0.0147	0.00100	mg/L	09.18.2020 15:13		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Toluene	108-88-3	0.0381	0.00100	mg/L	09.18.2020 15:13		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	09.18.2020 15:13	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	09.18.2020 15:13	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0921	0.00100	mg/L	09.18.2020 15:13		1
1,3,5-Trimethylbenzene	108-67-8	0.0262	0.00100	mg/L	09.18.2020 15:13		1
o-Xylene	95-47-6	0.0136	0.00100	mg/L	09.18.2020 15:13		1
m,p-Xylenes	179601-23-1	0.0849	0.0100	mg/L	09.18.2020 15:13		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	09.18.2020 15:13	U	1
Total Xylenes	1330-20-7	0.0985	0.00100	mg/L	09.18.2020 15:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	75-131	09.18.2020 15:13	
1,2-Dichloroethane-D4	17060-07-0	101	%	63-144	09.18.2020 15:13	
Toluene-D8	2037-26-5	101	%	80-117	09.18.2020 15:13	
4-Bromofluorobenzene	460-00-4	100	%	74-124	09.18.2020 15:13	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3137535

MB Sample Id: 7711610-1-BLK

Matrix: Water

LCS Sample Id: 7711610-1-BKS

Prep Method: SM2320P

Date Prep: 09.18.2020

LCSD Sample Id: 7711610-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	259	104	261	104	85-115	1	20	mg/L	09.18.2020 12:28	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3137535

Matrix: Water

MB Sample Id: 7711610-1-BLK

Prep Method: SM2320P

Date Prep: 09.18.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	09.18.2020 12:22	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	09.18.2020 12:22	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	09.18.2020 12:22	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3137535

Matrix: Water

Parent Sample Id: 672829-001

MD Sample Id: 672829-001 D

Prep Method: SM2320P

Date Prep: 09.18.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1110	1110	0	20	mg/L	09.18.2020 13:01	
Alkalinity, Bicarbonate (as CaCO ₃)	1110	1110	0	20	mg/L	09.18.2020 13:01	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.18.2020 13:01	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.18.2020 13:01	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3137557

Matrix: Water

MB Sample Id: 7711588-1-BLK

LCS Sample Id: 7711588-1-BKS

Prep Method: E300P

Date Prep: 09.18.2020

LCSD Sample Id: 7711588-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	09.18.2020 09:16	
Chloride	<0.500	10.0	11.0	110	11.0	110	90-110	0	20	mg/L	09.18.2020 09:16	
Fluoride	<0.500	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	09.18.2020 09:16	
Nitrate as N	<0.100	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	09.18.2020 09:16	
Nitrite as N	<0.100	10.0	10.5	105	10.6	106	90-110	1	20	mg/L	09.18.2020 09:16	
Sulfate	<0.500	10.0	10.6	106	10.6	106	90-110	0	20	mg/L	09.18.2020 09:16	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3137557

Matrix: Water

Prep Method: E300P

Date Prep: 09.18.2020

Parent Sample Id: 672858-001

MS Sample Id: 672858-001 S

MSD Sample Id: 672858-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	0.948	10.0	11.3	104	11.3	104	90-110	0	20	mg/L	09.18.2020 11:38	
Chloride	147	10.0	154	70	154	70	90-110	0	20	mg/L	09.18.2020 11:38	X
Fluoride	2.92	10.0	12.5	96	12.6	97	90-110	1	20	mg/L	09.18.2020 11:38	
Nitrate as N	2.82	10.0	12.8	100	12.8	100	90-110	0	20	mg/L	09.18.2020 11:38	
Nitrite as N	<0.100	10.0	10.7	107	10.7	107	90-110	0	20	mg/L	09.18.2020 11:38	
Sulfate	182	10.0	188	60	188	60	90-110	0	20	mg/L	09.18.2020 11:38	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3137557

Matrix: Water

Prep Method: E300P

Date Prep: 09.18.2020

Parent Sample Id: 672896-001

MS Sample Id: 672896-001 S

MSD Sample Id: 672896-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	1.28	10.0	11.5	102	11.6	103	90-110	1	20	mg/L	09.18.2020 12:13	
Chloride	284	10.0	289	50	289	50	90-110	0	20	mg/L	09.18.2020 12:13	X
Fluoride	4.37	10.0	13.1	87	13.2	88	90-110	1	20	mg/L	09.18.2020 12:13	X
Nitrate as N	13.6	10.0	23.5	99	23.5	99	90-110	0	20	mg/L	09.18.2020 12:13	
Nitrite as N	<0.100	10.0	10.7	107	10.6	106	90-110	1	20	mg/L	09.18.2020 12:13	
Sulfate	257	10.0	262	50	261	40	90-110	0	20	mg/L	09.18.2020 12:13	X

Analytical Method: TDS by SM2540C

Seq Number: 3137502

Matrix: Water

MB Sample Id: 3137502-1-BLK

LCS Sample Id: 3137502-1-BKS

LCSD Sample Id: 3137502-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1050	105	1050	105	80-120	0	10	mg/L	09.18.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3137502

Matrix: Water

Parent Sample Id: 672829-001

MD Sample Id: 672829-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1930	1930	0	10	mg/L	09.18.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3137537

Matrix: Waste Water

Parent Sample Id: 672818-001

MD Sample Id: 672818-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.97	7.98	0	20	SU	09.18.2020 14:22	
Temperature	23.9	23.8	0	20	Deg C	09.18.2020 14:22	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3137644

Matrix: Water

Prep Method: E200.7P

Date Prep: 09.18.2020

MB Sample Id: 7711616-1-BLK

LCS Sample Id: 7711616-1-BKS

LCSD Sample Id: 7711616-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.7	95	23.7	95	85-115	0	20	mg/L	09.20.2020 16:50	
Magnesium	<0.200	25.0	24.3	97	24.3	97	85-115	0	20	mg/L	09.20.2020 16:50	
Potassium	<0.500	10.0	9.44	94	9.43	94	85-115	0	20	mg/L	09.20.2020 16:50	
Silica	<1.07	21.4	20.4	95	20.5	96	85-115	0	20	mg/L	09.20.2020 16:50	
Sodium	<0.500	25.0	22.7	91	22.7	91	85-115	0	20	mg/L	09.20.2020 16:50	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3137644

Matrix: Ground Water

Prep Method: E200.7P

Date Prep: 09.18.2020

Parent Sample Id: 670490-001

MS Sample Id: 670490-001 S

MSD Sample Id: 670490-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	704	25.0	785	324	756	208	70-130	4	20	mg/L	09.20.2020 17:36	X
Magnesium	1870	25.0	2080	840	1990	480	70-130	4	20	mg/L	09.20.2020 17:36	X
Potassium	244	10.0	274	300	269	250	70-130	2	20	mg/L	09.20.2020 17:36	X
Silica	25.7	21.4	51.9	122	50.6	116	70-130	3	20	mg/L	09.20.2020 17:36	
Sodium	6670	25.0	7000	1320	7000	1320	70-130	0	20	mg/L	09.20.2020 17:36	X

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3137644

Matrix: Water

Prep Method: E200.7P

Date Prep: 09.18.2020

Parent Sample Id: 670997-001

MS Sample Id: 670997-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	910	25.0	945	140	70-130	mg/L	09.20.2020 19:21	X
Magnesium	3550	25.0	3620	280	70-130	mg/L	09.20.2020 19:21	X
Potassium	459	10.0	477	180	70-130	mg/L	09.20.2020 19:21	X
Silica	<53.5	21.4	60.0	280	70-130	mg/L	09.20.2020 19:21	X
Sodium	14100	25.0	14200	400	70-130	mg/L	09.20.2020 19:21	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3137575

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.18.2020

MB Sample Id: 7711648-1-BLK

LCS Sample Id: 7711648-1-BKS

LCSD Sample Id: 7711648-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0488	98	0.0474	95	66-142	3	25	mg/L	09.18.2020 12:10	
Bromobenzene	<0.00100	0.0500	0.0500	100	0.0493	99	75-125	1	25	mg/L	09.18.2020 12:10	
Bromochloromethane	<0.00100	0.0500	0.0483	97	0.0476	95	60-140	1	25	mg/L	09.18.2020 12:10	
Bromodichloromethane	<0.00100	0.0500	0.0507	101	0.0493	99	75-125	3	25	mg/L	09.18.2020 12:10	
Bromoform	<0.00500	0.0500	0.0502	100	0.0508	102	75-125	1	25	mg/L	09.18.2020 12:10	
Methyl bromide	<0.00500	0.0500	0.0469	94	0.0454	91	60-140	3	25	mg/L	09.18.2020 12:10	
2-Butanone	<0.0500	0.250	0.226	90	0.234	94	60-140	3	25	mg/L	09.18.2020 12:10	
n-Butylbenzene	<0.00100	0.0500	0.0528	106	0.0505	101	75-125	4	25	mg/L	09.18.2020 12:10	
Sec-Butylbenzene	<0.00100	0.0500	0.0537	107	0.0515	103	75-125	4	25	mg/L	09.18.2020 12:10	
tert-Butylbenzene	<0.00100	0.0500	0.0533	107	0.0515	103	75-125	3	25	mg/L	09.18.2020 12:10	
Carbon Tetrachloride	<0.00500	0.0500	0.0526	105	0.0499	100	62-125	5	25	mg/L	09.18.2020 12:10	
Chlorobenzene	<0.00100	0.0500	0.0491	98	0.0477	95	60-133	3	25	mg/L	09.18.2020 12:10	
Chloroethane	<0.0100	0.0500	0.0485	97	0.0475	95	60-140	2	25	mg/L	09.18.2020 12:10	
Chloroform	<0.00100	0.0500	0.0487	97	0.0474	95	70-130	3	25	mg/L	09.18.2020 12:10	
Methyl Chloride	<0.0100	0.0500	0.0476	95	0.0460	92	60-140	3	25	mg/L	09.18.2020 12:10	
2-Chlorotoluene	<0.00100	0.0500	0.0515	103	0.0498	100	73-125	3	25	mg/L	09.18.2020 12:10	
4-Chlorotoluene	<0.00100	0.0500	0.0516	103	0.0502	100	74-125	3	25	mg/L	09.18.2020 12:10	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0546	109	0.0522	104	75-125	4	25	mg/L	09.18.2020 12:10	
Dibromochloromethane	<0.00500	0.0500	0.0516	103	0.0510	102	73-125	1	25	mg/L	09.18.2020 12:10	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0499	100	0.0503	101	59-125	1	25	mg/L	09.18.2020 12:10	
1,2-Dibromoethane	<0.00500	0.0500	0.0501	100	0.0502	100	73-125	0	25	mg/L	09.18.2020 12:10	
Methylene Bromide	<0.00100	0.0500	0.0477	95	0.0477	95	69-127	0	25	mg/L	09.18.2020 12:10	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0499	100	0.0490	98	75-125	2	25	mg/L	09.18.2020 12:10	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0502	100	0.0489	98	75-125	3	25	mg/L	09.18.2020 12:10	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0498	100	0.0485	97	75-125	3	25	mg/L	09.18.2020 12:10	
Dichlorodifluoromethane	<0.00100	0.0500	0.0442	88	0.0422	84	60-140	5	25	mg/L	09.18.2020 12:10	
1,1-Dichloroethane	<0.00100	0.0500	0.0483	97	0.0470	94	72-125	3	25	mg/L	09.18.2020 12:10	
1,2-Dichloroethane	<0.00100	0.0500	0.0489	98	0.0482	96	68-127	1	25	mg/L	09.18.2020 12:10	
1,1-Dichloroethene	<0.00100	0.0500	0.0505	101	0.0479	96	59-172	5	25	mg/L	09.18.2020 12:10	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0501	100	0.0489	98	75-125	2	25	mg/L	09.18.2020 12:10	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0506	101	0.0483	97	75-125	5	25	mg/L	09.18.2020 12:10	
1,2-Dichloropropane	<0.00500	0.0500	0.0503	101	0.0497	99	74-125	1	25	mg/L	09.18.2020 12:10	
1,3-Dichloropropane	<0.00500	0.0500	0.0506	101	0.0505	101	75-125	0	25	mg/L	09.18.2020 12:10	
2,2-Dichloropropane	<0.00500	0.0500	0.0536	107	0.0508	102	75-125	5	25	mg/L	09.18.2020 12:10	
1,1-Dichloropropene	<0.00500	0.0500	0.0522	104	0.0498	100	75-125	5	25	mg/L	09.18.2020 12:10	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0514	103	0.0510	102	74-125	1	25	mg/L	09.18.2020 12:10	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0517	103	0.0515	103	66-125	0	25	mg/L	09.18.2020 12:10	
Ethylbenzene	<0.00100	0.0500	0.0505	101	0.0491	98	75-125	3	25	mg/L	09.18.2020 12:10	
Hexachlorobutadiene	<0.00500	0.0500	0.0509	102	0.0486	97	75-125	5	25	mg/L	09.18.2020 12:10	
Isopropylbenzene	<0.00100	0.0500	0.0512	102	0.0500	100	75-125	2	25	mg/L	09.18.2020 12:10	
Methylene Chloride	<0.00500	0.0500	0.0453	91	0.0444	89	75-125	2	25	mg/L	09.18.2020 12:10	
MTBE	<0.00500	0.0500	0.0473	95	0.0474	95	65-135	0	25	mg/L	09.18.2020 12:10	
Naphthalene	<0.0100	0.0500	0.0535	107	0.0538	108	70-130	1	25	mg/L	09.18.2020 12:10	
n-Propylbenzene	<0.00100	0.0500	0.0531	106	0.0509	102	75-125	4	25	mg/L	09.18.2020 12:10	
Styrene	<0.00100	0.0500	0.0517	103	0.0505	101	75-125	2	25	mg/L	09.18.2020 12:10	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0509	102	0.0495	99	72-125	3	25	mg/L	09.18.2020 12:10	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0493	99	0.0495	99	74-125	0	25	mg/L	09.18.2020 12:10	
Tetrachloroethylene	<0.00100	0.0500	0.0501	100	0.0481	96	71-125	4	25	mg/L	09.18.2020 12:10	
Toluene	<0.00100	0.0500	0.0494	99	0.0479	96	59-139	3	25	mg/L	09.18.2020 12:10	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0555	111	0.0550	110	75-137	1	25	mg/L	09.18.2020 12:10	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3137575

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.18.2020

MB Sample Id: 7711648-1-BLK

LCS Sample Id: 7711648-1-BKS

LCSD Sample Id: 7711648-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0533	107	0.0520	104	75-135	2	25	mg/L	09.18.2020 12:10	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0515	103	0.0493	99	75-125	4	25	mg/L	09.18.2020 12:10	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0507	101	0.0499	100	75-127	2	25	mg/L	09.18.2020 12:10	
Trichloroethylene	<0.00500	0.0500	0.0504	101	0.0482	96	62-137	4	25	mg/L	09.18.2020 12:10	
Trichlorofluoromethane	<0.00100	0.0500	0.0485	97	0.0462	92	60-140	5	25	mg/L	09.18.2020 12:10	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0577	115	0.0570	114	75-125	1	25	mg/L	09.18.2020 12:10	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0531	106	0.0512	102	75-125	4	25	mg/L	09.18.2020 12:10	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0538	108	0.0516	103	70-125	4	25	mg/L	09.18.2020 12:10	
o-Xylene	<0.00100	0.0500	0.0518	104	0.0506	101	75-125	2	25	mg/L	09.18.2020 12:10	
m,p-Xylenes	<0.0100	0.100	0.103	103	0.0989	99	75-125	4	25	mg/L	09.18.2020 12:10	
Vinyl Chloride	<0.00200	0.0500	0.0468	94	0.0448	90	60-140	4	25	mg/L	09.18.2020 12:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	91		98		98		75-131	%	09.18.2020 12:10
1,2-Dichloroethane-D4	91		102		97		63-144	%	09.18.2020 12:10
Toluene-D8	100		101		102		80-117	%	09.18.2020 12:10
4-Bromofluorobenzene	105		101		102		74-124	%	09.18.2020 12:10

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3137575

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.18.2020

Parent Sample Id: 672829-001

MS Sample Id: 672829-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	0.00700	0.0500	0.0567	99	66-142	mg/L	09.18.2020 13:12	
Bromobenzene	<0.00100	0.0500	0.0480	96	75-125	mg/L	09.18.2020 13:12	
Bromochloromethane	<0.00100	0.0500	0.0493	99	60-140	mg/L	09.18.2020 13:12	
Bromodichloromethane	<0.00100	0.0500	0.0533	107	75-125	mg/L	09.18.2020 13:12	
Bromoform	<0.00500	0.0500	0.0500	100	75-125	mg/L	09.18.2020 13:12	
Methyl bromide	<0.00500	0.0500	0.0427	85	60-140	mg/L	09.18.2020 13:12	
2-Butanone	<0.0500	0.250	0.245	98	60-140	mg/L	09.18.2020 13:12	
n-Butylbenzene	<0.00100	0.0500	0.0539	108	75-125	mg/L	09.18.2020 13:12	
Sec-Butylbenzene	0.00285	0.0500	0.0549	104	75-125	mg/L	09.18.2020 13:12	
tert-Butylbenzene	<0.00100	0.0500	0.0521	104	75-125	mg/L	09.18.2020 13:12	
Carbon Tetrachloride	<0.00500	0.0500	0.0571	114	62-125	mg/L	09.18.2020 13:12	
Chlorobenzene	<0.00100	0.0500	0.0484	97	60-133	mg/L	09.18.2020 13:12	
Chloroethane	<0.0100	0.0500	0.0778	156	60-140	mg/L	09.18.2020 13:12	X
Chloroform	<0.00100	0.0500	0.0527	105	70-130	mg/L	09.18.2020 13:12	
Methyl Chloride	<0.0100	0.0500	0.0558	112	60-140	mg/L	09.18.2020 13:12	
2-Chlorotoluene	<0.00100	0.0500	0.0582	116	73-125	mg/L	09.18.2020 13:12	
4-Chlorotoluene	<0.00100	0.0500	0.0527	105	74-125	mg/L	09.18.2020 13:12	
p-Cymene (p-Isopropyltoluene)	0.00163	0.0500	0.0548	106	75-125	mg/L	09.18.2020 13:12	
Dibromochloromethane	<0.00500	0.0500	0.0526	105	73-125	mg/L	09.18.2020 13:12	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0497	99	59-125	mg/L	09.18.2020 13:12	
1,2-Dibromoethane	<0.00500	0.0500	0.0502	100	73-125	mg/L	09.18.2020 13:12	
Methylene Bromide	<0.00100	0.0500	0.0497	99	69-127	mg/L	09.18.2020 13:12	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0483	97	75-125	mg/L	09.18.2020 13:12	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0496	99	75-125	mg/L	09.18.2020 13:12	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0483	97	75-125	mg/L	09.18.2020 13:12	
Dichlorodifluoromethane	<0.00100	0.0500	0.0453	91	60-140	mg/L	09.18.2020 13:12	
1,1-Dichloroethane	<0.00100	0.0500	0.0505	101	72-125	mg/L	09.18.2020 13:12	
1,2-Dichloroethane	<0.00100	0.0500	0.0526	105	68-127	mg/L	09.18.2020 13:12	
1,1-Dichloroethene	<0.00100	0.0500	0.0523	105	59-172	mg/L	09.18.2020 13:12	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0535	107	75-125	mg/L	09.18.2020 13:12	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0545	109	75-125	mg/L	09.18.2020 13:12	
1,2-Dichloropropane	<0.00500	0.0500	0.0544	109	74-125	mg/L	09.18.2020 13:12	
1,3-Dichloropropane	<0.00500	0.0500	0.0526	105	75-125	mg/L	09.18.2020 13:12	
2,2-Dichloropropane	<0.00500	0.0500	0.0585	117	75-125	mg/L	09.18.2020 13:12	
1,1-Dichloropropene	<0.00500	0.0500	0.0567	113	75-125	mg/L	09.18.2020 13:12	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0539	108	74-125	mg/L	09.18.2020 13:12	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0530	106	66-125	mg/L	09.18.2020 13:12	
Ethylbenzene	0.0266	0.0500	0.0782	103	75-125	mg/L	09.18.2020 13:12	
Hexachlorobutadiene	<0.00500	0.0500	0.0483	97	75-125	mg/L	09.18.2020 13:12	
Isopropylbenzene	0.0146	0.0500	0.0674	106	75-125	mg/L	09.18.2020 13:12	
Methylene Chloride	<0.00500	0.0500	0.0458	92	75-125	mg/L	09.18.2020 13:12	
MTBE	<0.00500	0.0500	0.0520	104	65-135	mg/L	09.18.2020 13:12	
Naphthalene	<0.0100	0.0500	0.0544	109	70-130	mg/L	09.18.2020 13:12	
n-Propylbenzene	0.0147	0.0500	0.0671	105	75-125	mg/L	09.18.2020 13:12	
Styrene	<0.00100	0.0500	0.0522	104	75-125	mg/L	09.18.2020 13:12	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0514	103	72-125	mg/L	09.18.2020 13:12	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0471	94	74-125	mg/L	09.18.2020 13:12	
Tetrachloroethylene	<0.00100	0.0500	0.0493	99	71-125	mg/L	09.18.2020 13:12	
Toluene	0.0381	0.0500	0.0869	98	59-139	mg/L	09.18.2020 13:12	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0552	110	75-137	mg/L	09.18.2020 13:12	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3137575

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.18.2020

Parent Sample Id: 672829-001

MS Sample Id: 672829-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0526	105	75-135	mg/L	09.18.2020 13:12	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0565	113	75-125	mg/L	09.18.2020 13:12	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0528	106	75-127	mg/L	09.18.2020 13:12	
Trichloroethylene	<0.00500	0.0500	0.0526	105	62-137	mg/L	09.18.2020 13:12	
Trichlorofluoromethane	<0.00100	0.0500	0.0491	98	60-140	mg/L	09.18.2020 13:12	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0548	110	75-125	mg/L	09.18.2020 13:12	
1,2,4-Trimethylbenzene	0.0921	0.0500	0.151	118	75-125	mg/L	09.18.2020 13:12	
1,3,5-Trimethylbenzene	0.0262	0.0500	0.0819	111	70-125	mg/L	09.18.2020 13:12	
o-Xylene	0.0136	0.0500	0.0661	105	75-125	mg/L	09.18.2020 13:12	
m,p-Xylenes	0.0849	0.100	0.188	103	75-125	mg/L	09.18.2020 13:12	
Vinyl Chloride	<0.00200	0.0500	0.0506	101	60-140	mg/L	09.18.2020 13:12	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	105		75-131	%	09.18.2020 13:12
1,2-Dichloroethane-D4	103		63-144	%	09.18.2020 13:12
Toluene-D8	100		80-117	%	09.18.2020 13:12
4-Bromofluorobenzene	101		74-124	%	09.18.2020 13:12

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No.

1789

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Beaux Jennings	Bill to: <i>(if different)</i>	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	(210) 219-8858	Email:	bjennings@ensolum.com

Work Order Comments	
Program: UST/PT	☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ PST/UST ☐ TRP ☐ Level IV ☐
Deliverables: EDD	☐ ADaPT ☐ Other:

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPLP 6010:	13PPM Texas 11 Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245.1 / 7470 / 7471 : Hg

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<i>[Signature]</i>	<i>[Signature]</i>	9/17/20			
		1335			

CUSTODY SEAL
Date 09/17/2023
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **70581**

Date/Time: 09.17.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.: 771560730356

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
672829-001	W	Levey Well	09.17.2020 13:35	SW8260C	VOCs by SW-846 8260C	09.18.2020	10.01.2020	JKR	BDCME BRBZ BRCLME	
672829-001	W	Levey Well	09.17.2020 13:35	E200.7	Recoverable Metals per ICP by EPA 200	09.18.2020	03.16.2021	JKR	CA K MG NA SI	
672829-001	W	Levey Well	09.17.2020 13:35	E300	Inorganic Anions by EPA 300/300.1	09.18.2020	09.19.2020 13:35	JKR	BR CL F NO2N NO3N SC	
672829-001	W	Levey Well	09.17.2020 13:35	SM4500-H	pH by SM4500-H	09.18.2020	09.17.2020 13:50	JKR		
672829-001	W	Levey Well	09.17.2020 13:35	SM2540C	TDS by SM2540C	09.18.2020	09.24.2020	JKR	TDS	
672829-001	W	Levey Well	09.17.2020 13:35	SM2320B	Alkalinity by SM2320B	09.18.2020	10.01.2020	JKR	ALK ALKB ALKC	
672829-001	W	Levey Well	09.17.2020 13:35	SM1030E	Cation-Anion Balance Calculation	09.18.2020	10.17.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Date Relinquished: 09.17.2020

Received By:



Jhyrom Edralin

Date Received: 09.18.2020

Cooler Temperature: 1.5



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 70581

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-203

Sent By: Brianna Teel

Date Sent: 09.17.2020 01:58 PM

Received By: Jhyrom Edralin

Date Received: 09.18.2020 09.20 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jhyrom Edralin

Date: 09.18.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 09.17.2020 01.35.00 PM

Work Order #: 672829

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 09.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.17.2020

Certificate of Analysis Summary 673584

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 09.25.2020 11:55
Report Date: 09.28.2020 17:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	673584-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.25.2020 09:53					
Alkalinity by SM2320B SUB: T104704215-20-38	Extracted:	09.28.2020 09:57					
	Analyzed:	09.28.2020 11:19					
	Units/RL:	mg/L RL					
	Alkalinity, Total (as CaCO3)	1110 4.00					
	Alkalinity, Bicarbonate (as CaCO3)	1110 4.00					
	Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
	Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-38	Extracted:						
	Analyzed:	09.28.2020 16:27					
	Units/RL:	% RL					
Cation-Anion Balance		6.70					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-38	Extracted:	09.26.2020 10:00					
	Analyzed:	09.26.2020 15:37					
	Units/RL:	mg/L RL					
	Bromide	0.779 0.500					
	Chloride	541 0.500					
	Fluoride	<0.500 0.500					
	Nitrate as N	0.150 0.100					
	Nitrite as N	<0.100 0.100					
	Sulfate	44.0 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 673584

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 09.25.2020 11:55
Report Date: 09.28.2020 17:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	673584-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	09.25.2020 09:53					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-38	Extracted:	09.28.2020 09:30					
	Analyzed:	09.28.2020 13:22					
	Units/RL:	mg/L RL					
	Calcium	386 DX 10.0					
	Magnesium	75.9 0.200					
	Potassium	5.86 0.500					
	Silica	59.5 1.07					
	Sodium	133 0.500					
TDS by SM2540C SUB: T104704215-20-38	Extracted:						
	Analyzed:	09.28.2020 09:24					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1680 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 673584

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

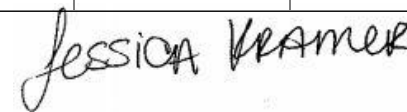
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 09.25.2020 11:55
Report Date: 09.28.2020 17:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 673584-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.25.2020 09:53					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.26.2020 14:00 Analyzed: 09.26.2020 22:05 Units/RL: mg/L RL					
Benzene	0.00765 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	<0.00100 0.00100					
Sec-Butylbenzene	0.00307 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00169 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

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Certificate of Analysis Summary 673584

Ensolum, Dallas, TX

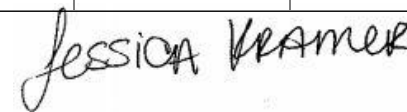
Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 09.25.2020 11:55
Report Date: 09.28.2020 17:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 673584-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.25.2020 09:53					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.26.2020 14:00 Analyzed: 09.26.2020 22:05 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0282 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0157 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0145 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit



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Certificate of Analysis Summary 673584

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Fri 09.25.2020 11:55
Report Date: 09.28.2020 17:02
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 673584-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 09.25.2020 09:53					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 09.26.2020 14:00 Analyzed: 09.26.2020 22:05 Units/RL: mg/L RL					
Toluene	0.0415 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.0860 0.00100					
1,3,5-Trimethylbenzene	0.0251 0.00100					
o-Xylene	0.0139 0.00100					
m,p-Xylenes	0.0909 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.105 0.00100					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.28.2020 15:15 Units/RL: Deg C RL					
Temperature	22.1 K					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 09.28.2020 15:15 Units/RL: SU RL					
pH	6.17 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 673584

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

09.28.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.28.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **673584**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673584. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 673584 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 673584

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	09.25.2020 09:53		673584-001

**CASE NARRATIVE****Client Name: Ensolum****Project Name: Levey Well Hobbs NM**

Project ID: 03B1417001
Work Order Number(s): 673584

Report Date: 09.28.2020
Date Received: 09.25.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3138290 Recoverable Metals per ICP by EPA 200.7

Lab Sample ID 673584-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Calcium recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 673584-001.

The Laboratory Control Sample for Calcium is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 673584

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.25.2020 11:55

Lab Sample Id: 673584-001

Date Collected: 09.25.2020 09:53

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 09.28.2020 09:57

Seq Number: 3138265

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1110	4.00	mg/L	09.28.2020 11:19		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1110	4.00	mg/L	09.28.2020 11:19		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	09.28.2020 11:19	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	09.28.2020 11:19	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3138294

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	6.70		%	09.28.2020 16:27		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 09.26.2020 10:00

Seq Number: 3138241

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.779	0.500	mg/L	09.26.2020 15:37		1
Chloride	16887-00-6	541	0.500	mg/L	09.26.2020 15:37		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	09.26.2020 15:37	U	1
Nitrate as N	14797-55-8	0.150	0.100	mg/L	09.26.2020 15:37		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	09.26.2020 15:37	U	1
Sulfate	14808-79-8	44.0	0.500	mg/L	09.28.2020 12:45		1



Certificate of Analytical Results 673584

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.25.2020 11:55

Lab Sample Id: 673584-001

Date Collected: 09.25.2020 09:53

Analytical Method: TDS by SM2540C

Tech: YAV

% Moisture:

Analyst: YAV

Seq Number: 3138229

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1680	5.00	mg/L	09.28.2020 09:24		1

Analytical Method: pH by SM4500-H

Tech: KBU

% Moisture:

Analyst: KBU

Seq Number: 3138283

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.17		SU	09.28.2020 15:15	K	1
Temperature	TEMP	22.1		Deg C	09.28.2020 15:15	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Prep Method: E200.7P

Tech: MLI

% Moisture:

Analyst: DEP

Date Prep: 09.28.2020 09:30

Seq Number: 3138290

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	386	10.0	mg/L	09.28.2020 13:43	DX	50
Magnesium	7439-95-4	75.9	0.200	mg/L	09.28.2020 13:22		1
Potassium	7440-09-7	5.86	0.500	mg/L	09.28.2020 13:22		1
Silica	7631-86-9	59.5	1.07	mg/L	09.28.2020 13:22		1
Sodium	7440-23-5	133	0.500	mg/L	09.28.2020 13:22		1



Certificate of Analytical Results 673584

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.25.2020 11:55

Lab Sample Id: 673584-001

Date Collected: 09.25.2020 09:53

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.26.2020 14:00

Seq Number: 3138243

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00765	0.00100	mg/L	09.26.2020 22:05		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	09.26.2020 22:05	U	1
n-Butylbenzene	104-51-8	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Sec-Butylbenzene	135-98-8	0.00307	0.00100	mg/L	09.26.2020 22:05		1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	09.26.2020 22:05	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	09.26.2020 22:05	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00169	0.00100	mg/L	09.26.2020 22:05		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Ethylbenzene	100-41-4	0.0282	0.00100	mg/L	09.26.2020 22:05		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1



Certificate of Analytical Results 673584

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 09.25.2020 11:55

Lab Sample Id: 673584-001

Date Collected: 09.25.2020 09:53

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: EZA

% Moisture:

Analyst: EZA

Date Prep: 09.26.2020 14:00

Seq Number: 3138243

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0157	0.00100	mg/L	09.26.2020 22:05		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	09.26.2020 22:05	U	1
n-Propylbenzene	103-65-1	0.0145	0.00100	mg/L	09.26.2020 22:05		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Toluene	108-88-3	0.0415	0.00100	mg/L	09.26.2020 22:05		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	09.26.2020 22:05	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	09.26.2020 22:05	U	1
1,2,4-Trimethylbenzene	95-63-6	0.0860	0.00100	mg/L	09.26.2020 22:05		1
1,3,5-Trimethylbenzene	108-67-8	0.0251	0.00100	mg/L	09.26.2020 22:05		1
o-Xylene	95-47-6	0.0139	0.00100	mg/L	09.26.2020 22:05		1
m,p-Xylenes	179601-23-1	0.0909	0.0100	mg/L	09.26.2020 22:05		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	09.26.2020 22:05	U	1
Total Xylenes	1330-20-7	0.105	0.00100	mg/L	09.26.2020 22:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	75-131	09.26.2020 22:05	
1,2-Dichloroethane-D4	17060-07-0	103	%	63-144	09.26.2020 22:05	
Toluene-D8	2037-26-5	101	%	80-117	09.26.2020 22:05	
4-Bromofluorobenzene	460-00-4	101	%	74-124	09.26.2020 22:05	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138265

MB Sample Id: 7712163-1-BLK

Matrix: Water

LCS Sample Id: 7712163-1-BKS

Prep Method: SM2320P

Date Prep: 09.28.2020

LCSD Sample Id: 7712163-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	259	104	262	105	85-115	1	20	mg/L	09.28.2020 11:00	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138265

Matrix: Water

MB Sample Id: 7712163-1-BLK

Prep Method: SM2320P

Date Prep: 09.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	09.28.2020 10:52	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	09.28.2020 10:52	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	09.28.2020 10:52	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138265

Matrix: Water

Parent Sample Id: 673355-009

MD Sample Id: 673355-009 D

Prep Method: SM2320P

Date Prep: 09.28.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	109	109	0	20	mg/L	09.28.2020 12:48	
Alkalinity, Bicarbonate (as CaCO ₃)	109	109	0	20	mg/L	09.28.2020 12:48	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.28.2020 12:48	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.28.2020 12:48	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138265

Matrix: Water

Parent Sample Id: 673584-001

MD Sample Id: 673584-001 D

Prep Method: SM2320P

Date Prep: 09.28.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1110	1110	0	20	mg/L	09.28.2020 11:32	
Alkalinity, Bicarbonate (as CaCO ₃)	1110	1110	0	20	mg/L	09.28.2020 11:32	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.28.2020 11:32	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	09.28.2020 11:32	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138241

Matrix: Water

Prep Method: E300P

Date Prep: 09.26.2020

MB Sample Id: 7712173-1-BLK

LCS Sample Id: 7712173-1-BKS

LCSD Sample Id: 7712173-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	09.26.2020 12:40	
Chloride	<0.500	10.0	10.1	101	9.90	99	90-110	2	20	mg/L	09.26.2020 12:40	
Fluoride	<0.500	10.0	10.8	108	10.9	109	90-110	1	20	mg/L	09.26.2020 12:40	
Nitrate as N	<0.100	10.0	10.0	100	9.99	100	90-110	0	20	mg/L	09.26.2020 12:40	
Nitrite as N	<0.100	10.0	10.9	109	10.9	109	90-110	0	20	mg/L	09.26.2020 12:40	
Sulfate	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	09.26.2020 12:40	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138241

Matrix: Water

Prep Method: E300P

Date Prep: 09.26.2020

Parent Sample Id: 673562-001

MS Sample Id: 673562-001 S

MSD Sample Id: 673562-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	09.26.2020 13:28	
Chloride	68.2	10.0	76.5	83	76.6	84	90-110	0	20	mg/L	09.26.2020 13:28	X
Fluoride	0.500	10.0	10.5	100	10.5	100	90-110	0	20	mg/L	09.26.2020 13:28	
Nitrate as N	0.138	10.0	10.1	100	10.1	100	90-110	0	20	mg/L	09.26.2020 13:28	
Nitrite as N	<0.100	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	09.26.2020 13:28	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138241

Matrix: Water

Prep Method: E300P

Date Prep: 09.26.2020

Parent Sample Id: 673672-001

MS Sample Id: 673672-001 S

MSD Sample Id: 673672-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	12.4	124	12.4	124	90-110	0	20	mg/L	09.26.2020 19:41	X
Chloride	1.77	10.0	11.6	98	11.6	98	90-110	0	20	mg/L	09.26.2020 19:41	
Fluoride	<0.500	10.0	11.0	110	11.0	110	90-110	0	20	mg/L	09.26.2020 19:41	
Nitrate as N	0.113	10.0	10.3	102	10.3	102	90-110	0	20	mg/L	09.26.2020 19:41	
Nitrite as N	<0.100	10.0	11.1	111	11.0	110	90-110	1	20	mg/L	09.26.2020 19:41	X

Analytical Method: TDS by SM2540C

Seq Number: 3138229

Matrix: Water

MB Sample Id: 3138229-1-BLK

LCS Sample Id: 3138229-1-BKS

LCSD Sample Id: 3138229-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1000	100	1000	100	80-120	0	10	mg/L	09.28.2020 09:24	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: TDS by SM2540C

Seq Number: 3138229

Matrix: Water

Parent Sample Id: 673584-001

MD Sample Id: 673584-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1680	1710	2	10	mg/L	09.28.2020 09:24	

Analytical Method: pH by SM4500-H

Seq Number: 3138283

Matrix: Water

Parent Sample Id: 673584-001

MD Sample Id: 673584-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.17	6.18	0	20	SU	09.28.2020 15:15	
Temperature	22.1	22.3	1	20	Deg C	09.28.2020 15:15	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3138290

Matrix: Water

MB Sample Id: 7712190-1-BLK

LCS Sample Id: 7712190-1-BKS

Prep Method: E200.7P

Date Prep: 09.28.2020

LCSD Sample Id: 7712190-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.1	92	23.0	92	85-115	0	20	mg/L	09.28.2020 12:46	
Magnesium	<0.200	25.0	23.2	93	23.0	92	85-115	1	20	mg/L	09.28.2020 12:46	
Potassium	<0.500	10.0	9.28	93	9.23	92	85-115	1	20	mg/L	09.28.2020 12:46	
Silica	<1.07	21.4	19.4	91	19.4	91	85-115	0	20	mg/L	09.28.2020 12:46	
Sodium	<0.500	25.0	23.3	93	23.2	93	85-115	0	20	mg/L	09.28.2020 12:46	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3138290

Matrix: Water

Parent Sample Id: 673584-001

MS Sample Id: 673584-001 S

Prep Method: E200.7P

Date Prep: 09.28.2020

MSD Sample Id: 673584-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	409	25.0	426	68	424	60	70-130	0	20	mg/L	09.28.2020 13:26	X
Magnesium	75.9	25.0	98.2	89	97.7	87	70-130	1	20	mg/L	09.28.2020 13:26	
Potassium	5.86	10.0	15.9	100	15.8	99	70-130	1	20	mg/L	09.28.2020 13:26	
Silica	59.5	21.4	81.7	104	81.6	103	70-130	0	20	mg/L	09.28.2020 13:26	
Sodium	133	25.0	155	88	154	84	70-130	1	20	mg/L	09.28.2020 13:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7
Seq Number: 3138290 Matrix: Waste Water
Parent Sample Id: 673433-001 MS Sample Id: 673433-001 S

Prep Method: E200.7P
Date Prep: 09.28.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Calcium	10.3	25.0	34.4	96	70-130	mg/L	09.28.2020 15:11	
Magnesium	1.49	25.0	25.1	94	70-130	mg/L	09.28.2020 15:11	
Potassium	2.44	10.0	12.2	98	70-130	mg/L	09.28.2020 15:11	
Silica	6.26	21.4	26.9	96	70-130	mg/L	09.28.2020 15:11	
Sodium	10.2	25.0	34.5	97	70-130	mg/L	09.28.2020 15:11	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138243

Matrix: Water

Prep Method: SW5030B

Date Prep: 09.26.2020

MB Sample Id: 7712182-1-BLK

LCS Sample Id: 7712182-1-BKS

LCSD Sample Id: 7712182-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0488	98	0.0492	98	66-142	1	25	mg/L	09.26.2020 13:13	
Bromobenzene	<0.00100	0.0500	0.0476	95	0.0507	101	75-125	6	25	mg/L	09.26.2020 13:13	
Bromochloromethane	<0.00100	0.0500	0.0507	101	0.0495	99	60-140	2	25	mg/L	09.26.2020 13:13	
Bromodichloromethane	<0.00100	0.0500	0.0497	99	0.0497	99	75-125	0	25	mg/L	09.26.2020 13:13	
Bromoform	<0.00500	0.0500	0.0528	106	0.0535	107	75-125	1	25	mg/L	09.26.2020 13:13	
Methyl bromide	<0.00500	0.0500	0.0475	95	0.0453	91	60-140	5	25	mg/L	09.26.2020 13:13	
2-Butanone	<0.0500	0.250	0.307	123	0.287	115	60-140	7	25	mg/L	09.26.2020 13:13	
n-Butylbenzene	<0.00100	0.0500	0.0500	100	0.0533	107	75-125	6	25	mg/L	09.26.2020 13:13	
Sec-Butylbenzene	<0.00100	0.0500	0.0453	91	0.0486	97	75-125	7	25	mg/L	09.26.2020 13:13	
tert-Butylbenzene	<0.00100	0.0500	0.0508	102	0.0549	110	75-125	8	25	mg/L	09.26.2020 13:13	
Carbon Tetrachloride	<0.00500	0.0500	0.0517	103	0.0524	105	62-125	1	25	mg/L	09.26.2020 13:13	
Chlorobenzene	<0.00100	0.0500	0.0474	95	0.0490	98	60-133	3	25	mg/L	09.26.2020 13:13	
Chloroethane	<0.0100	0.0500	0.0450	90	0.0427	85	60-140	5	25	mg/L	09.26.2020 13:13	
Chloroform	<0.00100	0.0500	0.0507	101	0.0500	100	70-130	1	25	mg/L	09.26.2020 13:13	
Methyl Chloride	<0.0100	0.0500	0.0609	122	0.0579	116	60-140	5	25	mg/L	09.26.2020 13:13	
2-Chlorotoluene	<0.00100	0.0500	0.0476	95	0.0508	102	73-125	7	25	mg/L	09.26.2020 13:13	
4-Chlorotoluene	<0.00100	0.0500	0.0484	97	0.0519	104	74-125	7	25	mg/L	09.26.2020 13:13	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0495	99	0.0531	106	75-125	7	25	mg/L	09.26.2020 13:13	
Dibromochloromethane	<0.00500	0.0500	0.0501	100	0.0514	103	73-125	3	25	mg/L	09.26.2020 13:13	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0513	103	0.0525	105	59-125	2	25	mg/L	09.26.2020 13:13	
1,2-Dibromoethane	<0.00500	0.0500	0.0517	103	0.0520	104	73-125	1	25	mg/L	09.26.2020 13:13	
Methylene Bromide	<0.00100	0.0500	0.0507	101	0.0503	101	69-127	1	25	mg/L	09.26.2020 13:13	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0477	95	0.0502	100	75-125	5	25	mg/L	09.26.2020 13:13	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0466	93	0.0494	99	75-125	6	25	mg/L	09.26.2020 13:13	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0473	95	0.0504	101	75-125	6	25	mg/L	09.26.2020 13:13	
Dichlorodifluoromethane	<0.00100	0.0500	0.0659	132	0.0562	112	60-140	16	25	mg/L	09.26.2020 13:13	
1,1-Dichloroethane	<0.00100	0.0500	0.0530	106	0.0524	105	72-125	1	25	mg/L	09.26.2020 13:13	
1,2-Dichloroethane	<0.00100	0.0500	0.0503	101	0.0494	99	68-127	2	25	mg/L	09.26.2020 13:13	
1,1-Dichloroethene	<0.00100	0.0500	0.0539	108	0.0528	106	59-172	2	25	mg/L	09.26.2020 13:13	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0510	102	0.0508	102	75-125	0	25	mg/L	09.26.2020 13:13	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0512	102	0.0508	102	75-125	1	25	mg/L	09.26.2020 13:13	
1,2-Dichloropropane	<0.00500	0.0500	0.0515	103	0.0514	103	74-125	0	25	mg/L	09.26.2020 13:13	
1,3-Dichloropropane	<0.00500	0.0500	0.0536	107	0.0547	109	75-125	2	25	mg/L	09.26.2020 13:13	
2,2-Dichloropropane	<0.00500	0.0500	0.0538	108	0.0532	106	75-125	1	25	mg/L	09.26.2020 13:13	
1,1-Dichloropropene	<0.00500	0.0500	0.0530	106	0.0534	107	75-125	1	25	mg/L	09.26.2020 13:13	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0526	105	0.0529	106	74-125	1	25	mg/L	09.26.2020 13:13	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0505	101	0.0519	104	66-125	3	25	mg/L	09.26.2020 13:13	
Ethylbenzene	<0.00100	0.0500	0.0480	96	0.0504	101	75-125	5	25	mg/L	09.26.2020 13:13	
Hexachlorobutadiene	<0.00500	0.0500	0.0500	100	0.0509	102	75-125	2	25	mg/L	09.26.2020 13:13	
Isopropylbenzene	<0.00100	0.0500	0.0482	96	0.0504	101	75-125	4	25	mg/L	09.26.2020 13:13	
Methylene Chloride	<0.00500	0.0500	0.0464	93	0.0463	93	75-125	0	25	mg/L	09.26.2020 13:13	
MTBE	<0.00500	0.0500	0.0511	102	0.0496	99	65-135	3	25	mg/L	09.26.2020 13:13	
Naphthalene	<0.0100	0.0500	0.0552	110	0.0553	111	70-130	0	25	mg/L	09.26.2020 13:13	
n-Propylbenzene	<0.00100	0.0500	0.0501	100	0.0539	108	75-125	7	25	mg/L	09.26.2020 13:13	
Styrene	<0.00100	0.0500	0.0500	100	0.0519	104	75-125	4	25	mg/L	09.26.2020 13:13	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0494	99	0.0501	100	72-125	1	25	mg/L	09.26.2020 13:13	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0512	102	0.0528	106	74-125	3	25	mg/L	09.26.2020 13:13	
Tetrachloroethylene	<0.00100	0.0500	0.0476	95	0.0505	101	71-125	6	25	mg/L	09.26.2020 13:13	
Toluene	<0.00100	0.0500	0.0477	95	0.0503	101	59-139	5	25	mg/L	09.26.2020 13:13	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0541	108	0.0530	106	75-137	2	25	mg/L	09.26.2020 13:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138243

MB Sample Id: 7712182-1-BLK

Matrix: Water

LCS Sample Id: 7712182-1-BKS

Prep Method: SW5030B

Date Prep: 09.26.2020

LCSD Sample Id: 7712182-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0527	105	0.0532	106	75-135	1	25	mg/L	09.26.2020 13:13	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0541	108	0.0542	108	75-125	0	25	mg/L	09.26.2020 13:13	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0509	102	0.0520	104	75-127	2	25	mg/L	09.26.2020 13:13	
Trichloroethylene	<0.00500	0.0500	0.0499	100	0.0505	101	62-137	1	25	mg/L	09.26.2020 13:13	
Trichlorofluoromethane	<0.00100	0.0500	0.0575	115	0.0546	109	60-140	5	25	mg/L	09.26.2020 13:13	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0538	108	0.0543	109	75-125	1	25	mg/L	09.26.2020 13:13	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0499	100	0.0534	107	75-125	7	25	mg/L	09.26.2020 13:13	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0498	100	0.0534	107	70-125	7	25	mg/L	09.26.2020 13:13	
o-Xylene	<0.00100	0.0500	0.0508	102	0.0526	105	75-125	3	25	mg/L	09.26.2020 13:13	
m,p-Xylenes	<0.0100	0.100	0.0976	98	0.102	102	75-125	4	25	mg/L	09.26.2020 13:13	
Vinyl Chloride	<0.00200	0.0500	0.0580	116	0.0540	108	60-140	7	25	mg/L	09.26.2020 13:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	89		102		100		75-131	%	09.26.2020 13:13
1,2-Dichloroethane-D4	84		103		105		63-144	%	09.26.2020 13:13
Toluene-D8	98		98		100		80-117	%	09.26.2020 13:13
4-Bromofluorobenzene	104		101		102		74-124	%	09.26.2020 13:13

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138243

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 09.26.2020

Parent Sample Id: 673323-001

MS Sample Id: 673323-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0485	97	66-142	mg/L	09.26.2020 14:02	
Bromobenzene	<0.00100	0.0500	0.0509	102	75-125	mg/L	09.26.2020 14:02	
Bromochloromethane	<0.00100	0.0500	0.0481	96	60-140	mg/L	09.26.2020 14:02	
Bromodichloromethane	<0.00100	0.0500	0.0485	97	75-125	mg/L	09.26.2020 14:02	
Bromoform	<0.00500	0.0500	0.0508	102	75-125	mg/L	09.26.2020 14:02	
Methyl bromide	<0.00500	0.0500	0.0407	81	60-140	mg/L	09.26.2020 14:02	
2-Butanone	<0.0500	0.250	0.213	85	60-140	mg/L	09.26.2020 14:02	
n-Butylbenzene	<0.00100	0.0500	0.0529	106	75-125	mg/L	09.26.2020 14:02	
Sec-Butylbenzene	<0.00100	0.0500	0.0492	98	75-125	mg/L	09.26.2020 14:02	
tert-Butylbenzene	<0.00100	0.0500	0.0555	111	75-125	mg/L	09.26.2020 14:02	
Carbon Tetrachloride	<0.00500	0.0500	0.0505	101	62-125	mg/L	09.26.2020 14:02	
Chlorobenzene	<0.00100	0.0500	0.0491	98	60-133	mg/L	09.26.2020 14:02	
Chloroethane	<0.0100	0.0500	0.0629	126	60-140	mg/L	09.26.2020 14:02	
Chloroform	<0.00100	0.0500	0.0487	97	70-130	mg/L	09.26.2020 14:02	
Methyl Chloride	<0.0100	0.0500	0.0606	121	60-140	mg/L	09.26.2020 14:02	
2-Chlorotoluene	<0.00100	0.0500	0.0514	103	73-125	mg/L	09.26.2020 14:02	
4-Chlorotoluene	<0.00100	0.0500	0.0524	105	74-125	mg/L	09.26.2020 14:02	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0535	107	75-125	mg/L	09.26.2020 14:02	
Dibromochloromethane	<0.00500	0.0500	0.0486	97	73-125	mg/L	09.26.2020 14:02	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0525	105	59-125	mg/L	09.26.2020 14:02	
1,2-Dibromoethane	<0.00500	0.0500	0.0492	98	73-125	mg/L	09.26.2020 14:02	
Methylene Bromide	<0.00100	0.0500	0.0474	95	69-127	mg/L	09.26.2020 14:02	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0503	101	75-125	mg/L	09.26.2020 14:02	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0501	100	75-125	mg/L	09.26.2020 14:02	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0503	101	75-125	mg/L	09.26.2020 14:02	
Dichlorodifluoromethane	<0.00100	0.0500	0.0544	109	60-140	mg/L	09.26.2020 14:02	
1,1-Dichloroethane	<0.00100	0.0500	0.0518	104	72-125	mg/L	09.26.2020 14:02	
1,2-Dichloroethane	<0.00100	0.0500	0.0472	94	68-127	mg/L	09.26.2020 14:02	
1,1-Dichloroethene	<0.00100	0.0500	0.0527	105	59-172	mg/L	09.26.2020 14:02	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0497	99	75-125	mg/L	09.26.2020 14:02	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0500	100	75-125	mg/L	09.26.2020 14:02	
1,2-Dichloropropane	<0.00500	0.0500	0.0495	99	74-125	mg/L	09.26.2020 14:02	
1,3-Dichloropropane	<0.00500	0.0500	0.0516	103	75-125	mg/L	09.26.2020 14:02	
2,2-Dichloropropane	<0.00500	0.0500	0.0528	106	75-125	mg/L	09.26.2020 14:02	
1,1-Dichloropropene	<0.00500	0.0500	0.0523	105	75-125	mg/L	09.26.2020 14:02	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0504	101	74-125	mg/L	09.26.2020 14:02	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0491	98	66-125	mg/L	09.26.2020 14:02	
Ethylbenzene	<0.00100	0.0500	0.0506	101	75-125	mg/L	09.26.2020 14:02	
Hexachlorobutadiene	<0.00500	0.0500	0.0497	99	75-125	mg/L	09.26.2020 14:02	
Isopropylbenzene	<0.00100	0.0500	0.0506	101	75-125	mg/L	09.26.2020 14:02	
Methylene Chloride	<0.00500	0.0500	0.0454	91	75-125	mg/L	09.26.2020 14:02	
MTBE	<0.00500	0.0500	0.0456	91	65-135	mg/L	09.26.2020 14:02	
Naphthalene	<0.0100	0.0500	0.0544	109	70-130	mg/L	09.26.2020 14:02	
n-Propylbenzene	<0.00100	0.0500	0.0549	110	75-125	mg/L	09.26.2020 14:02	
Styrene	<0.00100	0.0500	0.0518	104	75-125	mg/L	09.26.2020 14:02	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0491	98	72-125	mg/L	09.26.2020 14:02	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0505	101	74-125	mg/L	09.26.2020 14:02	
Tetrachloroethylene	<0.00100	0.0500	0.0498	100	71-125	mg/L	09.26.2020 14:02	
Toluene	<0.00100	0.0500	0.0503	101	59-139	mg/L	09.26.2020 14:02	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0521	104	75-137	mg/L	09.26.2020 14:02	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138243

Matrix: Ground Water

Prep Method: SW5030B

Parent Sample Id: 673323-001

MS Sample Id: 673323-001 S

Date Prep: 09.26.2020

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0521	104	75-135	mg/L	09.26.2020 14:02	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0530	106	75-125	mg/L	09.26.2020 14:02	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0488	98	75-127	mg/L	09.26.2020 14:02	
Trichloroethylene	<0.00500	0.0500	0.0500	100	62-137	mg/L	09.26.2020 14:02	
Trichlorofluoromethane	<0.00100	0.0500	0.0533	107	60-140	mg/L	09.26.2020 14:02	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0523	105	75-125	mg/L	09.26.2020 14:02	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0535	107	75-125	mg/L	09.26.2020 14:02	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0541	108	70-125	mg/L	09.26.2020 14:02	
o-Xylene	<0.00100	0.0500	0.0529	106	75-125	mg/L	09.26.2020 14:02	
m,p-Xylenes	<0.0100	0.100	0.102	102	75-125	mg/L	09.26.2020 14:02	
Vinyl Chloride	<0.00200	0.0500	0.0543	109	60-140	mg/L	09.26.2020 14:02	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		75-131	%	09.26.2020 14:02
1,2-Dichloroethane-D4	103		63-144	%	09.26.2020 14:02
Toluene-D8	101		80-117	%	09.26.2020 14:02
4-Bromofluorobenzene	105		74-124	%	09.26.2020 14:02

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No:

073584

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
Phoenix, AZ (602) 392-7550 Atlanta, GA (770) 449-8800 Tampa, FL (813) 231-1111
Hobbs, NM (575) 392-7550

www.xenco.com Page 1 of 1

Project Manager:		Beaux Jennings	Bill to: (if different)	
Company Name:		Ensolum LLC	Company Name:	
Address:		705 W Wadley #210	Address:	
City, State ZIP:		Midland TX	City, State ZIP:	
Phone:	(210) 219-8858	Email:	bjennings@ensolum.com	

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

SAMPLE RECEIPT					
Project Name:	Levey Well	Hobbs NM	Tum Around		
Project Number:	03B1417001	Routine	☐		
P.O. Number:	03B1417001	Rush:	24 hr		
Sampler's Name:	Kelly Lavey	Due Date:			
Temperature (°C):	5.2/5.7	Temp Blank:	☒ No	Wet Ice:	☒ Yes
Received Intact:	Yes	No		Thermometer ID	1286
Cooler Custody Seals:	(Yes) No	N/A		Correction Factor:	+0.5
Sample Custody Seals:	Yes	No	N/A	Total Containers:	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	
Levey Well	GW	09/25/20	0953	-	
Number of Containers					
X	VOCs				
X	Anions: F, Cl, SO ₄ , B				
X	Cations: Ca, K, Mg, Na, Si				
X	pH				
X	Alkalinity				
X	TDS				
TAT starts the day received by the lab, if received by 4:30pm					
Sample Comments					
24 hr					

Total **200.7 / .6010** **200.8 / .6020:**

Circle Method(s) and Metal(s) to be analyzed

 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl 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 \$6 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>[Signature]</i>	<i>[Signature]</i>	06/25/2020 / 11:55	2		
3			4		
5			6		

CUSTODY SEAL
Date 09/25/2023
Signature [Signature]

Thermo
SCIENTIFIC

90009

Inter-Office Shipment

IOS Number : **70993**

Date/Time: 09.25.2020 Created by: Jessica Kramer
Lab# From: **Midland** Delivery Priority:
Lab# To: **Houston** Air Bill No.: 771635767470

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
673584-001	W	Levey Well	09.25.2020 09:53	SW8260C	VOCs by SW-846 8260C	09.28.2020	10.09.2020	JKR	BDCME BRBZ BRCLME	
673584-001	W	Levey Well	09.25.2020 09:53	E200.7	Recoverable Metals per ICP by EPA 200	09.28.2020	03.24.2021	JKR	CA K MG NA SI	
673584-001	W	Levey Well	09.25.2020 09:53	E300	Inorganic Anions by EPA 300/300.1	09.28.2020	09.27.2020 09:53	JKR	BR CL F NO2N NO3N SC	
673584-001	W	Levey Well	09.25.2020 09:53	SM4500-H	pH by SM4500-H	09.28.2020	09.25.2020 10:08	JKR		
673584-001	W	Levey Well	09.25.2020 09:53	SM2540C	TDS by SM2540C	09.28.2020	10.02.2020	JKR	TDS	
673584-001	W	Levey Well	09.25.2020 09:53	SM2320B	Alkalinity by SM2320B	09.28.2020	10.09.2020	JKR	ALK ALKB ALKC	
673584-001	W	Levey Well	09.25.2020 09:53	SM1030E	Cation-Anion Balance Calculation	09.28.2020	10.25.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Jessica Kramer

Date Relinquished: 09.25.2020

Received By: 
Lisandra Torres

Date Received: 09.26.2020

Cooler Temperature: 3.3



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 70993

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-203

Sent By: Jessica Kramer

Date Sent: 09.25.2020 12.13 PM

Received By: Lisandra Torres

Date Received: 09.26.2020 10.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Lisandra Torres

Date: 09.26.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 09.25.2020 11.55.00 AM

Work Order #: 673584

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes XENCO STAFFORD
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: jk

PH Device/Lot#: 10BDH1991

Checklist completed by:



Brianna Teel

Date: 09.25.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.25.2020

Certificate of Analysis Summary 674052

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 10.01.2020 11:49
 Report Date: 10.02.2020 17:53
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 674052-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 10.01.2020 09:49					
Alkalinity by SM2320B SUB: T104704215-20-38	Extracted: 10.02.2020 10:27 Analyzed: 10.02.2020 11:21 Units/RL: mg/L RL					
Alkalinity, Total (as CaCO3)	1110 4.00					
Alkalinity, Bicarbonate (as CaCO3)	1110 4.00					
Alkalinity, Carbonate (as CaCO3)	<4.00 4.00					
Alkalinity, hydroxide (as CaCO3)	<4.00 4.00					
Cation-Anion Balance Calculation SUB: T104704215-20-38	Extracted: Analyzed: 10.02.2020 17:02 Units/RL: % RL					
Cation-Anion Balance	3.30					
Inorganic Anions by EPA 300/300.1 SUB: T104704215-20-38	Extracted: 10.02.2020 10:18 Analyzed: 10.02.2020 11:25 Units/RL: mg/L RL					
Bromide	0.721 0.500					
Chloride	466 0.500					
Fluoride	<0.500 0.500					
Nitrate as N	0.173 0.100					
Nitrite as N	<0.100 0.100					
Sulfate	41.4 0.500					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 674052



Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 10.01.2020 11:49
Report Date: 10.02.2020 17:53
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	674052-001					
	Field Id:	Levey Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	10.01.2020 09:49					
Recoverable Metals per ICP by EPA 200.7 SUB: T104704215-20-38	Extracted:	10.02.2020 10:30					
	Analyzed:	10.02.2020 15:26					
	Units/RL:	mg/L RL					
	Calcium	398 D 10.0					
	Magnesium	75.5 0.200					
	Potassium	6.25 0.500					
	Silica	62.6 1.07					
	Sodium	124 0.500					
TDS by SM2540C SUB: T104704215-20-38	Extracted:						
	Analyzed:	10.02.2020 10:00					
	Units/RL:	mg/L RL					
Total Dissolved Solids		1940 5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 674052

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

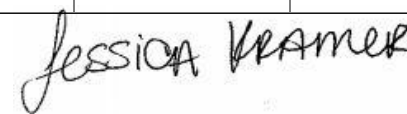
Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 10.01.2020 11:49
Report Date: 10.02.2020 17:53
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 674052-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 10.01.2020 09:49					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 10.02.2020 08:33 Analyzed: 10.02.2020 12:47 Units/RL: mg/L RL					
Benzene	0.00787 0.00100					
Bromobenzene	<0.00100 0.00100					
Bromochloromethane	<0.00100 0.00100					
Bromodichloromethane	<0.00100 0.00100					
Bromoform	<0.00500 0.00500					
Methyl bromide	<0.00500 0.00500					
2-Butanone	<0.0500 0.0500					
n-Butylbenzene	0.00191 0.00100					
Sec-Butylbenzene	<0.00100 0.00100					
tert-Butylbenzene	<0.00100 0.00100					
Carbon Tetrachloride	<0.00500 0.00500					
Chlorobenzene	<0.00100 0.00100					
Chloroethane	<0.0100 0.0100					
Chloroform	<0.00100 0.00100					
Methyl Chloride	<0.0100 0.0100					
2-Chlorotoluene	<0.00100 0.00100					
4-Chlorotoluene	<0.00100 0.00100					
p-Cymene (p-Isopropyltoluene)	0.00198 0.00100					
Dibromochloromethane	<0.00500 0.00500					
1,2-Dibromo-3-Chloropropane	<0.00100 0.00100					
1,2-Dibromoethane	<0.00500 0.00500					
Methylene Bromide	<0.00100 0.00100					
1,2-Dichlorobenzene	<0.00100 0.00100					
1,3-Dichlorobenzene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
Contact: Beaux Jennings
Project Location:

Date Received in Lab: Thu 10.01.2020 11:49
Report Date: 10.02.2020 17:53
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 674052-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 10.01.2020 09:49					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 10.02.2020 08:33 Analyzed: 10.02.2020 12:47 Units/RL: mg/L RL					
1,4-Dichlorobenzene	<0.00100 0.00100					
Dichlorodifluoromethane	<0.00100 0.00100					
1,1-Dichloroethane	<0.00100 0.00100					
1,2-Dichloroethane	<0.00100 0.00100					
1,1-Dichloroethene	<0.00100 0.00100					
cis-1,2-Dichloroethylene	<0.00100 0.00100					
trans-1,2-dichloroethylene	<0.00100 0.00100					
1,2-Dichloropropane	<0.00500 0.00500					
1,3-Dichloropropane	<0.00500 0.00500					
2,2-Dichloropropane	<0.00500 0.00500					
1,1-Dichloropropene	<0.00500 0.00500					
cis-1,3-Dichloropropene	<0.00500 0.00500					
trans-1,3-dichloropropene	<0.00500 0.00500					
Ethylbenzene	0.0305 0.00100					
Hexachlorobutadiene	<0.00500 0.00500					
Isopropylbenzene	0.0167 0.00100					
Methylene Chloride	<0.00500 0.00500					
MTBE	<0.00500 0.00500					
Naphthalene	<0.0100 0.0100					
n-Propylbenzene	0.0175 0.00100					
Styrene	<0.00100 0.00100					
1,1,1,2-Tetrachloroethane	<0.00100 0.00100					
1,1,2,2-Tetrachloroethane	<0.00100 0.00100					
Tetrachloroethylene	<0.00100 0.00100					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 674052

Ensolum, Dallas, TX

Project Name: Levey Well Hobbs NM

Project Id: 03B1417001
 Contact: Beaux Jennings
 Project Location:

Date Received in Lab: Thu 10.01.2020 11:49
 Report Date: 10.02.2020 17:53
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 674052-001 Field Id: Levey Well Depth: Matrix: WATER Sampled: 10.01.2020 09:49					
VOCs by SW-846 8260C SUB: T104704215-20-38	Extracted: 10.02.2020 08:33 Analyzed: 10.02.2020 12:47 Units/RL: mg/L RL					
Toluene	0.0422 0.00100					
1,2,3-Trichlorobenzene	<0.00500 0.00500					
1,2,4-Trichlorobenzene	<0.00500 0.00500					
1,1,1-Trichloroethane	<0.00500 0.00500					
1,1,2-Trichloroethane	<0.00100 0.00100					
Trichloroethylene	<0.00500 0.00500					
Trichlorofluoromethane	<0.00100 0.00100					
1,2,3-Trichloropropane	<0.00100 0.00100					
1,2,4-Trimethylbenzene	0.102 0.00100					
1,3,5-Trimethylbenzene	0.0303 0.00100					
o-Xylene	0.0151 0.00100					
m,p-Xylenes	0.0962 0.0100					
Vinyl Chloride	<0.00200 0.00200					
Total Xylenes	0.111 0.00100					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 10.02.2020 10:50 Units/RL: Deg C RL					
Temperature	24.3 K					
pH by SM4500-H SUB: T104704215-20-38	Extracted: Analyzed: 10.02.2020 10:50 Units/RL: SU RL					
pH	6.07 K					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 674052

for

Ensolum

Project Manager: Beaux Jennings

Levey Well Hobbs NM

03B1417001

10.02.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.02.2020

Project Manager: **Beaux Jennings**

Ensolum

2351 W Northwest Highway

Suite 1203

Dallas, TX 75220

Reference: Eurofins Xenco, LLC Report No(s): **674052**

Levey Well Hobbs NM

Project Address:

Beaux Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674052. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 674052 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 674052

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Levey Well	W	10.01.2020 09:49		674052-001



CASE NARRATIVE

Client Name: *Ensolum*

Project Name: *Levey Well Hobbs NM*

Project ID: 03B1417001
Work Order Number(s): 674052

Report Date: 10.02.2020
Date Received: 10.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 674052

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 10.01.2020 11:49

Lab Sample Id: 674052-001

Date Collected: 10.01.2020 09:49

Analytical Method: Alkalinity by SM2320B

Prep Method: SM2320P

Tech: KBU

% Moisture:

Analyst: KBU

Date Prep: 10.02.2020 10:27

Seq Number: 3138698

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (as CaCO₃)	1640192	1110	4.00	mg/L	10.02.2020 11:21		1
Alkalinity, Bicarbonate (as CaCO₃)	471-34-1	1110	4.00	mg/L	10.02.2020 11:21		1
Alkalinity, Carbonate (as CaCO ₃)	3812-32-6	<4.00	4.00	mg/L	10.02.2020 11:21	U	1
Alkalinity, hydroxide (as CaCO ₃)	14280-30-9	<4.00	4.00	mg/L	10.02.2020 11:21	U	1

Analytical Method: Cation-Anion Balance Calculation

Tech: ALA

% Moisture:

Analyst: ALA

Seq Number: 3138763

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Cation-Anion Balance	CATANBAL	3.30		%	10.02.2020 17:02		1

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: JYM

% Moisture:

Analyst: JYM

Date Prep: 10.02.2020 10:18

Seq Number: 3138705

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Bromide	24959-67-9	0.721	0.500	mg/L	10.02.2020 11:25		1
Chloride	16887-00-6	466	0.500	mg/L	10.02.2020 11:25		1
Fluoride	16984-48-8	<0.500	0.500	mg/L	10.02.2020 11:25	U	1
Nitrate as N	14797-55-8	0.173	0.100	mg/L	10.02.2020 11:25		1
Nitrite as N	14797-65-0	<0.100	0.100	mg/L	10.02.2020 11:25	U	1
Sulfate	14808-79-8	41.4	0.500	mg/L	10.02.2020 11:25		1



Certificate of Analytical Results 674052

Ensolum, Dallas, TX
Levey Well Hobbs NM

Sample Id: **Levey Well**
Lab Sample Id: 674052-001

Matrix: Water
Date Collected: 10.01.2020 09:49

Date Received:10.01.2020 11:49

Analytical Method: TDS by SM2540C

Tech: YAV
Analyst: YAV
Seq Number: 3138676

% Moisture:

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	1940	5.00	mg/L	10.02.2020 10:00		1

Analytical Method: pH by SM4500-H

Tech: KBU
Analyst: KBU
Seq Number: 3138692

% Moisture:

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	6.07		SU	10.02.2020 10:50	K	1
Temperature	TEMP	24.3		Deg C	10.02.2020 10:50	K	1

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Tech: MLI
Analyst: DEP
Seq Number: 3138760

Prep Method: E200.7P
% Moisture:

Date Prep: 10.02.2020 10:30

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Calcium	7440-70-2	398	10.0	mg/L	10.02.2020 15:35	D	50
Magnesium	7439-95-4	75.5	0.200	mg/L	10.02.2020 15:26		1
Potassium	7440-09-7	6.25	0.500	mg/L	10.02.2020 15:26		1
Silica	7631-86-9	62.6	1.07	mg/L	10.02.2020 15:26		1
Sodium	7440-23-5	124	0.500	mg/L	10.02.2020 15:26		1



Certificate of Analytical Results 674052

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 10.01.2020 11:49

Lab Sample Id: 674052-001

Date Collected: 10.01.2020 09:49

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: NGA

% Moisture:

Analyst: SAD

Date Prep: 10.02.2020 08:33

Seq Number: 3138750

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00787	0.00100	mg/L	10.02.2020 12:47		1
Bromobenzene	108-86-1	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Bromochloromethane	74-97-5	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Bromodichloromethane	75-27-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Bromoform	75-25-2	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
2-Butanone	78-93-3	<0.0500	0.0500	mg/L	10.02.2020 12:47	U	1
n-Butylbenzene	104-51-8	0.00191	0.00100	mg/L	10.02.2020 12:47		1
Sec-Butylbenzene	135-98-8	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
tert-Butylbenzene	98-06-6	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Chlorobenzene	108-90-7	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	10.02.2020 12:47	U	1
Chloroform	67-66-3	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	10.02.2020 12:47	U	1
2-Chlorotoluene	95-49-8	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
4-Chlorotoluene	106-43-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	0.00198	0.00100	mg/L	10.02.2020 12:47		1
Dibromochloromethane	124-48-1	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2-Dibromoethane	106-93-4	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Methylene Bromide	74-95-3	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2-Dichlorobenzene	95-50-1	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,3-Dichlorobenzene	541-73-1	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,4-Dichlorobenzene	106-46-7	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Dichlorodifluoromethane	75-71-8	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,1-Dichloroethane	75-34-3	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2-Dichloroethane	107-06-2	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,1-Dichloroethene	75-35-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
cis-1,2-Dichloroethylene	156-59-2	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
trans-1,2-dichloroethylene	156-60-5	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2-Dichloropropane	78-87-5	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
2,2-Dichloropropane	594-20-7	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,1-Dichloropropene	563-58-6	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
cis-1,3-Dichloropropene	10061-01-5	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
trans-1,3-dichloropropene	10061-02-6	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Ethylbenzene	100-41-4	0.0305	0.00100	mg/L	10.02.2020 12:47		1
Hexachlorobutadiene	87-68-3	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1



Certificate of Analytical Results 674052

Ensolum, Dallas, TX

Levey Well Hobbs NM

Sample Id: **Levey Well**

Matrix: Water

Date Received: 10.01.2020 11:49

Lab Sample Id: 674052-001

Date Collected: 10.01.2020 09:49

Analytical Method: VOCs by SW-846 8260C

Prep Method: SW5030B

Tech: NGA

% Moisture:

Analyst: SAD

Date Prep: 10.02.2020 08:33

Seq Number: 3138750

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Isopropylbenzene	98-82-8	0.0167	0.00100	mg/L	10.02.2020 12:47		1
Methylene Chloride	75-09-2	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
MTBE	1634-04-4	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	10.02.2020 12:47	U	1
n-Propylbenzene	103-65-1	0.0175	0.00100	mg/L	10.02.2020 12:47		1
Styrene	100-42-5	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,1,1,2-Tetrachloroethane	630-20-6	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Tetrachloroethylene	127-18-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Toluene	108-88-3	0.0422	0.00100	mg/L	10.02.2020 12:47		1
1,2,3-Trichlorobenzene	87-61-6	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
1,1,2-Trichloroethane	79-00-5	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	10.02.2020 12:47	U	1
Trichlorofluoromethane	75-69-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2,3-Trichloropropane	96-18-4	<0.00100	0.00100	mg/L	10.02.2020 12:47	U	1
1,2,4-Trimethylbenzene	95-63-6	0.102	0.00100	mg/L	10.02.2020 12:47		1
1,3,5-Trimethylbenzene	108-67-8	0.0303	0.00100	mg/L	10.02.2020 12:47		1
o-Xylene	95-47-6	0.0151	0.00100	mg/L	10.02.2020 12:47		1
m,p-Xylenes	179601-23-1	0.0962	0.0100	mg/L	10.02.2020 12:47		1
Vinyl Chloride	75-01-4	<0.00200	0.00200	mg/L	10.02.2020 12:47	U	1
Total Xylenes	1330-20-7	0.111	0.00100	mg/L	10.02.2020 12:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	75-131	10.02.2020 12:47	
1,2-Dichloroethane-D4	17060-07-0	105	%	63-144	10.02.2020 12:47	
Toluene-D8	2037-26-5	104	%	80-117	10.02.2020 12:47	
4-Bromofluorobenzene	460-00-4	106	%	74-124	10.02.2020 12:47	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Ensolum

Levey Well Hobbs NM

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138698

MB Sample Id: 7712494-1-BLK

Matrix: Water

LCS Sample Id: 7712494-1-BKS

Prep Method: SM2320P

Date Prep: 10.02.2020

LCSD Sample Id: 7712494-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	<4.00	250	258	103	260	104	85-115	1	20	mg/L	10.02.2020 11:02	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138698

Matrix: Water

MB Sample Id: 7712494-1-BLK

Prep Method: SM2320P

Date Prep: 10.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Alkalinity, Bicarbonate (as CaCO ₃)	<4.00	mg/L	10.02.2020 10:55	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	mg/L	10.02.2020 10:55	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	mg/L	10.02.2020 10:55	

Analytical Method: Alkalinity by SM2320B

Seq Number: 3138698

Matrix: Water

Parent Sample Id: 674052-001

MD Sample Id: 674052-001 D

Prep Method: SM2320P

Date Prep: 10.02.2020

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (as CaCO ₃)	1110	1110	0	20	mg/L	10.02.2020 11:34	
Alkalinity, Bicarbonate (as CaCO ₃)	1110	1110	0	20	mg/L	10.02.2020 11:34	
Alkalinity, Carbonate (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	10.02.2020 11:34	
Alkalinity, hydroxide (as CaCO ₃)	<4.00	<4.00	0	20	mg/L	10.02.2020 11:34	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138705

Matrix: Water

MB Sample Id: 7712492-1-BLK

LCS Sample Id: 7712492-1-BKS

Prep Method: E300P

Date Prep: 10.02.2020

LCSD Sample Id: 7712492-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	10.02.2020 11:01	
Chloride	<0.500	10.0	10.2	102	10.2	102	90-110	0	20	mg/L	10.02.2020 11:01	
Fluoride	<0.500	10.0	10.5	105	10.5	105	90-110	0	20	mg/L	10.02.2020 11:01	
Nitrate as N	<0.100	10.0	10.1	101	10.1	101	90-110	0	20	mg/L	10.02.2020 11:01	
Nitrite as N	<0.100	10.0	9.89	99	9.90	99	90-110	0	20	mg/L	10.02.2020 11:01	
Sulfate	<0.500	10.0	10.4	104	10.3	103	90-110	1	20	mg/L	10.02.2020 11:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138705

Matrix: Drinking Water

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674039-001

MS Sample Id: 674039-001 S

MSD Sample Id: 674039-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Bromide	<0.500	10.0	10.3	103	10.3	103	90-110	0	20	mg/L	10.02.2020 12:00	
Chloride	122	10.0	135	130	135	130	90-110	0	20	mg/L	10.02.2020 12:00	X
Fluoride	0.613	10.0	11.3	107	11.3	107	90-110	0	20	mg/L	10.02.2020 12:00	
Nitrate as N	0.202	10.0	10.6	104	10.6	104	90-110	0	20	mg/L	10.02.2020 12:00	
Nitrite as N	0.139	10.0	9.36	92	9.37	92	90-110	0	20	mg/L	10.02.2020 12:00	
Sulfate	3.36	10.0	14.5	111	14.4	110	90-110	1	20	mg/L	10.02.2020 12:00	X

Analytical Method: TDS by SM2540C

Seq Number: 3138676

Matrix: Water

MB Sample Id: 3138676-1-BLK

LCS Sample Id: 3138676-1-BKS

LCSD Sample Id: 3138676-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1000	100	80-120	1	10	mg/L	10.02.2020 10:00	

Analytical Method: TDS by SM2540C

Seq Number: 3138676

Matrix: Water

Parent Sample Id: 674052-001

MD Sample Id: 674052-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1940	1960	1	10	mg/L	10.02.2020 10:00	

Analytical Method: pH by SM4500-H

Seq Number: 3138692

Matrix: Liquid

Parent Sample Id: 674047-001

MD Sample Id: 674047-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	6.89	6.88	0	20	SU	10.02.2020 10:50	
Temperature	23.5	23.9	2	20	Deg C	10.02.2020 10:50	

Analytical Method: Recoverable Metals per ICP by EPA 200.7

Seq Number: 3138760

Matrix: Water

MB Sample Id: 7712509-1-BLK

LCS Sample Id: 7712509-1-BKS

Prep Method: E200.7P

Date Prep: 10.02.2020

LCSD Sample Id: 7712509-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	<0.200	25.0	23.1	92	23.1	92	85-115	0	20	mg/L	10.02.2020 14:40	
Magnesium	<0.200	25.0	23.4	94	23.4	94	85-115	0	20	mg/L	10.02.2020 14:40	
Potassium	<0.500	10.0	9.18	92	9.21	92	85-115	0	20	mg/L	10.02.2020 14:40	
Silica	<1.07	21.4	20.1	94	20.2	94	85-115	0	20	mg/L	10.02.2020 14:40	
Sodium	<0.500	25.0	23.1	92	23.2	93	85-115	0	20	mg/L	10.02.2020 14:40	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: Recoverable Metals per ICP by EPA 200.7
Seq Number: 3138760 Matrix: Drinking Water
Parent Sample Id: 673973-001 MS Sample Id: 673973-001 S
Prep Method: E200.7P Date Prep: 10.02.2020
MSD Sample Id: 673973-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Calcium	55.1	25.0	78.6	94	78.6	94	70-130	0	20	mg/L	10.02.2020 14:53	
Magnesium	16.5	25.0	40.6	96	40.6	96	70-130	0	20	mg/L	10.02.2020 14:53	
Potassium	1.23	10.0	10.8	96	10.8	96	70-130	0	20	mg/L	10.02.2020 14:53	
Silica	3.54	21.4	24.8	99	24.7	99	70-130	0	20	mg/L	10.02.2020 14:53	
Sodium	57.8	25.0	81.1	93	81.2	94	70-130	0	20	mg/L	10.02.2020 14:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $Log\ Diff. = Log(Sample\ Duplicate) - Log(Original\ Sample)$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138750

Matrix: Water

Prep Method: SW5030B

Date Prep: 10.02.2020

MB Sample Id: 7712556-1-BLK

LCS Sample Id: 7712556-1-BKS

LCSD Sample Id: 7712556-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0496	99	0.0476	95	66-142	4	25	mg/L	10.02.2020 09:04	
Bromobenzene	<0.00100	0.0500	0.0494	99	0.0475	95	75-125	4	25	mg/L	10.02.2020 09:04	
Bromochloromethane	<0.00100	0.0500	0.0506	101	0.0494	99	60-140	2	25	mg/L	10.02.2020 09:04	
Bromodichloromethane	<0.00100	0.0500	0.0490	98	0.0489	98	75-125	0	25	mg/L	10.02.2020 09:04	
Bromoform	<0.00500	0.0500	0.0510	102	0.0524	105	75-125	3	25	mg/L	10.02.2020 09:04	
Methyl bromide	<0.00500	0.0500	0.0524	105	0.0502	100	60-140	4	25	mg/L	10.02.2020 09:04	
2-Butanone	<0.0500	0.250	0.264	106	0.295	118	60-140	11	25	mg/L	10.02.2020 09:04	
n-Butylbenzene	<0.00100	0.0500	0.0511	102	0.0493	99	75-125	4	25	mg/L	10.02.2020 09:04	
Sec-Butylbenzene	<0.00100	0.0500	0.0471	94	0.0448	90	75-125	5	25	mg/L	10.02.2020 09:04	
tert-Butylbenzene	<0.00100	0.0500	0.0527	105	0.0508	102	75-125	4	25	mg/L	10.02.2020 09:04	
Carbon Tetrachloride	<0.00500	0.0500	0.0520	104	0.0498	100	62-125	4	25	mg/L	10.02.2020 09:04	
Chlorobenzene	<0.00100	0.0500	0.0489	98	0.0471	94	60-133	4	25	mg/L	10.02.2020 09:04	
Chloroethane	<0.0100	0.0500	0.0468	94	0.0444	89	60-140	5	25	mg/L	10.02.2020 09:04	
Chloroform	<0.00100	0.0500	0.0508	102	0.0493	99	70-130	3	25	mg/L	10.02.2020 09:04	
Methyl Chloride	<0.0100	0.0500	0.0656	131	0.0607	121	60-140	8	25	mg/L	10.02.2020 09:04	
2-Chlorotoluene	<0.00100	0.0500	0.0497	99	0.0474	95	73-125	5	25	mg/L	10.02.2020 09:04	
4-Chlorotoluene	<0.00100	0.0500	0.0504	101	0.0483	97	74-125	4	25	mg/L	10.02.2020 09:04	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0513	103	0.0492	98	75-125	4	25	mg/L	10.02.2020 09:04	
Dibromochloromethane	<0.00500	0.0500	0.0490	98	0.0493	99	73-125	1	25	mg/L	10.02.2020 09:04	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0489	98	0.0525	105	59-125	7	25	mg/L	10.02.2020 09:04	
1,2-Dibromoethane	<0.00500	0.0500	0.0494	99	0.0508	102	73-125	3	25	mg/L	10.02.2020 09:04	
Methylene Bromide	<0.00100	0.0500	0.0489	98	0.0497	99	69-127	2	25	mg/L	10.02.2020 09:04	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0482	96	0.0477	95	75-125	1	25	mg/L	10.02.2020 09:04	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0481	96	0.0467	93	75-125	3	25	mg/L	10.02.2020 09:04	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0487	97	0.0472	94	75-125	3	25	mg/L	10.02.2020 09:04	
Dichlorodifluoromethane	<0.00100	0.0500	0.0627	125	0.0589	118	60-140	6	25	mg/L	10.02.2020 09:04	
1,1-Dichloroethane	<0.00100	0.0500	0.0539	108	0.0515	103	72-125	5	25	mg/L	10.02.2020 09:04	
1,2-Dichloroethane	<0.00100	0.0500	0.0483	97	0.0485	97	68-127	0	25	mg/L	10.02.2020 09:04	
1,1-Dichloroethene	<0.00100	0.0500	0.0545	109	0.0516	103	59-172	5	25	mg/L	10.02.2020 09:04	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0511	102	0.0498	100	75-125	3	25	mg/L	10.02.2020 09:04	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0515	103	0.0495	99	75-125	4	25	mg/L	10.02.2020 09:04	
1,2-Dichloropropane	<0.00500	0.0500	0.0510	102	0.0506	101	74-125	1	25	mg/L	10.02.2020 09:04	
1,3-Dichloropropane	<0.00500	0.0500	0.0523	105	0.0528	106	75-125	1	25	mg/L	10.02.2020 09:04	
2,2-Dichloropropane	<0.00500	0.0500	0.0543	109	0.0515	103	75-125	5	25	mg/L	10.02.2020 09:04	
1,1-Dichloropropene	<0.00500	0.0500	0.0529	106	0.0511	102	75-125	3	25	mg/L	10.02.2020 09:04	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0524	105	0.0515	103	74-125	2	25	mg/L	10.02.2020 09:04	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0492	98	0.0499	100	66-125	1	25	mg/L	10.02.2020 09:04	
Ethylbenzene	<0.00100	0.0500	0.0511	102	0.0487	97	75-125	5	25	mg/L	10.02.2020 09:04	
Hexachlorobutadiene	<0.00500	0.0500	0.0489	98	0.0487	97	75-125	0	25	mg/L	10.02.2020 09:04	
Isopropylbenzene	<0.00100	0.0500	0.0509	102	0.0486	97	75-125	5	25	mg/L	10.02.2020 09:04	
Methylene Chloride	<0.00500	0.0500	0.0478	96	0.0460	92	75-125	4	25	mg/L	10.02.2020 09:04	
MTBE	<0.00500	0.0500	0.0479	96	0.0494	99	65-135	3	25	mg/L	10.02.2020 09:04	
Naphthalene	<0.0100	0.0500	0.0519	104	0.0564	113	70-130	8	25	mg/L	10.02.2020 09:04	
n-Propylbenzene	<0.00100	0.0500	0.0524	105	0.0499	100	75-125	5	25	mg/L	10.02.2020 09:04	
Styrene	<0.00100	0.0500	0.0525	105	0.0505	101	75-125	4	25	mg/L	10.02.2020 09:04	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0492	98	0.0482	96	72-125	2	25	mg/L	10.02.2020 09:04	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0491	98	0.0513	103	74-125	4	25	mg/L	10.02.2020 09:04	
Tetrachloroethylene	<0.00100	0.0500	0.0493	99	0.0469	94	71-125	5	25	mg/L	10.02.2020 09:04	
Toluene	<0.00100	0.0500	0.0496	99	0.0476	95	59-139	4	25	mg/L	10.02.2020 09:04	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0521	104	0.0556	111	75-137	6	25	mg/L	10.02.2020 09:04	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138750

Matrix: Water

Prep Method: SW5030B

Date Prep: 10.02.2020

MB Sample Id: 7712556-1-BLK

LCS Sample Id: 7712556-1-BKS

LCSD Sample Id: 7712556-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0515	103	0.0538	108	75-135	4	25	mg/L	10.02.2020 09:04	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0548	110	0.0520	104	75-125	5	25	mg/L	10.02.2020 09:04	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0498	100	0.0509	102	75-127	2	25	mg/L	10.02.2020 09:04	
Trichloroethylene	<0.00500	0.0500	0.0506	101	0.0489	98	62-137	3	25	mg/L	10.02.2020 09:04	
Trichlorofluoromethane	<0.00100	0.0500	0.0582	116	0.0547	109	60-140	6	25	mg/L	10.02.2020 09:04	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0489	98	0.0513	103	75-125	5	25	mg/L	10.02.2020 09:04	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0510	102	0.0489	98	75-125	4	25	mg/L	10.02.2020 09:04	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0517	103	0.0494	99	70-125	5	25	mg/L	10.02.2020 09:04	
o-Xylene	<0.00100	0.0500	0.0537	107	0.0512	102	75-125	5	25	mg/L	10.02.2020 09:04	
m,p-Xylenes	<0.0100	0.100	0.103	103	0.0991	99	75-125	4	25	mg/L	10.02.2020 09:04	
Vinyl Chloride	<0.00200	0.0500	0.0592	118	0.0548	110	60-140	8	25	mg/L	10.02.2020 09:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
Dibromofluoromethane	91		99		101		75-131			%	10.02.2020 09:04	
1,2-Dichloroethane-D4	88		103		101		63-144			%	10.02.2020 09:04	
Toluene-D8	98		99		99		80-117			%	10.02.2020 09:04	
4-Bromofluorobenzene	104		102		101		74-124			%	10.02.2020 09:04	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ensolum

Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138750

Matrix: Water

Prep Method: SW5030B

Date Prep: 10.02.2020

Parent Sample Id: 673831-001

MS Sample Id: 673831-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0486	97	66-142	mg/L	10.02.2020 10:26	
Bromobenzene	<0.00100	0.0500	0.0530	106	75-125	mg/L	10.02.2020 10:26	
Bromochloromethane	<0.00100	0.0500	0.0488	98	60-140	mg/L	10.02.2020 10:26	
Bromodichloromethane	<0.00100	0.0500	0.0481	96	75-125	mg/L	10.02.2020 10:26	
Bromoform	<0.00500	0.0500	0.0514	103	75-125	mg/L	10.02.2020 10:26	
Methyl bromide	<0.00500	0.0500	0.0516	103	60-140	mg/L	10.02.2020 10:26	
2-Butanone	<0.0500	0.250	0.215	86	60-140	mg/L	10.02.2020 10:26	
n-Butylbenzene	<0.00100	0.0500	0.0543	109	75-125	mg/L	10.02.2020 10:26	
Sec-Butylbenzene	<0.00100	0.0500	0.0505	101	75-125	mg/L	10.02.2020 10:26	
tert-Butylbenzene	<0.00100	0.0500	0.0573	115	75-125	mg/L	10.02.2020 10:26	
Carbon Tetrachloride	<0.00500	0.0500	0.0503	101	62-125	mg/L	10.02.2020 10:26	
Chlorobenzene	<0.00100	0.0500	0.0498	100	60-133	mg/L	10.02.2020 10:26	
Chloroethane	<0.0100	0.0500	0.0460	92	60-140	mg/L	10.02.2020 10:26	
Chloroform	<0.00100	0.0500	0.0484	97	70-130	mg/L	10.02.2020 10:26	
Methyl Chloride	<0.0100	0.0500	0.0640	128	60-140	mg/L	10.02.2020 10:26	
2-Chlorotoluene	<0.00100	0.0500	0.0529	106	73-125	mg/L	10.02.2020 10:26	
4-Chlorotoluene	<0.00100	0.0500	0.0537	107	74-125	mg/L	10.02.2020 10:26	
p-Cymene (p-Isopropyltoluene)	<0.00100	0.0500	0.0542	108	75-125	mg/L	10.02.2020 10:26	
Dibromochloromethane	<0.00500	0.0500	0.0496	99	73-125	mg/L	10.02.2020 10:26	
1,2-Dibromo-3-Chloropropane	<0.00100	0.0500	0.0510	102	59-125	mg/L	10.02.2020 10:26	
1,2-Dibromoethane	<0.00500	0.0500	0.0498	100	73-125	mg/L	10.02.2020 10:26	
Methylene Bromide	<0.00100	0.0500	0.0480	96	69-127	mg/L	10.02.2020 10:26	
1,2-Dichlorobenzene	<0.00100	0.0500	0.0515	103	75-125	mg/L	10.02.2020 10:26	
1,3-Dichlorobenzene	<0.00100	0.0500	0.0514	103	75-125	mg/L	10.02.2020 10:26	
1,4-Dichlorobenzene	<0.00100	0.0500	0.0517	103	75-125	mg/L	10.02.2020 10:26	
Dichlorodifluoromethane	<0.00100	0.0500	0.0615	123	60-140	mg/L	10.02.2020 10:26	
1,1-Dichloroethane	<0.00100	0.0500	0.0514	103	72-125	mg/L	10.02.2020 10:26	
1,2-Dichloroethane	<0.00100	0.0500	0.0471	94	68-127	mg/L	10.02.2020 10:26	
1,1-Dichloroethene	<0.00100	0.0500	0.0529	106	59-172	mg/L	10.02.2020 10:26	
cis-1,2-Dichloroethylene	<0.00100	0.0500	0.0496	99	75-125	mg/L	10.02.2020 10:26	
trans-1,2-dichloroethylene	<0.00100	0.0500	0.0493	99	75-125	mg/L	10.02.2020 10:26	
1,2-Dichloropropane	<0.00500	0.0500	0.0504	101	74-125	mg/L	10.02.2020 10:26	
1,3-Dichloropropane	<0.00500	0.0500	0.0526	105	75-125	mg/L	10.02.2020 10:26	
2,2-Dichloropropane	<0.00500	0.0500	0.0519	104	75-125	mg/L	10.02.2020 10:26	
1,1-Dichloropropene	<0.00500	0.0500	0.0512	102	75-125	mg/L	10.02.2020 10:26	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0501	100	74-125	mg/L	10.02.2020 10:26	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0496	99	66-125	mg/L	10.02.2020 10:26	
Ethylbenzene	<0.00100	0.0500	0.0515	103	75-125	mg/L	10.02.2020 10:26	
Hexachlorobutadiene	<0.00500	0.0500	0.0516	103	75-125	mg/L	10.02.2020 10:26	
Isopropylbenzene	<0.00100	0.0500	0.0521	104	75-125	mg/L	10.02.2020 10:26	
Methylene Chloride	<0.00500	0.0500	0.0456	91	75-125	mg/L	10.02.2020 10:26	
MTBE	<0.00500	0.0500	0.0463	93	65-135	mg/L	10.02.2020 10:26	
Naphthalene	<0.0100	0.0500	0.0558	112	70-130	mg/L	10.02.2020 10:26	
n-Propylbenzene	<0.00100	0.0500	0.0559	112	75-125	mg/L	10.02.2020 10:26	
Styrene	<0.00100	0.0500	0.0531	106	75-125	mg/L	10.02.2020 10:26	
1,1,1,2-Tetrachloroethane	<0.00100	0.0500	0.0491	98	72-125	mg/L	10.02.2020 10:26	
1,1,2,2-Tetrachloroethane	<0.00100	0.0500	0.0520	104	74-125	mg/L	10.02.2020 10:26	
Tetrachloroethylene	<0.00100	0.0500	0.0492	98	71-125	mg/L	10.02.2020 10:26	
Toluene	<0.00100	0.0500	0.0499	100	59-139	mg/L	10.02.2020 10:26	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0558	112	75-137	mg/L	10.02.2020 10:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Ensolum
Levey Well Hobbs NM

Analytical Method: VOCs by SW-846 8260C

Seq Number: 3138750

Matrix: Water

Prep Method: SW5030B

Date Prep: 10.02.2020

Parent Sample Id: 673831-001

MS Sample Id: 673831-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0558	112	75-135	mg/L	10.02.2020 10:26	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0523	105	75-125	mg/L	10.02.2020 10:26	
1,1,2-Trichloroethane	<0.00100	0.0500	0.0499	100	75-127	mg/L	10.02.2020 10:26	
Trichloroethylene	<0.00500	0.0500	0.0493	99	62-137	mg/L	10.02.2020 10:26	
Trichlorofluoromethane	<0.00100	0.0500	0.0566	113	60-140	mg/L	10.02.2020 10:26	
1,2,3-Trichloropropane	<0.00100	0.0500	0.0531	106	75-125	mg/L	10.02.2020 10:26	
1,2,4-Trimethylbenzene	<0.00100	0.0500	0.0548	110	75-125	mg/L	10.02.2020 10:26	
1,3,5-Trimethylbenzene	<0.00100	0.0500	0.0544	109	70-125	mg/L	10.02.2020 10:26	
o-Xylene	<0.00100	0.0500	0.0539	108	75-125	mg/L	10.02.2020 10:26	
m,p-Xylenes	<0.0100	0.100	0.106	106	75-125	mg/L	10.02.2020 10:26	
Vinyl Chloride	<0.00200	0.0500	0.0572	114	60-140	mg/L	10.02.2020 10:26	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		75-131	%	10.02.2020 10:26
1,2-Dichloroethane-D4	98		63-144	%	10.02.2020 10:26
Toluene-D8	101		80-117	%	10.02.2020 10:26
4-Bromofluorobenzene	104		74-124	%	10.02.2020 10:26

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Chain of Custody

Work Order No.:

674052

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Page 1 of 1

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	705 W Wadley #210	Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	(210) 219-8868	Email:	bjennings@ensolum.com

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

Project Name:	Levey Well	Hobbs NM	Turn Around
Project Number:	03B1417001		Routine ☐
P.O. Number:	03B1417001		Rush: 24 hr
Sampler's Name:	Kelly Lowery		Due Date:
SAMPLE RECEIPT			
Temperature (°C):	19/2.4	Temp Blank:	Yes ☐ No ☐
Received intact:	Yes ☐ No ☐	Thermometer ID	
Cooler Custody Seals:	Yes ☒ No ☐		Correction Factor:
Sample Custody Seals:	Yes ☐ No ☒		Total Containers:
			0.5

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020;

Circle Method(s) and Metal(s) to be analyzed

1631 / 245.1 / 7470 / 7747

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.

[illegible]

Final 1.000

CUSTODY SEAL
Date 10/01/2023
Signature [Signature]

Thermo
S C I E N T I F I C

90009

Inter-Office Shipment

IOS Number : **71256**

Date/Time: 10.01.2020

Created by: Brianna Teel

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Houston**

Air Bill No.:

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
674052-001	W	Levey Well	10.01.2020 09:49	SW8260C	VOCs by SW-846 8260C	10.02.2020	10.15.2020	JKR	BDCME BRBZ BRCLME	
674052-001	W	Levey Well	10.01.2020 09:49	E200.7	Recoverable Metals per ICP by EPA 200	10.02.2020	03.30.2021	JKR	CA K MG NA SI	
674052-001	W	Levey Well	10.01.2020 09:49	E300	Inorganic Anions by EPA 300/300.1	10.02.2020	10.03.2020 09:49	JKR	BR CL F NO2N NO3N SC	
674052-001	W	Levey Well	10.01.2020 09:49	SM4500-H	pH by SM4500-H	10.02.2020	10.01.2020 10:04	JKR		
674052-001	W	Levey Well	10.01.2020 09:49	SM2540C	TDS by SM2540C	10.02.2020	10.08.2020	JKR	TDS	
674052-001	W	Levey Well	10.01.2020 09:49	SM2320B	Alkalinity by SM2320B	10.02.2020	10.15.2020	JKR	ALK ALKB ALKC	
674052-001	W	Levey Well	10.01.2020 09:49	SM1030E	Cation-Anion Balance Calculation	10.02.2020	10.31.2020	JKR	Cation-Anion Balance	

Inter Office Shipment or Sample Comments:

Relinquished By:



Brianna Teel

Received By: _____

Date Relinquished: 10.01.2020

Date Received: _____

Cooler Temperature: _____

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 10.01.2020 11.49.00 AM

Work Order #: 674052

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Xenco Stafford
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10bdh1991

Checklist completed by:



Brianna Teel

Date: 10.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.01.2020

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 284109

CONDITIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID:	157984
	Action Number:	284109
	Action Type:	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	None	1/2/2024