

Joseph Alexander

Our company, Circle Verde Water, successfully operated a produced water desalination system in multiple locations throughout West Texas and New Mexico. During operation of this plant near Big Spring, TX the New Mexico Produced Water Research Consortium gathered samples that were extensively evaluated and the results published. The freshwater from our plant exceeded EPA Drinking Water standards and was found to be cleaner than the municipal water available in most West Texas towns.

We relocated this plant to another oilfield site. At this location our plant processed flowback water, tank bottoms, drilling mud after solids removal and other aqueous oilfield wastes. During this time, a representative from an Israeli firm that wishes to partner with us gathered and analyzed water samples. From their independent analysis, they found the freshwater effluent from our plant was suitable for irrigation without issue.

Videos of this plant in operation, including sample gathering and investigation may be found at the links below:

<https://youtu.be/4Jlp3tlvrwA>

<https://youtu.be/fEY1oG12kl0>

<https://youtu.be/ca7csI0e-Wc>

My team and I would be delighted to address any questions you may have or schedule a virtual and/or in-person meeting

Thank you for your consideration,

Joseph V Alexander, PhD PE



Advancing produced water quality via integrated mechanical vapor recompression: Chemical and toxicological characterization, hazard identification and mitigation

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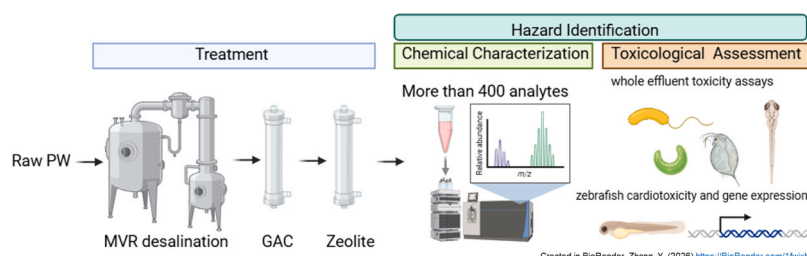
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HIGHLIGHTS

- Pilot-scale MVR distillation demonstrated robust salinity reduction.
- The distillate still caused adverse impacts on all the tested aquatic organisms.
- GAC and zeolite polishing reduced PW pollutants to non-toxic levels.
- Toxicity reductions aligned with the removal of potential chemical stressors.
- Integrated treatment mitigated all adverse effects, including sublethal ones.

GRAPHICAL ABSTRACT



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ABSTRACT

This study evaluated Permian Basin produced water (PW) treatment through an advanced treatment train comprising mechanical vapor recompression (MVR) distillation, granular activated carbon (GAC), and zeolite adsorption. More than 400 analytes, including volatile and semivolatile organics (VOCs and SVOCs), inorganic ions, heavy metals, radionuclides, pesticides, dioxins, furans, and per- and polyfluoroalkyl substances (PFAS) – were quantified. Whole effluent toxicity (WET) tests were conducted across four trophic levels using *Vibrio fischeri*, *Raphidocelis subcapitata*, *Ceriodaphnia dubia*, and zebrafish (*Danio rerio*). In zebrafish, developmental endpoints and transcriptional responses of genes were assessed to detect sub-lethal effects. MVR distillation reduced total dissolved solids by 99.95%, total organic carbon by 89%, and total petroleum hydrocarbons by 92%. However, reductions in bulk organic parameters did not consistently reflect decreases in individual VOCs and SVOCs. Several hydrophilic VOCs (e.g., acetone, 2-propanol, 2-butanone) exhibited limited removal or even net increases during distillation. Caproic, propionic, and valeric acids (86.5, 123 and 198 mg/L) exceeded several toxicity thresholds for aquatic species. Untreated and distilled PW induced acute and chronic toxicity across all test species, with untreated PW causing 100% mortality in zebrafish embryos and the distillate resulting in 58–67% developmental abnormalities (edema, scoliosis, and impaired posture). In contrast, post-treatment with GAC and zeolite reduced most constituents to below detection limits and eliminated observable toxic effects. Zebrafish developmental and gene expression analyses confirmed the absence of significant perturbations.

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following final treatment. This integrated chemical and biological assessment demonstrates that advanced multi-barrier treatment can effectively mitigate PW toxicity, supporting its potential reintegration into the hydrological cycle.

1. Introduction

Managing produced water (PW), the main by-product of oil and gas extraction, presents major environmental challenges and raises concerns over recent increases in seismic activity related to current disposal practices ([1–3]). The Permian Basin, the most productive oil and gas region in the United States, exemplifies these challenges due to the substantial volume and complex composition of its PW. Investigations have identified diverse organic compounds, elevated concentrations of dissolved salts, heavy metals, and radionuclides, which may present significant public health and ecological risks without adequate treatment [4,5]. The reuse of treated PW purified through advanced treatment processes is considered a strategic solution that could mitigate water scarcity in oil and gas-producing regions while addressing critical management and environmental challenges ([2,6,7]).

Recent studies have explored the feasibility of desalinating PW with thermal processes. Tarazona, Yeinner et al. (2024) evaluated the performance of a pilot-scale low-temperature thermal distillation technology in meeting criteria for the potential surface water discharge scenarios [7]. Building on those findings, Tarazona, Y. et al. [8] examined the integration of thermal distillation with established technologies, such as granular activated carbon (GAC) and zeolite, to mitigate potential stressors and produce a non-toxic effluent. Van Houghton et al. [9] evaluated a multi-stage treatment process incorporating coagulation/flocculation, a membrane bioreactor (MBR), GAC adsorption, ion exchange, and membrane distillation (MD). Their findings demonstrated the system's effectiveness in reducing contaminant levels to meet potential effluent discharge limits. These results were further validated through cytotoxicity testing with MCF-7 cells, which showed increased survival rates in MD effluents. A recent study also demonstrated that a pilot-scale multistage fractional freeze desalination (FD) coupled with seawater reverse osmosis (SWRO) process achieved approximately 99% removal of dissolved ions and 93.5% removal of total organic carbon (TOC) from PW in the Permian Basin [10,11]. Whole effluent toxicity (WET) assays and human cell line studies further confirmed that this multistage treatment process effectively produced purified PW with no adverse effects on the tested aquatic organisms or human cells [11]. Irrigation with this treated PW resulted in crop yields and soil health metrics comparable to those obtained using freshwater [12]. Delanka-Pedige et al. [13] conducted both targeted and non-targeted chemical analyses of effluents from photocatalytic membrane distillation (PMD) and vacuum membrane distillation (VMD). Their study integrated a chemical identification workflow with in-silico tools to explore correlations between detected compounds and their potential impacts on key receptors, including mammals (genotoxicity, mutagenicity, endocrine disruption) and aquatic organisms (acute and chronic toxicity). Collectively, these studies have: (i) enhanced understanding of PW quality; (ii) demonstrated the capacity of multiple treatment approaches to mitigate salinity and other chemical stressors; and (iii) established the effectiveness of available treatment technologies for producing purified PW with water quality potentially suitable for key reuse scenarios, including surface water discharge and irrigation of selected crops.

Despite these advancements, fundamental knowledge gaps persist regarding the chemical safety of thermally desalinated PW. Previous research has focused on a limited set of chemical analytes, raising concerns about whether such characterization efforts can adequately evaluate the quality of PW and ensure the chemical safety of thermally treated PW, particularly given the potential for unknown organic compounds to partition into the distillate [7,13]. Furthermore, most

toxicological evaluations of PW effluents have primarily relied on conventional acute and chronic endpoints or in-silico toxicity predictions, which are often insufficient for comprehensive hazard identification. Although these tests can capture the effects of PW-associated chemicals on mortality, reproduction, and growth inhibition, they fail to detect subtle molecular and physiological perturbations arising from low-dose exposures or from complex and largely unidentified chemical mixtures present in PW [14,15]. To address these limitations, this study systematically characterizes raw, thermally desalinated, and polished PW from the Permian Basin by assessing effluents from a treatment train designed to mitigate known and unknown stressors. We applied a multi-tiered targeted analytical approach encompassing more than 400 analytes, including conventional water quality parameters, volatile and semi-volatile organic compounds (VOCs and SVOCs), heavy metals, volatile fatty acids, ammonia, dioxins, furans, pesticides, herbicides, surfactants, polychlorinated biphenyls, per- and polyfluoroalkyl substances, and radionuclides. This comprehensive analytical framework enables detailed tracking of less-studied constituents throughout each treatment stage, providing a more robust characterization of PW quality and treatment performance. Among aquatic models, zebrafish embryos are widely used in environmental toxicology because of their genetic similarity to higher vertebrates and their rapid, transparent embryonic development, which enables high-throughput, sensitive detection of effects from both known and unknown stressors [16–18]. Given its relevance to both environmental and human health assessments, our study used zebrafish embryo exposures as a high-resolution tool for hazard identification. The approach enables detection of developmental, molecular, and sub-lethal effects that standard toxicity assays may not capture, while evaluating the effectiveness of the treatment train in producing water suitable for potential surface discharge. By monitoring embryonic development and analyzing gene expression associated with endocrine regulation, phase I and II biotransformation, and oxidative stress, we aim to identify early molecular indicators of toxicity that conventional endpoints may overlook, thereby providing an unparalleled assessment of the biological safety of thermally desalinated PW. Overall, this study addresses the key knowledge gaps by integrating broad-spectrum targeted chemical analysis with WET testing across four trophic levels and zebrafish developmental and transcriptional screening. Physicochemical properties were used to analyze the target chemical results and to infer compound behavior during the desalination. Together, these lines of evidence extend water quality evaluation beyond conventional criteria and provide a state-of-the-art, effects-based assessment that reduces uncertainty associated with uncharacterized compounds, enabling a comprehensive evaluation for treatment performance and PW suitability for reuse.

2. Materials and methods

2.1. PW collection and treatment

The PW used in this study was sourced from an existing saltwater disposal well (SDW) near Big Spring, Texas. After transport to the pilot location, PW was stored in three 500-barrel (bbl, 79.5 m³) storage tanks, where it remained without any additional processing before treatment. Based on the findings from our previous studies ([7,8]), the thermal distillate often has residual ammonia and VOCs. Therefore, raw PW underwent a sequential treatment involving mechanical vapor recompression (MVR) distillation, GAC, and zeolite to ensure the removal of hazardous compounds. A description of the units is provided below.

2.1.1. MVR distillation

During PW desalination using the pilot-scale MVR system (Figure S1), the initial heat was provided by a natural gas-powered burner, which heated a tube within a boiler at 230–260°C. The system used a mechanical positive-displacement type compressor to increase the temperature of the vapor generated in the distillation vessels. This compressed vapor was then used as the heat source for further vaporization of the feed water. The system operated within a differential pressure range of 3–14 psi, with water processing capacity increasing with the applied pressure. Evaporation and condensation temperatures varied as a function of operational pressure, ranging from 93 to 110°C (200–230 °F) for evaporation and 110–121°C (230–250 °F) for condensation under a vacuum pressure of –24.6 psi (–50 inHg). Condensed distillate temperatures were approximately 35°C (95 °F) in winter and 46°C (115 °F) in summer. Estimated energy requirements range from 18.87 to 31.45 kWh/m³ of water processed. The unit operated at an average feed flow rate of 17.7 m³/d (3.24 gallons per minute, GPM), with a total dissolved solids (TDS) concentration of approximately 170,000 mg/L. This MVR unit typically achieves a water recovery rate of 30–40%, with a recovery rate of 32% observed during the sampling event. Samples were collected before and after the distillation unit for characterization, and additional distillate samples were collected specifically for conducting bench-scale post-treatment.

2.1.2. Post-treatment with GAC and zeolite

After distillation, the pH of the distillate was 10.2, resulting from elevated ammonia concentrations, and was subsequently adjusted to an operational pH of 8.5 by using diluted sulfuric acid. The distillate was then processed sequentially in two identical polyvinyl chloride (PVC) columns with GAC (12 × 40 Prewashed Virgin Coconut Shell activated carbon, EnviroSupply & Service Inc., California) set up in parallel to allow for duplicate testing of treatment performance. Each packed GAC column was operated in up-flow mode at a flow rate of 14 L/d, and maintained an empty bed contact time (EBCT) of 0.94 h using a peristaltic pump (Cole-Parmer). Samples were collected from each column at various time intervals to monitor treatment performance over time. Following GAC treatment, the water was further processed in two identical columns packed with clinoptilolite (Winston Zeolite, St. Cloud Mining), also set up in parallel for duplicate testing. The packed zeolite columns were operated in up-flow mode at a flow rate of 14 L/d, with an EBCT of 0.94 h, using a peristaltic pump (Cole-Parmer). Effluent samples were taken from both columns at different time intervals to evaluate the treatment performance of the zeolite. Additional information on the columns and materials is provided in Table S1, and the column setup is shown in Figure S2. After treatment, samples were collected for characterization.

2.2. Chemical and toxicological characterization

To evaluate the water quality through the treatment train, a comprehensive chemical and toxicological characterization was conducted on raw PW, distillate, and post-treated water following the GAC and zeolite processes.

2.2.1. Chemical characterization

The chemical characterization of the water samples included a comprehensive targeted scheme that covered over 400 analytes. Key conventional parameters such as pH, electrical conductivity (EC), TDS, and total suspended solids (TSS) were analyzed using standard methods (e.g., SM Methods 4500-H⁺B, 2510B, 2540 C, and 2540D, respectively). Metals, including both total and dissolved concentrations, were determined using inductively coupled plasma mass spectrometry (ICP-MS) in accordance with SW846 Method 6010D. Organic compounds were characterized by analyzing volatile and semivolatile organic compounds (VOCs and SVOCs) using gas chromatography coupled with mass spectrometry (GC/MS) following SW846 Methods 8260D, 8270D, and

8270E. Furthermore, total and dissolved organic carbon (TOC and DOC) were assessed via oxidation using the SM Method 5310B. Pesticides and herbicides were characterized using GC following SW846 Method 8081B. Dioxins and furans were analyzed using high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/HRMS) as per SW846 Method 8290 A. Per- and polyfluoroalkyl substances (PFAS) were analyzed using solid phase extraction followed by liquid chromatography coupled with tandem mass spectrometry (SPE LC-MS/MS) following EPA Method 537. Radiological parameters, such as gross alpha and beta radioactivity, were quantified using EPA Method 900. For a complete list of all the characterization methods used, please refer to Table S2, which details the standardized protocols employed in each analysis, including all the characterizations conducted, the respective methods used, and the number of analytes evaluated.

2.2.2. Whole effluent toxicity (WET) assessment

The toxicological assessment evaluated the ecological impact of the collected water samples across four trophic levels within freshwater ecosystems. Four representative species were used: *Raphidocelis subcapitata* (alga, producer), *Ceriodaphnia dubia* (invertebrate, primary consumer), *Danio rerio* (zebrafish, secondary consumer), and *Vibrio fischeri* (bacterium, decomposer). *R. subcapitata* (UTEX 1648) testing followed U.S. EPA guidelines for chronic WET tests (EPA-821-R-02-013) [19], using static nonrenewal exposures to assess growth inhibition over four days, with 24-hour interval measurements and four replicates per concentration. Acute toxicity for *C. dubia* followed U.S. EPA WET guidelines (EPA-821-R-02-012) [20], using a 48-hour static exposure to determine survival endpoints, with 20 replicates per concentration and neonates grouped in sets of five per 20 mL chamber. Zebrafish embryo toxicity testing (*D. rerio*) followed the Fish Embryo Toxicity (FET) test under OECD Method 236 [21], assessing survival endpoints such as coagulation, lack of somite formation, tail detachment, and heartbeat over a 96-hour exposure period with semi-renewal every 48 h. Each condition had 24 embryos, one per well in 3 mL of solution. Zebrafish use has received approval for research ethics from the Institutional Animal Care and Use Committee (IACUC) at New Mexico State University and a proof/certificate of approval is available upon request. Toxicity against *V. fischeri* (Strain NRRL B-11177) was assessed using luminescence inhibition as the endpoint after 5 and 15 min of exposure, using a Model 500 Analyzer (Azur Environmental, DE, USA), following the 81.9% Screening Test Protocol [22]. Each concentration and control had three replicates. Raw PW, MVR distillate, and post-treated water underwent acute and chronic toxicity testing following standard dose-response assessments using U.S. EPA WET guidelines, with PW concentrations ranging from 0% to 100% (0%, 6.25%, 12.5%, 25%, 50%, 100%). Maintenance and test dilutions were prepared using moderately hard reconstituted water (MHRW) with target concentrations of 96 mg/L NaHCO₃, 60 mg/L CaSO₄·2 H₂O, 60 mg/L MgSO₄, and 4 mg/L KCl. During testing, MHRW parameters were maintained at pH 7.4–7.8, hardness 80–100 mg/L (as CaCO₃), alkalinity 57–64 mg/L (as CaCO₃), and dissolved oxygen (DO) 7–9 mg/L. To avoid false positive toxicity results, low-ion content effluents, such as distillate and post-treated effluents, were remineralized to match the ion content of MHRW before exposure.

For the data analysis, acute and chronic toxicity endpoints were derived according to EPA guidelines (EPA 833-R-10-003, 2010) [23]. In compliance with federal and state regulations, WET data validity and reliability were assessed using the EPA WET Analysis Spreadsheet v2.1, considering only data that met test acceptability criteria (TAC). No observed effect concentration (NOEC) and lowest observed effect concentration (LOEC) values were determined through Dunnett's or Steel's Many-One Rank tests. Effluent concentrations causing 25% inhibition (IC₂₅) and 50% lethality (LC₅₀) were calculated using linear interpolation, Spearman-Kärber, Trimmed Spearman-Kärber, or Probit methods [23,24]. For detailed information on TAC, endpoints, and statistical methods, refer to the U.S. EPA guidelines [23].

2.2.3. Cardiotoxicity and gene expression alterations in early zebrafish development

Effluents that exhibited no significant adverse effects in the initial toxicological characterization across all tested species underwent further evaluation to detect potential subtle effects. In this assessment, *Danio rerio* (zebrafish) embryos were used to explore more nuanced impacts. Specifically, endpoints related to cardiac response, as well as alterations in gene expression linked to metabolism, endocrine disruption, and oxidative stress, were systematically assessed. Cardiac impairments were monitored in parallel with the zebrafish FET test across the entire concentration range (0%, 6.25%, 12.5%, 25%, 50%, 100%). From the total exposed population, 10 embryos were selected randomly for detailed cardiac analysis. Heartbeat measurements were conducted between 48 and 96 hpf (hours post-fertilization). Additionally, embryos were monitored for abnormal phenotypic development between 24 and 96 hpf. Observations included, among others, pericardial and yolk sac edemas, craniofacial malformations, scoliosis, and abnormal pigmentation of the embryos. To assess post-treated effluent effects on metabolism, oxidative stress, and endocrine function in *D. rerio*, the expression of 12 genes (*cyp19a1a*, *cyp19a1b*, *vtg1*, *ahr*, *pxr*, *cyp1a*, *cyp1b1*, *udpgt1a1*, *sod1*, *sod2*, *esr1*, *ar*) was evaluated after 7 days of exposure. Additional details about the set of genes studied are provided in Table S3. At 7 days of exposure, total RNA was extracted from pooled larvae (5 individuals per sample) exposed to MHRW and post-treated effluent, with 2 replicates for each group. RNA extraction used the PureLink® RNA Mini Kit (Invitrogen, Thermo Fisher Scientific) following the manufacturer's protocol for animal tissues, with homogenization by Fisherbrand™ 150 Homogenizer. RNA concentration was measured on a BioTek Epoch Microplate Spectrophotometer with a Take3 microvolume plate. RNA samples were DNase I-treated

(Invitrogen, Thermo Fisher Scientific) to remove DNA prior to reverse transcription. cDNA was synthesized using the iScript™ cDNA Synthesis Kit (Bio-Rad) per the kit instructions. qPCR was performed with SsoAdvanced™ Universal SYBR Green Supermix (Bio-Rad) on a CFX Connect Real-Time system (Bio-Rad), with an initial denaturation at 95°C for 10 s, followed by 40 cycles of 95°C for 15 s and 60°C for 1 min. Relative fold gene expression was calculated using the $\Delta\Delta CT$ method [25], normalized to the housekeeping gene *elf1*. Significant statistical differences between controls (MHRW) and treated PW were assessed using the Mann-Whitney (Wilcoxon rank sum) test.

3. Results and discussion

3.1. Chemical characterization

3.1.1. Impact of treatment processes on conventional water quality parameters and key performance indicators

Table 1 and Figure S3 present conventional water parameters for raw PW, thermal distillate, and post-treated water and key performance indicators (KPIs) of the treatment processes. Changes in each parameter were assessed to evaluate treatment stage efficiency in addressing contaminants in the raw PW. Distillation reduced TDS by 99.95%, from 172,000 mg/L to 79.5 mg/L, with post-treatment causing a slight increase to 106 mg/L, which could be attributed to the introduction of major ions such as Na^+ , Ca^{2+} , K^+ , Mg^{2+} , and Cl^- during GAC and zeolite post-treatment [8]. TSS decreased from 165 mg/L to non-detectable levels (< 8 mg/L) after distillation, indicating a removal rate of > 95.15%. Hardness was reduced by 99.99%, from 25,000 mg/L to 2.44 mg/L after distillation, with a slight post-treatment increase to 7.93 mg/L, maintaining an overall reduction of 99.97%. Total alkalinity

Table 1

Distillation and post-treatment performance: removal efficiencies for general parameters, bulk organics, ions, and other analytes.

Analyte	Units	Raw PW	Distillate	Post-treated	R-D change (%)	D-P change (%)	R-P change (%)
TDS	mg/L	172,000	79.5	106	-99.95	+ 33.33	-99.94
TSS	mg/L	165	< 8.00	< 6.67	-95.15–100	-16.63–100	-95.96–100
pH	S.U.	6.1	10.2	8.2	-	-	-
Hardness	mg CaCO_3/L	25,000	2.44	7.93	-99.99	+ 225.00	-99.97
Alkalinity	mg CaCO_3/L	11,025	93.2	27.3	-99.15	-70.71	-99.75
TOC	mg/L	353.4	39.5	9.34	-88.82	-76.35	-97.36
DOC	mg/L	79.8	40.0	9.97	-49.87	-75.08	-87.51
HEM	mg/L	751	26.4	< 1.57	-96.48	-94.05	-99.79
TOX	$\mu\text{g/L}$	26,500	< 14.0	60	-99.95–100	-328.57	-99.77
TPH	mg/L	59.0	4.61	1.15	-92.19	-75.05	-98.05
GRO ($\text{C}_6\text{-C}_{10}$)	mg/L	7.27	< 1.02	< 0.988	-95.97–100	-3.14–100	-86.41 – 100
DRO ($\text{C}_{10}\text{-C}_{28}$)	mg/L	43.1	4.61	< 0.988	-89.30	-78.57–100	-97.71 – 100
ORO ($\text{C}_{28}\text{-C}_{36}$)	mg/L	8.65	< 0.98	1.1500	-88.67–100	+ 17.35	-86.71
Na^+	mg/L	47,600	0.626	28.9	-100.00	+ 4516	-99.94
Ca^{2+}	mg/L	6350	0.916	2.88	-99.99	+ 214	-99.95
Mg^{2+}	mg/L	1270	0.052	0.43	-100.00	+ 724	-99.97
K^+	mg/L	349	< 0.106	1.90	-99.97–100	+ 1692	-99.46
Br^-	mg/L	550	0.071	0.116	-99.99–100	+ 63.15	-99.98
Cl^-	mg/L	72,100	1.50	27.2	-100.00	+ 1713	-99.96
F^-	mg/L	28.100	< 0.100	< 0.100	-99.64–100	N/A	-99.64 – 100
SO_4^{2-}	mg/L	226	< 0.200	8.86	-99.91–100	+ 4330	-96.08
PO_4^{3-}	mg/L	25.1	0.241	0.340	-99.04–100	+ 41.08	-98.65
Turbidity	NTU	39	5	1.4	-87.18	-72.00	-96.41
COD	mg/L	2220	142	64.0	-93.60	-54.93	-97.12
MBAS	mg/L	0.12700	0.112	ND	-11.81	+ 28.57	-37.01
TAN	mg $\text{N-NH}_3/\text{L}$	139	21	< 0.0508	-84.89	-99.76–100	-99.96–100
NO_3^-	mg $\text{N-NO}_3/\text{L}$	< 0.0391	0.0871	0.116	-97.77	+ 33.18	97.03
NO_2^-	mg $\text{N-NO}_2/\text{L}$	< 0.0293	< 0.0293	0.343	0.00	+ 1070	+ 1070
CN^-	$\mu\text{g/L}$	2.14	< 2.00	8.08	-6.54–100	+ 304	+ 276
H_2S	mg/L	< 5.00	< 5.00	< 5.00	N/A	N/A	N/A
S^{2-}	mg/L	< 0.0400	0.0406	< 0.0400	N/A	0.00	N/A
SiO_2	mg/L	31.2	< 0.370	14.7	-98.81–100	+ 3873	-52.88

R-D change (%): distillation removal efficiency, raw PW vs. distillate, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. D-P change (%): post-treatment removal efficiency, distillate vs. post-treated water, – a percentage reduction with respect to distillate; + percentage increment with respect to distillate. R-P change (%): complete treatment removal efficiency, raw vs. post-treated, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. N/A: not applicable as not detected in raw PW or distillate; The dilution factors of raw PW are 20 and 2 for COD and TOC analyses, respectively. The dilution factors of raw PW are 50 for K^+ , Mg^{2+} , PO_4^{3-} , TAN and SiO_2 , 100 for F^- and SO_4^{2-} , and 200 for Cl^- , 500 for Na^+ and Ca^{2+} .

decreased from 11,025 mg/L to 93.2 mg/L post-distillation, then further to 27.3 mg/L after post-treatment, representing an overall reduction of 99.75%.

These findings demonstrate the effective removal of calcium, magnesium, and bicarbonates, which are essential for reducing scaling potential and managing water chemistry for key reuse applications like cooling towers [26–28]. The pH increased significantly from 6.1 to 10.2 after distillation. This phenomenon, previously documented in thermal distillation processes with Permian Basin PW, is attributed to the reduction in overall ionic strength and residual ammonia levels (21 mg/L TAN) after distillation ([29–31,7]). These changes reflect the influence of distillation on the acidity/alkalinity balance, which is relevant for pH-dependent post-treatment units like adsorption and ion exchange, as it may impact the capital and operational costs during full-scale applications.

Regarding bulk organics, TOC was reduced from 353.4 mg/L to 39.5 mg/L (89%) after distillation, and further to 9.34 mg/L after post-treatment (97% overall reduction). Chemical oxygen demand (COD) decreased from 2220 mg/L to 142 mg/L (93%) after distillation and further to 64 mg/L post-treatment (97% overall reduction), demonstrating efficient removal of total and oxidizable organic matter. However, the residual TOC and COD observed after post-treatment indicate that some organic compounds in the thermal distillate were not fully removed by GAC. After 2 bed volumes (BV) of GAC columns, effluent TOC and COD concentration stabilized at around 10 and 65 mg/L, respectively (Figure S4). To assess the potential risks associated with these residual organics, a comprehensive chemical and toxicological evaluation of post-treated water was performed. Hexane extractable materials (HEM) decreased from 751 mg/L to 26.4 mg/L (96%) after distillation and to non-detectable levels (< 1.57 mg/L) after post-treatment (99.8% overall reduction).

Total petroleum hydrocarbons (TPH) were reduced from 59.0 mg/L to 4.61 mg/L after MVR distillation (92%) and further to 1.15 mg/L after post-treatment, achieving a 98% overall reduction. Gasoline range organics (GRO) decreased from 7.27 mg/L to non-detectable levels after distillation (<1.02 mg/L) and remained undetectable during post-treatment (< 0.988 mg/L). Diesel range organics (DRO) decreased from 43.1 mg/L to 4.61 mg/L (89%) after distillation, and to below method detection limit (MDL) after post-treatment (>97% reduction). Oil range organics (ORO) were reduced from 8.65 mg/L in the feed to near the MDL in both the distillate (< 0.98 mg/L) and the post-treated water (1.15 mg/L). These reductions demonstrate effective hydrocarbon removal across different C ranges, consistent with our previous findings, where TPH (C₆ to C₃₅) was reduced near MDL through combined low-temperature thermal distillation and GAC treatment [7,8].

Regarding major ions, sodium was reduced from 47,600 mg/L to 0.62 mg/L during distillation but increased to 28.9 mg/L post-treatment due to the zeolite ion exchange process. Calcium decreased from 6350 mg/L to 0.9 mg/L, rising to 2.9 mg/L during post-treatment. Magnesium dropped from 1270 mg/L to 0.05 mg/L after distillation, then increased to 0.43 mg/L post-treatment. Chloride decreased from 72,100 mg/L to 1.5 mg/L during distillation, with an increase to 27.2 mg/L post-treatment. Sulfate was reduced from 226 mg/L to non-detectable levels after distillation, then rose to 8.86 mg/L post-treatment. Phosphate concentrations dropped from 25.1 mg/L to 0.241 mg/L after distillation and showed no significant change after post-treatment (0.34 mg/L). TAN was reduced from 139 mg/L to 21 mg/L after MVR distillation (85%), then further to < 0.0508 mg/L post-treatment, achieving a minimal 99.96% overall reduction. The removal of ammonia in the distillate is attributed primarily to the ion exchange process in the zeolite columns, as the GAC column showed limited ammonia adsorption capacity (Figure S4), whereas zeolite columns showed a consistent complete ammonia removal (Figure S5). Regarding other parameters, H₂S levels remained undetectable across all samples, SiO₂ was reduced from 31.2 mg/L to < 0.370 mg/L after MVR distillation, then rose to 14.7 mg/L after GAC and zeolite post-

treatment, suggesting its reintroduction during the post-treatment processes. Turbidity dropped from 39 NTU to 5 NTU after distillation and further to 1.4 NTU post-treatment, resulting in a total reduction of 96.41%.

The data in Table 1 and Figure S3 demonstrate that distillation and post-treatment processes effectively reduced most of the evaluated general parameters and KPIs. TDS, TSS, EC, and major ions like sodium, calcium, and chloride showed substantial reductions, underscoring distillation's effectiveness in addressing salinity and scaling potential. The treatments also removed organic contaminants significantly, including TOC, HEM, and TPH (C₆ to C₃₅), which are essential for reducing environmental and health risks associated with PW. Key toxic constituents, such as ammonia, were reduced to non-detectable levels, highlighting the effectiveness of the treatment for nonconventional pollutants. Collectively, these findings align with the previous studies on thermal distillation-based PW treatment ([7,32]) and underscore the overall effectiveness of the treatment processes for potential reuse applications. The following sections examine analytes that exhibited significant changes during treatment to provide a deeper understanding of water quality.

3.1.2. Impact of treatment processes on VOCs

Targeted analyses included a total of 92 VOCs for each sample. Fig. 1 and Table 2 show changes in VOC concentrations throughout the treatment process, from the feed through distillation and post-treatment. Table 2 highlights the detected analytes and provides a comparative summary of removal efficiencies at each treatment stage. Of the 92 targeted VOCs, 17 were detected in the feed PW, 14 in the distillate, and only one in the post-treated effluent. These results indicate that the treatment train achieved substantial overall VOC reduction, with the greatest removal occurring during post-treatment. Many VOCs were detected at concentrations below the laboratory reporting limit (RL) but above the MDL, including detections in the raw PW (2-butanone, n-hexane, and naphthalene) and the distillate (4-methyl-2-pentanone, 2-butanone, and naphthalene). These results were included in the analysis to support interpretation of contaminant presence and trends; however, due to the increased analytical uncertainty associated with measurements in this concentration range, the reported concentrations are considered estimates. For *n*-propylbenzene, distillation achieved an 84.23–100% reduction, with concentrations reaching non-detectable levels (<0.000429 mg/L), indicating that distillation alone was sufficient for complete removal. BTEX (benzene, toluene, ethylbenzene, and xylenes) compounds showed a significant reduction during distillation (85.86–95.21%), with concentrations in the distillate decreasing to 0.0213, 0.0236, 0.00234, and 0.0181 mg/L, respectively. Post-treatment further reduced concentrations of all BTEX to below detectable limits, achieving an overall removal efficiency of 98.15–100%. Considering the most stringent human health National Recommended Ambient Water Quality Criteria (AWQC) (benzene: 0.00058 mg/L; toluene: 0.057 mg/L; ethylbenzene: 0.068 mg/L) for the consumption of water and organisms, as well as the Maximum Contaminant Levels (MCLs) (benzene: 0.005 mg/L; toluene: 1 mg/L; ethylbenzene: 0.7 mg/L; xylenes: 10 mg/L) set by the EPA's National Primary Drinking Water Regulations (NPDWR) at 0.005 mg/L, the distillate still needs further treatment while the post-treated water meets all relevant criteria for the protection of human health [33,34]. Similarly, 1,2,4-trimethylbenzene showed an overall reduction of 98.60–100%, with removal across both treatment phases. These results highlight the effectiveness of the combined treatment in removing hazardous monoaromatic hydrocarbons, previously identified as potential stressors to *D. rerio* on PW distillates [7,8].

2-Butanone showed a moderate reduction of 38.67% during distillation, followed by an additional 82.42–100% reduction in post-treatment, with final concentrations below detection limits (< 0.00828 mg/L). Similarly, 4-Methyl-2-pentanone similarly showed effective reductions across both treatment phases, with a final

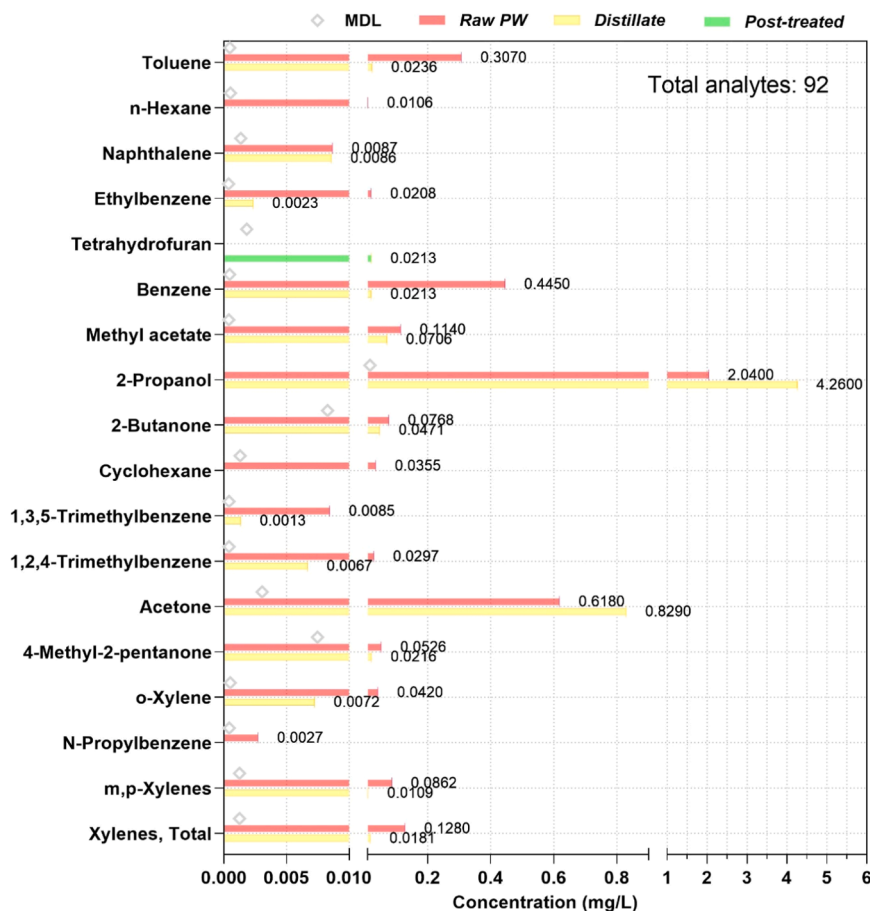


Fig. 1. Targeted characterization of VOCs in raw PW, MVR distillate, and post-treated water by GAC and zeolite; Out of 92 analyzed VOCs, 74 were not detected in all water samples.

Table 2

Distillation and post-treatment performance: removal of VOCs.

Analyte	Unit	Raw PW	Distillate	Post-treated	R-D change (%)	D-P change (%)	R-P change (%)
Xylenes, Total	mg/L	0.128	0.0181	< 0.00124	-85.86	-93.15–100	-99.03–100
m,p-Xylenes	mg/L	0.0862	0.0109	< 0.00124	-87.35	-88.62–100	-98.56–100
n-Propylbenzene	mg/L	0.00272	< 0.000429	< 0.000429	-84.23 – 100	0.00	-84.23–100
o-Xylene	mg/L	0.042	0.00724	< 0.000502	-82.76	-93.07–100	-98.80–100
4-Methyl-2-pentanone	mg/L	0.0526	0.0216	< 0.00749	-58.94	-36.68–100	-85.76–100
Acetone	mg/L	0.618	0.829	< 0.00307	+ 34.14	-99.63–100	-99.50–100
1,2,4-Trimethylbenzene	mg/L	0.0297	0.00668	< 0.000417	-77.51	-93.76–100	-98.60–100
1,3,5-Trimethylbenzene	mg/L	0.00845	0.00134	< 0.000411	-84.14	-69.93–100	-95.14–100
Cyclohexane	mg/L	0.0355	< 0.00129	< 0.00129	-96.37–100	0–100	-96.37–100
2-Butanone	mg/L	0.0768	0.0471	< 0.00828	-38.67	-82.42–100	-89.22–100
2-Propanol	mg/L	2.04	4.26	< 0.00523	+ 108.82	-99.88–100	-99.74–100
Methyl acetate	mg/L	0.114	0.0706	< 0.00401	-38.07	-94.32	-96.48–100
Benzene	mg/L	0.445	0.0213	< 0.000460	-95.21	-97.84–100	-99.90–100
Tetrahydrofuran	mg/L	< 0.00917	< 0.00183	0.0213	N/A	+ 1063	+ 132
Ethylbenzene	mg/L	0.0208	0.00234	< 0.000385	-88.75	-83.55	-98.15–100
Naphthalene	mg/L	0.00867	0.00858	< 0.00135	-1.04	-84.27–100	-84.83–100
n-Hexane	mg/L	0.0106	< 0.000517	< 0.000517	-95.12–100	0–100	-95.12–100
Toluene	mg/L	0.307	0.0236	< 0.000475	-92.31	-97.99–100	-99.85–100

R-D change (%): distillation removal efficiency, raw PW vs. distillate, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. D-P change (%): post-treatment removal efficiency, distillate vs. post-treated water, – a percentage reduction with respect to distillate; + percentage increment with respect to distillate. R-P change (%): complete treatment removal efficiency, raw vs. post-treated, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. N/A: not applicable as not detected in raw PW. The dilution factor for raw PW before analysis is 5.

concentration below MDL (< 0.00749 mg/L) and final removal efficiencies of 85.76–100%. Cyclohexane exhibited high removal efficiency, with distillation reducing its concentration from 0.0355 mg/L to below detection limits (< 0.00129 mg/L), and post-treatment maintained below the detection limit of cyclohexane for a total reduction of

96.37–100%. Methyl acetate decreased from 0.114 mg/L to 0.0706 mg/L during distillation, followed by a further reduction in post-treatment to below detection limits (< 0.00401 mg/L), achieving an overall removal efficiency of 96.48–100%. During distillation, *n*-Hexane was effectively reduced to below detectable levels (< 0.000517 mg/L), achieving up to

95.12–100% reduction.

Despite the overall reduction in TOC, the concentrations of certain VOCs, such as acetone and 2-propanol, increased during distillation, indicating a greater tendency for these compounds to be recovered and concentrated in the distillate compared to other VOCs. To explore how the physical properties (molecular weight, hydrophobicity as log K_{ow}, vapor pressure, boiling point, and solubility in Table S5) of VOCs impact their removal, pairwise correlations among multiple physical properties were analyzed using GraphPad Prism (version 10.6.1). Pearson correlation coefficients were applied based on data normality assessed by the Shapiro-Wilk test. Correlation matrices were generated, and statistical significance was evaluated using two-tailed tests ($p < 0.05$). Table S6 indicates that the molecular weight and hydrophobicity exhibit positive relationships (Pearson $r = 0.6746$ and 0.7909 , respectively) with VOC removal by MVR, whereas the solubility shows a strong negative relationship (Pearson $r = -0.9567$) with the removal rate by MVR. Those results suggest that compounds with high molecular weights, high hydrophobicity, and low solubility tend to remain in the concentrate instead of transitioning into the gas phase. Specifically, acetone, 2-propanol, 2-butanone, methyl acetate, and 4-methyl-2-pentanone exhibited a greater tendency for carryover into the distillate, with changes ranging from a 59% decrease to a 109% increase, which may be attributed to their low hydrophobicity and high solubility. Surprisingly, although volatility can determine the transition of compounds into the gas phase, vapor pressure and boiling point are not the main drivers of recovery in the distillate (P value = 0.1969 and 0.0884 , Table S6). For example, highly volatile compounds (vapor pressure at $25\text{ }^{\circ}\text{C} > 95\text{ mm Hg}$), including benzene, *n*-hexane, and cyclohexane, were not easily recovered in the distillate, with removals exceeding 95%. In contrast, several less volatile compounds (vapor pressure at $25\text{ }^{\circ}\text{C} < 90\text{ mm Hg}$), such as 2-propanol, 2-butanone and 4-methyl-2-pentanone, tended to be recovered in the distillate, exhibiting poor removals or even net increases in concentration (-59% to +108%). Similar behavior has been reported for membrane distillation units treating PW, in which 2-butoxyethanol (2-BE) exhibited higher mass transfer than acetic acid, ethylene glycol, and isopropyl alcohol, despite having a lower vapor pressure [35].

Overall, these results raise questions about volatility as the primary driver of compound partitioning in MVR distillation, suggesting that hydrophobicity and solubility may play a significant role under the tested conditions. Although volatility governs the transition of VOCs into the gas phase, intrinsic hydrophobicity may limit VOC carryover in the distillate. This rationale is consistent with the design and operation of the MVR system, where continuous mixing of vapor and brine is promoted to enhance heat and mass transfer. However, these conditions may favor the presence of hydrophilic VOCs in the distillate, as observed for 2-propanol, acetone, 2-butanone, methyl acetate, and 4-methyl-2-pentanone. Similar to other organics, post-treatment with GAC effectively reduced VOCs that increased during the distillation process. Specifically, acetone and 2-propanol were reduced to below detection limits ($< 0.00307\text{ mg/L}$ and $< 0.00523\text{ mg/L}$, respectively), corresponding to overall removal efficiencies of approximately 99.50–100%. Interestingly, tetrahydrofuran (THF), which was not detected in either the feed or distillate, was identified in the post-treated water at a concentration of 0.0213 mg/L . Its presence after treatment suggests possible introduction during the post-treatment phase. Potential sources include leaching from polymeric components used in the post-treatment columns, such as tubing, seals, or sealants, or cross-contamination during sample handling and processing. This unexpected detection warrants further investigation to identify the specific source and implement corrective measures. Addressing this contamination is essential to maintain treatment integrity and prevent the reintroduction of trace pollutants in the final effluent, particularly when aiming to produce high-quality water suitable for unrestricted beneficial reuse.

The results demonstrate the effectiveness of the combined distillation and post-treatment processes in removing VOCs from raw PW.

Distillation substantially reduced the concentrations of most VOCs, especially those with low solubility and high hydrophobicity. In contrast, hydrophilic and highly soluble compounds ($\log K_{ow} < 1.5$ and solubility $> 19,000\text{ mg/L}$) exhibited poor removal or even increased concentrations after distillation, regardless of their vapor pressures (ranging from 20 to 232 mm Hg at $25\text{ }^{\circ}\text{C}$). These findings provide insights into the physical properties that govern the partitioning and removal of VOC from PW in thermal distillation. All VOCs detected in the distillate were subsequently reduced to non-detectable levels following post-treatment, achieving near-complete removal. These findings emphasize the critical importance of compound-specific monitoring in evaluating treatment performance and treated PW quality.

3.1.3. Impact of treatment processes on SVOCs

As summarized in Table S2, SVOCs were characterized using two methods: SW846–8270D SIM (16 targeted analytes) and SW846–8270E LL (64 targeted analytes). Using SW846–8270D SIM, 5 analytes were detected in both the feed and the distillate, and none were detected after post-treatment. Using SW846–8270E LL, 7 analytes were detected in the feed, 9 in the distillate, and 1 after post-treatment. SVOC concentrations were consistently lower than VOC concentrations and remained below $500\text{ }\mu\text{g/L}$ throughout the treatment train. Similar to VOCs, several SVOCs were detected between the MDL and RL in the feed PW (1,2-dichlorobenzene, 2-methylnaphthalene, 2-methylphenol, naphthalene, phenol, and pyridine) and in the distillate (2-methylnaphthalene, fluorene, naphthalene, and pyridine). These results were used to inform interpretation but are considered estimates.

Table S4 and Fig. 2 summarize SVOC behavior across the three treatment stages. Overall, removals during distillation were limited, whereas post-treatment effectively addressed residual SVOCs. During MVR distillation, with the exception of 1,2-dichlorobenzene, which was reduced to below the MDL, most SVOCs either increased in concentration or showed only slight reductions. Several compounds, including phenolic compounds (phenol, 2-methylphenol, 2,4-dimethylphenol, and 3- and 4-methylphenol), fluorene, and *N*-nitrosodiphenylamine, increased significantly during distillation. When interpreted in conjunction with the physicochemical properties compiled in Table S5, Pearson correlation analyses reveal that, when considered individually, the investigated physical properties do not adequately explain SVOC mass transfer into the distillate ($P > 0.05$; Table S6). Except for pyridine, the detected SVOCs have relatively low vapor pressures at $25\text{ }^{\circ}\text{C}$ ($< 1.36\text{ mm Hg}$) compared with VOCs ($2.1\text{--}232\text{ mm Hg}$), yet multiple SVOCs increased by orders of magnitude during distillation (Table S4 and Fig. 2).

Consistent with the trends discussed in Section 3.1.2, the observed SVOC behavior likely reflects additional mechanisms beyond those related to physical, chemical, and thermodynamic properties in Table S5. Contributing factors may include brine-vapor mixing and hydrodynamics within the MVR system, cross-contamination, and thermally driven transformation of organic compounds [35,36]. The continuously mixed configuration of the MVR unit promotes turbulent vapor-liquid conditions that enhance heat and mass transfer; however, it has been documented that turbulence can also increase aqueous phase carryover through fine droplet entrainment [37–39]. Under this hypothesis, if entrainment and carryover contribute materially, the distillate composition would be expected to skew toward more hydrophilic organics with limited volatility. This is consistent with the presence of 2, 4-dimethylphenol, methylphenol, phenols, and pyridine ($\log K_{ow} < 3$, Table S4). In contrast, more hydrophobic compounds such as 1,2-dichlorobenzene, naphthalene, 2-methylnaphthalene, and fluorene ($\log K_{ow} > 3.3$) generally occurred at lower concentrations in the MVR distillate (Table S5 and Fig. 2). However, the p -value of the Pearson correlation exceeds 0.05 ($P = 0.1069$), indicating that hydrophobicity may not play a dominant role in SVOC removal. Within this group, naphthalene showed minimal change during distillation, decreasing slightly from

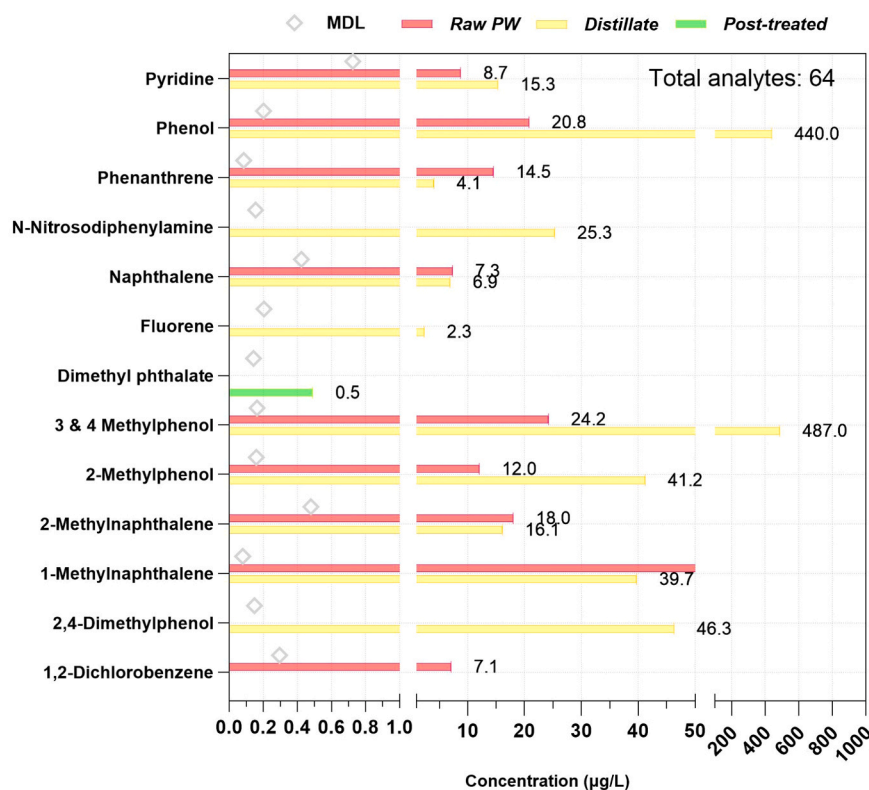


Fig. 2. Targeted characterization of SVOCs in raw PW, MVR distillate, and post-treated water by GAC and zeolite; Out of 64 analyzed SVOCs, 51 were not detected in all water samples.

7.30 µg/L in the raw PW to 6.86 µg/L in the distillate. These results align with previous findings [7], indicating that naphthalene was relatively persistent after MVR distillation. Similarly, 2-methylnaphthalene exhibited minimal variation, decreasing from 18.0 µg/L to 16.1 µg/L. Although a detailed mechanistic evaluation is beyond the scope of this study, these findings emphasize an important point. Bulk organic reductions during thermal treatment of PW do not necessarily predict the fate of individual constituents. Resolving the mechanisms that control actual compound separation will be essential for advancing thermally-driven PW desalination. This will require studies that link system design and operating conditions to analyte-specific physico-chemical properties. This strategic work is needed to distinguish the relative contributions of compound properties and process-driven effects in governing the overall fate of the compounds.

Similar to THF, dimethyl phthalate was detected only after post-treatment, suggesting its potential introduction during these stages rather than originating from the PW itself. This observation aligns with the possibility of leaching from polymeric materials (e.g., PVC tubing and fittings) used in the GAC/zeolite column system. Phthalates, commonly employed as plasticizers, are known to migrate from plastic components into aqueous environments [40]. While no official AWQC has been established for THF, the detected concentration of 0.049 µg/L remains well below the recently proposed long-term freshwater water quality criterion of 13.7 µg/L [41].

Overall, MVR distillation alone frequently led to modest reductions and, in several cases, increases in SVOC concentrations in the distillate. Elevated levels of compounds such as phenols (including 2,4-dimethylphenol, 3- and 4-methylphenol, and phenol), N-nitrosodiphenylamine, and pyridine highlight the complex volatilization and partitioning behavior of these substances within the MVR unit. These findings are consistent with prior studies that emphasize the limitations of distillation alone in removing specific SVOCs from PW [7]. However, the combined treatment approach proved more effective: all SVOCs identified in the distillate (Table S4 and Fig. 2) were reduced to below

detection limits following post-treatment with GAC and zeolite. These results demonstrate the effectiveness of the integrated treatment strategy to address SVOCs in PW.

3.1.4. Impact of treatment processes on volatile fatty acids (VFAS)

Table S7 and Fig. 3a illustrate changes in VFA concentrations throughout the treatment process. Acetic acid was the only VFA detected in the feed PW, decreasing markedly from 112 mg/L to below detection limits (< 3.2 mg/L) following distillation. Based on this initial profile, no other VFAs were expected in the distillate. However, caproic, propionic, valeric, and butyric/isobutyric were detected after distillation. While butyric/isobutyric acid appeared at a relatively low concentration (2.42 mg/L), the other VFAs were present at higher levels: caproic acid at 86.5 mg/L, propionic acid at 123 mg/L, and valeric acid at 198 mg/L in the distillate. During the MVR operation, a mechanical compressor failure caused lubrication oil to leak into the steam distillate conduit. Although all residual oil was manually removed before restarting the unit, the elevated VFA concentrations observed in the distillate indicate probable contamination from this incident, as these analytes were not detected in the raw PW. Although a food-grade lubricant blend was used in the compressor, residual organic acids may still reduce dissolved oxygen levels downstream of the discharge. While these compounds were not specific targets of the post-treatment process, GAC post-treatment nonetheless markedly reduced the acids introduced during the compressor failure: propionic, valeric, and butyric/isobutyric acids decreased to below detection limits (< 2 mg/L), and caproic acid declined to 7.35 mg/L. These findings underscore the complexity of scaling up technologies and highlight the value of comprehensive monitoring in detecting process deviations. This analysis not only identified the contamination source but also provided insights to optimize compressor design and improve operation and maintenance practices for commercial applications.

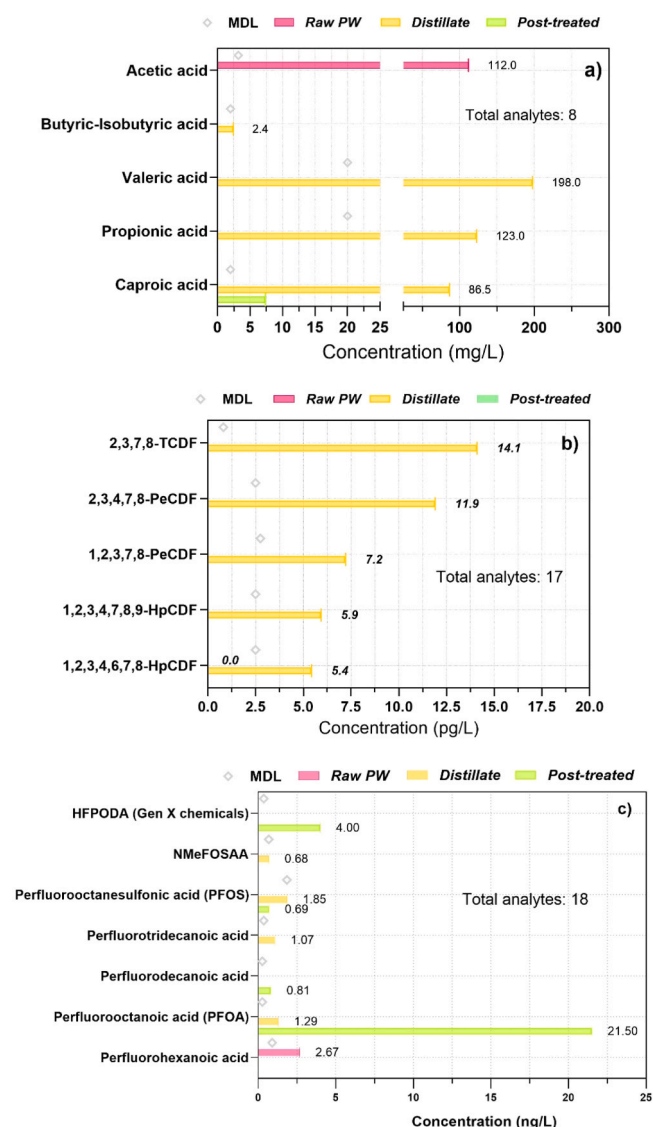


Fig. 3. Targeted characterization of VFAs (a), Furans (b) and PFAS (c) in raw PW, MVR distillate, and post-treated water by GAC and zeolite; Out of 8 analyzed VFAs, 3 were not detected in all water samples; Out of 17 analyzed dioxins and furans, 12 were not detected in all water samples. Out of 18 analyzed PFAS, 11 were not detected in all water samples.

3.1.5. Impact of treatment processes on dioxins and furans

Dioxins and furans are known for their high toxicity, bioaccumulation, and environmental persistence, making their removal essential to ensure environmental safety in PW reuse [42,43]. Table S7 and Fig. 3b provide data on concentration changes of these analytes throughout the treatment process. Although dioxins were not identified in the samples, five furans were detected after distillation: 2,3,7,8-TCDF (14.1 pg/L); 2,3,4,7,8-PeCDF (11.9 pg/L); 1,2,3,7,8-PeCDF (7.21 pg/L); 1,2,3,4,7,8,9-HpCDF (5.93 pg/L) and 1,2,3,4,6,7,8-HpCDF (5.42 pg/L). Two phenomena may explain these findings: (i) these furans were present in the raw PW but went undetected due to matrix effects, such as high concentrations of other organic and inorganic compounds affecting ionization, elution, and promoting adduct formation [44]; or (ii) these furans may reflect in-process formation (co-distillation by-products) during MVR distillation. The presence of chlorinated organic compounds (e.g., 1,2-dichlorobenzene), inorganic chloride salts, and the elevated temperatures inherent to vaporization and vapor recompression may, in principle, create conditions associated with chlorinated furan formation ([42,45,46,43]). These findings represent a novel

observation in PW desalination and underscore the need for systematic monitoring of process conditions and post-distillation water quality. Given that elevated temperatures, organic matter, and high chloride concentrations are intrinsic to the process, it is necessary to determine whether the detected furans represent an isolated occurrence or are promoted by MVR operating conditions. These results are consistent with recent studies on PW distillation, indicating that PW distillates may retain multiple residual constituents of concern at low concentrations [7,13]. Comprehensive characterization of PW effluents is therefore necessary not only to assess treatment performance but also to identify potential treatment artifacts, including co-distillation by-products and the introduction of new pollutants associated with in-process upsets. Although furans were detected after the MVR distillation process, post-treatment effectively reduced the concentration of all identified furans to below detection limits: 2,3,7,8-TCDF (<0.809 pg/L), 2,3,4,7,8-PeCDF (<2.49 pg/L), 1,2,3,7,8-PeCDF (<2.75 pg/L), 1,2,3,4,7,8,9-HpCDF (<2.49 pg/L), and 1,2,3,4,6,7,8-HpCDF (<2.49 pg/L). These results are consistent with previous findings on post-treatment of PW distillates with GAC, where most identified organics were reduced below MDL [8].

3.1.6. Impact of treatment processes on PFAS

PFAS are a large class of synthetic chemicals that have been widely used since the 1940s due to their unique physicochemical properties, including thermal stability, chemical resistance, and water- and oil-repellency. However, concerns about PFAS have escalated in recent years due to their environmental persistence, bioaccumulation potential, and adverse health effects such as cancer, liver and kidney dysfunction, immune suppression, and developmental toxicity [47–49].

Table S7 and Fig. 3c present PFAS concentrations across the feed, distillation, and post-treatment stages. Of the 19 PFAS monitored, only perfluorohexanoic acid (PFHxA) was detected in the raw PW, at 2.67 ng/L. Although PFAS have been used in oil and gas operations to enhance permeability, reduce interfacial tension, and improve wettability [50], their presence in the raw PW studied was limited. These findings are consistent with previous characterizations of PW from the Permian Basin, which have reported PFAS at concentrations below 1 ng/L: PFBS (0.17 ng/L), PFBA (0.31 ng/L), PFHxS (0.25 ng/L), NET-FOSE (0.98 ng/L), and PFTeDA (0.24 ng/L) [5]. After distillation, additional PFAS were detected, including perfluorooctanoic acid (PFOA, 1.29 ng/L), perfluorotridecanoic acid (PFTTrDA, 1.07 ng/L), perfluorooctanesulfonic acid (PFOS, 1.85 ng/L), and N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA, 0.680 ng/L). Following post-treatment, PFOS (0.686 ng/L), perfluorodecanoic acid (PFDA, 0.812 ng/L), hexafluoropropylene oxide dimer acid (HFPO-DA, 4.00 ng/L), and PFOA (21.5 ng/L) were detected in the effluent. The substantial increase in PFOA and HFPO-DA (GenX chemicals) in the final treated water suggests potential contamination introduced during post-treatment. While identifying the exact source is beyond the scope of this study, possible PFAS sources include the materials and parts used in GAC and zeolite treatment systems (e.g., tubing, columns, sealing materials).

From a regulatory perspective, it is noteworthy that the raw PW met the MCLs under the NPDWR for PFOA and PFOS (each 4 ng/L), as well as for PFHxS, HFPO-DA, and PFNA (each 10 ng/L) [33]. However, in the post-treated thermal distillate, PFOA exceeded the MCL at 21.5 ng/L, and HFPO-DA was detected at the MCL of 4 ng/L. Although PFOA levels in the post-treated finished PW also exceeded the NPDWR MCL, they remained well below the EPA's recommended AWQC for aquatic life, which are 3.1 mg/L (acute) and 0.1 mg/L (chronic) [51,52]. As discussed, the significant increase of PFOA and HFPO-DA in the final post-treated water suggests potential introduction during post-treatment. This elevation not only leads to exceedance of the NPDWR MCL for PFOA but also highlights the broader challenges of managing PFAS. Identifying and controlling these contamination pathways is essential to maintain consistent water quality. Future efforts

should focus on improving post-treatment design, construction, and operational and maintenance practices to prevent PFAS introduction, ensuring compliance with emerging criteria while protecting public health.

3.1.7. Impact of treatment processes on pesticides, herbicides, polychlorinated biphenyls (PCBs), rare earth metals, and isotopic uranium

This study also included the characterization of other potential contaminants, such as pesticides (e.g., 4,4'-DDD, aldrin, dieldrin), PCBs, herbicides (e.g., pentachlorophenol, 2,4-D, dicamba), organophosphorous pesticides (e.g., malathion, diazinon), rare earth metals (e.g., dysprosium, neodymium, europium), and isotopic uranium species. Although these compounds are not expected in PW due to their lack of direct application in oil and gas extraction, they could be introduced through freshwater and brackish water sources used in extraction (e.g., pesticides, herbicides) or originate from geological formations (e.g., uranium). None of these analytes were detected in the tested water samples, indicating their absence or concentrations below the detection limits of the analytical methods. Therefore, these contaminants did not pose a significant concern in this study. These results emphasize the importance of site-specific assessments, as PW composition can vary greatly based on geological formations and extraction methods [2]. Table S8 summarizes more information on the characterization of herbicides, PCBs, rare earth metals and isotopic uranium.

3.1.8. Impact of treatment processes on radionuclides

Several radioisotopes derived from naturally occurring radioactive materials (NORM) have been identified in PW and present a unique challenge for PW management [2,5]. While various technologies can be used for NORM removal in PW, limited studies have documented NORM behavior in complete treatment trains for PW beneficial reuse [2].

Table 3 and Figure S6 illustrate the variations in radionuclide concentrations throughout the treatment process, spanning from the feed stage to distillation and post-treatment. As presented in Tables 3, 4 radioisotopes, including radium-226 (24.3 pCi/L), radium-228 (18.6 pCi/L), gross alpha particles (1320 pCi/L), and gross beta particles (563 pCi/L) were detected in the raw PW. The distillation process effectively removed all the radionuclides to a non-detectable level, while radium-226, radium-228, and gross alpha remained undetectable after post-treatment. A low concentration of gross beta activity (1.25 pCi/L) was detected in the final treated water, which remained well below the 50 pCi/L screening level used for routine monitoring decisions in vulnerable community water systems under the Radionuclides Rule [33]. The gross beta activities in the final effluent are likely from the trapped radionuclides in the GAC used in the post-treatment.

3.1.9. Impact of treatment processes on total and dissolved metals

Table S9 and Fig. 4 provide an in-depth view of the changes in concentration for a variety of metals, including total and dissolved concentrations, throughout distillation and post-treatment. As shown in Fig. 4, toxic and regulated metals and metalloids such as arsenic (As), cadmium (Cd), copper (Cu), chromium (Cr), lead (Pb), and zinc (Zn)

were not detected in the raw PW. This contrasts with previous research on Permian Basin PW, where these metals were found at average concentrations of As (3.17 mg/L), Cd (0.47 mg/L), Cu (0.65 mg/L), and Cr (1.7 mg/L) [5]. These metals pose significant concerns due to their toxicity, environmental persistence, and stringent regulatory standards [8]. The absence of these contaminants in the raw PW collected in this study shows the variability of PW quality in the Permian Basin. The total and dissolved barium (Ba) concentrations in the raw PW decreased significantly from 30.3 and 31.0 mg/L to 0.00578 and 0.00540 mg/L after distillation, and further reduced to 0.00178 and 0.00495 mg/L, respectively, after post-treatment. These changes resulted in reductions exceeding 99.9%, with Ba concentrations in both the distillate and final effluent remaining below the NPDWR MCL (2 mg/L, as shown in Table S9 and Fig. 4) [33]. Total selenium (Se) remained below detection limits throughout the entire process. Dissolved Se was reduced from 0.745 mg/L to 0.0170 mg/L during distillation (97.72% reduction), with no significant changes after post-treatment (0.0125 mg/L), below the NPDWR MCL 0.05 mg/L [33].

In the raw PW, the total and dissolved aluminum (Al) concentrations were identified at 1.8 mg/L and < 1.76 mg/L, respectively. After distillation, both concentrations exhibited similar levels, with the total and Al concentration reduced to 0.0385 and 0.0390 mg/L, respectively. No significant alterations were observed after post-treatment, with concentrations of 0.0529 mg/L and < 0.0352 mg/L, respectively, for total and dissolved aluminum. Total iron (Fe) concentration decreased from 43.6 mg/L in the feed to 0.259 mg/L in the distillate, achieving a 99.41% reduction. Post-treatment further reduced total Fe to below detection limits (< 0.0283 mg/L), resulting in an overall reduction of 99.94%. Dissolved Fe, initially at 34.0 mg/L, was reduced to below the detection limit (< 0.0283 mg/L) after distillation, a concentration that did not change after post-treatment, achieving a total reduction of 99.92%. The total manganese (Mn) content in the feed decreased from 2.53 mg/L to 0.011 mg/L after distillation, resulting in a 99.57% reduction. There were no significant changes in total Mn levels after post-treatment, which was determined at 0.0135 mg/L. The dissolved Mn concentration also showed a similar trend, with 0.011 mg/L after distillation and 0.014 mg/L after post-treatment. Overall, Al, Fe, and Mn concentrations in the final treated water meet the requirements of drinking water regulations, indicating the effective management throughout the treatment strategy.

Total boron (B) decreased from 13.2 mg/L in the feed to < 0.0162 mg/L after distillation (>99.88% reduction) and remained below the MDL following post-treatment. Total phosphorus (P) decreased significantly from 5.40 mg/L in the feed to 0.08 mg/L after distillation (99.04% reduction), with a slight increase to 0.17 mg/L post-treatment. Dissolved phosphorus P showed a similar trend, decreasing from 8.20 mg/L to 0.08 mg/L during distillation, then rising to 0.11 mg/L post-treatment. The overall P reduction was 97.9%, indicating substantial removal during distillation, with minor increases likely due to desorption or ion exchange occurring during the GAC and zeolite post-treatments. Silicon (Si) concentrations were significantly reduced from 12.7 mg/L to below detection limits during distillation (< 0.173 mg/L).

Table 3
Distillation and post-treatment performance: Radionuclides.

Analyte	Unit	Raw PW	Distillate	Post-treated	R-D change (%)	D-P change (%)	R-P change (%)
Gross Alpha	pCi/L	1320	0.513*	0.827*	-99.96–100	N/A	-99.94–100
Gross Beta	pCi/L	563	0.148*	1.25	-99.97–100	+ 745	-99.78
Radium-226	pCi/L	24.3	0.103*	0.0295*	-99.58–100	N/A	-99.58–100
Radium-228	pCi/L	18.6	0.345*	0.699	-98.15–100	+ 103	-96.24

R-D change (%): distillation removal efficiency, raw PW vs. distillate, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. D-P change (%): post-treatment removal efficiency, distillate vs. post-treated water, – a percentage reduction with respect to distillate; + percentage increment with respect to distillate. R-P change (%): complete treatment removal efficiency, raw vs. post-treated, – a percentage reduction with respect to raw PW feed; + percentage increment with respect to raw PW feed. N/A: not applicable as not detected in raw PW.

*: either absent or present at a level too low to be measured. Negative values do not indicate negative radiation but reflect measurement uncertainty and background variability, with the true concentration likely near zero. The dilution factors for all the samples before analysis are 1.

Table 4

Dose-response assessment on *V. fischeri*.

	Sample ID	NOEC [%]	LOEC [%]	IC ₂₅ or LC ₅₀ [%; 95% C. I.]	Hypothesis test (S - NS)	Point estimate test	Effect at 100%	Toxicity reduction [%] ^{TR}
<i>V. fischeri</i>	Raw PW	< 6.25	6.25	5.71 (4.83–6.92) ^{IC}	S ^{DT}	LI	100	-
	Distillate	< 6.25	6.25	8.66 (8.09–9.29) ^{IC}	S ^{DT}	LI	97.6	2.4
	Post-treated	100	> 100	> 100 (N/A) ^{IC}	NS ^{DT}	LI	3.3	96.7
<i>R. subcapitata</i>	Raw PW	< 6.25	6.25	6.64 (6.43–6.88) ^{IC}	S ^{SMORT}	LI	99.9	-
	Distillate	25	50	38.79 (36.95–40.90) ^{IC}	S ^{DT}	LI	84.2	15.7
	Post-treated	100	> 100	> 100 (N/A) ^{IC}	NS ^{SMORT}	LI	-21.1	> 100
<i>C. dubia</i>	Raw PW	< 6.25	6.25	1.69 (1.69–1.69) ^{LC}	S ^{SMORT}	LI	100	-
	Distillate	50	100	63.73 (57.02 – 71.23) ^{LC}	S ^{SMORT}	SK	100	0.0
	Post-treated	100	> 100	> 100 (N/A) ^{LC}	NS ^{SMORT}	LI	0.0	100
<i>D. rerio</i>	Raw PW	< 6.25	6.25	1.69 (1.69–1.69) ^{LC}	S ^{SMORT}	P	100	-
	Distillate	6.25	12.5	19.17 (13.79–24.56) ^{LC}	S ^{SMORT}	P	100	0.0
	Post-treated	100	> 100	> 100 (N/A) ^{LC}	NS ^{SMORT}	P	-8.1	> 100

^{IC}: concentration causing 25% inhibition (IC₂₅); ^{LC}: concentration causing 50% lethality (LC₅₀); 95% CI: 95% confidence upper and lower intervals; S: 100% sample concentration is statistically different from the control; NS: 100% sample concentration is not statistically different from the control; DT: Dunnett's Test.; SMORT: Steel's Many-One Rank Test; LI: Linear interpolation.; SK: Spearman-Kärber; TSK: Trimmed Spearman-Kärber; ^{TR}: reduction in toxicity (%) with respect to the Raw PW

However, Si levels sharply increased to 6.56 mg/L after post-treatment. This phenomenon has been documented previously in post-treatment of PW distillates with GAC and zeolite, where certain constituents, including Si, can be introduced due to complex interactions between the PW distillate and treatment materials [7]. Both total and dissolved strontium (Sr) were effectively managed throughout the treatment process. Total and dissolved Sr decreased from 3610 and 2900 mg/L to 0.161 and 0.144 mg/L after distillation, and further to 0.013 and 0.025 mg/L post-treatment, achieving an overall reduction of 99.99% for both species.

Similar to other pollutants, the treatment strategy effectively removed metals and nonmetals in PW, underscoring the importance of combining distillation with appropriate post-treatment methods. Although treated PW is not intended for reuse as a potential drinking water source, the findings highlight its potential for discharge to surface waters with stringent designated uses, including domestic supply.

3.2. Toxicological characterization

The toxicological characterization was consistent with the chemical characterization findings. Raw PW caused severe adverse effects across the tested concentration range in all species. Although MVR distillation substantially improved water quality, it resulted in only limited reductions in adverse effects across species. In contrast, post-treatment mitigated all evaluated toxicological endpoints, underscoring its role as a critical polishing barrier. The following sections present these toxicological results in detail.

3.2.1. Toxicological characterization: *V. fischeri*

The Microtox® *V. fischeri* acute toxicity test results for raw PW, MVR distillate, and post-treated water are shown in Fig. 5a. Additionally, Table 4 presents the statistical analysis and toxicity endpoints derived from the dose-response assessment. The raw PW exhibited significant toxicity to *V. fischeri*, with an NOEC below 6.25% and an IC₂₅ value of 5.71%. Complete inhibition of bioluminescence was observed at 50% and 100% raw PW concentrations. As illustrated in Figure 14-A, even at the lowest concentration tested (6.25%), luminescence inhibition exceeded 20%. These findings underscore the high toxicity of raw PW to *V. fischeri*, emphasizing the importance of comprehensive treatment before discharge and the potential environmental impacts of raw PW spills and illegal dumping. For the distillate, the dose-response assessment showed similar effects on *V. fischeri*, with both the NOEC and LOEC remaining the same as in the raw PW at < 6.25%. This suggests that while the MVR distillation process effectively reduces salts, bulk

organics, metals, and radionuclides, it may still leave some constituents at toxic concentrations in the distillate. These findings align with previous studies indicating that PW distillates can be toxic to *V. fischeri* due to residual constituents such as ammonia [7]. As presented in Fig. 5a, post-treatment proved highly effective in reducing toxicity to non-observable levels. No adverse responses were observed in the entire concentration range. These results demonstrate that the combination of distillation and post-treatment was successful in mitigating toxicity toward the bacteria *V. fischeri*.

3.2.2. Toxicological characterization: *R. subcapitata*

The *R. subcapitata* chronic WET results for raw PW, distillate, and final post-treated water are shown in Fig. 5b, with Table 4 providing the statistical analysis and toxicity endpoints from the dose-response assessment. Similar to *V. fischeri*, raw PW exhibited high toxicity to *R. subcapitata*, with complete growth inhibition observed at 25%, 50%, and 100% concentrations. As shown in Table 4, the LOEC was recorded at 6.25%, and the IC₂₅ was 6.64%. Even low concentrations of raw PW severely impaired algal growth, with ~90% inhibition noted at 12.5% concentration at the 96-hour endpoint. These findings highlight the severe adverse effects that untreated PW can have on freshwater algae. The distillation process moderately reduced the toxicity of the raw PW *R. subcapitata*, as shown in Fig. 5b. No adverse effects were observed at distillate concentrations below 25% (NOEC: 25%). The IC₂₅ for the distillate increased to 38.79%, indicating a significant reduction in toxicity compared to raw PW. However, adverse effects were still evident at the highest tested concentration (100%), where 84% growth inhibition was recorded. This is consistent with previous results [7], and demonstrates that although distillation effectively diminished the toxic impact on algae, it did not fully mitigate the adverse effects at higher concentrations. Post-treatment with GAC and zeolite effectively detoxified the PW for *R. subcapitata*, with no observable adverse effects even at full-strength effluent (NOEC: >100%). The overall toxicity reduction exceeded 100%, confirming that the integrated treatment approach successfully detoxified the PW for *R. subcapitata*.

3.2.3. Toxicological characterization: *C. dubia*

The acute WET results for *C. dubia* of the three waters are presented in Fig. 5c, with Table 4 detailing the statistical analysis and toxicity endpoints from the dose-response assessment. Exposure to raw PW resulted in dramatic adverse effects on *C. dubia*, with no survivors observed across the full concentration range tested. The complete mortality at the lowest concentration (6.25%) underscores the high levels of toxicants present in the raw PW and highlights the severe



Fig. 4. Targeted characterization of total and dissolved metals in raw PW, MVR distillate, and post-treated water by GAC and zeolite; Out of 59 analyzed metals, 32 were not detected in all water samples.

environmental impact that untreated PW spills can have on freshwater invertebrate populations. Distillation significantly reduced mortality in *C. dubia*, with the NOEC increasing to 50%, indicating a notable reduction in toxicity at concentrations below 50%. However, 100% mortality was still observed at full-strength distillate. These findings align with previous research showing that PW distillate caused 100% mortality in *C. dubia* neonates [7]. This outcome highlights that distillation alone is insufficient for fully mitigating toxic effects, emphasizing the need for post-treatment to achieve a non-toxic effluent. Consistent with the *V. fisheri* and *R. subcapitata* results, post-treatment completely mitigated the adverse effects on *C. dubia* (Fig. 5c).

3.2.4. Toxicological characterization: *D. rerio*

The zebrafish WET results for the three waters are presented in Fig. 5d, with Table 4 providing the statistical analysis and toxicity endpoints from the dose-response assessment. Similarly, raw PW exerted serious adverse effects on *D. rerio*. Complete mortality was observed across the full concentration range tested. These results demonstrate that even minor exposure to untreated PW (NOEC: <6.25%) can

dramatically impact fish embryos and highlight the need to effectively manage PW to avoid incidental spills with the potential of impairing fish populations in receiving waters. As shown in Fig. 5c, distillation significantly reduced the toxicity of raw PW toward *D. rerio*. However, the LC₅₀ value was estimated at approximately 19%, and complete mortality was observed at 100% concentration, demonstrating the limitations of the MVR distillation system in fully mitigating stressors present in raw PW. Consistent with other WET tests, post-treatment with GAC and zeolite effectively reduced mortality in *D. rerio* embryos, achieving a NOEC of 100%.

The toxicological assessment of PW effluents demonstrated significant risks to each trophic level when untreated, underscoring the necessity of a robust, multi-stage treatment approach. The changes in toxicity following distillation highlight the varying sensitivities of different aquatic organisms to PW contaminants and emphasize the need for comprehensive post-treatment to achieve non-toxic effluent. While distillation partially reduced toxicity, full detoxification was only achieved through post-treatment, which was essential for mitigating adverse effects across all tested organisms (bacteria, algae, freshwater

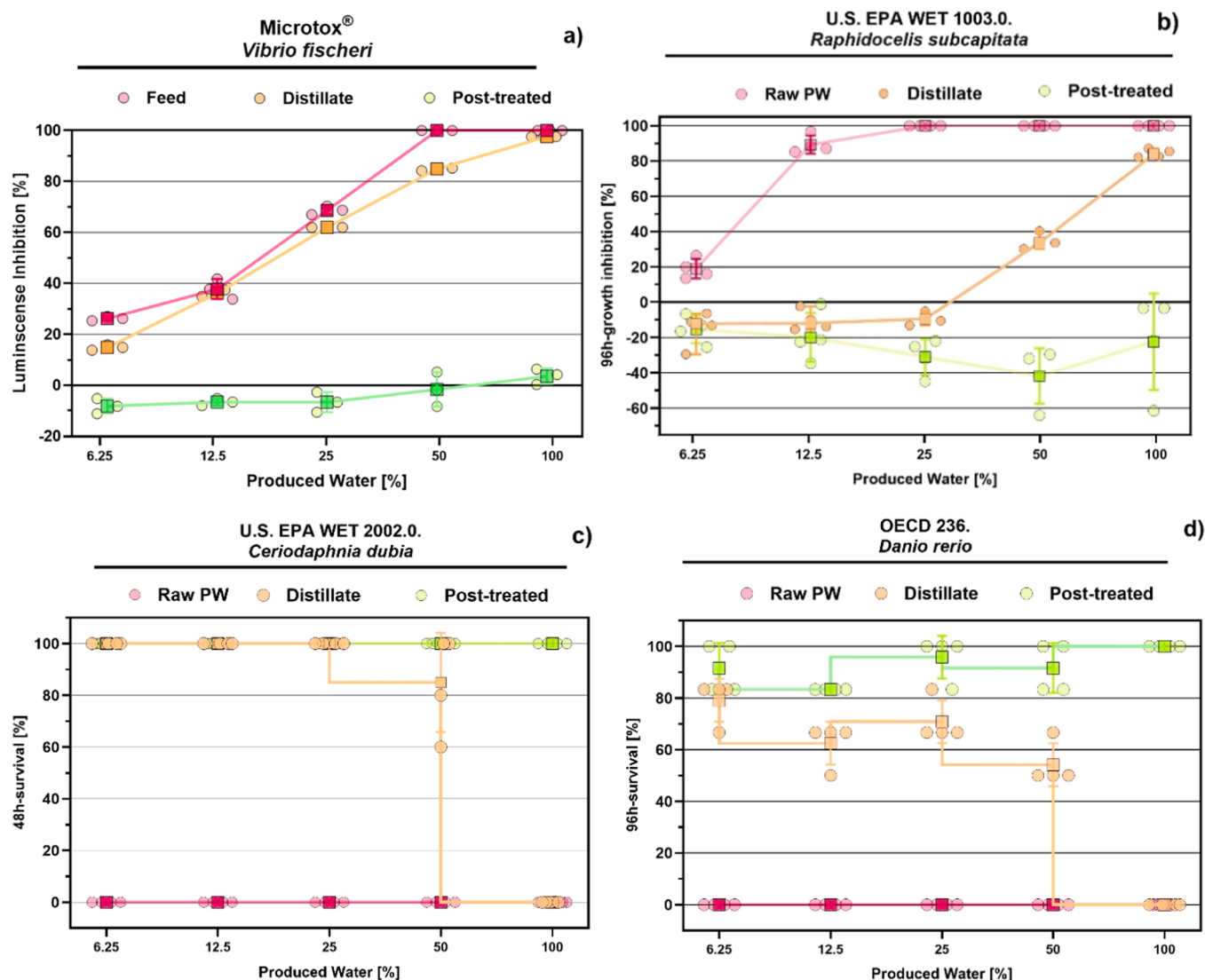


Fig. 5. Toxicological characterization of raw PW, MVR distillate, and post-treated water by GAC and zeolite: *V. fischeri* (a), *R. subcapitata* (b), *C. dubia* (c) and *D. rerio* (d). *V. fischeri*: 3 experimental replicates, 15 min of exposure time; *R. subcapitata*: 4 experimental replicates, 96 h of exposure time; *C. dubia*: 20 experimental replicates grouped in 4 groups of 5 replicates (4 × 5), 48 h of exposure time; *D. rerio*: 24 experimental replicates grouped in 3 groups of 8 replicates (3 × 8), 96 h of exposure time; Error bars: standard deviation in; C: controls; ns: effects not significantly different from the control.

invertebrates, and fish).

3.2.5. Cardiotoxicity and teratogenic effects on early stages of *D. rerio*

Fig. 6 illustrates the cardiac response of zebrafish embryos to different concentrations of the three waters, measured as heartbeats per minute (bpm) over a period of 96 h. Overall, the control groups consistently maintained a baseline heartbeat rate between 130 and 180 bpm. Exposure to raw PW resulted in severe impairment of embryonic development, including the cardiac system. No survivors were observed, and no heartbeats were documented for the raw PW exposure group (Fig. 6a). Exposure to the distillate resulted in concentration-dependent changes in cardiac activity. At 100% concentration, there was a significant reduction in heart rate at 48 h, 72 h, and 96 h. In particular, at 96 h, no heartbeats were observed at this concentration. Lower distillate concentrations (50%, 25%, 12%, and 6%) exhibited bpm rates comparable to the control, indicating that the compounds in the distillate were not impairing the embryos' heart response at these doses (Fig. 6b). Consistent with previous results, no observable cardiac alterations were noted for the post-treated water. After GAC and zeolite treatment, the PW showed cardiac responses similar to those of the control group

(130–180 bpm) across all tested concentrations (Fig. 6c). Consistent with previous sections, this indicates that the post-treatment processes effectively reduced the constituents causing cardiac alterations observed in the 100% distillate test (0 bpm), highlighting the potential of the integrated treatment train to improve overall water quality.

To offer a visual assessment of the developmental impacts associated with the three waters at 100% concentration, Fig. 6d provides images of the microscopic observations conducted during the FET test. Exposure to raw PW resulted in a cessation of normal developmental progression, significantly deviating from the typical embryonic stages observed in zebrafish. In accordance with previous findings, these observations demonstrate that the raw PW studied contains compounds in concentrations that disrupt normal embryogenesis. While there is a noticeable improvement in the developmental outcomes of the embryos exposed to the distillate compared to raw PW in the first 48 h, issues such as scoliosis and pericardial/yolk sac edemas occurred at 72 and 96 h, indicating that the distillation process does not eliminate all harmful components. 38% and 67% of embryos had pericardial or yolk sac edemas when exposed to 50% and 100% distillate, while scoliosis was observed in 58% of embryos after exposure to 100% distillate

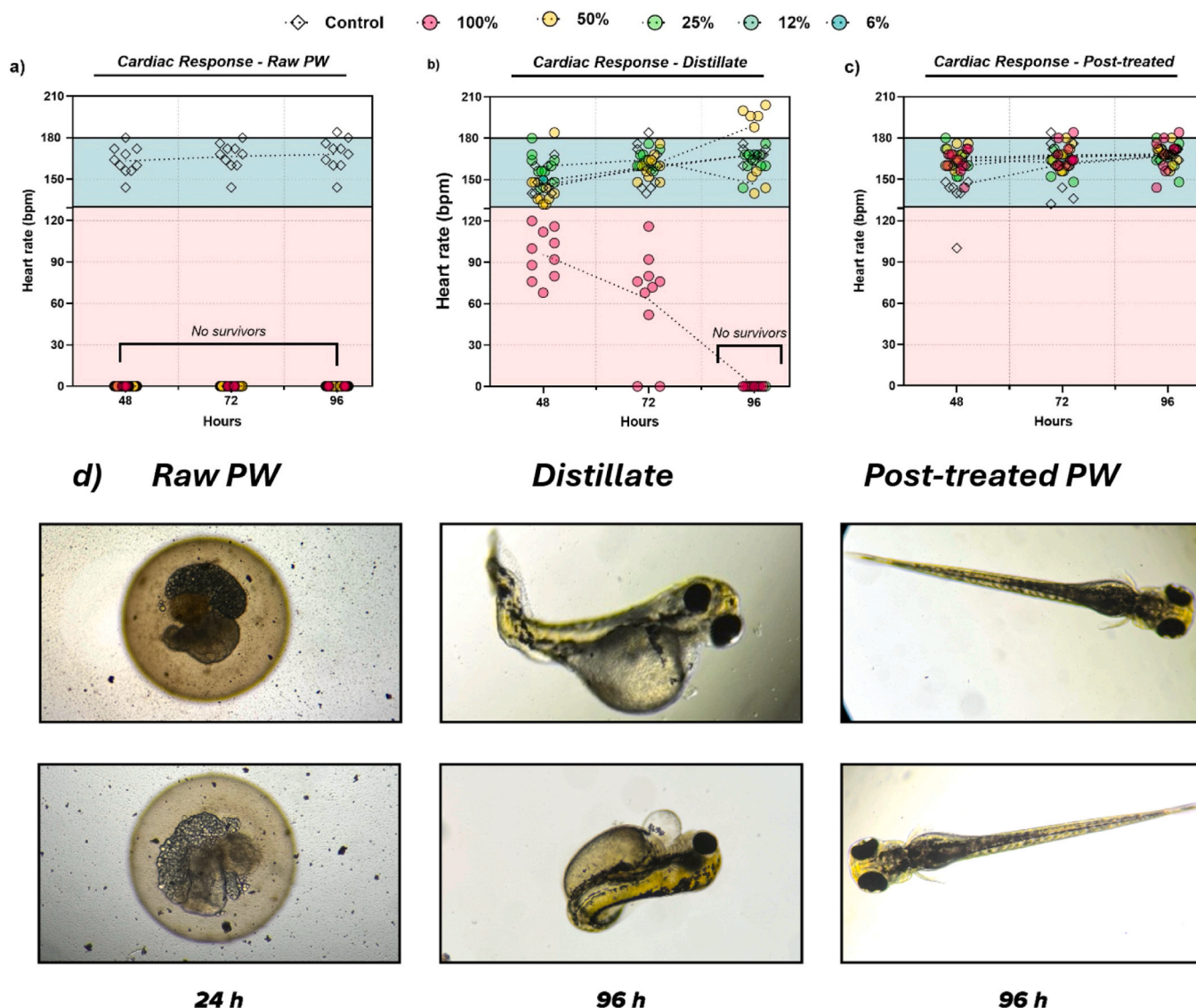


Fig. 6. Cardiac responses of zebrafish embryos following exposure to (a) raw PW, (b) MVR distillate, and (c) post-treated water treated with GAC and zeolite; (d) representative microscopic observations after exposure. Heartbeat rates were measured in 10 randomly selected embryos per treatment at 48, 72, and 96 h of exposure.

(Figure S7a and b). Moreover, more than 60% of larvae had the impaired posture (side-lying instead of upright) after exposure to 50% and 100% distillate (Figure S7c). This partial treatment still poses a risk to normal embryonic development and is consistent with the results of the FET test and the cardiac responses, where at 96 h, the embryos exposed to the distillate exhibited no signs of cardiac function. After post-treatment, the embryos exhibit markedly improved development, with more typical morphology and no evidence of developmental alterations. All the abnormal features observed in the embryos exposed to the distillate (scoliosis, and pericardial and yolk sac edemas) were absent.

3.2.6. The expression of zebrafish biotransformation, oxidative stress, and endocrine disruption-related genes after exposure to post-treated water

Fig. 7 presents the relative expression results of the targeted genes in *D. rerio* after 7 days of exposure. The results of the Mann-Whitney U non-parametric statistical test, used to assess significant differences between the control and the post-treated water.

3.2.7. Endocrine Disruption-Related Genes

The relative expression of Aromatase A (*cyp19a1a*) and Aromatase B

(*cyp19a1b*) (Figs. 7a and 7b) exhibited minimal changes in expression levels, with no statistically significant differences between treated and control groups. Both gene products exhibited minimal changes in expression levels, with no statistically significant differences between treated and control groups ($P > 0.05$). Considering the critical role of Aromatase A and Aromatase B in converting androgens to bioactive estrogens [53,54], this suggests that post-treated water did not trigger any significant response in terms of abnormal androgen generation. Similarly, while it appeared that *Vtg1* normalized expression levels (3.23) were elevated in the treated PW group (Fig. 7c), the ANOVA results revealed no significant differences in expression levels compared to the control group ($P > 0.05$). Androgen Receptor (*ar*) showed relative expression values close to 1.0 (Fig. 7k), indicating no significant response to post-treated water exposure. The lack of altered expression for *ar* suggests that the receptor expression was not directly impacted, which further supports the findings seen in *cyp19a1a* and *cyp19a1b*.

3.2.8. Biotransformation-related genes

Cytochrome P450 1 A (*cyp1a*) and Cytochrome P450 1B1 (*cyp1b1*) similarly showed no significant differences in expression. The lack of

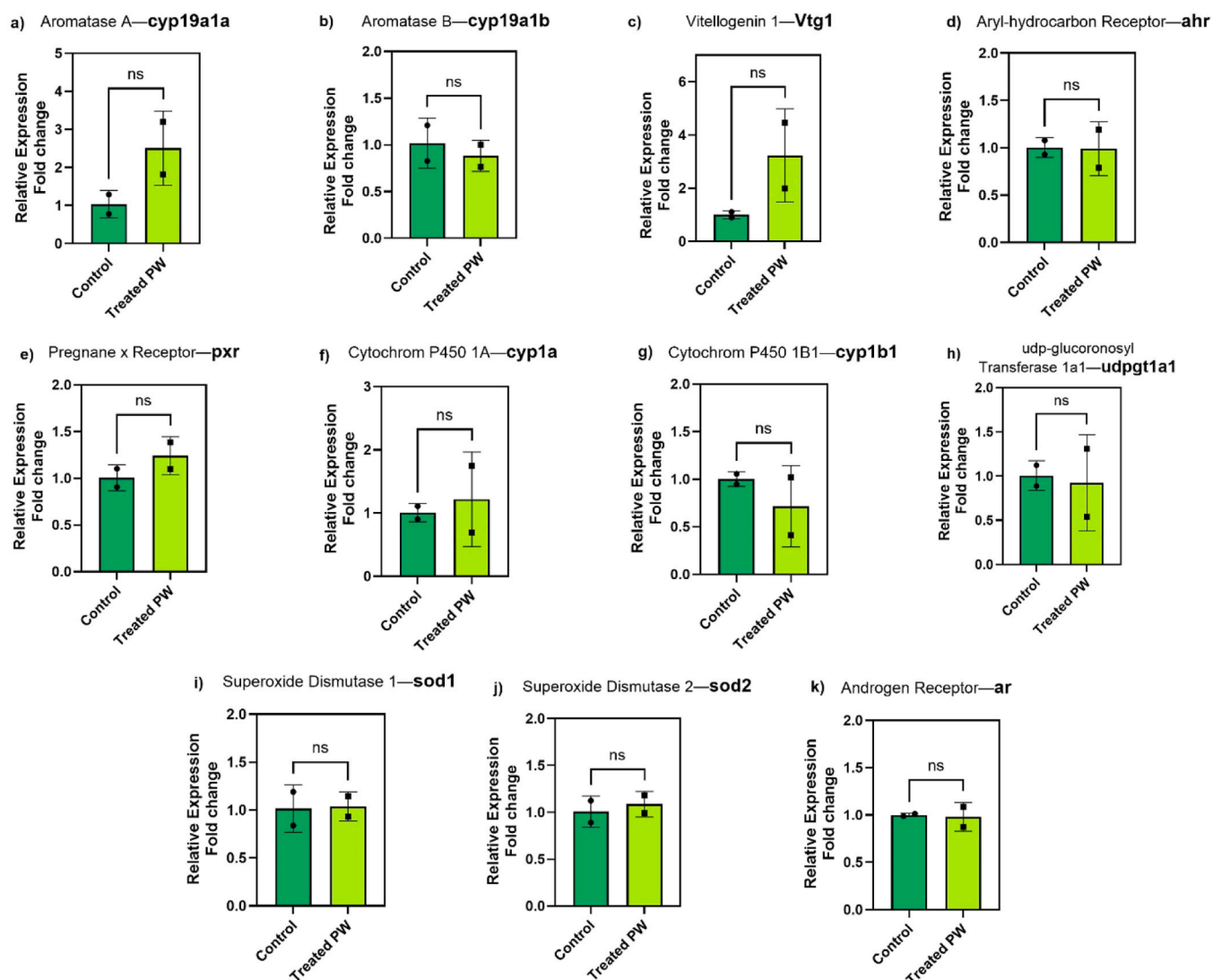


Fig. 7. Gene expression in zebrafish embryos after 7 days of semi-renewal exposure to post-treated water treated with GAC and zeolite. Ten embryos were exposed per treatment, with larvae pooled in groups of five for RNA extraction, cDNA synthesis, and qPCR analysis. No significant difference was observed between the control and post-treated PW groups (Mann-Whitney test, $P > 0.05$).

induction for these phase I metabolism genes suggests that polycyclic aromatic hydrocarbons (PAHs) or other potential inducers of these enzymes were effectively removed during the treatment process [55–57]. Pregnane X receptor (*pxr*) and aryl-hydrocarbon receptor (*ahr*) also showed no significant changes in relative expression compared to controls, with fold changes close to 1.0. The *pxr* and *ahr* genes are critical in the regulation of xenobiotic metabolism, and their unchanged expression implies that post-treated effluent did not induce a significant metabolic response in zebrafish embryos, pointing to minimal activation of detoxification pathways typically triggered by exposure to environmental contaminants [53,58]. UDP-glucuronosyltransferase 1A1 (*udpgt1a1*), a phase II detoxification enzyme, also showed no significant change in expression, remaining around 1.0 fold compared to the MHRW control. This further indicates that there was no activation of glucuronidation pathways, reinforcing the conclusion that post-treated water did not significantly trigger detoxification responses [59].

3.2.9. Oxidative stress-related genes

Superoxide Dismutase 1 (*sod1*) and Superoxide Dismutase 2 (*sod2*) are genes encoding enzymes that play a crucial role in detoxifying reactive oxygen species (ROS). Both genes exhibited minimal variation

in expression between treated and control groups, with relative expression levels staying below 1.5-fold. Specifically, *sod1* had a fold change close to 1.0, while *sod2* exhibited a minor increase to around 1.5-fold but was not statistically significant ($P > 0.05$). This suggests that final post-treated water did not induce oxidative stress in zebrafish embryos, which is a positive indicator of effluent safety [60,61].

Due to the limited RNA amount per embryo, pooled larvae were used to evaluate the alterations in gene expression. For a more comprehensive investigation, a future study is needed to examine individual embryos/larvae with a larger sample size. Furthermore, embryos/larvae could be collected at different developmental stages for the gene expression and enzyme activity study after exposure.

3.3. Integrating chemical characterization with WET assay outcomes

Across all trophic levels tested, adverse responses in aquatic organisms aligned closely with changes in water quality. For raw PW, severe adverse effects were observed at concentrations as low as 6%, including complete mortality of *C. dubia* and *D. rerio* embryos, suggesting the presence of multiple stressors at high levels. The extremely high salinity (TDS $\approx 172,000$ mg/L) and elevated major ion concentrations (Na^+ , Cl^- ,

Ca²⁺, Mg²⁺) likely contribute to the severe adverse responses observed. Osmotic imbalance alone can disrupt membrane integrity, ion regulation, and metabolic function in freshwater organisms [62–65]. The impacts of salinity were rapid and severe, with *C. dubia* neonates dying within minutes and zebrafish embryos floating in raw PW due to its high density. Beyond salinity, the chemical and toxicological characterization indicates additional stressors, including ammonia (TAN = 139 mg/L), aluminum (1.8 mg/L), and acetic acid (112 mg/L). Unionized ammonia (NH₃) is well established as a potent toxicant to fish embryos and invertebrates, causing neurotoxicity, mitochondrial dysfunction, and disruption of oxidative phosphorylation [66,67]. Elevated aluminum concentrations, as detected in the raw PW, can impair osmoregulation in sensitive species and compromise respiratory function [68]. Although aluminum bioavailability is strongly controlled by pH and hardness, adverse effects have been reported at comparable concentrations [68]. While its specific contribution cannot be isolated in this matrix due to co-occurring stressors, aluminum should be considered a relevant water-quality target in PW treatment evaluations. Raw PW contained monoaromatic hydrocarbons (benzene, toluene, xylenes), phenolic compounds, and other VOCs and SVOCs. Although all the detected organic compounds have concentrations a few orders of magnitude below acute toxicity thresholds (EC₅₀ or LC₅₀), potential cumulative and synergistic effects cannot be ignored. Many hydrophobic organics can partition into biological membranes, producing narcosis-type toxicity and developmental perturbations [69]. Acetic acid may contribute to the toxicity of raw PW, as its concentration (112 mg/L) exceeded the EC₅₀/LC₅₀ values for *Daphnia* and *D. rerio* (Table S10).

MVR distillation removed > 99.9% of dissolved solids and substantially reduced bulk organic parameters, metals, and other analytes, including radionuclides; however, adverse effects persisted across all species, particularly at 100% concentration. These results indicate that while salinity reduction improved overall water quality, additional stressors remained in the PW. This improvement was evident in all WET tests, where dose-response assessments showed reduced adverse effects at concentrations ≤ 50% (Fig. 5 and Table 4). Although linking individual stressor concentrations directly to the observed adverse effects is beyond the scope of this study, compounds such as ammonia and VFAs likely played significant roles in the observed toxicity. Ammonia was present at 21 mg/L TAN, a level exceeding reported EC₅₀/LC₅₀ values for *C. dubia* and *D. rerio*, and is therefore a plausible primary stressor. This interpretation is supported by Redman et al. [70], who identified ammonia as the dominant contributor to toxicity in treated PW. In addition, caproic acid (86.5 mg/L), propionic acid (123 mg/L), and valeric acid (198 mg/L) exceeded toxicity thresholds (Table S10) and likely contributed to the severe responses observed at full-strength distillate. In parallel, chemical analysis revealed that several hydrophilic VOCs (e.g., acetone, 2-propanol, 2-butanone, methyl acetate) exhibited limited removal or net increases during distillation. Although these compounds are individually less toxic than hydrophobic monoaromatics, their combined presence at elevated concentrations may contribute to chemical stress. Among the detected SVOCs, methylphenol and phenol were the most abundant compounds in the distillate and could be considered potential stressors. However, their measured concentrations remained approximately 3–10-fold below reported EC₅₀/LC₅₀ values and about twofold below the NOECs for the tested aquatic organisms. All other detected SVOCs were present at concentrations 40–1000 times lower than their respective toxicity thresholds. Ammonia and monoaromatic hydrocarbons have been reported to interfere with ion channel regulation and embryonic cardiogenesis [71, 72]. Given their simultaneous presence in PW distillates and the cardiotoxicity (reduced heart rate and pericardial edema) observed in the present study, future work should use toxicity identification evaluation (TIE) to determine which constituents or fractions drive these cardiac responses.

The complete mitigation of adverse effects following GAC and zeolite

treatment co-occurred with near-complete removal of residual ammonia (TAN < 0.05 mg/L), VOCs, SVOCs, dioxins/furans, and hydrocarbons. The post-treated water exhibited NOEC values of ≥ 100% across trophic levels, with complete survival of invertebrates and fish embryos, normal algal growth, and no evidence of cardiac or developmental abnormalities or altered gene expression. These results demonstrate that targeted post-treatment to address residual organics and ammonia is effective, as evidenced by both targeted chemical characterization and comprehensive toxicological evaluations. Importantly, although PFAS were detected at ng/L levels in the post-treated effluent, these levels are orders of magnitude below proposed aquatic life AWQC and acute toxicity thresholds for zebrafish embryos and invertebrates [52].

It is important to note that the toxicological responses observed in both raw PW and distillate may be partly attributable to constituents not captured by the targeted analyte list. Although this study applied broad-spectrum targeted chemical analyses, comprehensive identification and quantification of organic constituents in PW remain challenging due to the presence of unknown, non-target, and potential transformation products. A comprehensive assessment of toxic effluents containing residual organics, therefore, requires advanced non-target analytical approaches. These methods can help characterize stressors that may be recalcitrant to treatment. When combined with quantitative structure–activity relationship (QSAR) models, they can provide insights beyond those obtainable from WET testing alone, including screening-level evaluations of bioaccumulation and biomagnification potential. Moreover, treated PW is a complex mixture, and toxicity can be modified by mixture interactions (additive, synergistic, antagonistic) and water chemistry that affects bioavailability (e.g., dissolved constituents, hardness, alkalinity). Therefore, hazard identification for treated PW remains challenging. WET tests are designed to measure the combined toxic effects of all constituents present in an effluent; reductions in PW effluent toxicity after treatment should be interpreted as reduced mixture hazard rather than definitive removal of a single toxicant. In addition, long-term exposure studies using both aquatic organisms and mammalian models are warranted to further improve our understanding of the safety of treated PW for both direct and indirect receptors.

4. Conclusions

This study provides a comprehensive chemical and toxicological characterization of raw, distilled, and post-treated PW from the Permian Basin. The analysis profiled over 400 target analytes, including volatile and semivolatile organics, metals, radionuclides, and other priority pollutants. In addition to standardized WET tests, the study assessed developmental and cardiovascular endpoints and expression of 12 genes linked to endocrine disruption, biotransformation, and oxidative stress in zebrafish embryos. MVR distillation achieved desalination of hypersaline PW but is insufficient by itself to produce a chemically safe effluent. Relying on TOC and TPH alone to assess organic removal performance can undermine PW treatment evaluations. Reductions in TOC and TPH were not aligned with trends observed for individual VOCs, SVOCs and other organics. VOC and SVOC carryover did not exhibit a systematic dependence on vapor pressure. Despite lower volatility compared to VOCs, most SVOCs either increased or showed limited reductions after distillation. Data suggest that solubility, hydrophobicity, molecular weight, and process-driven mechanisms may exert a stronger influence. Distillation and post-treatment was associated with the emergence of new compounds, including furans, VFAs, and PFAS. Addressing these issues is essential to ensure consistent water quality suitable for reuse. The toxicological characterization was consistent with the chemical characterization findings. Raw PW induced serious adverse effects across all tested species. Although water quality improved following MVR distillation, these toxic effects persisted, notably causing severe morphological and cardiac abnormalities in zebrafish embryos. Post-treatment with GAC and zeolite reduced most identified PW constituents to below the analytical method detection

limits. As demonstrated by the toxicological assessment, the integrated treatment train reduced PW constituents to non-toxic levels. Adverse effects were fully mitigated across all tested organisms, with no developmental, cardiac, or gene-expression alterations observed in zebrafish embryos. This study demonstrates that the integration of advanced treatment processes can address the complex matrix of PW from the Permian Basin and produce purified water potentially suitable for surface water discharge.

Environmental Implication

The reuse of treated produced water (PW) through advanced treatment processes offers a strategic solution to alleviate water scarcity while addressing environmental challenges in oil- and gas-producing regions. Highly saline PW from the Permian Basin was desalinated using mechanical vapor recompression, followed by granular activated carbon and zeolite adsorption. However, a limited understanding of environmental and public health risks remains a key barrier to reuse. This study addresses this knowledge gap by quantifying more than 400 analytes and performing whole effluent toxicity testing across four trophic levels, incorporating zebrafish embryo development and gene expression assays to detect early-life and sublethal effects that are overlooked by conventional toxicological methods.

CRedit authorship contribution statement

Yeinner Tarazona: Writing – review & editing, Writing – original draft, Visualization, Validation, Investigation, Formal analysis, Data curation. **Joseph Alexander:** Writing – review & editing, Validation, Investigation, Formal analysis, Conceptualization. **Mike Hightower:** Resources, Project administration, Investigation, Funding acquisition, Conceptualization. **Himali M.K. Delanka-Pedige:** Project administration, Investigation, Data curation. **Huiyao Wang:** Writing – review & editing, Supervision, Investigation, Funding acquisition, Conceptualization. **Pei Xu:** Writing – review & editing, Supervision, Resources, Project administration, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Yanyan Zhang:** Writing – review & editing, Visualization, Validation, Supervision, Resources, Investigation, Funding acquisition, Conceptualization.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Pei Xu, Huiyao Wang and Yanyan Zhang reports financial support was provided by U.S. Bureau of Reclamation. Pei Xu, Huiyao Wang and Yanyan Zhang reports was provided by New Mexico Higher Education Department. Pei Xu, Mike Hightower, Huiyao Wang and Yanyan Zhang reports was provided by New Mexico Produced Water Research Consortium. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Statement

This work has received approval for research ethics from the Institutional Animal Care and Use Committee (IACUC) at New Mexico State University, and a proof/certificate of approval is available upon request.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.jhazmat.2026.142274](https://doi.org/10.1016/j.jhazmat.2026.142274).

Data availability

Data will be made available on request.

References

- [1] Morenne, B., Mollica, A., 2025. America's Biggest Oil Field Is Turning Into a Pressure Cooker. *The Wall Street Journal*. December 25, 2025. Available at: <https://www.wsj.com/business/energy-oil/americas-biggest-oil-field-is-turning-into-a-pressure-cooker-8a1bfe4e?mod=hp_lead_pos7>.
- [2] GWPC, 2019. Produced Water Report: Regulations, Current Practices, and Research Needs. Ground Water Protection Council.
- [3] GWPC,, IOGCC, 2021. Potential Induced Seismicity Guide: A Resource of Technical and Regulatory Considerations Associated with Fluid Injection. Ground Water Protection Council.
- [4] Jiang, W., Pokharel, B., Lin, L., Cao, H., Carroll, K.C., Zhang, Y., Galdeano, C., Musale, D.A., Ghurye, G.L., Xu, P., 2021. Analysis and prediction of produced water quantity and quality in the Permian Basin using machine learning techniques. *Sci Total Environ* 801, 149693. <https://doi.org/10.1016/j.scitotenv.2021.149693>.
- [5] Jiang, W., Xu, X., Hall, R., Zhang, Y., Carroll, K.C., Ramos, F., Engle, M.A., Lin, L., Wang, H., Sayer, M., Xu, P., 2022. Characterization of produced water and surrounding surface water in the Permian Basin, the United States. *J Hazard Mater* 430, 128409. <https://doi.org/10.1016/j.jhazmat.2022.128409>.
- [6] GWPC, 2023. Produced Water Report. Ground Water Protection Council.
- [7] Tarazona, Y., Hightower, M., Xu, P., Zhang, Y., 2024. Treatment of produced water from the Permian Basin: Chemical and toxicological characterization of the effluent from a pilot-scale low-temperature distillation system. *J Water Process Eng* 67. <https://doi.org/10.1016/j.jwpe.2024.106146>.
- [8] Tarazona, Y., Wang, H.B., Hightower, M., Xu, P., Zhang, Y., 2024. Benchmarking produced water treatment strategies for non-toxic effluents: Integrating thermal distillation with granular activated carbon and zeolite post-treatment. *J Hazard Mater* 478, 135549. <https://doi.org/10.1016/j.jhazmat.2024.135549>.
- [9] Van Houghton, B.D., Liu, J., Strynar, M.J., Bailey, T., Pfeiffer, P.R., Jassby, D., Corton, J.C., Rosenblum, J., Cath, T.Y., 2024. Performance evaluation of a high salinity produced water treatment train: chemical analysis and aryl hydrocarbon activation. *ACS ES&T Water* 4 (4), 1293–1302. <https://doi.org/10.1021/acsestwater.3c00407>.
- [10] Edirisooriya, E.T., Lopez, A., Smith, D., Senanayake, P.S., Zhang, Y., Delanka-Pedige, H.M., Xu, P., Wang, H., 2025. Separation performance in pilot-scale fractional freeze desalination and reverse osmosis for produced water reuse. *Desalination*, 119743.
- [11] Edirisooriya, E.T., Lopez, A.A., Smith, D., Senanayake, P.S., Weerasinghe, P., Zhang, Y., Delanka-Pedige, H.M., Xu, P., Wang, H., 2026. Pilot-scale evaluation of hypersaline produced water treatment and reuse via freeze desalination and seawater reverse osmosis: Organic removal, aquatic and human cell line toxicity studies. *Sep Purif Technol*, 137642.
- [12] Senanayake, P.S., Zhang, Y., Edirisooriya, E.M.N.T., Lopez, A.A., Smith, D., Xu, P., Wang, H., 2025. Plant growth, ion dynamics, and microbial communities in soils irrigated with treated produced water for sustainable agriculture. *Sci Total Environ* 1001, 180520. <https://doi.org/10.1016/j.scitotenv.2025.180520>.
- [13] Delanka-Pedige, H.M.K., Young, R.B., Abutokaikah, M.T., Chen, L., Wang, H., Imhamillage, K., Thimons, S., Jahne, M.A., Williams, A.J., Zhang, Y., Xu, P., 2024. Non-targeted analysis and toxicity prediction for evaluation of photocatalytic membrane distillation removing organic contaminants from hypersaline oil and gas field-produced water. *J Hazard Mater* 471, 134436. <https://doi.org/10.1016/j.jhazmat.2024.134436>.
- [14] Gruiz, K., Meggyes, T., Fenyvesi, É., 2015. *Engineering Tools for Environmental Risk Management: 2. Environmental Toxicology*. CRC Press.
- [15] Paustenbach, D.J., 2024. *Human and Ecological Risk Assessment: Theory and Practice-Set*. John Wiley & Sons.
- [16] Hossain, M.S., Larsson, A., Scherbak, N., Olsson, P.-E., Orban, L., 2008. Zebrafish androgen receptor: isolation, molecular, and biochemical characterization. *Biol Reprod* 78 (2), 361–369. <https://doi.org/10.1095/biolreprod.107.062018>.
- [17] Howe, K., Clark, M.D., Torroja, C.F., Torrance, J., Berthelot, C., Muffato, M., Collins, J.E., Humphray, S., McLaren, K., Matthews, L., McLaren, S., Sealy, I., Caccamo, M., Churcher, C., Scott, C., Barrett, J.C., Koch, R., Rauch, G.J., White, S., Stemple, D.L., 2013. The zebrafish reference genome sequence and its relationship to the human genome. *Nature* 496 (7446), 498–503. <https://doi.org/10.1038/nature12111>.

- [18] Hoyberghs, J., Bars, C., Ayuso, M., Van Ginneken, C., Foubert, K., Van Cruchten, S., 2021. DMSO concentrations up to 1% are safe to be used in the zebrafish embryo developmental toxicity assay. *Front Toxicol* 3, 804033. <https://doi.org/10.3389/ftox.2021.804033>.
- [19] USEPA, 2002b. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP).
- [20] USEPA, 2002a. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP).
- [21] OECD, 2013. Fish Embryo Acute Toxicity (FET) OECD.
- [22] Hu, L., Yu, J., Luo, H., Wang, H., Xu, P., Zhang, Y., 2020. Simultaneous recovery of ammonium, potassium and magnesium from produced water by struvite precipitation. *Chem Eng J* 382. <https://doi.org/10.1016/j.cej.2019.123001>.
- [23] USEPA, 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP).
- [24] USEPA, 2011. Whole Effluent Toxicity Test Drive Analysis of the Test of Significant Toxicity (TST). United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP).
- [25] Schmittgen, T.D., Livak, K.J., 2008. Analyzing real-time PCR data by the comparative CT method. *Nat Protoc* 3 (6), 1101–1108. <https://doi.org/10.1038/nprot.2008.73>.
- [26] Al-Ghouti, M.A., Al-Kaabi, M.A., Ashfaq, M.Y., Da'na, D.A., 2019. Produced water characteristics, treatment and reuse: A review. *J Water Process Eng* 28, 222–239. <https://doi.org/10.1016/j.jwpe.2019.02.001>.
- [27] Liden, T., Santos, I.C., Hildenbrand, Z.L., Schug, K.A., 2018. Treatment modalities for the reuse of produced waste from oil and gas development. *Sci Total Environ* 643, 107–118. <https://doi.org/10.1016/j.scitotenv.2018.05.386>.
- [28] USEPA, 2013. Guidelines for Water Reuse, in: EPA/600/R-12/618 (Ed.).
- [29] Ghurye, G.L., Mishra, D., Lucas, L., 2021. Thermal desalination of produced water—An analysis of the partitioning of constituents into product streams and its implications for beneficial use outside the O&G industry. *Water* 13 (8). <https://doi.org/10.3390/w13081068>.
- [30] Chen, L., Xu, P., Musale, D.A., Zhang, Y., Asfan, R., Galdeano, C., Ghurye, G.L., Wang, H., 2023. Multifunctional photocatalytic membrane distillation for treatment of hypersaline produced water using hydrophobically modified tubular ceramic membranes. *J Environ Chem Eng* 11 (6), 111538. <https://doi.org/10.1016/j.jece.2023.111538>.
- [31] Chen, L., Xu, P., Zhang, Y., Betts, D., Ghurye, G.L., Wang, H., 2024. Au-TiO₂ nanoparticles enabled catalytic treatment of oil and gas produced water in slurry and vacuum membrane distillation systems. *J Water Process Eng* 65, 105745. <https://doi.org/10.1016/j.jwpe.2024.105745>.
- [32] Willems, D.J., Kumar, A., Nuggeoda, D., 2022. The Acute Toxicity of Salinity in Onshore Unconventional Gas Waters to Freshwater Invertebrates in Receiving Environments: A Systematic Review. *Environ Toxicol Chem* 41 (12), 2928–2949. <https://doi.org/10.1002/etc.5492>.
- [33] USEPA, 2025a. National Primary Drinking Water Regulations. <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>. (accessed 03/23 2025).
- [34] USEPA, 2025b. National Recommended Water Quality Criteria Tables. (<https://www.epa.gov/wqc/national-recommended-water-quality-criteria-tables>). (accessed 03/23 2025).
- [35] Yao, M., Woo, Y.C., Tijing, L.D., Choi, J.-S., Shon, H.K., 2018. Effects of volatile organic compounds on water recovery from produced water via vacuum membrane distillation. *Desalination* 440, 146–155.
- [36] Khiter, A., Balannec, B., Szymczyk, A., Arous, O., Nasrallah, N., Loulergue, P., 2020. Behavior of volatile compounds in membrane distillation: The case of carboxylic acids. *J Membr Sci* 612, 118453.
- [37] Al-Fulaifi, H., Cipollina, A., Micale, G., Bogle, D., Ettouney, H., 2011. CFD Modelling of the Demister in the Multi Stage Flash Desalination plant. In: 21st European Symposium on Computer Aided Process Engineering. Elsevier, pp. 1618–1622. <https://doi.org/10.1016/b978-0-444-54298-4.50102-1>.
- [38] Jasch, K., Scholl, S., 2021. Investigations on the Droplet Entrainment in a Forced Circulation Flash Evaporator. *Chem Ing Tech* 93 (7), 1088–1099.
- [39] Variny, M., 2023. Enhancing the Energy Efficiency of a Black Liquor Evaporation Plant by Mechanical Vapor Recompression Integration. *Eng Proc* 37 (1), 50.
- [40] Henkel, C., Huffer, T., Hofmann, T., 2022. Polyvinyl chloride microplastics leach phthalates into the aquatic environment over decades. *Environ Sci & Technol* 56 (20), 14507–14516.
- [41] Hong, Y., Xiao, S., Naraginti, S., Liao, W., Feng, C., Xu, D., Guo, C., Jin, X., Xie, F., 2024. Freshwater water quality criteria for phthalate esters and recommendations for the revision of the water quality standards. *Ecotoxicol Environ Saf* 279, 116517.
- [42] Dopico, M., Gomez, A., 2015. Review of the current state and main sources of dioxins around the world. *J Air Waste Manag Assoc* 65 (9), 1033–1049. <https://doi.org/10.1080/10962247.2015.1058869>.
- [43] USEPA, 2006. An inventory of sources and environmental releases of dioxin-like compounds in the United States for the years 1987, 1995, and 2000. United States Environmental Protection Agency, National Center for Environmental Assessment (Ed.). OoRad, Washington, DC.
- [44] Nell, M., Helbling, D.E., 2019. Exploring matrix effects and quantifying organic additives in hydraulic fracturing associated fluids using liquid chromatography electrospray ionization mass spectrometry. *Environ Sci Process Impacts* 21 (2), 195–205. <https://doi.org/10.1039/c8em00135a>.
- [45] Mudhoo, A., Thayalan, G., Muthoor, N.J., Muthoor, M.N., Oozeer, B.Z., Rago, Y. P., Ramphul, M.P., Valaydon, A.K., Kumar, S., 2013. Dioxins and Furans: Sources, Impacts and Remediation. *Pollut Dis Remediat Recycl* 479–541. https://doi.org/10.1007/978-3-319-02387-8_10.
- [46] Watson, I.C., Morin, O.J., Henthorne, L. J., 2023. *Desalting handbook for planners*. Bureau of reclamation. Natl Tech Rep Libr.
- [47] Blake, B.E., Fenton, S.E., 2020. Early life exposure to per- and polyfluoroalkyl substances (PFAS) and latent health outcomes: A review including the placenta as a target tissue and possible driver of peri- and postnatal effects. *Toxicology* 443, 152565. <https://doi.org/10.1016/j.tox.2020.152565>.
- [48] Sinclair, G.M., Long, S.M., Jones, O.A.H., 2020. What are the effects of PFAS exposure at environmentally relevant concentrations? *Chemosphere* 258, 127340. <https://doi.org/10.1016/j.chemosphere.2020.127340>.
- [49] Sunderland, E.M., Hu, X.C., Dassuncao, C., Tokranov, A.K., Wagner, C.C., Allen, J. G., 2019. A review of the pathways of human exposure to poly- and perfluoroalkyl substances (PFASs) and present understanding of health effects. *J Expo Sci Environ Epidemiol* 29 (2), 131–147. <https://doi.org/10.1038/s41370-018-0094-1>.
- [50] Gluge, J., London, R., Cousins, I.T., DeWitt, J., Goldenman, G., Herzke, D., Lohmann, R., Miller, M., Ng, C.A., Patton, S., Trier, X., Wang, Z., Scheringer, M., 2022. Information Requirements under the Essential-Use Concept: PFAS Case Studies. *Environ Sci Technol* 56 (10), 6232–6242. <https://doi.org/10.1021/acs.est.1c03732>.
- [51] USEPA, 2024a. Final freshwater aquatic life ambient water quality criteria and acute saltwater aquatic life benchmark for perfluorooctanoic acid (PFOA).
- [52] USEPA, 2024b. Final Recommended Aquatic Life Criteria and Benchmarks for Select PFAS, in: Agency, U.S.E.P. (Ed.).
- [53] Shaw, K., Therrien, M., Lu, C., Liu, X., Trudeau, V.L., 2023. Mutation of brain aromatase disrupts spawning behavior and reproductive health in female zebrafish. *Front Endocrinol (Lausanne)* 14, 1225199. <https://doi.org/10.3389/fendo.2023.1225199>.
- [54] Yin, Y., Tang, H., Liu, Y., Chen, Y., Li, G., Liu, X., Lin, H., 2017. Targeted Disruption of Aromatase Reveals Dual Functions of cyp19a1a During Sex Differentiation in Zebrafish. *Endocrinology* 158 (9), 3030–3041. <https://doi.org/10.1210/en.2016-1865>.
- [55] Liu, H., Nie, F.H., Lin, H.Y., Ma, Y., Ju, X.H., Chen, J.J., Gooneratne, R., 2016. Developmental toxicity, oxidative stress, and related gene expression induced by dioxin-like PCB 126 in zebrafish (Danio rerio). *Environ Toxicol* 31 (3), 295–303. <https://doi.org/10.1002/tox.22044>.
- [56] Liu, H., Sheng, N., Zhang, W., Dai, J., 2015. Toxic effects of perfluorononanoic acid on the development of Zebrafish (Danio rerio) embryos. *J Environ Sci* 32, 26–34. <https://doi.org/10.1016/j.jes.2014.11.008>.
- [57] Loerracher, A.-K., Braunbeck, T., 2021. Cytochrome P450-dependent biotransformation capacities in embryonic, juvenile and adult stages of zebrafish (Danio rerio)—a state-of-the-art review. *Arch Toxicol* 95 (7), 2299–2334. <https://doi.org/10.1007/s00204-021-03071-7>.
- [58] Creusot, N., Garoche, C., Grimaldi, M., Boulahtout, A., Chiavarina, B., Bourguet, W., Balaguer, P., 2021. A Comparative Study of Human and Zebrafish Pregnane X Receptor Activities of Pesticides and Steroids Using In Vitro Reporter Gene Assays. *Front Endocrinol (Lausanne)* 12, 665521. <https://doi.org/10.3389/fendo.2021.665521>.
- [59] Huang, H., Wu, Q., 2010. Cloning and comparative analyses of the zebrafish Ugt repertoire reveal its evolutionary diversity. *PLoS One* 5 (2), e9144. <https://doi.org/10.1371/journal.pone.0009144>.
- [60] Gorelick, D.A., Halpern, M.E., 2011. Visualization of estrogen receptor transcriptional activation in zebrafish. *Endocrinology* 152 (7), 2690–2703. <https://doi.org/10.1210/en.2010-1257>.
- [61] Peterman, E.M., Sullivan, C., Goody, M.F., Rodriguez-Nunez, I., Yoder, J.A., Kim, C.H., 2015. Neutralization of mitochondrial superoxide by superoxide dismutase 2 promotes bacterial clearance and regulates phagocyte numbers in zebrafish. *Infect Immun* 83 (1), 430–440. <https://doi.org/10.1128/IAI.02245-14>.
- [62] Mount, D.R., Gulley, D.D., Hockett, J.R., Garrison, T.D., Evans, J.M., 1997. Statistical models to predict the toxicity of major ions to *Ceriodaphnia dubia*, *Daphnia magna* and *Pimephales promelas* (fathead minnows). *Environ Toxicol Chem* 16 (10), 2009–2019.
- [63] Burg, M.B., Ferraris, J.D., Dmitrieva, N.I., 2007. Cellular response to hyperosmotic stresses. *Physiol Rev* 87 (4), 1441–1474.
- [64] Soucek, D.J., Kennedy, A.J., 2005. Effects of hardness, chloride, and acclimation on the acute toxicity of sulfate to freshwater invertebrates. *Environ Toxicol Chem* 24 (5), 1204–1210.
- [65] Criollo, A., Galluzzi, L., Chiara Maiuri, M., Tasdemir, E., Lavandro, S., Kroemer, G., 2007. Mitochondrial control of cell death induced by hyperosmotic stress. *Apoptosis* 12 (1), 3–18.
- [66] Randall, D.J., Tsui, T., 2002. Ammonia toxicity in fish. *Mar Pollut Bull* 45 (1–12), 17–23.
- [67] Zhang, T.-X., Li, M.-R., Liu, C., Wang, S.-P., Yan, Z.-G., 2023. A review of the toxic effects of ammonia on invertebrates in aquatic environments. *Environ Pollut* 336, 122374.
- [68] Wildeman, A., 2018. Final Aquatic Life Criteria for Aluminum in Freshwater. *Fed Regist* 83, 65663–65665.
- [69] McGrath, J.A., Parkerton, T.F., Hellweger, F.L., Di Toro, D.M., 2005. Validation of the narcosis target lipid model for petroleum products: Gasoline as a case study. *Environ Toxicol Chem* 24 (9), 2382–2394.
- [70] Redman, A.D., Key, T., Koster van Groos, P., Smith, A., Sutherland, C., Reddington, T., Kung, M., Davis, C., Butler, J., Hedgpeth, B., 2025. Integrated

- Assessment of Whole Effluent Toxicity Tests and Chemical Characterization of Treated Permian Basin Produced Water. *ACS ES&T Water* 5 (9), 5275–5286.
- [71] Lin, L.-Y., Cheng, C.-A., Liu, S.-T., Horng, J.-L., 2024. Investigation of ammonia-induced lethal toxicity toward ion regulation in zebrafish embryos. *Comparative Biochemistry Physiology Part C Toxicology & Pharmacology* 276, 109807.
- [72] Teuschler, L.K., Gennings, C., Hartley, W.R., Carter, H., Thiyagarajah, A., Schoeny, R., Cubbison, C., 2005. The interaction effects of binary mixtures of benzene and toluene on the developing heart of medaka (*Oryzias latipes*). *Chemosphere* 58 (9), 1283–1291.

ANALYTICAL REPORT

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JOB DESCRIPTION

Water Quality Analysis

JOB NUMBER

880-38531-1

Eurofins Midland

Job Notes

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

Authorization



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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

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

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

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

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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38531-1

Job ID: 880-38531-1

Eurofins Midland

Job Narrative 880-38531-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 1/26/2024 9:34 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-142954 recovered above the upper control limit for 1,2,4-Trichlorobenzene(20.1%). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-142954/2).

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

GC/MS Semi VOA

Method 8270E_LL: The method blank for preparation batch 860-143257 contained 1,2-Dichlorobenzene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8270E_LL: The following sample was diluted due to the nature of the sample matrix: Concentrate (880-38531-1). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

Method 8015MOD_NM: <EXPLANATION_REQUIRED>

(CCV 860-147532/16) and (CCV 860-147532/34)

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: Concentrate (880-38531-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

General Chemistry

Method 350.1: The following sample was analyzed outside of analytical holding time due to <>: Concentrate (880-38531-1).

Method SM5310B: The following samples were diluted due to the nature of the sample matrix: Concentrate (880-38531-1), (890-6022-D-1) and (890-6022-D-1 DU). Elevated reporting limits (RLs) are provided.

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

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160-646186:

The method blank has bismuth-214 and lead-214 results above the achieved MDCs. This is possibly due to ambient radon present during sample count that was not present during the long monthly background count that is used for background subtraction. This ambient radon could also potentially affect the sample counts, and particularly affects non-soil matrices. Gamma spectroscopy is

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38531-1

Job ID: 880-38531-1 (Continued)

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not very sensitive to radium and daughters (i.e. bismuth-214, lead-214). If the client is concerned with the results and desires a more reliable method for radium, the laboratory suggests EPA method 903.0 if TDS is relatively low

(MB 160-646186/1-A)

Method 901.1_Ra: Gamma 160-646186

The following sample(s), analyzed by gamma spectroscopy, did not meet the detection goal for Ra228 due to high concentrations of the analyte. The data have been reported with this narrative. Concentrate (880-38531-1)

Method 901.1_Ra: Gamma Prep batch 160-646186

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

Concentrate (880-38531-1), (550-213457-M-8-A) and (550-213457-M-8-B DU)

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

Gas Flow Proportional Counter

Method 900.0: Gross Alpha Beta prep batch 160-646914:

The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Concentrate (880-38531-1), (160-52979-A-3-A) and (160-52979-A-3-D DU). Analytical results are reported with the detection limit achieved.

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

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/31/24 13:22	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 13:22	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/31/24 13:22	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/31/24 13:22	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/31/24 13:22	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 13:22	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/31/24 13:22	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 13:22	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			01/31/24 13:22	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/31/24 13:22	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/31/24 13:22	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/31/24 13:22	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/31/24 13:22	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/31/24 13:22	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/31/24 13:22	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/31/24 13:22	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/31/24 13:22	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/31/24 13:22	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/31/24 13:22	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 13:22	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 13:22	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			01/31/24 13:22	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/31/24 13:22	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/31/24 13:22	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/31/24 13:22	1
Acetone	0.0352	J	0.100	0.00307	mg/L			01/31/24 13:22	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/31/24 13:22	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/31/24 13:22	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/31/24 13:22	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/31/24 13:22	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 13:22	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/31/24 13:22	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			01/31/24 13:22	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/31/24 13:22	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/31/24 13:22	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 13:22	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/31/24 13:22	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/31/24 13:22	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/31/24 13:22	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 13:22	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/31/24 13:22	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/31/24 13:22	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/31/24 13:22	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/31/24 13:22	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/31/24 13:22	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/31/24 13:22	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			01/31/24 13:22	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/31/24 13:22	1
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/31/24 13:22	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Propanol	0.182		0.0100	0.00523	mg/L			01/31/24 13:22	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/31/24 13:22	1
Methyl acetate	0.0367		0.0200	0.00401	mg/L			01/31/24 13:22	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/31/24 13:22	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			01/31/24 13:22	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/31/24 13:22	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/31/24 13:22	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/31/24 13:22	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/31/24 13:22	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/31/24 13:22	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/31/24 13:22	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/31/24 13:22	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/31/24 13:22	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/31/24 13:22	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/31/24 13:22	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/31/24 13:22	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/31/24 13:22	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/31/24 13:22	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/31/24 13:22	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			01/31/24 13:22	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/31/24 13:22	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/31/24 13:22	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/31/24 13:22	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			01/31/24 13:22	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 13:22	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			01/31/24 13:22	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/31/24 13:22	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 13:22	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/31/24 13:22	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/31/24 13:22	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			01/31/24 13:22	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/31/24 13:22	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/31/24 13:22	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/31/24 13:22	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/31/24 13:22	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/31/24 13:22	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/31/24 13:22	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/31/24 13:22	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/31/24 13:22	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/31/24 13:22	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/31/24 13:22	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/31/24 13:22	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/31/24 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		63 - 144		01/31/24 13:22	1
4-Bromofluorobenzene (Surr)	104		74 - 124		01/31/24 13:22	1
Dibromofluoromethane (Surr)	100		75 - 131		01/31/24 13:22	1
Toluene-d8 (Surr)	100		80 - 120		01/31/24 13:22	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

Method: SW846 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0000996	U	0.000181	0.0000996	mg/L		02/01/24 16:11	02/02/24 14:44	1
Acenaphthylene	<0.0000839	U	0.000181	0.0000839	mg/L		02/01/24 16:11	02/02/24 14:44	1
Anthracene	<0.0000897	U	0.000181	0.0000897	mg/L		02/01/24 16:11	02/02/24 14:44	1
Benzo[a]anthracene	<0.000134	U	0.000181	0.000134	mg/L		02/01/24 16:11	02/02/24 14:44	1
Benzo[a]pyrene	<0.0000569	U	0.000181	0.0000569	mg/L		02/01/24 16:11	02/02/24 14:44	1
Benzo[b]fluoranthene	<0.0000697	U	0.000181	0.0000697	mg/L		02/01/24 16:11	02/02/24 14:44	1
Benzo[g,h,i]perylene	<0.000113	U	0.000181	0.000113	mg/L		02/01/24 16:11	02/02/24 14:44	1
Benzo[k]fluoranthene	<0.000116	U	0.000181	0.000116	mg/L		02/01/24 16:11	02/02/24 14:44	1
Chrysene	<0.000155	U	0.000181	0.000155	mg/L		02/01/24 16:11	02/02/24 14:44	1
Dibenz[a,h]anthracene	<0.0000757	U	0.000181	0.0000757	mg/L		02/01/24 16:11	02/02/24 14:44	1
Fluoranthene	<0.000156	U	0.000181	0.000156	mg/L		02/01/24 16:11	02/02/24 14:44	1
Fluorene	<0.000101	U	0.000181	0.000101	mg/L		02/01/24 16:11	02/02/24 14:44	1
Indeno[1,2,3-cd]pyrene	<0.0000910	U	0.000181	0.0000910	mg/L		02/01/24 16:11	02/02/24 14:44	1
Naphthalene	<0.0000968	U	0.00363	0.0000968	mg/L		02/01/24 16:11	02/02/24 14:44	1
Phenanthrene	0.000156	J	0.000181	0.0000847	mg/L		02/01/24 16:11	02/02/24 14:44	1
Pyrene	<0.000130	U	0.000181	0.000130	mg/L		02/01/24 16:11	02/02/24 14:44	1
1-Methylnaphthalene	0.000197		0.000181	0.0000792	mg/L		02/01/24 16:11	02/02/24 14:44	1
2-Methylnaphthalene	0.000120	J	0.000181	0.0000910	mg/L		02/01/24 16:11	02/02/24 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	85		54 - 146	02/01/24 16:11	02/02/24 14:44	1
Nitrobenzene-d5 (Surr)	100		46 - 151	02/01/24 16:11	02/02/24 14:44	1
p-Terphenyl-d14 (Surr)	80		51 - 139	02/01/24 16:11	02/02/24 14:44	1

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<6.80	U	20.0	6.80	ug/L		02/01/24 11:15	02/03/24 02:04	10
1,2-Dichlorobenzene	<2.96	U	20.0	2.96	ug/L		02/01/24 11:15	02/03/24 02:04	10
1,3-Dichlorobenzene	<3.50	U	20.0	3.50	ug/L		02/01/24 11:15	02/03/24 02:04	10
1,4-Dichlorobenzene	<4.28	U	20.0	4.28	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4,5-Trichlorophenol	<1.08	U	20.0	1.08	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4,6-Trichlorophenol	<1.35	U	20.0	1.35	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4-Dichlorophenol	<1.15	U	20.0	1.15	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4-Dimethylphenol	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4-Dinitrophenol	<14.6	U	80.0	14.6	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,4-Dinitrotoluene	<1.27	U	20.0	1.27	ug/L		02/01/24 11:15	02/03/24 02:04	10
2,6-Dinitrotoluene	<1.99	U	20.0	1.99	ug/L		02/01/24 11:15	02/03/24 02:04	10
2-Chloronaphthalene	<10.9	U	80.0	10.9	ug/L		02/01/24 11:15	02/03/24 02:04	10
2-Methylnaphthalene	<4.80	U	20.0	4.80	ug/L		02/01/24 11:15	02/03/24 02:04	10
2-Methylphenol	3.74	J	20.0	1.59	ug/L		02/01/24 11:15	02/03/24 02:04	10
2-Nitroaniline	<1.63	U	40.0	1.63	ug/L		02/01/24 11:15	02/03/24 02:04	10
2-Nitrophenol	<1.35	U	20.0	1.35	ug/L		02/01/24 11:15	02/03/24 02:04	10
3 & 4 Methylphenol	18.8	J	20.0	1.63	ug/L		02/01/24 11:15	02/03/24 02:04	10
3-Nitroaniline	<3.44	U	20.0	3.44	ug/L		02/01/24 11:15	02/03/24 02:04	10
4,6-Dinitro-2-methylphenol	<7.36	U	80.0	7.36	ug/L		02/01/24 11:15	02/03/24 02:04	10
4-Bromophenyl-phenylether	<1.67	U	20.0	1.67	ug/L		02/01/24 11:15	02/03/24 02:04	10
4-Chloro-3-methylphenol	<1.57	U	20.0	1.57	ug/L		02/01/24 11:15	02/03/24 02:04	10
4-Chloroaniline	<1.49	U	40.0	1.49	ug/L		02/01/24 11:15	02/03/24 02:04	10
4-Chlorophenyl-phenylether	<2.32	U	20.0	2.32	ug/L		02/01/24 11:15	02/03/24 02:04	10
4-Nitroaniline	<2.47	U	40.0	2.47	ug/L		02/01/24 11:15	02/03/24 02:04	10

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<5.31	U	40.0	5.31	ug/L		02/01/24 11:15	02/03/24 02:04	10
Acenaphthene	<2.08	U	20.0	2.08	ug/L		02/01/24 11:15	02/03/24 02:04	10
Acenaphthylene	<2.15	U	20.0	2.15	ug/L		02/01/24 11:15	02/03/24 02:04	10
Aniline (Phenylamine, Aminobenzene)	<3.14	U	40.0	3.14	ug/L		02/01/24 11:15	02/03/24 02:04	10
Anthracene	<1.54	U	20.0	1.54	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzo[a]anthracene	<1.50	U	20.0	1.50	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzo[a]pyrene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzo[b]fluoranthene	<2.10	U	20.0	2.10	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzo[g,h,i]perylene	<1.43	U	20.0	1.43	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzo[k]fluoranthene	<1.66	U	20.0	1.66	ug/L		02/01/24 11:15	02/03/24 02:04	10
Benzoic acid	66.8	J	80.0	10.6	ug/L		02/01/24 11:15	02/03/24 02:04	10
Butyl benzyl phthalate	<1.50	U	20.0	1.50	ug/L		02/01/24 11:15	02/03/24 02:04	10
Bis(2-chloroethoxy)methane	<1.70	U	20.0	1.70	ug/L		02/01/24 11:15	02/03/24 02:04	10
Bis(2-chloroethyl)ether	<2.78	U	20.0	2.78	ug/L		02/01/24 11:15	02/03/24 02:04	10
bis(2-chloroisopropyl) ether	<1.39	U	20.0	1.39	ug/L		02/01/24 11:15	02/03/24 02:04	10
Bis(2-ethylhexyl) phthalate	<2.25	U	20.0	2.25	ug/L		02/01/24 11:15	02/03/24 02:04	10
Chrysene	<1.59	U	20.0	1.59	ug/L		02/01/24 11:15	02/03/24 02:04	10
Dibenz(a,h)anthracene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 02:04	10
Dibenzofuran	<3.36	U	20.0	3.36	ug/L		02/01/24 11:15	02/03/24 02:04	10
Diethyl phthalate	<1.18	U	20.0	1.18	ug/L		02/01/24 11:15	02/03/24 02:04	10
Dimethyl phthalate	<1.43	U	20.0	1.43	ug/L		02/01/24 11:15	02/03/24 02:04	10
Di-n-butyl phthalate	<8.00	U	20.0	8.00	ug/L		02/01/24 11:15	02/03/24 02:04	10
Di-n-octyl phthalate	<1.69	U	20.0	1.69	ug/L		02/01/24 11:15	02/03/24 02:04	10
Fluoranthene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 02:04	10
Fluorene	<2.05	U	20.0	2.05	ug/L		02/01/24 11:15	02/03/24 02:04	10
Hexachlorobenzene	<1.26	U	20.0	1.26	ug/L		02/01/24 11:15	02/03/24 02:04	10
Hexachlorobutadiene	<2.52	U	20.0	2.52	ug/L		02/01/24 11:15	02/03/24 02:04	10
Hexachlorocyclopentadiene	<4.31	U	20.0	4.31	ug/L		02/01/24 11:15	02/03/24 02:04	10
Hexachloroethane	<1.40	U	20.0	1.40	ug/L		02/01/24 11:15	02/03/24 02:04	10
Indeno[1,2,3-cd]pyrene	<8.52	U	20.0	8.52	ug/L		02/01/24 11:15	02/03/24 02:04	10
Isophorone	<1.68	U	20.0	1.68	ug/L		02/01/24 11:15	02/03/24 02:04	10
Naphthalene	<4.23	U	20.0	4.23	ug/L		02/01/24 11:15	02/03/24 02:04	10
Nitrobenzene	<9.34	U	20.0	9.34	ug/L		02/01/24 11:15	02/03/24 02:04	10
N-Nitrosodi-n-propylamine	<1.61	U	20.0	1.61	ug/L		02/01/24 11:15	02/03/24 02:04	10
N-Nitrosodiphenylamine	<1.55	U	20.0	1.55	ug/L		02/01/24 11:15	02/03/24 02:04	10
Pentachlorophenol	<4.41	U	20.0	4.41	ug/L		02/01/24 11:15	02/03/24 02:04	10
Phenanthrene	<1.76	U	20.0	1.76	ug/L		02/01/24 11:15	02/03/24 02:04	10
Phenol	21.5	J	40.0	2.02	ug/L		02/01/24 11:15	02/03/24 02:04	10
Pyrene	<1.59	U	20.0	1.59	ug/L		02/01/24 11:15	02/03/24 02:04	10
Pyridine	<7.25	U	20.0	7.25	ug/L		02/01/24 11:15	02/03/24 02:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		31 - 132	02/01/24 11:15	02/03/24 02:04	10
2-Fluorobiphenyl (Surr)	64		40 - 130	02/01/24 11:15	02/03/24 02:04	10
2-Fluorophenol (Surr)	51		21 - 114	02/01/24 11:15	02/03/24 02:04	10
Nitrobenzene-d5 (Surr)	62		37 - 130	02/01/24 11:15	02/03/24 02:04	10
p-Terphenyl-d14 (Surr)	77		20 - 141	02/01/24 11:15	02/03/24 02:04	10
Phenol-d5 (Surr)	54		16 - 117	02/01/24 11:15	02/03/24 02:04	10

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	43.0		5.00	0.988	mg/L			01/29/24 10:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1.15	J	5.00	0.988	mg/L		01/29/24 07:37	01/29/24 10:20	1
Diesel Range Organics (Over C10-C28)	31.5		5.00	0.988	mg/L		01/29/24 07:37	01/29/24 10:20	1
Oil Range Organics (Over C28-C36)	10.3	B	5.00	0.954	mg/L		01/29/24 07:37	01/29/24 10:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 135				01/29/24 07:37	01/29/24 10:20	1
o-Terphenyl	69	S1-	70 - 135				01/29/24 07:37	01/29/24 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	169	H	5.00	2.55	mg/L			03/03/24 18:57	50
Total Dissolved Solids (SM 2540C)	251000		2000	2000	mg/L			02/02/24 13:46	1
Total Suspended Solids (SM 2540D)	110		13.3	13.3	mg/L			02/02/24 10:15	1
Sulfide (SM 4500 S2 D)	<0.0400	U	0.100	0.0400	mg/L			01/30/24 13:21	1
Total Organic Carbon (SM 5310B)	91.2		2.00	1.00	mg/L			02/03/24 08:54	2
Methylene Blue Active Substances (SM 5540C)	0.107		0.100	0.0800	mg/L			01/27/24 18:28	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	79.8		1.00	0.500	mg/L			02/03/24 00:38	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	2140	G	1290	1320	3.00	1860	pCi/L	02/05/24 10:15	02/08/24 18:34	1
Gross Beta	489	U G	389	393	4.00	581	pCi/L	02/05/24 10:15	02/08/24 18:34	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	-108	U	212	213		269	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Actinium-228	543		71.4	95.7		63.8	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Bismuth-212	-74.6	U	272	272		462	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Bismuth-214	1170		79.5	159		34.6	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Lead-210	170	U	254	255		358	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Lead-212	9.02	U	43.9	43.9		73.3	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Lead-214	969		61.2	129		54.8	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Potassium-40	30.8	U	196	196		234	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Protactinium-231	0.000	U	390	390		3130	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Radium-226	1170		79.5	159	50.0	34.6	pCi/L	01/30/24 12:50	02/20/24 21:50	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	543	G	71.4	95.7	50.0	63.8	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Thallium-208	11.8	U	25.4	25.5		28.1	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Thorium-232	543		71.4	95.7		63.8	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Thorium-234	-81.0	U	621	621		1040	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Uranium 235	52.6	U	110	110		350	pCi/L	01/30/24 12:50	02/20/24 21:50	1
Uranium 238	-81.0	U	621	621		1040	pCi/L	01/30/24 12:50	02/20/24 21:50	1

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
880-38531-1	Concentrate	107	104	100	100
LCS 860-142954/4	Lab Control Sample	99	100	100	100
LCSD 860-142954/5	Lab Control Sample Dup	100	102	100	100
MB 860-142954/11	Method Blank	102	107	99	100

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (54-146)	NBZ (46-151)	TPHd14 (51-139)
880-38531-1	Concentrate	85	100	80
LCS 860-143347/2-A	Lab Control Sample	127	110	69
LCSD 860-143347/3-A	Lab Control Sample Dup	116	102	58
MB 860-143347/1-A	Method Blank	132	107	84

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (40-130)	2FP (21-114)	NBZ (37-130)	TPHd14 (20-141)	PHL (16-117)
880-38531-1	Concentrate	80	64	51	62	77	54
LCS 860-143257/2-A	Lab Control Sample	66	59	35	55	81	29
LCSD 860-143257/3-A	Lab Control Sample Dup	67	65	41	62	90	34
MB 860-143257/1-A	Method Blank	34	45	29	43	67	21

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: New Mexico State University

Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-135)	OTPH1 (70-135)
880-38531-1	Concentrate	91	69 S1-
LCS 860-147391/2-A	Lab Control Sample	80	75
LCSD 860-147391/3-A	Lab Control Sample Dup	79	74
MB 860-147391/1-A	Method Blank	92	90
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/31/24 10:38	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/31/24 10:38	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/31/24 10:38	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/31/24 10:38	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/31/24 10:38	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			01/31/24 10:38	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/31/24 10:38	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/31/24 10:38	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/31/24 10:38	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/31/24 10:38	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/31/24 10:38	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/31/24 10:38	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/31/24 10:38	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/31/24 10:38	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/31/24 10:38	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/31/24 10:38	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			01/31/24 10:38	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/31/24 10:38	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/31/24 10:38	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/31/24 10:38	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			01/31/24 10:38	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/31/24 10:38	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/31/24 10:38	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/31/24 10:38	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/31/24 10:38	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/31/24 10:38	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			01/31/24 10:38	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/31/24 10:38	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/31/24 10:38	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/31/24 10:38	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/31/24 10:38	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/31/24 10:38	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/31/24 10:38	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/31/24 10:38	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/31/24 10:38	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/31/24 10:38	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/31/24 10:38	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/31/24 10:38	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			01/31/24 10:38	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/31/24 10:38	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/31/24 10:38	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			01/31/24 10:38	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/31/24 10:38	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			01/31/24 10:38	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/31/24 10:38	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			01/31/24 10:38	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/31/24 10:38	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/31/24 10:38	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/31/24 10:38	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/31/24 10:38	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/31/24 10:38	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/31/24 10:38	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/31/24 10:38	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/31/24 10:38	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/31/24 10:38	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/31/24 10:38	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/31/24 10:38	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/31/24 10:38	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/31/24 10:38	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/31/24 10:38	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			01/31/24 10:38	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/31/24 10:38	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/31/24 10:38	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/31/24 10:38	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			01/31/24 10:38	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			01/31/24 10:38	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/31/24 10:38	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/31/24 10:38	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/31/24 10:38	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			01/31/24 10:38	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/31/24 10:38	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/31/24 10:38	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/31/24 10:38	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/31/24 10:38	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/31/24 10:38	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/31/24 10:38	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/31/24 10:38	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/31/24 10:38	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/31/24 10:38	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/31/24 10:38	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/31/24 10:38	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/31/24 10:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		01/31/24 10:38	1
4-Bromofluorobenzene (Surr)	107		74 - 124		01/31/24 10:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		75 - 131		01/31/24 10:38	1
Toluene-d8 (Surr)	100		80 - 120		01/31/24 10:38	1

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	0.0500	0.05290		mg/L		106	60 - 140
cis-1,2-Dichloroethene	0.0500	0.05396		mg/L		108	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05490		mg/L		110	74 - 125
Isopropylbenzene	0.0500	0.05429		mg/L		109	75 - 125
m,p-Xylenes	0.0500	0.05411		mg/L		108	75 - 125
n-Butylbenzene	0.0500	0.05454		mg/L		109	75 - 125
N-Propylbenzene	0.0500	0.05347		mg/L		107	75 - 125
o-Xylene	0.0500	0.05380		mg/L		108	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05348		mg/L		107	75 - 125
tert-Butylbenzene	0.0500	0.05242		mg/L		105	75 - 125
trans-1,2-Dichloroethene	0.0500	0.05195		mg/L		104	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05563		mg/L		111	66 - 125
2-Chloroethyl vinyl ether	0.0500	0.05662		mg/L		113	50 - 150
2-Chlorotoluene	0.0500	0.05189		mg/L		104	73 - 125
Vinyl chloride	0.0500	0.05852		mg/L		117	60 - 140
1,1,1,2-Tetrachloroethane	0.0500	0.05452		mg/L		109	72 - 125
2-Hexanone	0.250	0.2712		mg/L		108	60 - 140
1,1,1-Trichloroethane	0.0500	0.05459		mg/L		109	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05210		mg/L		104	74 - 125
1,1,2-Trichloroethane	0.0500	0.05460		mg/L		109	75 - 130
4-Methyl-2-pentanone	0.250	0.2695		mg/L		108	60 - 140
1,1-Dichloroethane	0.0500	0.05461		mg/L		109	71 - 130
Acetonitrile	0.500	0.4797		mg/L		96	60 - 140
1,1-Dichloroethene	0.0500	0.05072		mg/L		101	50 - 150
Acetone	0.250	0.2544		mg/L		102	60 - 140
1,1-Dichloropropene	0.0500	0.05151		mg/L		103	75 - 125
Acrolein	0.250	0.3095		mg/L		124	60 - 140
1,2,3-Trichlorobenzene	0.0500	0.05332		mg/L		107	75 - 137
Acrylonitrile	0.500	0.4886		mg/L		98	60 - 140
1,2,3-Trichloropropane	0.0500	0.05103		mg/L		102	75 - 125
1,2,4-Trichlorobenzene	0.0500	0.05570		mg/L		111	75 - 135
1,2,4-Trimethylbenzene	0.0500	0.05318		mg/L		106	75 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.06050		mg/L		121	59 - 125
1,2-Dibromoethane	0.0500	0.05174		mg/L		103	73 - 125
1,2-Dichlorobenzene	0.0500	0.05257		mg/L		105	75 - 125
1,2-Dichloroethane	0.0500	0.05434		mg/L		109	72 - 130
Carbon disulfide	0.0500	0.04976		mg/L		100	60 - 140
1,2-Dichloropropane	0.0500	0.05586		mg/L		112	74 - 125
1,3,5-Trimethylbenzene	0.0500	0.05273		mg/L		105	60 - 140
1,3-Dichlorobenzene	0.0500	0.05253		mg/L		105	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	0.0500	0.05295		mg/L		106	75 - 125
1,4-Dichlorobenzene	0.0500	0.05239		mg/L		105	75 - 125
Cyclohexane	0.0500	0.04747		mg/L		95	70 - 130
Dibromomethane	0.0500	0.05495		mg/L		110	69 - 127
2,2-Dichloropropane	0.0500	0.05511		mg/L		110	75 - 125
2-Butanone	0.250	0.2475		mg/L		99	60 - 140
Iodomethane (Methyl Iodide)	0.0500	0.05107		mg/L		102	75 - 125
Isobutyl alcohol	1.24	1.203		mg/L		97	60 - 140
4-Chlorotoluene	0.0500	0.05355		mg/L		107	74 - 125
Methyl acetate	0.100	0.09044		mg/L		90	60 - 140
Methylcyclohexane	0.0500	0.05438		mg/L		109	75 - 125
Benzene	0.0500	0.05386		mg/L		108	75 - 125
Bromobenzene	0.0500	0.05254		mg/L		105	75 - 125
Bromochloromethane	0.0500	0.05411		mg/L		108	60 - 140
Bromodichloromethane	0.0500	0.05470		mg/L		109	75 - 125
Bromoform	0.0500	0.05632		mg/L		113	70 - 130
Bromomethane	0.0500	0.05039		mg/L		101	60 - 140
Tetrahydrofuran	0.100	0.1059		mg/L		106	75 - 125
Carbon tetrachloride	0.0500	0.05030		mg/L		101	70 - 125
Chlorobenzene	0.0500	0.05358		mg/L		107	82 - 135
Chloroethane	0.0500	0.05287		mg/L		106	60 - 140
Chloroform	0.0500	0.05399		mg/L		108	70 - 121
Chloromethane	0.0500	0.05836		mg/L		117	60 - 140
Vinyl acetate	0.250	0.2625		mg/L		105	60 - 140
Dibromochloromethane	0.0500	0.05588		mg/L		112	73 - 125
Dichlorodifluoromethane	0.0500	0.05506		mg/L		110	50 - 150
Ethylbenzene	0.0500	0.05423		mg/L		108	75 - 125
Hexachlorobutadiene	0.0500	0.05439		mg/L		109	75 - 125
n-Hexane	0.0500	0.05738		mg/L		115	72 - 125
MTBE	0.0500	0.05042		mg/L		101	65 - 135
Methylene Chloride	0.0500	0.04810		mg/L		96	71 - 125
Naphthalene	0.0500	0.05415		mg/L		108	70 - 130
t-Butyl alcohol	0.500	0.4507		mg/L		90	65 - 135
sec-Butylbenzene	0.0500	0.05310		mg/L		106	75 - 125
trans-1,4-Dichloro-2-butene	0.0500	0.05133		mg/L		103	70 - 130
Styrene	0.0500	0.05507		mg/L		110	75 - 125
Tetrachloroethene	0.0500	0.05466		mg/L		109	71 - 125
Toluene	0.0500	0.05354		mg/L		107	75 - 130
Trichloroethene	0.0500	0.05527		mg/L		111	75 - 135
Trichlorofluoromethane	0.0500	0.05353		mg/L		107	60 - 140
Allyl Chloride (3-Chloropropene)	0.0500	0.04807		mg/L		96	70 - 130
2-Chloro-1,3-butadiene	0.0500	0.05672		mg/L		113	70 - 130
Propane Nitrile (Propionitrile)	0.500	0.5327		mg/L		107	70 - 130
Methacrylonitrile	0.500	0.5294		mg/L		106	70 - 130
Methyl methacrylate	0.100	0.1102		mg/L		110	70 - 130
Ethyl ether	0.0500	0.05209	J	mg/L		104	70 - 130
Ethyl acetate	0.100	0.1035		mg/L		103	70 - 130
2-Nitropropane	0.100	0.1161		mg/L		116	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Freon 113	0.0500	0.05169		mg/L		103	60 - 140	2	25
cis-1,2-Dichloroethene	0.0500	0.05367		mg/L		107	75 - 125	1	25
cis-1,3-Dichloropropene	0.0500	0.05404		mg/L		108	74 - 125	2	25
Isopropylbenzene	0.0500	0.05333		mg/L		107	75 - 125	2	25
m,p-Xylenes	0.0500	0.05343		mg/L		107	75 - 125	1	25
n-Butylbenzene	0.0500	0.05429		mg/L		109	75 - 125	0	25
N-Propylbenzene	0.0500	0.05353		mg/L		107	75 - 125	0	25
o-Xylene	0.0500	0.05264		mg/L		105	75 - 125	2	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05328		mg/L		107	75 - 125	0	25
tert-Butylbenzene	0.0500	0.05247		mg/L		105	75 - 125	0	25
trans-1,2-Dichloroethene	0.0500	0.04979		mg/L		100	75 - 125	4	25
trans-1,3-Dichloropropene	0.0500	0.05471		mg/L		109	66 - 125	2	25
2-Chloroethyl vinyl ether	0.0500	0.05536		mg/L		111	50 - 150	2	25
2-Chlorotoluene	0.0500	0.05139		mg/L		103	73 - 125	1	25
Vinyl chloride	0.0500	0.05264		mg/L		105	60 - 140	11	25
1,1,1,2-Tetrachloroethane	0.0500	0.05349		mg/L		107	72 - 125	2	25
2-Hexanone	0.250	0.2621		mg/L		105	60 - 140	3	25
1,1,1-Trichloroethane	0.0500	0.05484		mg/L		110	70 - 130	0	25
1,1,2,2-Tetrachloroethane	0.0500	0.05243		mg/L		105	74 - 125	1	25
1,1,2-Trichloroethane	0.0500	0.05368		mg/L		107	75 - 130	2	25
4-Methyl-2-pentanone	0.250	0.2613		mg/L		105	60 - 140	3	25
1,1-Dichloroethane	0.0500	0.05372		mg/L		107	71 - 130	2	25
Acetonitrile	0.500	0.4432		mg/L		89	60 - 140	8	25
1,1-Dichloroethene	0.0500	0.05035		mg/L		101	50 - 150	1	25
Acetone	0.250	0.2446		mg/L		98	60 - 140	4	25
1,1-Dichloropropene	0.0500	0.05303		mg/L		106	75 - 125	3	25
Acrolein	0.250	0.2997		mg/L		120	60 - 140	3	25
1,2,3-Trichlorobenzene	0.0500	0.06595		mg/L		132	75 - 137	21	25
Acrylonitrile	0.500	0.4609		mg/L		92	60 - 140	6	25
1,2,3-Trichloropropane	0.0500	0.05128		mg/L		103	75 - 125	0	25
1,2,4-Trichlorobenzene	0.0500	0.06012		mg/L		120	75 - 135	8	25
1,2,4-Trimethylbenzene	0.0500	0.05272		mg/L		105	75 - 125	1	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05345		mg/L		107	59 - 125	12	25
1,2-Dibromoethane	0.0500	0.05051		mg/L		101	73 - 125	2	25
1,2-Dichlorobenzene	0.0500	0.05212		mg/L		104	75 - 125	1	25
1,2-Dichloroethane	0.0500	0.05370		mg/L		107	72 - 130	1	25
Carbon disulfide	0.0500	0.04781		mg/L		96	60 - 140	4	25
1,2-Dichloropropane	0.0500	0.05521		mg/L		110	74 - 125	1	25

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	0.0500	0.05274		mg/L		105	60 - 140	0	25
1,3-Dichlorobenzene	0.0500	0.05209		mg/L		104	75 - 125	1	25
1,3-Dichloropropane	0.0500	0.05271		mg/L		105	75 - 125	0	25
1,4-Dichlorobenzene	0.0500	0.05146		mg/L		103	75 - 125	2	25
Cyclohexane	0.0500	0.04673		mg/L		93	70 - 130	2	25
Dibromomethane	0.0500	0.05376		mg/L		108	69 - 127	2	25
2,2-Dichloropropane	0.0500	0.05509		mg/L		110	75 - 125	0	25
2-Butanone	0.250	0.2446		mg/L		98	60 - 140	1	25
Iodomethane (Methyl Iodide)	0.0500	0.04887		mg/L		98	75 - 125	4	25
Isobutyl alcohol	1.24	1.108		mg/L		89	60 - 140	8	25
4-Chlorotoluene	0.0500	0.05321		mg/L		106	74 - 125	1	25
Methyl acetate	0.100	0.09426		mg/L		94	60 - 140	4	25
Methylcyclohexane	0.0500	0.05442		mg/L		109	75 - 125	0	25
Benzene	0.0500	0.05247		mg/L		105	75 - 125	3	25
Bromobenzene	0.0500	0.05285		mg/L		106	75 - 125	1	25
Bromochloromethane	0.0500	0.05431		mg/L		109	60 - 140	0	25
Bromodichloromethane	0.0500	0.05403		mg/L		108	75 - 125	1	25
Bromoform	0.0500	0.05459		mg/L		109	70 - 130	3	25
Bromomethane	0.0500	0.04731		mg/L		95	60 - 140	6	25
Tetrahydrofuran	0.100	0.09859		mg/L		99	75 - 125	7	25
Carbon tetrachloride	0.0500	0.04926		mg/L		99	70 - 125	2	25
Chlorobenzene	0.0500	0.05253		mg/L		105	82 - 135	2	25
Chloroethane	0.0500	0.05258		mg/L		105	60 - 140	1	25
Chloroform	0.0500	0.05322		mg/L		106	70 - 121	1	25
Chloromethane	0.0500	0.05070		mg/L		101	60 - 140	14	25
Vinyl acetate	0.250	0.2649		mg/L		106	60 - 140	1	25
Dibromochloromethane	0.0500	0.05469		mg/L		109	73 - 125	2	25
Dichlorodifluoromethane	0.0500	0.04517		mg/L		90	50 - 150	20	25
Ethylbenzene	0.0500	0.05304		mg/L		106	75 - 125	2	25
Hexachlorobutadiene	0.0500	0.06200		mg/L		124	75 - 125	13	25
n-Hexane	0.0500	0.04614		mg/L		92	72 - 125	22	25
MTBE	0.0500	0.04884		mg/L		98	65 - 135	3	25
Methylene Chloride	0.0500	0.04753		mg/L		95	71 - 125	1	25
Naphthalene	0.0500	0.06012		mg/L		120	70 - 130	10	25
t-Butyl alcohol	0.500	0.4365		mg/L		87	65 - 135	3	25
sec-Butylbenzene	0.0500	0.05313		mg/L		106	75 - 125	0	25
trans-1,4-Dichloro-2-butene	0.0500	0.05166		mg/L		103	70 - 130	1	25
Styrene	0.0500	0.05333		mg/L		107	75 - 125	3	25
Tetrachloroethene	0.0500	0.05412		mg/L		108	71 - 125	1	25
Toluene	0.0500	0.05255		mg/L		105	75 - 130	2	25
Trichloroethene	0.0500	0.05336		mg/L		107	75 - 135	4	25
Trichlorofluoromethane	0.0500	0.05043		mg/L		101	60 - 140	6	25
Allyl Chloride (3-Chloropropene)	0.0500	0.04441		mg/L		89	70 - 130	8	25
2-Chloro-1,3-butadiene	0.0500	0.05643		mg/L		113	70 - 130	1	25
Propane Nitrile (Propionitrile)	0.500	0.5183		mg/L		104	70 - 130	3	25
Methacrylonitrile	0.500	0.5258		mg/L		105	70 - 130	1	25
Methyl methacrylate	0.100	0.1085		mg/L		109	70 - 130	2	25
Ethyl ether	0.0500	0.05228	J	mg/L		105	70 - 130	0	25
Ethyl acetate	0.100	0.1030		mg/L		103	70 - 130	0	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitropropane	0.100	0.1142		mg/L		114	75 - 125	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 860-143347/1-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000100	U	0.000182	0.000100	mg/L		02/01/24 16:11	02/02/24 10:12	1
Acenaphthylene	<0.0000842	U	0.000182	0.0000842	mg/L		02/01/24 16:11	02/02/24 10:12	1
Anthracene	<0.0000900	U	0.000182	0.0000900	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]anthracene	<0.000134	U	0.000182	0.000134	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]pyrene	<0.0000571	U	0.000182	0.0000571	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[b]fluoranthene	<0.0000700	U	0.000182	0.0000700	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[g,h,i]perylene	<0.000113	U	0.000182	0.000113	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[k]fluoranthene	<0.000116	U	0.000182	0.000116	mg/L		02/01/24 16:11	02/02/24 10:12	1
Chrysene	<0.000156	U	0.000182	0.000156	mg/L		02/01/24 16:11	02/02/24 10:12	1
Dibenz[a,h]anthracene	<0.0000760	U	0.000182	0.0000760	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluoranthene	<0.000157	U	0.000182	0.000157	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluorene	<0.000101	U	0.000182	0.000101	mg/L		02/01/24 16:11	02/02/24 10:12	1
Indeno[1,2,3-cd]pyrene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1
Naphthalene	<0.0000972	U	0.00364	0.0000972	mg/L		02/01/24 16:11	02/02/24 10:12	1
Phenanthrene	<0.0000850	U	0.000182	0.0000850	mg/L		02/01/24 16:11	02/02/24 10:12	1
Pyrene	<0.000130	U	0.000182	0.000130	mg/L		02/01/24 16:11	02/02/24 10:12	1
1-Methylnaphthalene	<0.0000795	U	0.000182	0.0000795	mg/L		02/01/24 16:11	02/02/24 10:12	1
2-Methylnaphthalene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	132		54 - 146	02/01/24 16:11	02/02/24 10:12	1
Nitrobenzene-d5 (Surr)	107		46 - 151	02/01/24 16:11	02/02/24 10:12	1
p-Terphenyl-d14 (Surr)	84		51 - 139	02/01/24 16:11	02/02/24 10:12	1

Lab Sample ID: LCS 860-143347/2-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	0.0182	0.02355		mg/L		130	66 - 174
Acenaphthylene	0.0182	0.02444		mg/L		134	67 - 182
Anthracene	0.0182	0.02454		mg/L		135	55 - 191
Benzo[a]anthracene	0.0182	0.01623		mg/L		89	16 - 171

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 860-143347/2-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	0.0182	0.01289		mg/L		71	10 - 165
Benzo[b]fluoranthene	0.0182	0.01508		mg/L		83	10 - 166
Benzo[g,h,i]perylene	0.0182	0.01308		mg/L		72	10 - 154
Benzo[k]fluoranthene	0.0182	0.01351		mg/L		74	10 - 178
Chrysene	0.0182	0.01407		mg/L		77	10 - 172
Dibenz(a,h)anthracene	0.0182	0.01500		mg/L		83	10 - 168
Fluoranthene	0.0182	0.02231		mg/L		123	52 - 185
Fluorene	0.0182	0.02525		mg/L		139	64 - 184
Indeno[1,2,3-cd]pyrene	0.0182	0.01466		mg/L		81	10 - 160
Naphthalene	0.0182	0.02274		mg/L		125	66 - 166
Phenanthrene	0.0182	0.02340		mg/L		129	66 - 184
Pyrene	0.0182	0.01964		mg/L		108	58 - 181
1-Methylnaphthalene	0.0182	0.02445		mg/L		134	64 - 167
2-Methylnaphthalene	0.0182	0.02456		mg/L		135	63 - 166

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	127		54 - 146
Nitrobenzene-d5 (Surr)	110		46 - 151
p-Terphenyl-d14 (Surr)	69		51 - 139

Lab Sample ID: LCSD 860-143347/3-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	0.0182	0.02249		mg/L		124	66 - 174	5	40
Acenaphthylene	0.0182	0.02312		mg/L		127	67 - 182	6	40
Anthracene	0.0182	0.02267		mg/L		125	55 - 191	8	40
Benzo[a]anthracene	0.0182	0.01379		mg/L		76	16 - 171	16	50
Benzo[a]pyrene	0.0182	0.01080		mg/L		59	10 - 165	18	50
Benzo[b]fluoranthene	0.0182	0.01255		mg/L		69	10 - 166	18	50
Benzo[g,h,i]perylene	0.0182	0.01066		mg/L		59	10 - 154	20	50
Benzo[k]fluoranthene	0.0182	0.01145		mg/L		63	10 - 178	16	50
Chrysene	0.0182	0.01154		mg/L		63	10 - 172	20	50
Dibenz(a,h)anthracene	0.0182	0.01220		mg/L		67	10 - 168	21	50
Fluoranthene	0.0182	0.02057		mg/L		113	52 - 185	8	40
Fluorene	0.0182	0.02407		mg/L		132	64 - 184	5	40
Indeno[1,2,3-cd]pyrene	0.0182	0.01183		mg/L		65	10 - 160	21	50
Naphthalene	0.0182	0.02174		mg/L		120	66 - 166	5	40
Phenanthrene	0.0182	0.02190		mg/L		120	66 - 184	7	40
Pyrene	0.0182	0.01772		mg/L		97	58 - 181	10	40
1-Methylnaphthalene	0.0182	0.02389		mg/L		131	64 - 167	2	40
2-Methylnaphthalene	0.0182	0.02351		mg/L		129	63 - 166	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	116		54 - 146
Nitrobenzene-d5 (Surr)	102		46 - 151
p-Terphenyl-d14 (Surr)	58		51 - 139

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 860-143257/1-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143257

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trichlorobenzene	<0.680	U	2.00	0.680	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,2-Dichlorobenzene	2.745		2.00	0.296	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,3-Dichlorobenzene	<0.350	U	2.00	0.350	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,4-Dichlorobenzene	<0.428	U	2.00	0.428	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4,5-Trichlorophenol	<0.108	U	2.00	0.108	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4,6-Trichlorophenol	<0.135	U	2.00	0.135	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dichlorophenol	<0.115	U	2.00	0.115	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dimethylphenol	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dinitrophenol	<1.46	U	8.00	1.46	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dinitrotoluene	<0.127	U	2.00	0.127	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,6-Dinitrotoluene	<0.199	U	2.00	0.199	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Chloronaphthalene	<1.09	U	8.00	1.09	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Methylnaphthalene	<0.480	U	2.00	0.480	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Methylphenol	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Nitroaniline	<0.163	U	4.00	0.163	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Nitrophenol	<0.135	U	2.00	0.135	ug/L		02/01/24 11:15	02/02/24 17:36	1
3 & 4 Methylphenol	<0.163	U	2.00	0.163	ug/L		02/01/24 11:15	02/02/24 17:36	1
3-Nitroaniline	<0.344	U	2.00	0.344	ug/L		02/01/24 11:15	02/02/24 17:36	1
4,6-Dinitro-2-methylphenol	<0.736	U	8.00	0.736	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Bromophenyl-phenylether	<0.167	U	2.00	0.167	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chloro-3-methylphenol	<0.157	U	2.00	0.157	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chloroaniline	<0.149	U	4.00	0.149	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chlorophenyl-phenylether	<0.232	U	2.00	0.232	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Nitroaniline	<0.247	U	4.00	0.247	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Nitrophenol	<0.531	U	4.00	0.531	ug/L		02/01/24 11:15	02/02/24 17:36	1
Acenaphthene	<0.208	U	2.00	0.208	ug/L		02/01/24 11:15	02/02/24 17:36	1
Acenaphthylene	<0.215	U	2.00	0.215	ug/L		02/01/24 11:15	02/02/24 17:36	1
Aniline (Phenylamine, Aminobenzene)	<0.314	U	4.00	0.314	ug/L		02/01/24 11:15	02/02/24 17:36	1
Anthracene	<0.154	U	2.00	0.154	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[a]anthracene	<0.150	U	2.00	0.150	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[a]pyrene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[b]fluoranthene	<0.210	U	2.00	0.210	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[g,h,i]perylene	<0.143	U	2.00	0.143	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[k]fluoranthene	<0.166	U	2.00	0.166	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzoic acid	<1.06	U	8.00	1.06	ug/L		02/01/24 11:15	02/02/24 17:36	1
Butyl benzyl phthalate	<0.150	U	2.00	0.150	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-chloroethoxy)methane	<0.170	U	2.00	0.170	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-chloroethyl)ether	<0.278	U	2.00	0.278	ug/L		02/01/24 11:15	02/02/24 17:36	1
bis(2-chloroisopropyl) ether	<0.139	U	2.00	0.139	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-ethylhexyl) phthalate	<0.225	U	2.00	0.225	ug/L		02/01/24 11:15	02/02/24 17:36	1
Chrysene	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dibenz(a,h)anthracene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dibenzofuran	<0.336	U	2.00	0.336	ug/L		02/01/24 11:15	02/02/24 17:36	1
Diethyl phthalate	<0.118	U	2.00	0.118	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dimethyl phthalate	<0.143	U	2.00	0.143	ug/L		02/01/24 11:15	02/02/24 17:36	1
Di-n-butyl phthalate	<0.800	U	2.00	0.800	ug/L		02/01/24 11:15	02/02/24 17:36	1
Di-n-octyl phthalate	<0.169	U	2.00	0.169	ug/L		02/01/24 11:15	02/02/24 17:36	1
Fluoranthene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 860-143257/1-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.205	U	2.00	0.205	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorobenzene	<0.126	U	2.00	0.126	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorobutadiene	<0.252	U	2.00	0.252	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorocyclopentadiene	<0.431	U	2.00	0.431	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachloroethane	<0.140	U	2.00	0.140	ug/L		02/01/24 11:15	02/02/24 17:36	1
Indeno[1,2,3-cd]pyrene	<0.852	U	2.00	0.852	ug/L		02/01/24 11:15	02/02/24 17:36	1
Isophorone	<0.168	U	2.00	0.168	ug/L		02/01/24 11:15	02/02/24 17:36	1
Naphthalene	<0.423	U	2.00	0.423	ug/L		02/01/24 11:15	02/02/24 17:36	1
Nitrobenzene	<0.934	U	2.00	0.934	ug/L		02/01/24 11:15	02/02/24 17:36	1
N-Nitrosodi-n-propylamine	<0.161	U	2.00	0.161	ug/L		02/01/24 11:15	02/02/24 17:36	1
N-Nitrosodiphenylamine	<0.155	U	2.00	0.155	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pentachlorophenol	<0.441	U	2.00	0.441	ug/L		02/01/24 11:15	02/02/24 17:36	1
Phenanthrene	<0.176	U	2.00	0.176	ug/L		02/01/24 11:15	02/02/24 17:36	1
Phenol	<0.202	U	4.00	0.202	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pyrene	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pyridine	<0.725	U	2.00	0.725	ug/L		02/01/24 11:15	02/02/24 17:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	34		31 - 132	02/01/24 11:15	02/02/24 17:36	1
2-Fluorobiphenyl (Surr)	45		40 - 130	02/01/24 11:15	02/02/24 17:36	1
2-Fluorophenol (Surr)	29		21 - 114	02/01/24 11:15	02/02/24 17:36	1
Nitrobenzene-d5 (Surr)	43		37 - 130	02/01/24 11:15	02/02/24 17:36	1
p-Terphenyl-d14 (Surr)	67		20 - 141	02/01/24 11:15	02/02/24 17:36	1
Phenol-d5 (Surr)	21		16 - 117	02/01/24 11:15	02/02/24 17:36	1

Lab Sample ID: LCS 860-143257/2-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	20.0	11.69		ug/L		58	34 - 117
1,2-Dichlorobenzene	20.0	14.81		ug/L		74	38 - 111
1,3-Dichlorobenzene	20.0	10.82		ug/L		54	37 - 111
1,4-Dichlorobenzene	20.0	10.62		ug/L		53	37 - 111
2,4,5-Trichlorophenol	20.0	12.12		ug/L		61	39 - 125
2,4,6-Trichlorophenol	20.0	11.89		ug/L		59	42 - 125
2,4-Dichlorophenol	20.0	10.90		ug/L		54	38 - 120
2,4-Dimethylphenol	20.0	11.80		ug/L		59	39 - 117
2,4-Dinitrophenol	20.0	10.15		ug/L		51	13 - 152
2,4-Dinitrotoluene	20.0	16.16		ug/L		81	41 - 128
2,6-Dinitrotoluene	20.0	14.41		ug/L		72	42 - 127
2-Chloronaphthalene	20.0	11.02		ug/L		55	40 - 118
2-Methylnaphthalene	20.0	12.20		ug/L		61	37 - 112
2-Methylphenol	20.0	9.788		ug/L		49	36 - 125
2-Nitroaniline	20.0	10.42		ug/L		52	34 - 126
2-Nitrophenol	20.0	11.02		ug/L		55	38 - 125
3 & 4 Methylphenol	20.0	9.191		ug/L		46	35 - 116
3-Nitroaniline	20.0	12.82		ug/L		64	42 - 123

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143257/2-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,6-Dinitro-2-methylphenol	20.0	14.45		ug/L		72	12 - 157
4-Bromophenyl-phenylether	20.0	13.04		ug/L		65	40 - 126
4-Chloro-3-methylphenol	20.0	12.21		ug/L		61	40 - 119
4-Chloroaniline	20.0	9.411		ug/L		47	39 - 111
4-Chlorophenyl-phenylether	20.0	13.18		ug/L		66	40 - 122
4-Nitroaniline	20.0	17.15		ug/L		86	42 - 125
4-Nitrophenol	20.0	10.61		ug/L		53	14 - 102
Acenaphthene	20.0	11.80		ug/L		59	41 - 116
Acenaphthylene	20.0	12.19		ug/L		61	41 - 118
Aniline (Phenylamine, Aminobenzene)	20.0	6.730		ug/L		34	31 - 100
Anthracene	20.0	14.38		ug/L		72	39 - 127
Benzo[a]anthracene	20.0	16.55		ug/L		83	40 - 129
Benzo[a]pyrene	20.0	17.28		ug/L		86	36 - 141
Benzo[b]fluoranthene	20.0	16.00		ug/L		80	34 - 139
Benzo[g,h,i]perylene	20.0	19.70		ug/L		98	32 - 141
Benzo[k]fluoranthene	20.0	16.29		ug/L		81	31 - 139
Benzoic acid	60.0	18.44		ug/L		31	27 - 195
Butyl benzyl phthalate	20.0	15.79		ug/L		79	44 - 133
Bis(2-chloroethoxy)methane	20.0	11.55		ug/L		58	36 - 113
Bis(2-chloroethyl)ether	20.0	10.80		ug/L		54	38 - 111
bis(2-chloroisopropyl) ether	20.0	10.50		ug/L		53	10 - 150
Bis(2-ethylhexyl) phthalate	20.0	13.81		ug/L		69	44 - 136
Chrysene	20.0	16.83		ug/L		84	41 - 124
Dibenz(a,h)anthracene	20.0	19.04		ug/L		95	35 - 143
Dibenzofuran	20.0	12.39		ug/L		62	41 - 119
Diethyl phthalate	20.0	14.95		ug/L		75	41 - 125
Dimethyl phthalate	20.0	13.73		ug/L		69	42 - 123
Di-n-butyl phthalate	20.0	16.84		ug/L		84	41 - 133
Di-n-octyl phthalate	20.0	13.10		ug/L		65	34 - 145
Fluoranthene	20.0	17.65		ug/L		88	38 - 132
Fluorene	20.0	13.18		ug/L		66	41 - 121
Hexachlorobenzene	20.0	13.22		ug/L		66	39 - 128
Hexachlorobutadiene	20.0	11.08		ug/L		55	31 - 120
Hexachlorocyclopentadiene	20.0	13.93		ug/L		70	15 - 117
Hexachloroethane	20.0	10.99		ug/L		55	37 - 109
Indeno[1,2,3-cd]pyrene	20.0	19.67		ug/L		98	35 - 141
Isophorone	20.0	12.22		ug/L		61	40 - 115
Naphthalene	20.0	11.46		ug/L		57	37 - 113
Nitrobenzene	20.0	10.45		ug/L		52	37 - 114
N-Nitrosodi-n-propylamine	20.0	11.71		ug/L		59	38 - 117
N-Nitrosodiphenylamine	20.0	13.13		ug/L		66	40 - 127
Pentachlorophenol	20.0	12.06		ug/L		60	10 - 137
Phenanthrene	20.0	13.86		ug/L		69	39 - 126
Phenol	20.0	6.317		ug/L		32	15 - 106
Pyrene	20.0	14.19		ug/L		71	40 - 130
Pyridine	20.0	3.711		ug/L		19	16 - 135

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143257/2-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143257

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	66		31 - 132
2-Fluorobiphenyl (Surr)	59		40 - 130
2-Fluorophenol (Surr)	35		21 - 114
Nitrobenzene-d5 (Surr)	55		37 - 130
p-Terphenyl-d14 (Surr)	81		20 - 141
Phenol-d5 (Surr)	29		16 - 117

Lab Sample ID: LCSD 860-143257/3-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	20.0	12.79		ug/L		64	34 - 117	9	30
1,2-Dichlorobenzene	20.0	16.56		ug/L		83	38 - 111	11	30
1,3-Dichlorobenzene	20.0	12.22		ug/L		61	37 - 111	12	30
1,4-Dichlorobenzene	20.0	12.19		ug/L		61	37 - 111	14	30
2,4,5-Trichlorophenol	20.0	13.68		ug/L		68	39 - 125	12	30
2,4,6-Trichlorophenol	20.0	13.20		ug/L		66	42 - 125	10	30
2,4-Dichlorophenol	20.0	12.31		ug/L		62	38 - 120	12	30
2,4-Dimethylphenol	20.0	13.29		ug/L		66	39 - 117	12	30
2,4-Dinitrophenol	20.0	11.24		ug/L		56	13 - 152	10	30
2,4-Dinitrotoluene	20.0	15.75		ug/L		79	41 - 128	3	30
2,6-Dinitrotoluene	20.0	14.49		ug/L		72	42 - 127	1	30
2-Chloronaphthalene	20.0	11.62		ug/L		58	40 - 118	5	30
2-Methylnaphthalene	20.0	13.35		ug/L		67	37 - 112	9	30
2-Methylphenol	20.0	11.33		ug/L		57	36 - 125	15	30
2-Nitroaniline	20.0	11.54		ug/L		58	34 - 126	10	30
2-Nitrophenol	20.0	12.11		ug/L		61	38 - 125	9	30
3 & 4 Methylphenol	20.0	10.61		ug/L		53	35 - 116	14	30
3-Nitroaniline	20.0	13.43		ug/L		67	42 - 123	5	30
4,6-Dinitro-2-methylphenol	20.0	14.63		ug/L		73	12 - 157	1	30
4-Bromophenyl-phenylether	20.0	12.80		ug/L		64	40 - 126	2	30
4-Chloro-3-methylphenol	20.0	13.03		ug/L		65	40 - 119	7	30
4-Chloroaniline	20.0	10.56		ug/L		53	39 - 111	12	30
4-Chlorophenyl-phenylether	20.0	13.51		ug/L		68	40 - 122	2	30
4-Nitroaniline	20.0	17.03		ug/L		85	42 - 125	1	30
4-Nitrophenol	20.0	10.81		ug/L		54	14 - 102	2	30
Acenaphthene	20.0	12.56		ug/L		63	41 - 116	6	30
Acenaphthylene	20.0	13.15		ug/L		66	41 - 118	8	30
Aniline (Phenylamine, Aminobenzene)	20.0	8.001		ug/L		40	31 - 100	17	30
Anthracene	20.0	14.40		ug/L		72	39 - 127	0	30
Benzo[a]anthracene	20.0	18.50		ug/L		92	40 - 129	11	30
Benzo[a]pyrene	20.0	19.34		ug/L		97	36 - 141	11	30
Benzo[b]fluoranthene	20.0	17.76		ug/L		89	34 - 139	10	30
Benzo[g,h,i]perylene	20.0	21.89		ug/L		109	32 - 141	11	30
Benzo[k]fluoranthene	20.0	18.28		ug/L		91	31 - 139	12	30
Benzoic acid	60.0	20.01		ug/L		33	27 - 195	8	30
Butyl benzyl phthalate	20.0	17.71		ug/L		89	44 - 133	11	30

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-143257/3-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Bis(2-chloroethoxy)methane	20.0	12.86		ug/L		64	36 - 113	11		30
Bis(2-chloroethyl)ether	20.0	12.40		ug/L		62	38 - 111	14		30
bis(2-chloroisopropyl) ether	20.0	11.98		ug/L		60	10 - 150	13		30
Bis(2-ethylhexyl) phthalate	20.0	15.48		ug/L		77	44 - 136	11		30
Chrysene	20.0	18.45		ug/L		92	41 - 124	9		30
Dibenz(a,h)anthracene	20.0	21.31		ug/L		107	35 - 143	11		30
Dibenzofuran	20.0	13.11		ug/L		66	41 - 119	6		30
Diethyl phthalate	20.0	15.11		ug/L		76	41 - 125	1		30
Dimethyl phthalate	20.0	13.98		ug/L		70	42 - 123	2		30
Di-n-butyl phthalate	20.0	18.20		ug/L		91	41 - 133	8		30
Di-n-octyl phthalate	20.0	14.51		ug/L		73	34 - 145	10		30
Fluoranthene	20.0	19.01		ug/L		95	38 - 132	7		30
Fluorene	20.0	13.66		ug/L		68	41 - 121	4		30
Hexachlorobenzene	20.0	13.22		ug/L		66	39 - 128	0		30
Hexachlorobutadiene	20.0	12.00		ug/L		60	31 - 120	8		30
Hexachlorocyclopentadiene	20.0	15.40		ug/L		77	15 - 117	10		30
Hexachloroethane	20.0	12.58		ug/L		63	37 - 109	13		30
Indeno[1,2,3-cd]pyrene	20.0	21.93		ug/L		110	35 - 141	11		30
Isophorone	20.0	13.11		ug/L		66	40 - 115	7		30
Naphthalene	20.0	12.74		ug/L		64	37 - 113	11		30
Nitrobenzene	20.0	11.80		ug/L		59	37 - 114	12		30
N-Nitrosodi-n-propylamine	20.0	13.02		ug/L		65	38 - 117	11		30
N-Nitrosodiphenylamine	20.0	13.23		ug/L		66	40 - 127	1		30
Pentachlorophenol	20.0	13.20		ug/L		66	10 - 137	9		30
Phenanthrene	20.0	13.73		ug/L		69	39 - 126	1		30
Phenol	20.0	7.192		ug/L		36	15 - 106	13		30
Pyrene	20.0	15.46		ug/L		77	40 - 130	9		30
Pyridine	20.0	3.627		ug/L		18	16 - 135	2		30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	67		31 - 132
2-Fluorobiphenyl (Surr)	65		40 - 130
2-Fluorophenol (Surr)	41		21 - 114
Nitrobenzene-d5 (Surr)	62		37 - 130
p-Terphenyl-d14 (Surr)	90		20 - 141
Phenol-d5 (Surr)	34		16 - 117

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-147391/1-A

Matrix: Water

Analysis Batch: 147532

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147391

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<9.88	U	50.0	9.88	mg/L		02/28/24 11:47	02/29/24 13:17	1
Diesel Range Organics (Over C10-C28)	<9.88	U	50.0	9.88	mg/L		02/28/24 11:47	02/29/24 13:17	1
Oil Range Organics (Over C28-C36)	18.42	J	50.0	9.54	mg/L		02/28/24 11:47	02/29/24 13:17	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 860-147391/1-A

Matrix: Water

Analysis Batch: 147532

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147391

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
1-Chlorooctane	92		70 - 135	02/28/24 11:47	02/29/24 13:17	1			
o-Terphenyl	90		70 - 135	02/28/24 11:47	02/29/24 13:17	1			

Lab Sample ID: LCS 860-147391/2-A

Matrix: Water

Analysis Batch: 147532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147391

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			999	924.5		mg/L		93	70 - 135		
Diesel Range Organics (Over C10-C28)			1000	1038		mg/L		104	70 - 135		

	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	80		70 - 135								
o-Terphenyl	75		70 - 135								

Lab Sample ID: LCSD 860-147391/3-A

Matrix: Water

Analysis Batch: 147532

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147391

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			999	903.4		mg/L		90	70 - 135	2	35	
Diesel Range Organics (Over C10-C28)			1000	1015		mg/L		102	70 - 135	2	35	

	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	79		70 - 135									
o-Terphenyl	74		70 - 135									

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 860-148017/68

Matrix: Water

Analysis Batch: 148017

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Ammonia	<0.0510	U	0.100	0.0510	mg/L			03/03/24 17:52	1		

Lab Sample ID: LCS 860-148017/69

Matrix: Water

Analysis Batch: 148017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ammonia			1.00	0.9969		mg/L		100	90 - 110		

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 860-148017/70
Matrix: Water
Analysis Batch: 148017

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	1.00	1.006		mg/L		101	90 - 110	1	20

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

Lab Sample ID: MB 860-143539/1
Matrix: Water
Analysis Batch: 143539

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/02/24 13:46	1

Lab Sample ID: LCS 860-143539/2
Matrix: Water
Analysis Batch: 143539

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	1000	991.0		mg/L		99	80 - 120		

Lab Sample ID: LCSD 860-143539/3
Matrix: Water
Analysis Batch: 143539

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1001		mg/L		100	80 - 120	1	10

Lab Sample ID: LLCS 860-143539/26
Matrix: Water
Analysis Batch: 143539

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

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

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 860-143460/1
Matrix: Water
Analysis Batch: 143460

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<4.00	U	4.00	4.00	mg/L			02/02/24 10:15	1

Lab Sample ID: LCS 860-143460/2
Matrix: Water
Analysis Batch: 143460

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids	100	103.0		mg/L		103	80 - 120		

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCSD 860-143460/3

Matrix: Water

Analysis Batch: 143460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	100	103.0		mg/L		103	80 - 120	0	10

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 860-142852/3

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.0400	U	0.100	0.0400	mg/L			01/30/24 13:21	1

Lab Sample ID: LCS 860-142852/4

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	1.00	1.095		mg/L		110	90 - 110		

Lab Sample ID: LCSD 860-142852/5

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	1.00	1.092		mg/L		109	90 - 110	0	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 400-659665/52

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/03/24 06:56	1

Lab Sample ID: LCS 400-659665/53

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	20.0	19.93		mg/L		100	85 - 115		

Lab Sample ID: LCSD 400-659665/54

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.24		mg/L		101	85 - 115	2	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MRL 400-659665/6

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 400-659673/1-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Method Blank

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/02/24 21:58	1

Lab Sample ID: LCS 400-659673/2-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.33		mg/L		97	85 - 115

Lab Sample ID: LCSD 400-659673/3-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.88		mg/L		99	85 - 115	3	30

Lab Sample ID: MRL 400-659666/6

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 860-142599/3

Matrix: Water

Analysis Batch: 142599

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	<0.0800	U	0.100	0.0800	mg/L			01/27/24 18:19	1

Lab Sample ID: LCS 860-142599/4

Matrix: Water

Analysis Batch: 142599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Blue Active Substances	1.00	0.9663		mg/L		97	90 - 110

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-646914/1-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646914

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Gross Alpha	-0.1792	U	0.458	0.458	3.00	0.964	pCi/L	02/05/24 10:15	02/08/24 18:18	1
Gross Beta	0.03519	U	0.489	0.489	4.00	0.873	pCi/L	02/05/24 10:15	02/08/24 18:18	1

Lab Sample ID: LCS 160-646914/2-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCS		Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual	Uncert. (2σ+/-)					
Gross Alpha	49.3	54.21		7.90	3.00	2.54	pCi/L	110	75 - 125

Lab Sample ID: LCSB 160-646914/3-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCSB		Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual	Uncert. (2σ+/-)					
Gross Beta	72.0	73.18		7.85	4.00	0.797	pCi/L	102	75 - 125

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-646186/1-A
Matrix: Water
Analysis Batch: 649533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646186

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Actinium-227	26.36	U	74.0	74.0		97.8	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Actinium-228	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-212	66.70	U	123	123		208	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-214	65.56		22.6	23.9		17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-210	-209.4	U	171	173		308	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-212	-18.53	U	19.7	19.8		36.2	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-214	41.66		14.4	15.3		22.4	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Potassium-40	52.54	U	93.1	93.3		101	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Protactinium-231	0.0000	U	163	163		1190	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-226	65.56		22.6	23.9	50.0	17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-228	-32.44	U G	56.6	56.8	50.0	63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thallium-208	12.95		10.7	10.8		10.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-232	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-234	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 235	17.83	U	47.5	47.5		173	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 238	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: LCS 160-646186/2-A					Client Sample ID: Lab Control Sample				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 648904					Prep Batch: 646186				
Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	139200		16600		479	pCi/L	103	75 - 125
Cesium-137	40000	41430		4940		110	pCi/L	104	75 - 125
Cobalt-60	15800	16600		1980		66.7	pCi/L	105	75 - 125

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

GC/MS VOA

Analysis Batch: 142954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8260D	
MB 860-142954/11	Method Blank	Total/NA	Water	8260D	
LCS 860-142954/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-142954/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 143257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	3510C	
MB 860-143257/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-143257/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-143257/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 143347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	3511	
MB 860-143347/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 143428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8270D SIM	143347
MB 860-143347/1-A	Method Blank	Total/NA	Water	8270D SIM	143347
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	143347
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	143347

Analysis Batch: 143536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8270E LL	143257
MB 860-143257/1-A	Method Blank	Total/NA	Water	8270E LL	143257
LCS 860-143257/2-A	Lab Control Sample	Total/NA	Water	8270E LL	143257
LCSD 860-143257/3-A	Lab Control Sample Dup	Total/NA	Water	8270E LL	143257

GC Semi VOA

Analysis Batch: 130308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8015 NM	

Analysis Batch: 142554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8015B NM	142559

Prep Batch: 142559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	8015NM Aq Prep	

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

GC Semi VOA

Prep Batch: 147391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-147391/1-A	Method Blank	Total/NA	Water	TX_1005_S_Pre p	
LCS 860-147391/2-A	Lab Control Sample	Total/NA	Water	TX_1005_S_Pre p	
LCSD 860-147391/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_S_Pre p	

Analysis Batch: 147532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-147391/1-A	Method Blank	Total/NA	Water	8015B NM	147391
LCS 860-147391/2-A	Lab Control Sample	Total/NA	Water	8015B NM	147391
LCSD 860-147391/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	147391

General Chemistry

Analysis Batch: 142599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	SM 5540C	
MB 860-142599/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 860-142599/4	Lab Control Sample	Total/NA	Water	SM 5540C	

Analysis Batch: 142852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	SM 4500 S2 D	
MB 860-142852/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 860-142852/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 860-142852/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 143460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	SM 2540D	
MB 860-143460/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 860-143460/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 860-143460/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 143539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	SM 2540C	
MB 860-143539/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-143539/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-143539/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-143539/26	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 148017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	350.1	
MB 860-148017/68	Method Blank	Total/NA	Water	350.1	
LCS 860-148017/69	Lab Control Sample	Total/NA	Water	350.1	
LCSD 860-148017/70	Lab Control Sample Dup	Total/NA	Water	350.1	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

General Chemistry

Analysis Batch: 659665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	SM 5310B	
MB 400-659665/52	Method Blank	Total/NA	Water	SM 5310B	
LCS 400-659665/53	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 400-659665/54	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
MRL 400-659665/6	Lab Control Sample	Total/NA	Water	SM 5310B	

Analysis Batch: 659666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Dissolved	Water	SM 5310B	659673
MB 400-659673/1-A	Method Blank	Dissolved	Water	SM 5310B	659673
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	SM 5310B	659673
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	SM 5310B	659673
MRL 400-659666/6	Lab Control Sample	Dissolved	Water	SM 5310B	

Filtration Batch: 659673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Dissolved	Water	FILTRATION	
MB 400-659673/1-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Rad

Prep Batch: 646186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	Fill_Geo-21	
MB 160-646186/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-646186/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	

Prep Batch: 646914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38531-1	Concentrate	Total/NA	Water	Evaporation	
MB 160-646914/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-646914/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-646914/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Client Sample ID: Concentrate

Lab Sample ID: 880-38531-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:34

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	142954	01/31/24 13:22	NA	EET HOU
Total/NA	Prep	3511			55.2 mL	2.00 mL	143347	02/01/24 16:11	DR	EET HOU
Total/NA	Analysis	8270D SIM		1	1 mL	1 mL	143428	02/02/24 14:44	LPL	EET HOU
Total/NA	Prep	3510C			250 mL	1.00 mL	143257	02/01/24 11:15	DR	EET HOU
Total/NA	Analysis	8270E LL		10	1 mL	1 mL	143536	02/03/24 02:04	PXS	EET HOU
Total/NA	Analysis	8015 NM		1			130308	01/29/24 10:20	ELJ	EET HOU
Total/NA	Prep	8015NM Aq Prep			30 mL	3 mL	142559	01/29/24 07:37	TH	EET HOU
Total/NA	Analysis	8015B NM		1			142554	01/29/24 10:20	TH	EET HOU
Total/NA	Analysis	350.1		50	10 mL	10 mL	148017	03/03/24 18:57	ADL	EET HOU
Total/NA	Analysis	SM 2540C		1	.5 mL	200 mL	143539	02/02/24 13:46	YG	EET HOU
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	143460	02/02/24 10:15	ADL	EET HOU
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	142852	01/30/24 13:21	SCI	EET HOU
Dissolved	Filtration	FILTRATION					659673	02/02/24 14:30	DEK	EET PEN
Dissolved	Analysis	SM 5310B		1			659666	02/03/24 00:38	DEK	EET PEN
Total/NA	Analysis	SM 5310B		2	50 mL	50 mL	659665	02/03/24 08:54	DEK	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	142599	01/27/24 18:28	JM	EET HOU
Total/NA	Prep	Evaporation			0.312 mL	1.0 g	646914	02/05/24 10:15	ASG	EET SL
Total/NA	Analysis	900.0		1			647476	02/08/24 18:34	FLC	EET SL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	646186	01/30/24 12:50	SAC	EET SL
Total/NA	Analysis	901.1		1			648902	02/20/24 21:50	EMH	EET SL

Laboratory References:

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET HOU
8270E LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET HOU
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
350.1	Nitrogen, Ammonia	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 2540D	Solids, Total Suspended (TSS)	SM	EET HOU
SM 4500 S2 D	Sulfide, Total	SM	EET HOU
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET HOU
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
8015NM Aq Prep	Microextraction	SW846	EET HOU
Evaporation	Preparation, Evaporation	None	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL
FILTRATION	Sample Filtration	None	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38531-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38531-1	Concentrate	Water	01/26/24 08:00	01/26/24 09:34

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

[illegible]

ORIGIN: D. MAF / 4321 565-1800
SAMPLE RECEIVING
XENCO LABORATORIES, INC. SA
121 W. FLORIDA AVE

SHIP DATE: 26 JAN 24
ACT WGT: 20.00 LB
CAD: 7354048/INET 4700

MIDLAND COUNTY
UNITED STATES US

BILL SENDER

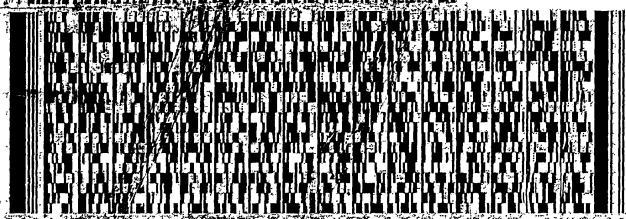
TO: SAMPLE RECEIVING
EUROFINS TESTAMERICA PENSACOLA
3355 MCLEVOY DR

PENSACOLA FL 32514

(250) 474-1001

FEE

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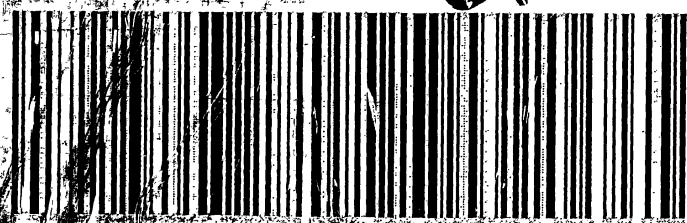
DRG

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32514

FL US BFM



Pen

4/26/24, 1:13 PM

RT 686

12:00

5670
01.27

Environment Testing

Phone: 432-704-5440

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38531-1

Login Number: 38531

List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38531-1

Login Number: 38531

List Number: 3

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 01/27/24 01:28 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38531-1

Login Number: 38531

List Number: 2

Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

List Creation: 01/27/24 11:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	9.8°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38531-1

Login Number: 38531

List Number: 4

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 01/29/24 12:50 PM

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Pei Xu, PhD
New Mexico State University
3035 S. Espina Street
Box 30001, MSC-3CE
Las Cruces, New Mexico 88003

Generated 3/21/2024 12:06:11 PM

JOB DESCRIPTION

Water Quality Analysis

JOB NUMBER

830-4968-1

Eurofins El Paso

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
3/21/2024 12:06:11 PM

Authorized for release by
John Builes, Project Manager
John.Builes@et.eurofinsus.com
(561)558-4549

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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

LCMS

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

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

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

General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid

Eurofins El Paso

Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Glossary (Continued)

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

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 830-4968-1

Job ID: 830-4968-1

Eurofins El Paso

Job Narrative 830-4968-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 2/20/2024 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice.

Receipt Exceptions

The container count for the following sample did not match what was listed on the Chain-of-Custody (COC): Post-Treated Water (830-4968-1).

The laboratory received 6 total containers, while the COC lists 8 total containers.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-147372 recovered above the upper control limit for 1,1,2,2-Tetrachloroethane (20.5%), Chloroethane (27.3%) and Hexachlorobutadiene (20.5%). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-147372/2).

Method 8260D: The matrix spike (MS) recoveries for analytical batch 860-147372 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC/MS Semi VOA

Method 8270E_LL: The laboratory control sample (LCS) for preparation batch 860-146819 and analytical batch 860-146841 recovered outside control limits for the following analyte: Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method Organotins_SIM: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-413719. Organotins-W

Method Organotins_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-413719 and analytical batch 570-414280 recovered outside control limits for the following analytes: Tributyltin.

Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

Method 8270D_SIM: The method blank for preparation batch 860-147011 and analytical batch 860-146993 contained Benzo[g,h,i]perylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-147011 and analytical batch 860-146993 recovered outside control limits for the following analytes: Benzo[g,h,i]perylene, Dibenz(a,h)anthracene and Indeno[1,2,3-cd]pyrene.

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

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 830-4968-1

Job ID: 830-4968-1 (Continued)

Eurofins El Paso

GC Semi VOA

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

Herbicides

Method 8151A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-146277 and analytical batch 860-146458 recovered outside control limits for the following analytes: 2,4,5-TP (Silvex).

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

PCBs

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

Pesticides

Method 8081B_LL: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-147139 and analytical batch 860-146954 recovered outside control limits for the following analytes: Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8141B_LL: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-460552.

Method 8141B_LL: The continuing calibration verification (CCV) associated with 180-460567 recovered high and outside the control limits for Tributyl phosphate on one column. Results are confirmed on both columns and reported from the passing column. The associated sample is: (CCV 180-460567/18).

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

HPLC/IC

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-146152 contained Chloride greater than the method detection limit (MDL), and were not reanalyzed because associated sample (s) results were greater than 10X the value found in the instrument blank/CCB. The data have been reported.

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-146152 contained Chloride and Sulfate greater than the method detection limit (MDL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank/CCB. The data have been reported.

Method 8330B: 2,4,6-TNT and Nitrobenzene co-elute on the Synergi-Hydro column (UV/0). The co-eluting peak on the Synergi-Hydro column is designated as Nitrobenzene. The responses in this calibration and the RSD for Nitrobenzene on the Synergi-Hydro column are not correct. 2,4,6-TNT and Nitrobenzene elute separately on the Luna Phenyl-Hexyl column (UV/2). 2,4,6-TNT and Nitrobenzene are reporting from the Luna Phenyl-Hexyl column.

Post-Treated Water (830-4968-1)

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

LCMS

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

PFAS

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

Dioxin

Method 8290A: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: Post-Treated Water (830-4968-1). IDA passes all ion ratio and signal to noise criteria.

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

Metals

Method 6010D - Dissolved: The method blank for preparation batch 860-147483 and 860-147580 and analytical batch 860-147846 contained Silver above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the

Eurofins El Paso

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 830-4968-1

Job ID: 830-4968-1 (Continued)

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method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

General Chemistry

Method 2540D: The following sample(s) was analyzed outside of analytical holding time due to technician error. Technician overlooks/did not check the backlog for prioritizing hold time samples: Post-Treated Water (830-4968-1).

Method 3500_CR_B: The following sample was received outside of holding time: Post-Treated Water (830-4968-1).

Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-148884 and analytical batch 860-148950 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 9012B: The instrument blank for analytical batch 860-148950 contained Cyanide greater than the method detection limit (MDL), and were not reanalyzed because the sample holding time had expired. The data have been qualified and reported.

Method 9020B: Breakthrough exceeded 10% for the following sample: Post-Treated Water (830-4968-1).

Method HACH8000_NP: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 860-147428 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chemical Oxygen Demand in the MS/MSD was above the instrument calibration range. The data have been reported.

Method SM4500_S2_D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-147280 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 830-4968-1

Job ID: 830-4968-2

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Job Narrative 830-4968-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 2/20/2024 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice.

Receipt Exceptions

The container count for the following sample did not match what was listed on the Chain-of-Custody (COC): Post-Treated Water (830-4968-1).

The laboratory received 6 total containers, while the COC lists 8 total containers.

Gamma Spectroscopy

Method 901.1_Ra: Gamma 160-649852

The method blank (MB) exhibits activity above the minimum detectable concentration(MDC) for K40. Associated sample(s) have activity below the MDC. The data for the following samples have been reported with this narrative: (MB 160-649852/1-A)

Method 901.1_Ra: Gamma 160-649852

The minimum detectable concentration (MDC) for the method blank (MB) is above the requested limit for Ra226 and Ra228. The activity was not observed in the MB above the MDC or reporting limit (RL). The data for the following sample have been reported with the MDC achieved: (MB 160-649852/1-A)

Method 901.1_Ra: Gamma prep batch 160-649852:

The sample duplicate has bismuth-214 (Ra226) and lead-214 results above the achieved MDCs. This is possibly due to ambient radon present during sample count that was not present during the long monthly background count that is used for background subtraction. This ambient radon could also potentially affect method blank counts, and particularly affects non-soil matrices. Gamma spectroscopy is not very sensitive to radium and daughters (i.e. bismuth-214, lead-214). If the client is concerned with the results and desires a more reliable method for radium, the laboratory suggests EPA method 903.0 if TDS is relatively low

(830-4968-AR-1-B DU)

Method 901.1_Ra: Gamma prep batch 160-649852

The detection goal of 50 pCi/L was not met for Ra226 and Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity for this analyte is well below the RL and MDC.

Post-Treated Water (830-4968-1)

Method 901.1_Ra: Gamma Prep batch 160-649852

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be

Eurofins El Paso

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 830-4968-1

Job ID: 830-4968-2 (Continued)

Eurofins El Paso

in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

Post-Treated Water (830-4968-1) and (830-4968-AR-1-B DU)

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

Gas Flow Proportional Counter

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

Eurofins El Paso

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			02/28/24 13:42	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/28/24 13:42	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/28/24 13:42	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			02/28/24 13:42	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			02/28/24 13:42	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/28/24 13:42	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			02/28/24 13:42	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			02/28/24 13:42	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/28/24 13:42	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			02/28/24 13:42	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			02/28/24 13:42	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/28/24 13:42	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			02/28/24 13:42	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			02/28/24 13:42	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			02/28/24 13:42	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/28/24 13:42	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			02/28/24 13:42	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			02/28/24 13:42	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/28/24 13:42	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/28/24 13:42	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/28/24 13:42	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			02/28/24 13:42	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/28/24 13:42	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			02/28/24 13:42	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			02/28/24 13:42	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			02/28/24 13:42	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			02/28/24 13:42	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			02/28/24 13:42	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			02/28/24 13:42	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			02/28/24 13:42	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			02/28/24 13:42	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/28/24 13:42	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			02/28/24 13:42	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			02/28/24 13:42	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			02/28/24 13:42	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/28/24 13:42	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/28/24 13:42	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			02/28/24 13:42	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/28/24 13:42	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			02/28/24 13:42	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			02/28/24 13:42	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			02/28/24 13:42	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/28/24 13:42	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			02/28/24 13:42	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			02/28/24 13:42	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			02/28/24 13:42	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			02/28/24 13:42	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			02/28/24 13:42	1
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			02/28/24 13:42	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			02/28/24 13:42	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			02/28/24 13:42	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			02/28/24 13:42	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			02/28/24 13:42	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/28/24 13:42	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			02/28/24 13:42	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			02/28/24 13:42	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			02/28/24 13:42	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			02/28/24 13:42	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			02/28/24 13:42	1
Tetrahydrofuran	0.0213		0.0100	0.00183	mg/L			02/28/24 13:42	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/28/24 13:42	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			02/28/24 13:42	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			02/28/24 13:42	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/28/24 13:42	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			02/28/24 13:42	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			02/28/24 13:42	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			02/28/24 13:42	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			02/28/24 13:42	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/28/24 13:42	1
Hexachlorobutadiene	<0.000627	U F1	0.00500	0.000627	mg/L			02/28/24 13:42	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			02/28/24 13:42	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/28/24 13:42	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			02/28/24 13:42	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			02/28/24 13:42	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			02/28/24 13:42	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			02/28/24 13:42	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			02/28/24 13:42	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/28/24 13:42	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			02/28/24 13:42	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/28/24 13:42	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			02/28/24 13:42	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			02/28/24 13:42	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			02/28/24 13:42	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			02/28/24 13:42	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			02/28/24 13:42	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			02/28/24 13:42	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			02/28/24 13:42	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			02/28/24 13:42	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			02/28/24 13:42	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			02/28/24 13:42	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			02/28/24 13:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		63 - 144		02/28/24 13:42	1
4-Bromofluorobenzene (Surr)	110		74 - 124		02/28/24 13:42	1
Dibromofluoromethane (Surr)	106		75 - 131		02/28/24 13:42	1
Toluene-d8 (Surr)	111		80 - 120		02/28/24 13:42	1

Eurofins El Paso

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			02/29/24 12:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144					02/29/24 12:59	1
4-Bromofluorobenzene (Surr)	99		74 - 124					02/29/24 12:59	1
Dibromofluoromethane (Surr)	99		75 - 131					02/29/24 12:59	1
Toluene-d8 (Surr)	100		80 - 120					02/29/24 12:59	1

Method: SW846 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000100	U	0.000182	0.000100	mg/L		02/26/24 12:19	02/26/24 19:05	1
Acenaphthylene	<0.0000842	U	0.000182	0.0000842	mg/L		02/26/24 12:19	02/26/24 19:05	1
Anthracene	<0.0000900	U	0.000182	0.0000900	mg/L		02/26/24 12:19	02/26/24 19:05	1
Benzo[a]anthracene	<0.000134	U	0.000182	0.000134	mg/L		02/26/24 12:19	02/26/24 19:05	1
Benzo[a]pyrene	<0.0000571	U	0.000182	0.0000571	mg/L		02/26/24 12:19	02/26/24 19:05	1
Benzo[b]fluoranthene	<0.0000700	U	0.000182	0.0000700	mg/L		02/26/24 12:19	02/26/24 19:05	1
Benzo[g,h,i]perylene	<0.000113	U *1	0.000182	0.000113	mg/L		02/26/24 12:19	02/26/24 19:05	1
Benzo[k]fluoranthene	<0.000116	U	0.000182	0.000116	mg/L		02/26/24 12:19	02/26/24 19:05	1
Chrysene	<0.000156	U	0.000182	0.000156	mg/L		02/26/24 12:19	02/26/24 19:05	1
Dibenz(a,h)anthracene	<0.0000760	U *1	0.000182	0.0000760	mg/L		02/26/24 12:19	02/26/24 19:05	1
Fluoranthene	<0.000157	U	0.000182	0.000157	mg/L		02/26/24 12:19	02/26/24 19:05	1
Fluorene	<0.000101	U	0.000182	0.000101	mg/L		02/26/24 12:19	02/26/24 19:05	1
Indeno[1,2,3-cd]pyrene	<0.0000913	U *1	0.000182	0.0000913	mg/L		02/26/24 12:19	02/26/24 19:05	1
Naphthalene	<0.0000972	U	0.00364	0.0000972	mg/L		02/26/24 12:19	02/26/24 19:05	1
Phenanthrene	<0.0000850	U	0.000182	0.0000850	mg/L		02/26/24 12:19	02/26/24 19:05	1
Pyrene	<0.000130	U	0.000182	0.000130	mg/L		02/26/24 12:19	02/26/24 19:05	1
1-Methylnaphthalene	<0.0000795	U	0.000182	0.0000795	mg/L		02/26/24 12:19	02/26/24 19:05	1
2-Methylnaphthalene	<0.0000913	U	0.000182	0.0000913	mg/L		02/26/24 12:19	02/26/24 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	131		54 - 146				02/26/24 12:19	02/26/24 19:05	1
Nitrobenzene-d5 (Surr)	103		46 - 151				02/26/24 12:19	02/26/24 19:05	1
p-Terphenyl-d14 (Surr)	77		51 - 139				02/26/24 12:19	02/26/24 19:05	1

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.680	U	2.00	0.680	ug/L		02/24/24 05:15	02/24/24 15:24	1
1,2-Dichlorobenzene	<0.296	U	2.00	0.296	ug/L		02/24/24 05:15	02/24/24 15:24	1
1,3-Dichlorobenzene	<0.350	U	2.00	0.350	ug/L		02/24/24 05:15	02/24/24 15:24	1
1,4-Dichlorobenzene	<0.428	U	2.00	0.428	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4,5-Trichlorophenol	<0.108	U	2.00	0.108	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4,6-Trichlorophenol	<0.135	U	2.00	0.135	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4-Dichlorophenol	<0.115	U	2.00	0.115	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4-Dimethylphenol	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4-Dinitrophenol	<1.46	U	8.00	1.46	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,4-Dinitrotoluene	<0.127	U	2.00	0.127	ug/L		02/24/24 05:15	02/24/24 15:24	1
2,6-Dinitrotoluene	<0.199	U	2.00	0.199	ug/L		02/24/24 05:15	02/24/24 15:24	1
2-Chloronaphthalene	<1.09	U	8.00	1.09	ug/L		02/24/24 05:15	02/24/24 15:24	1
2-Methylnaphthalene	<0.480	U	2.00	0.480	ug/L		02/24/24 05:15	02/24/24 15:24	1
2-Methylphenol	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 15:24	1

Eurofins El Paso

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<0.163	U	4.00	0.163	ug/L		02/24/24 05:15	02/24/24 15:24	1
2-Nitrophenol	<0.135	U	2.00	0.135	ug/L		02/24/24 05:15	02/24/24 15:24	1
3 & 4 Methylphenol	<0.163	U	2.00	0.163	ug/L		02/24/24 05:15	02/24/24 15:24	1
3-Nitroaniline	<0.344	U	2.00	0.344	ug/L		02/24/24 05:15	02/24/24 15:24	1
4,6-Dinitro-2-methylphenol	<0.736	U	8.00	0.736	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Bromophenyl-phenylether	<0.167	U	2.00	0.167	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Chloro-3-methylphenol	<0.157	U	2.00	0.157	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Chloroaniline	<0.149	U	4.00	0.149	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Chlorophenyl-phenylether	<0.232	U	2.00	0.232	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Nitroaniline	<0.247	U	4.00	0.247	ug/L		02/24/24 05:15	02/24/24 15:24	1
4-Nitrophenol	<0.531	U	4.00	0.531	ug/L		02/24/24 05:15	02/24/24 15:24	1
Acenaphthene	<0.208	U	2.00	0.208	ug/L		02/24/24 05:15	02/24/24 15:24	1
Acenaphthylene	<0.215	U	2.00	0.215	ug/L		02/24/24 05:15	02/24/24 15:24	1
Aniline (Phenylamine, Aminobenzene)	<0.314	U	4.00	0.314	ug/L		02/24/24 05:15	02/24/24 15:24	1
Anthracene	<0.154	U	2.00	0.154	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzo[a]anthracene	<0.150	U	2.00	0.150	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzo[a]pyrene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzo[b]fluoranthene	<0.210	U	2.00	0.210	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzo[g,h,i]perylene	<0.143	U	2.00	0.143	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzo[k]fluoranthene	<0.166	U	2.00	0.166	ug/L		02/24/24 05:15	02/24/24 15:24	1
Benzoic acid	<1.06	U *	8.00	1.06	ug/L		02/24/24 05:15	02/24/24 15:24	1
Butyl benzyl phthalate	<0.150	U	2.00	0.150	ug/L		02/24/24 05:15	02/24/24 15:24	1
Bis(2-chloroethoxy)methane	<0.170	U	2.00	0.170	ug/L		02/24/24 05:15	02/24/24 15:24	1
Bis(2-chloroethyl)ether	<0.278	U	2.00	0.278	ug/L		02/24/24 05:15	02/24/24 15:24	1
bis(2-chloroisopropyl) ether	<0.139	U	2.00	0.139	ug/L		02/24/24 05:15	02/24/24 15:24	1
Bis(2-ethylhexyl) phthalate	<0.225	U	2.00	0.225	ug/L		02/24/24 05:15	02/24/24 15:24	1
Chrysene	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 15:24	1
Dibenz(a,h)anthracene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 15:24	1
Dibenzofuran	<0.336	U	2.00	0.336	ug/L		02/24/24 05:15	02/24/24 15:24	1
Diethyl phthalate	<0.118	U	2.00	0.118	ug/L		02/24/24 05:15	02/24/24 15:24	1
Dimethyl phthalate	0.490	J	2.00	0.143	ug/L		02/24/24 05:15	02/24/24 15:24	1
Di-n-butyl phthalate	<0.800	U	2.00	0.800	ug/L		02/24/24 05:15	02/24/24 15:24	1
Di-n-octyl phthalate	<0.169	U	2.00	0.169	ug/L		02/24/24 05:15	02/24/24 15:24	1
Fluoranthene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 15:24	1
Fluorene	<0.205	U	2.00	0.205	ug/L		02/24/24 05:15	02/24/24 15:24	1
Hexachlorobenzene	<0.126	U	2.00	0.126	ug/L		02/24/24 05:15	02/24/24 15:24	1
Hexachlorobutadiene	<0.252	U	2.00	0.252	ug/L		02/24/24 05:15	02/24/24 15:24	1
Hexachlorocyclopentadiene	<0.431	U	2.00	0.431	ug/L		02/24/24 05:15	02/24/24 15:24	1
Hexachloroethane	<0.140	U	2.00	0.140	ug/L		02/24/24 05:15	02/24/24 15:24	1
Indeno[1,2,3-cd]pyrene	<0.852	U	2.00	0.852	ug/L		02/24/24 05:15	02/24/24 15:24	1
Isophorone	<0.168	U	2.00	0.168	ug/L		02/24/24 05:15	02/24/24 15:24	1
Naphthalene	<0.423	U	2.00	0.423	ug/L		02/24/24 05:15	02/24/24 15:24	1
Nitrobenzene	<0.934	U	2.00	0.934	ug/L		02/24/24 05:15	02/24/24 15:24	1
N-Nitrosodi-n-propylamine	<0.161	U	2.00	0.161	ug/L		02/24/24 05:15	02/24/24 15:24	1
N-Nitrosodiphenylamine	<0.155	U	2.00	0.155	ug/L		02/24/24 05:15	02/24/24 15:24	1
Pentachlorophenol	<0.441	U	2.00	0.441	ug/L		02/24/24 05:15	02/24/24 15:24	1
Phenanthrene	<0.176	U	2.00	0.176	ug/L		02/24/24 05:15	02/24/24 15:24	1
Phenol	<0.202	U	4.00	0.202	ug/L		02/24/24 05:15	02/24/24 15:24	1
Pyrene	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 15:24	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	<0.725	U	2.00	0.725	ug/L		02/24/24 05:15	02/24/24 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		31 - 132	02/24/24 05:15	02/24/24 15:24	1
2-Fluorobiphenyl (Surr)	74		40 - 130	02/24/24 05:15	02/24/24 15:24	1
2-Fluorophenol (Surr)	36		21 - 114	02/24/24 05:15	02/24/24 15:24	1
Nitrobenzene-d5 (Surr)	55		37 - 130	02/24/24 05:15	02/24/24 15:24	1
p-Terphenyl-d14 (Surr)	57		20 - 141	02/24/24 05:15	02/24/24 15:24	1
Phenol-d5 (Surr)	28		16 - 117	02/24/24 05:15	02/24/24 15:24	1

Method: Lab SOP Organotins SIM - Organotins (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	1.48	J *1	2.94	1.12	ng/L		02/23/24 17:04	02/26/24 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Triphenyltin	69		10 - 120	02/23/24 17:04	02/26/24 19:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1.15	J	5.00	0.988	mg/L			03/08/24 15:29	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.988	U	5.00	0.988	mg/L		02/26/24 09:26	03/08/24 15:29	1
Diesel Range Organics (Over C10-C28)	<0.988	U	5.00	0.988	mg/L		02/26/24 09:26	03/08/24 15:29	1
Oil Range Organics (Over C28-C36)	1.15	J	5.00	0.954	mg/L		02/26/24 09:26	03/08/24 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 135	02/26/24 09:26	03/08/24 15:29	1
o-Terphenyl	89		70 - 135	02/26/24 09:26	03/08/24 15:29	1

Method: SW846 8081B_LL - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 14:51	1
	3			23					
4,4'-DDE	<0.00000013	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 14:51	1
	1			31					
4,4'-DDT	<0.00000069	U	0.0000200	0.0000006	mg/L		02/27/24 08:18	02/27/24 14:51	1
	5			95					
Aldrin	<0.00000013	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 14:51	1
	7			37					
alpha-BHC	<0.00000014	U	0.0000090	0.0000001	mg/L		02/27/24 08:18	02/27/24 14:51	1
	3		0	43					
alpha-Chlordane	<0.00000023	U	0.0000100	0.0000002	mg/L		02/27/24 08:18	02/27/24 14:51	1
	7			37					
beta-BHC	<0.00000190	U	0.0000180	0.0000019	mg/L		02/27/24 08:18	02/27/24 14:51	1
				0					
Chlorodane	<0.00000851	U	0.000250	0.0000085	mg/L		02/27/24 08:18	02/27/24 14:51	1
				1					
delta-BHC	<0.00000038	U	0.000250	0.0000003	mg/L		02/27/24 08:18	02/27/24 14:51	1
	7			87					

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	<0.00000008 06	U	0.0000100	0.0000000 806	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endosulfan I	<0.00000014 6	U	0.0000100	0.0000001 46	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endosulfan II	<0.00000008 19	U	0.0000100	0.0000000 819	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endosulfan sulfate	<0.00000031 2	U	0.0000100	0.0000003 12	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endrin	<0.00000016 8	U	0.0000100	0.0000001 68	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endrin aldehyde	<0.00000038 4	U *	0.0000100	0.0000003 84	mg/L		02/27/24 08:18	02/27/24 14:51	1
Endrin ketone	<0.00000040 5	U	0.0000100	0.0000004 05	mg/L		02/27/24 08:18	02/27/24 14:51	1
gamma-BHC (Lindane)	<0.00000060 0	U	0.0000100	0.0000006 00	mg/L		02/27/24 08:18	02/27/24 14:51	1
Heptachlor	<0.00000109 0	U	0.0000090	0.0000010 9	mg/L		02/27/24 08:18	02/27/24 14:51	1
Heptachlor epoxide	<0.00000008 71	U	0.0000100	0.0000000 871	mg/L		02/27/24 08:18	02/27/24 14:51	1
Methoxychlor	<0.00000056 6	U	0.0000200	0.0000005 66	mg/L		02/27/24 08:18	02/27/24 14:51	1
Toxaphene	<0.0000196 9	U	0.000200	0.0000196 99	mg/L		02/27/24 08:18	02/27/24 14:51	1
trans-Chlordane	<0.00000059 9	U	0.0000100	0.0000005 99	mg/L		02/27/24 08:18	02/27/24 14:51	1
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/27/24 08:18	02/27/24 14:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	78		15 - 136				02/27/24 08:18	02/27/24 14:51	1
Tetrachloro-m-xylene	77		18 - 126				02/27/24 08:18	02/27/24 14:51	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1254	<0.00000780	U	0.000200	0.0000078 0	mg/L		02/27/24 08:18	02/27/24 14:49	1
PCB-1260	<0.00000780	U	0.000200	0.0000078 0	mg/L		02/27/24 08:18	02/27/24 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		18 - 116				02/27/24 08:18	02/27/24 14:49	1
DCB Decachlorobiphenyl (Surr)	87		27 - 123				02/27/24 08:18	02/27/24 14:49	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.00379	U	0.00379	0.00379	mg/L		02/21/24 10:07	02/22/24 18:03	1
MCP	<0.0561	U	0.712	0.0561	mg/L		02/21/24 10:07	02/22/24 18:03	1
MCPA	<0.0526	U	0.709	0.0526	mg/L		02/21/24 10:07	02/22/24 18:03	1
Dinoseb	<0.000322	U	0.00358	0.000322	mg/L		02/21/24 10:07	02/22/24 18:03	1
Dichlorprop	<0.000398	U	0.00358	0.000398	mg/L		02/21/24 10:07	02/22/24 18:03	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.000370	U	0.00356	0.000370	mg/L		02/21/24 10:07	02/22/24 18:03	1
Dalapon	<0.000353	U	0.00345	0.000353	mg/L		02/21/24 10:07	02/22/24 18:03	1
2,4-DB	<0.000346	U	0.00359	0.000346	mg/L		02/21/24 10:07	02/22/24 18:03	1
2,4-D	<0.000390	U	0.00356	0.000390	mg/L		02/21/24 10:07	02/22/24 18:03	1
2,4,5-TP (Silvex)	<0.00156	U *1	0.00361	0.00156	mg/L		02/21/24 10:07	02/22/24 18:03	1
2,4,5-T	<0.000343	U	0.00359	0.000343	mg/L		02/21/24 10:07	02/22/24 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	72		41 - 131	02/21/24 10:07	02/22/24 18:03	1

Method: SW846 EPA 8141B - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0668	U	0.192	0.0668	ug/L		02/25/24 21:40	02/26/24 14:27	1
Demeton, Total	<0.0470	U	0.385	0.0470	ug/L		02/25/24 21:40	02/26/24 14:27	1
Chlorpyrifos	<0.0832	U	0.192	0.0832	ug/L		02/25/24 21:40	02/26/24 14:27	1
Malathion	<0.0763	U	0.192	0.0763	ug/L		02/25/24 21:40	02/26/24 14:27	1
Diazinon	<0.0752	U	0.192	0.0752	ug/L		02/25/24 21:40	02/26/24 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	104		56 - 150	02/25/24 21:40	02/26/24 14:27	1
Triphenylphosphate	100		67 - 138	02/25/24 21:40	02/26/24 14:27	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.204	J	0.500	0.0711	mg/L			02/21/24 20:07	1
Nitrate as N	0.116		0.100	0.0391	mg/L			02/21/24 20:07	1
Chloride	27.2		0.500	0.250	mg/L			02/21/24 20:07	1
Nitrite as N	0.343		0.100	0.0293	mg/L			02/21/24 20:07	1
Sulfate	8.86		0.500	0.200	mg/L			02/21/24 20:07	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/21/24 20:07	1

Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		02/26/24 14:17	03/01/24 01:45	1

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		02/26/24 10:11	02/27/24 05:35	1
RDX	<0.637	U	1.40	0.637	ug/L		02/26/24 10:11	02/27/24 05:35	1
1,3,5-Trinitrobenzene	<0.460	U	1.00	0.460	ug/L		02/26/24 10:11	02/27/24 05:35	1
Tetryl	<0.398	U	1.60	0.398	ug/L		02/26/24 10:11	02/27/24 05:35	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		02/26/24 10:11	02/27/24 05:35	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		02/26/24 10:11	02/27/24 05:35	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		02/26/24 10:11	02/27/24 05:35	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		02/26/24 10:11	02/27/24 05:35	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		02/26/24 10:11	02/27/24 05:35	1
4-Amino-2,6-dinitrotoluene	<0.920	U	2.00	0.920	ug/L		02/26/24 10:11	02/27/24 05:35	1
2-Amino-4,6-dinitrotoluene	<0.426	U	0.850	0.426	ug/L		02/26/24 10:11	02/27/24 05:35	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		02/26/24 10:11	02/27/24 05:35	1
2,4-Dinitrotoluene	<0.330	U	0.700	0.330	ug/L		02/26/24 10:11	02/27/24 05:35	1
PETN	<10.1	U	23.0	10.1	ug/L		02/26/24 10:11	02/27/24 05:35	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		02/26/24 10:11	02/27/24 05:35	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		02/26/24 10:11	02/27/24 05:35	1
3-Nitrotoluene	<0.378	U	0.800	0.378	ug/L		02/26/24 10:11	02/27/24 05:35	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		02/26/24 10:11	02/27/24 05:35	1
2,4-diamino-6-nitrotoluene	<1.04	U	2.10	1.04	ug/L		02/26/24 10:11	02/27/24 05:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		68 - 122	02/26/24 10:11	02/27/24 05:35	1
2-Nitro-m-xylene	100		68 - 122	02/26/24 10:11	02/27/24 05:35	1

Method: Lab SOP VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	7.35		2.00	2.00	mg/L			03/14/24 00:22	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1
Propionic acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1
Valeric acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1
Butyric-Isobutyric Acid	<2.00	U	2.00	2.00	mg/L			03/14/24 00:22	1

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<0.998	U	2.00	0.998	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluoroheptanoic acid	<0.299	U	2.00	0.299	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorooctanoic acid	21.5		2.00	0.299	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorononanoic acid	<0.200	U	2.00	0.200	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorodecanoic acid	0.812	J	2.00	0.299	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorotridecanoic acid	<0.399	U	2.00	0.399	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorotetradecanoic acid	<0.399	U	2.00	0.399	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorobutanesulfonic acid	<0.299	U	2.00	0.299	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorohexanesulfonic acid	<0.200	U	2.00	0.200	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorooctanesulfonic acid	0.689	J	2.00	0.499	ng/L		03/05/24 16:06	03/06/24 16:43	1
NEtFOSAA	<0.499	U	2.00	0.499	ng/L		03/05/24 16:06	03/06/24 16:43	1
NMeFOSAA	<0.399	U	2.00	0.399	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluorododecanoic acid	<0.399	U	2.00	0.399	ng/L		03/05/24 16:06	03/06/24 16:43	1
HFPODA	4.00		2.00	0.399	ng/L		03/05/24 16:06	03/06/24 16:43	1
9Cl-PF3ONS	<0.499	U	2.00	0.499	ng/L		03/05/24 16:06	03/06/24 16:43	1
11Cl-PF3OUdS	<0.499	U	2.00	0.499	ng/L		03/05/24 16:06	03/06/24 16:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.499	U	2.00	0.499	ng/L		03/05/24 16:06	03/06/24 16:43	1
Perfluoroundecanoic acid	<0.299	U	2.00	0.299	ng/L		03/05/24 16:06	03/06/24 16:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	75		28 - 166	03/05/24 16:06	03/06/24 16:43	1
13C4 PFHpA	79		40 - 165	03/05/24 16:06	03/06/24 16:43	1
13C8 PFOA	76		52 - 153	03/05/24 16:06	03/06/24 16:43	1
13C9 PFNA	94		52 - 168	03/05/24 16:06	03/06/24 16:43	1
13C6 PFDA	75		53 - 151	03/05/24 16:06	03/06/24 16:43	1
13C2-PFDoDA	68		22 - 165	03/05/24 16:06	03/06/24 16:43	1
13C2 PFTeDA	55		10 - 171	03/05/24 16:06	03/06/24 16:43	1
13C3 PFBS	83		34 - 200	03/05/24 16:06	03/06/24 16:43	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	76		48 - 169	03/05/24 16:06	03/06/24 16:43	1
13C8 PFOS	79		59 - 155	03/05/24 16:06	03/06/24 16:43	1
d3-NMeFOSAA	84		38 - 168	03/05/24 16:06	03/06/24 16:43	1
d5-NEtFOSAA	72		34 - 181	03/05/24 16:06	03/06/24 16:43	1
13C3 HFPO-DA	60		13 - 170	03/05/24 16:06	03/06/24 16:43	1
13C7 PFUnA	68		41 - 163	03/05/24 16:06	03/06/24 16:43	1

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<0.230	U	1.00	0.230	ug/L		02/26/24 09:51	02/28/24 18:45	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	<4.52	U	24.9	4.52	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,4,6,7,8-HpCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,4,7,8-HxCDD	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,4,7,8-HxCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,4,7,8,9-HpCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,6,7,8-HxCDD	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,6,7,8-HxCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,7,8-PeCDD	<3.15	U	24.9	3.15	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,7,8-PeCDF	<2.75	U	24.9	2.75	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,7,8,9-HxCDD	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
1,2,3,7,8,9-HxCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
2,3,4,6,7,8-HxCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
2,3,4,7,8-PeCDF	<2.49	U	24.9	2.49	pg/L		02/27/24 10:17	03/03/24 11:36	1
2,3,7,8-TCDD	<0.870	U	4.98	0.870	pg/L		02/27/24 10:17	03/03/24 11:36	1
2,3,7,8-TCDF	<0.809	U	4.98	0.809	pg/L		02/27/24 10:17	03/03/24 11:36	1
OCDD	<36.1	U	110	36.1	pg/L		02/27/24 10:17	03/03/24 11:36	1
OCDF	<6.13	U	49.8	6.13	pg/L		02/27/24 10:17	03/03/24 11:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	42		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,4,6,7,8-HpCDF	40		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,4,7,8-HxCDD	48		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,4,7,8-HxCDF	49		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,4,7,8,9-HpCDF	38	*5-	40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,6,7,8-HxCDD	50		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,6,7,8-HxCDF	48		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,7,8-PeCDD	53		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,7,8-PeCDF	53		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,7,8,9-HxCDD	53		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-1,2,3,7,8,9-HxCDF	45		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-2,3,4,6,7,8-HxCDF	47		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-2,3,4,7,8-PeCDF	55		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-2,3,7,8-TCDD	58		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-2,3,7,8-TCDF	52		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-OCDD	44		40 - 135	02/27/24 10:17	03/03/24 11:36	1
13C-OCDF	40		40 - 135	02/27/24 10:17	03/03/24 11:36	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0529	J	0.200	0.0352	mg/L		02/25/24 12:30	02/27/24 18:49	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		02/25/24 12:30	02/27/24 18:49	1
Arsenic	0.00820	J	0.0100	0.00650	mg/L		02/25/24 12:30	02/27/24 18:49	1
Barium	0.00178	J	0.0100	0.00125	mg/L		02/25/24 12:30	02/27/24 18:49	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/25/24 12:30	02/27/24 18:49	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/25/24 12:30	02/27/24 18:49	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/25/24 12:30	02/27/24 18:49	1
Calcium	2.59		0.200	0.102	mg/L		02/25/24 12:30	02/27/24 18:49	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/25/24 12:30	02/27/24 18:49	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/25/24 12:30	02/27/24 18:49	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/25/24 12:30	02/27/24 18:49	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/25/24 12:30	02/27/24 18:49	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/25/24 12:30	02/27/24 18:49	1
Magnesium	0.355		0.200	0.0445	mg/L		02/25/24 12:30	02/27/24 18:49	1
Manganese	0.0135	J	0.0200	0.00436	mg/L		02/25/24 12:30	02/27/24 18:49	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		02/25/24 12:30	02/27/24 18:49	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/25/24 12:30	02/27/24 18:49	1
Phosphorus	0.170		0.0400	0.0184	mg/L		02/25/24 12:30	02/27/24 18:49	1
Potassium	1.86		0.500	0.106	mg/L		02/25/24 12:30	02/27/24 18:49	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		02/25/24 12:30	02/27/24 18:49	1
Silicon	6.56		0.500	0.173	mg/L		02/25/24 12:30	02/27/24 18:49	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		02/25/24 12:30	02/27/24 18:49	1
Sodium	26.4		0.500	0.152	mg/L		02/25/24 12:30	02/27/24 18:49	1
Strontium	0.0133	J	0.0200	0.00308	mg/L		02/25/24 12:30	02/27/24 18:49	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/25/24 12:30	02/27/24 18:49	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/25/24 12:30	02/27/24 18:49	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/25/24 12:30	02/27/24 18:49	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/25/24 12:30	02/27/24 18:49	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/25/24 12:30	02/27/24 18:49	1
Lithium	<0.0174	U	0.0400	0.0174	mg/L		02/25/24 12:30	02/27/24 18:49	1
Phosphate as PO4	0.521		0.123	0.0564	mg/L		02/25/24 12:30	02/27/24 18:49	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		02/29/24 09:30	03/01/24 13:52	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		02/29/24 09:30	03/01/24 13:52	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		02/29/24 09:30	03/01/24 13:52	1
Barium	0.00495	J	0.0100	0.00125	mg/L		02/29/24 09:30	03/01/24 13:52	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/29/24 09:30	03/01/24 13:52	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/29/24 09:30	03/01/24 13:52	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/29/24 09:30	03/01/24 13:52	1
Dissolved Calcium	2.88		0.200	0.102	mg/L		02/29/24 09:30	03/01/24 13:52	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/29/24 09:30	03/01/24 13:52	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/29/24 09:30	03/01/24 13:52	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/29/24 09:30	03/01/24 13:52	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/29/24 09:30	03/01/24 13:52	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/29/24 09:30	03/01/24 13:52	1
Dissolved Magnesium	0.430		0.200	0.0445	mg/L		02/29/24 09:30	03/01/24 13:52	1
Manganese	0.0136	J	0.0200	0.00436	mg/L		02/29/24 09:30	03/01/24 13:52	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		02/29/24 09:30	03/01/24 13:52	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: SW846 6010D - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/29/24 09:30	03/01/24 13:52	1
P	0.111		0.0400	0.0184	mg/L		02/29/24 09:30	03/01/24 13:52	1
Potassium	1.90		0.500	0.106	mg/L		02/29/24 09:30	03/01/24 13:52	1
Selenium	0.0125	J	0.0300	0.00927	mg/L		02/29/24 09:30	03/01/24 13:52	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		02/29/24 09:30	03/01/24 13:52	1
Sodium	28.9		0.500	0.152	mg/L		02/29/24 09:30	03/01/24 13:52	1
Strontium	0.0246		0.0200	0.00308	mg/L		02/29/24 09:30	03/01/24 13:52	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/29/24 09:30	03/01/24 13:52	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/29/24 09:30	03/01/24 13:52	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/29/24 09:30	03/01/24 13:52	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/29/24 09:30	03/01/24 13:52	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/29/24 09:30	03/01/24 13:52	1
SiO2	14.7		1.07	0.370	mg/L		02/29/24 09:30	03/01/24 13:52	1
Phosphorus as PO4	0.340		0.123	0.0564	mg/L		02/29/24 09:30	03/01/24 13:52	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.000289	J	0.00100	0.000211	mg/L		02/25/24 10:00	02/26/24 12:52	1

Method: SW846 6020B - Rare Earth Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Dy	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Pr	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Zr	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
La	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Ce	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Nd	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Y	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Tb	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1
Eu	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:35	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	7.93		0.400	0.400	mg/L			02/29/24 13:51	1
Total hardness as CaCO3	7.93		0.400	0.400	mg/L			02/29/24 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	<1.57	U	5.00	1.57	mg/L			02/28/24 15:50	1
Turbidity (EPA 180.1)	1.4		1.0	0.50	NTU			02/22/24 08:59	1
Ammonia (EPA 350.1)	<0.0508	U	0.100	0.0508	mg/L			02/29/24 19:15	1
Oxygen, Dissolved (EPA 360.1)	6.50	HF	1.00	1.00	mg/L			02/22/24 18:01	1
Chemical Oxygen Demand (Hach 8000)	64.0		20.0	3.36	mg/L			02/28/24 14:10	1
Ferrous Iron (Hach 8146)	<0.0280	U HF	0.0500	0.0280	mg/L			03/08/24 12:42	1
Cyanide, Total (SW846 9012B)	8.08	H F1 ^2	5.00	2.00	ug/L		03/08/24 13:54	03/08/24 18:23	1
Halogens, Total Organic (SW846 9020B)	60.0		40.0	14.0	ug/L		02/26/24 08:12	02/26/24 12:58	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B)	27.3		4.00	4.00	mg/L			03/04/24 18:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	27.3		4.00	4.00	mg/L			03/04/24 18:22	1
Specific Conductance (SM 2510B)	161		10.0	10.0	umho/cm @ 25C			03/04/24 15:16	1
Total Dissolved Solids (SM 2540C)	106		5.00	5.00	mg/L			02/27/24 22:22	1
Total Suspended Solids (SM 2540D)	<6.67	U H	6.67	6.67	mg/L			02/28/24 14:11	1
Ferric Iron (SM 3500)	<0.0280	U	0.0500	0.0280	mg/L			03/10/24 19:23	1
Cr (VI) (SM 3500 CR B)	<0.00200	U H	0.0100	0.00200	mg/L			02/21/24 17:59	1
pH (SM 4500 H+ B)	9.0	HF			SU			03/12/24 10:36	1
Temperature (SM 4500 H+ B)	19.0	HF			Degrees C			03/12/24 10:36	1
Sulfide (SM 4500 S2 D)	<0.0400	U F1	0.100	0.0400	mg/L			02/27/24 19:32	1
Total Organic Carbon (SM 5310B)	9.97		1.00	0.500	mg/L			03/01/24 07:48	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	<5.00	U	5.00	5.00	mg/L			03/21/24 17:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	3.45		1.00	0.500	mg/L			03/02/24 23:00	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.827	U	1.16	1.16	3.00	1.95	pCi/L	02/27/24 09:46	03/05/24 07:44	1
Gross Beta	1.25		0.600	0.612	4.00	0.841	pCi/L	02/27/24 09:46	03/05/24 07:44	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	40.0	U	86.2	86.3		120	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Actinium-228	19.2	U	38.9	39.0		71.1	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Bismuth-212	46.4	U	126	126		223	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Bismuth-214	-23.3	U	27.9	28.1		99.8	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Lead-210	-87.1	U	221	221		346	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Lead-212	-8.22	U	24.1	24.2		45.6	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Lead-214	-20.6	U	37.7	37.8		50.1	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Potassium-40	-117	U	139	140		253	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Protactinium-231	0.000	U	144	144		1220	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Radium-226	-23.3	U G	27.9	28.1	50.0	99.8	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Radium-228	19.2	U G	38.9	39.0	50.0	71.1	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Thallium-208	-1.86	U	3.03	3.04		19.2	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Thorium-232	19.2	U	38.9	39.0		71.1	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Thorium-234	63.7	U	155	155		372	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Uranium 235	-10.5	U	32.1	32.2		135	pCi/L	02/26/24 15:29	03/18/24 17:09	1
Uranium 238	63.7	U	155	155		372	pCi/L	02/26/24 15:29	03/18/24 17:09	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0295	U	0.0468	0.0469	1.00	0.0819	pCi/L	02/26/24 10:37	03/19/24 07:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		30 - 110					02/26/24 10:37	03/19/24 07:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.699		0.348	0.354	1.00	0.473	pCi/L	02/26/24 10:43	03/11/24 11:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		30 - 110					02/26/24 10:43	03/11/24 11:44	1
Y Carrier	78.9		30 - 110					02/26/24 10:43	03/11/24 11:44	1

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	-0.0248	U	0.193	0.193	3.00	0.353	pCi/L	02/26/24 10:54	03/05/24 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	81.6		30 - 110					02/26/24 10:54	03/05/24 14:56	1
Y Carrier	81.1		30 - 110					02/26/24 10:54	03/05/24 14:56	1

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(63-144)	(74-124)	(75-131)	(80-120)
830-4968-1	Post-Treated Water	87	110	106	111
830-4968-1 - RA	Post-Treated Water	99	99	99	100
830-4968-1 MS	Post-Treated Water	84	104	110	104
830-4968-1 MS	Post-Treated Water	98	101	98	101
LCS 860-147372/3	Lab Control Sample	87	104	107	105
LCS 860-147524/1011	Lab Control Sample	101	102	99	102
LCSD 860-147372/4	Lab Control Sample Dup	90	105	109	104
LCSD 860-147524/12	Lab Control Sample Dup	99	102	100	100
MB 860-147372/9	Method Blank	86	111	107	110
MB 860-147524/22	Method Blank	99	99	99	100

Surrogate Legend

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

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	NBZ	TPHd14
		(54-146)	(46-151)	(51-139)
830-4968-1	Post-Treated Water	131	103	77
LCS 860-147011/2-A	Lab Control Sample	132	110	62
LCSD 860-147011/3-A	Lab Control Sample Dup	131	119	59
MB 860-147011/1-A	Method Blank	143	122	100

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP	FBP	2FP	NBZ	TPHd14	PHL
		(31-132)	(40-130)	(21-114)	(37-130)	(20-141)	(16-117)
830-4968-1	Post-Treated Water	95	74	36	55	57	28
LCS 860-146819/2-A	Lab Control Sample	59	61	34	55	87	30
LCSD 860-146819/3-A	Lab Control Sample Dup	60	65	34	53	85	29
MB 860-146819/1-A	Method Blank	43	63	28	48	72	26

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
830-4968-1	Post-Treated Water	69
LCS 570-413719/2-A	Lab Control Sample	67
LCSD 570-413719/3-A	Lab Control Sample Dup	96
MB 570-413719/1-A	Method Blank	98

Surrogate Legend

TPTT = Triphenyltin

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-135)	OTPH1 (70-135)
830-4968-1	Post-Treated Water	87	89
LCS 860-146976/2-A	Lab Control Sample	96	100
LCSD 860-146976/3-A	Lab Control Sample Dup	94	96
MB 860-146976/1-A	Method Blank	95	104

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Method: 8081B_LL - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-136)	TCX1 (18-126)
830-4968-1	Post-Treated Water	78	77
LCS 860-147139/2-A	Lab Control Sample	121	96
LCSD 860-147139/3-A	Lab Control Sample Dup	116	92
MB 860-147139/1-A	Method Blank	128	100

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (18-116)	DCB2 (27-123)
830-4968-1	Post-Treated Water	67	87
LCS 860-147139/4-A	Lab Control Sample	100	119
LCSD 860-147139/5-A	Lab Control Sample Dup	101	116
MB 860-147139/1-A	Method Blank	93	119

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (41-131)
830-4968-1	Post-Treated Water	72
LCS 860-146277/2-A	Lab Control Sample	84
LCSD 860-146277/3-A	Lab Control Sample Dup	80
MB 860-146277/1-A	Method Blank	75

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBPH1 (56-150)	TPP1 (67-138)
830-4968-1	Post-Treated Water	104	100
MB 180-460552/1-A	Method Blank	107	109

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBPH2 (56-150)	TPP1 (67-138)
LCS 180-460552/2-A	Lab Control Sample	119	105
LCSD 180-460552/3-A	Lab Control Sample Dup	111	94

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2NMX1 (68-122)	2NMX2 (68-122)
830-4968-1	Post-Treated Water	100	97
LCS 410-476810/2-A	Lab Control Sample	93	93
LCS 410-476810/4-A	Lab Control Sample	99	97
LCSD 410-476810/3-A	Lab Control Sample Dup	97	96
LCSD 410-476810/5-A	Lab Control Sample Dup	98	96
MB 410-476810/1-A	Method Blank	99	96

Surrogate Legend

2NMX = 2-Nitro-m-xylene

Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13C5PHA (28-166)	C4PFHA (40-165)	C8PFOA (52-153)	C9PFNA (52-168)	C6PFDA (53-151)	PFDODA (22-165)	PFTDA (10-171)	C3PFBS (34-200)
830-4968-1	Post-Treated Water	75	79	76	94	75	68	55	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C3PFHS (48-169)	C8PFOS (59-155)	d3NMFOS (38-168)	d5NEFOS (34-181)	HFPODA (13-170)	13C7PUA (41-163)
830-4968-1	Post-Treated Water	76	79	84	72	60	68

Surrogate Legend

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
HFPODA = 13C3 HFPO-DA
13C7PUA = 13C7 PFUnA

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF (40-135)	HxCDD (40-135)	HxCDF (40-135)	HpCDF2 (40-135)	HxDD (40-135)	HxDF (40-135)	PeCDD (40-135)
830-4968-1	Post-Treated Water	42	40	48	49	38 *-5-	50	48	53
LCS 410-477413/2-A	Lab Control Sample	94	97	93	105	92	97	100	86
MB 410-477413/1-A	Method Blank	89	92	85	97	86	90	95	84

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PeCDF (40-135)	13CHxCd (40-135)	HxCF (40-135)	13CHxCf (40-135)	PeCF (40-135)	TCDD (40-135)	TCDF (40-135)	OCDD (40-135)
830-4968-1	Post-Treated Water	53	53	45	47	55	58	52	44
LCS 410-477413/2-A	Lab Control Sample	98	103	96	100	97	97	97	87
MB 410-477413/1-A	Method Blank	93	93	91	93	92	93	97	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDF (40-135)
830-4968-1	Post-Treated Water	40
LCS 410-477413/2-A	Lab Control Sample	86
MB 410-477413/1-A	Method Blank	83

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

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Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCD = 13C-1,2,3,7,8,9-HxCDD
HxCF = 13C-1,2,3,7,8,9-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD
OCDF = 13C-OCDF

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Tracer/Carrier Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba (30-110)						
830-4968-1	Post-Treated Water	99.7						
LCS 160-649792/2-A	Lab Control Sample	104						
MB 160-649792/1-A	Method Blank	104						
Tracer/Carrier Legend								
Ba = Ba Carrier								

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)					
830-4968-1	Post-Treated Water	99.7	78.9					
LCS 160-649795/2-A	Lab Control Sample	104	78.1					
MB 160-649795/1-A	Method Blank	104	81.5					
Tracer/Carrier Legend								
Ba = Ba Carrier								
Y = Y Carrier								

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)					
830-4968-1	Post-Treated Water	81.6	81.1					
LCS 160-649797/2-A	Lab Control Sample	84.2	80.0					
MB 160-649797/1-A	Method Blank	80.1	84.1					
Tracer/Carrier Legend								
Sr = Sr Carrier								
Y = Y Carrier								

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: MB 860-147372/9

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			02/28/24 13:04	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/28/24 13:04	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/28/24 13:04	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			02/28/24 13:04	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			02/28/24 13:04	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/28/24 13:04	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			02/28/24 13:04	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			02/28/24 13:04	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/28/24 13:04	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			02/28/24 13:04	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			02/28/24 13:04	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/28/24 13:04	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			02/28/24 13:04	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			02/28/24 13:04	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			02/28/24 13:04	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/28/24 13:04	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			02/28/24 13:04	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			02/28/24 13:04	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/28/24 13:04	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/28/24 13:04	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/28/24 13:04	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			02/28/24 13:04	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/28/24 13:04	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			02/28/24 13:04	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			02/28/24 13:04	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			02/28/24 13:04	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			02/28/24 13:04	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			02/28/24 13:04	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			02/28/24 13:04	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			02/28/24 13:04	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			02/28/24 13:04	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/28/24 13:04	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			02/28/24 13:04	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			02/28/24 13:04	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			02/28/24 13:04	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/28/24 13:04	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/28/24 13:04	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			02/28/24 13:04	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/28/24 13:04	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			02/28/24 13:04	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			02/28/24 13:04	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			02/28/24 13:04	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/28/24 13:04	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			02/28/24 13:04	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			02/28/24 13:04	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			02/28/24 13:04	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			02/28/24 13:04	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			02/28/24 13:04	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: MB 860-147372/9

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			02/28/24 13:04	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			02/28/24 13:04	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			02/28/24 13:04	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			02/28/24 13:04	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			02/28/24 13:04	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/28/24 13:04	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			02/28/24 13:04	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			02/28/24 13:04	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			02/28/24 13:04	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			02/28/24 13:04	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			02/28/24 13:04	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			02/28/24 13:04	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/28/24 13:04	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			02/28/24 13:04	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			02/28/24 13:04	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/28/24 13:04	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			02/28/24 13:04	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			02/28/24 13:04	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			02/28/24 13:04	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			02/28/24 13:04	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/28/24 13:04	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			02/28/24 13:04	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			02/28/24 13:04	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/28/24 13:04	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			02/28/24 13:04	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			02/28/24 13:04	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			02/28/24 13:04	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			02/28/24 13:04	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			02/28/24 13:04	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/28/24 13:04	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			02/28/24 13:04	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/28/24 13:04	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			02/28/24 13:04	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			02/28/24 13:04	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			02/28/24 13:04	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			02/28/24 13:04	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			02/28/24 13:04	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			02/28/24 13:04	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			02/28/24 13:04	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			02/28/24 13:04	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			02/28/24 13:04	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			02/28/24 13:04	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			02/28/24 13:04	1
Isopropyl acetate	NC		0.00500	0.000576	mg/L			02/28/24 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		63 - 144		02/28/24 13:04	1
4-Bromofluorobenzene (Surr)	111		74 - 124		02/28/24 13:04	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: MB 860-147372/9

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		75 - 131		02/28/24 13:04	1
Toluene-d8 (Surr)	110		80 - 120		02/28/24 13:04	1

Lab Sample ID: LCS 860-147372/3

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	0.0500	0.05351		mg/L		107	60 - 140
cis-1,2-Dichloroethene	0.0500	0.05188		mg/L		104	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05521		mg/L		110	74 - 125
Isopropylbenzene	0.0500	0.05154		mg/L		103	75 - 125
m,p-Xylenes	0.0500	0.05223		mg/L		104	75 - 125
n-Butylbenzene	0.0500	0.05201		mg/L		104	75 - 125
N-Propylbenzene	0.0500	0.05144		mg/L		103	75 - 125
o-Xylene	0.0500	0.05163		mg/L		103	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05451		mg/L		109	75 - 125
tert-Butylbenzene	0.0500	0.04942		mg/L		99	75 - 125
trans-1,2-Dichloroethene	0.0500	0.05178		mg/L		104	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05019		mg/L		100	66 - 125
2-Chloroethyl vinyl ether	0.0500	0.05560		mg/L		111	50 - 150
2-Chlorotoluene	0.0500	0.05397		mg/L		108	73 - 125
Vinyl chloride	0.0500	0.06597		mg/L		132	60 - 140
1,1,1,2-Tetrachloroethane	0.0500	0.04835		mg/L		97	72 - 125
2-Hexanone	0.250	0.2504		mg/L		100	60 - 140
1,1,1-Trichloroethane	0.0500	0.04915		mg/L		98	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05756		mg/L		115	74 - 125
1,1,2-Trichloroethane	0.0500	0.05741		mg/L		115	75 - 130
4-Methyl-2-pentanone	0.250	0.2666		mg/L		107	60 - 140
1,1-Dichloroethane	0.0500	0.04629		mg/L		93	71 - 130
Acetonitrile	0.500	0.5675		mg/L		113	60 - 140
1,1-Dichloroethene	0.0500	0.05373		mg/L		107	50 - 150
Acetone	0.250	0.2498		mg/L		100	60 - 140
1,1-Dichloropropene	0.0500	0.05109		mg/L		102	75 - 125
Acrolein	0.250	0.2749		mg/L		110	60 - 140
1,2,3-Trichlorobenzene	0.0500	0.05004		mg/L		100	75 - 137
Acrylonitrile	0.500	0.5682		mg/L		114	60 - 140
1,2,3-Trichloropropane	0.0500	0.05222		mg/L		104	75 - 125
1,2,4-Trichlorobenzene	0.0500	0.05022		mg/L		100	75 - 135
1,2,4-Trimethylbenzene	0.0500	0.04818		mg/L		96	75 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.04698		mg/L		94	59 - 125
1,2-Dibromoethane	0.0500	0.05743		mg/L		115	73 - 125
1,2-Dichlorobenzene	0.0500	0.04760		mg/L		95	75 - 125
1,2-Dichloroethane	0.0500	0.04468		mg/L		89	72 - 130
Carbon disulfide	0.0500	0.05125		mg/L		103	60 - 140
1,2-Dichloropropane	0.0500	0.05488		mg/L		110	74 - 125
1,3,5-Trimethylbenzene	0.0500	0.05077		mg/L		102	60 - 140
1,3-Dichlorobenzene	0.0500	0.04820		mg/L		96	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: LCS 860-147372/3

Matrix: Water

Analysis Batch: 147372

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	0.0500	0.05617		mg/L		112	75 - 125
1,4-Dichlorobenzene	0.0500	0.04972		mg/L		99	75 - 125
Cyclohexane	0.0500	0.05706		mg/L		114	70 - 130
Dibromomethane	0.0500	0.05518		mg/L		110	69 - 127
2,2-Dichloropropane	0.0500	0.04941		mg/L		99	75 - 125
2-Butanone	0.250	0.2547		mg/L		102	60 - 140
Iodomethane (Methyl Iodide)	0.0500	0.04327		mg/L		87	75 - 125
Isobutyl alcohol	1.24	1.405		mg/L		113	60 - 140
4-Chlorotoluene	0.0500	0.04991		mg/L		100	74 - 125
Methyl acetate	0.100	0.1087		mg/L		109	60 - 140
Methylcyclohexane	0.0500	0.05390		mg/L		108	75 - 125
Benzene	0.0500	0.05985		mg/L		120	75 - 125
Bromobenzene	0.0500	0.04596		mg/L		92	75 - 125
Bromochloromethane	0.0500	0.05127		mg/L		103	60 - 140
Bromodichloromethane	0.0500	0.04958		mg/L		99	75 - 125
Bromoform	0.0500	0.05047		mg/L		101	70 - 130
Bromomethane	0.0500	0.04484		mg/L		90	60 - 140
Tetrahydrofuran	0.100	0.1047		mg/L		105	75 - 125
Carbon tetrachloride	0.0500	0.04729		mg/L		95	70 - 125
Chlorobenzene	0.0500	0.05104		mg/L		102	82 - 135
Chloroethane	0.0500	0.06266		mg/L		125	60 - 140
Chloroform	0.0500	0.05030		mg/L		101	70 - 121
Chloromethane	0.0500	0.05784		mg/L		116	60 - 140
Vinyl acetate	0.250	0.2780		mg/L		111	60 - 140
Dibromochloromethane	0.0500	0.04960		mg/L		99	73 - 125
Dichlorodifluoromethane	0.0500	0.04984		mg/L		100	50 - 150
Ethylbenzene	0.0500	0.05223		mg/L		104	75 - 125
Hexachlorobutadiene	0.0500	0.05085		mg/L		102	75 - 125
n-Hexane	0.0500	0.05695		mg/L		114	72 - 125
MTBE	0.0500	0.04967		mg/L		99	65 - 135
Methylene Chloride	0.0500	0.05593		mg/L		112	71 - 125
Naphthalene	0.0500	0.04718		mg/L		94	70 - 130
t-Butyl alcohol	0.500	0.5039		mg/L		101	65 - 135
sec-Butylbenzene	0.0500	0.05196		mg/L		104	75 - 125
trans-1,4-Dichloro-2-butene	0.0500	0.04685		mg/L		94	70 - 130
Styrene	0.0500	0.05076		mg/L		102	75 - 125
Tetrachloroethene	0.0500	0.05191		mg/L		104	71 - 125
Toluene	0.0500	0.04607		mg/L		92	75 - 130
Trichloroethene	0.0500	0.05098		mg/L		102	75 - 135
Trichlorofluoromethane	0.0500	0.05227		mg/L		105	60 - 140
Allyl Chloride (3-Chloropropene)	0.0500	0.04735		mg/L		95	70 - 130
2-Chloro-1,3-butadiene	0.0500	0.04754		mg/L		95	70 - 130
Propane Nitrile (Propionitrile)	0.500	0.5483		mg/L		110	70 - 130
Methacrylonitrile	0.500	0.5484		mg/L		110	70 - 130
Methyl methacrylate	0.100	0.1129		mg/L		113	70 - 130
Ethyl ether	0.0500	0.05127	J	mg/L		103	70 - 130
Ethyl acetate	0.100	0.09823		mg/L		98	70 - 130
2-Nitropropane	0.100	0.08820		mg/L		88	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: LCS 860-147372/3

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		63 - 144
4-Bromofluorobenzene (Surr)	104		74 - 124
Dibromofluoromethane (Surr)	107		75 - 131
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: LCSD 860-147372/4

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Freon 113	0.0500	0.05120		mg/L		102	60 - 140	4	25
cis-1,2-Dichloroethene	0.0500	0.04776		mg/L		96	75 - 125	8	25
cis-1,3-Dichloropropene	0.0500	0.05225		mg/L		104	74 - 125	6	25
Isopropylbenzene	0.0500	0.04865		mg/L		97	75 - 125	6	25
m,p-Xylenes	0.0500	0.04986		mg/L		100	75 - 125	5	25
n-Butylbenzene	0.0500	0.05061		mg/L		101	75 - 125	3	25
N-Propylbenzene	0.0500	0.04887		mg/L		98	75 - 125	5	25
o-Xylene	0.0500	0.04927		mg/L		99	75 - 125	5	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05157		mg/L		103	75 - 125	6	25
tert-Butylbenzene	0.0500	0.04746		mg/L		95	75 - 125	4	25
trans-1,2-Dichloroethene	0.0500	0.04670		mg/L		93	75 - 125	10	25
trans-1,3-Dichloropropene	0.0500	0.04901		mg/L		98	66 - 125	2	25
2-Chloroethyl vinyl ether	0.0500	0.05167		mg/L		103	50 - 150	7	25
2-Chlorotoluene	0.0500	0.05186		mg/L		104	73 - 125	4	25
Vinyl chloride	0.0500	0.06422		mg/L		128	60 - 140	3	25
1,1,1,2-Tetrachloroethane	0.0500	0.04649		mg/L		93	72 - 125	4	25
2-Hexanone	0.250	0.2418		mg/L		97	60 - 140	3	25
1,1,1-Trichloroethane	0.0500	0.04824		mg/L		96	70 - 130	2	25
1,1,2,2-Tetrachloroethane	0.0500	0.05429		mg/L		109	74 - 125	6	25
1,1,2-Trichloroethane	0.0500	0.05335		mg/L		107	75 - 130	7	25
4-Methyl-2-pentanone	0.250	0.2538		mg/L		102	60 - 140	5	25
1,1-Dichloroethane	0.0500	0.04354		mg/L		87	71 - 130	6	25
Acetonitrile	0.500	0.4916		mg/L		98	60 - 140	14	25
1,1-Dichloroethene	0.0500	0.04889		mg/L		98	50 - 150	9	25
Acetone	0.250	0.2258		mg/L		90	60 - 140	10	25
1,1-Dichloropropene	0.0500	0.04873		mg/L		97	75 - 125	5	25
Acrolein	0.250	0.2523		mg/L		101	60 - 140	9	25
1,2,3-Trichlorobenzene	0.0500	0.05045		mg/L		101	75 - 137	1	25
Acrylonitrile	0.500	0.5402		mg/L		108	60 - 140	5	25
1,2,3-Trichloropropane	0.0500	0.05056		mg/L		101	75 - 125	3	25
1,2,4-Trichlorobenzene	0.0500	0.05009		mg/L		100	75 - 135	0	25
1,2,4-Trimethylbenzene	0.0500	0.04674		mg/L		93	75 - 125	3	25
1,2-Dibromo-3-Chloropropane	0.0500	0.04376		mg/L		88	59 - 125	7	25
1,2-Dibromoethane	0.0500	0.05335		mg/L		107	73 - 125	7	25
1,2-Dichlorobenzene	0.0500	0.04448		mg/L		89	75 - 125	7	25
1,2-Dichloroethane	0.0500	0.04279		mg/L		86	72 - 130	4	25
Carbon disulfide	0.0500	0.04799		mg/L		96	60 - 140	7	25
1,2-Dichloropropane	0.0500	0.05484		mg/L		110	74 - 125	0	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: LCSD 860-147372/4

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	0.0500	0.04794		mg/L		96	60 - 140	6	25
1,3-Dichlorobenzene	0.0500	0.04714		mg/L		94	75 - 125	2	25
1,3-Dichloropropane	0.0500	0.05208		mg/L		104	75 - 125	8	25
1,4-Dichlorobenzene	0.0500	0.04585		mg/L		92	75 - 125	8	25
Cyclohexane	0.0500	0.05248		mg/L		105	70 - 130	8	25
Dibromomethane	0.0500	0.05146		mg/L		103	69 - 127	7	25
2,2-Dichloropropane	0.0500	0.04470		mg/L		89	75 - 125	10	25
2-Butanone	0.250	0.2690		mg/L		108	60 - 140	5	25
Iodomethane (Methyl Iodide)	0.0500	0.04329		mg/L		87	75 - 125	0	25
Isobutyl alcohol	1.24	1.361		mg/L		110	60 - 140	3	25
4-Chlorotoluene	0.0500	0.04786		mg/L		96	74 - 125	4	25
Methyl acetate	0.100	0.1050		mg/L		105	60 - 140	3	25
Methylcyclohexane	0.0500	0.05314		mg/L		106	75 - 125	1	25
Benzene	0.0500	0.05611		mg/L		112	75 - 125	6	25
Bromobenzene	0.0500	0.04605		mg/L		92	75 - 125	0	25
Bromochloromethane	0.0500	0.05209		mg/L		104	60 - 140	2	25
Bromodichloromethane	0.0500	0.04777		mg/L		96	75 - 125	4	25
Bromoform	0.0500	0.04917		mg/L		98	70 - 130	3	25
Bromomethane	0.0500	0.04039		mg/L		81	60 - 140	10	25
Tetrahydrofuran	0.100	0.1011		mg/L		101	75 - 125	3	25
Carbon tetrachloride	0.0500	0.04501		mg/L		90	70 - 125	5	25
Chlorobenzene	0.0500	0.04868		mg/L		97	82 - 135	5	25
Chloroethane	0.0500	0.05950		mg/L		119	60 - 140	5	25
Chloroform	0.0500	0.04761		mg/L		95	70 - 121	5	25
Chloromethane	0.0500	0.05241		mg/L		105	60 - 140	10	25
Vinyl acetate	0.250	0.2777		mg/L		111	60 - 140	0	25
Dibromochloromethane	0.0500	0.04679		mg/L		94	73 - 125	6	25
Dichlorodifluoromethane	0.0500	0.04657		mg/L		93	50 - 150	7	25
Ethylbenzene	0.0500	0.04907		mg/L		98	75 - 125	6	25
Hexachlorobutadiene	0.0500	0.05283		mg/L		106	75 - 125	4	25
n-Hexane	0.0500	0.05585		mg/L		112	72 - 125	2	25
MTBE	0.0500	0.04739		mg/L		95	65 - 135	5	25
Methylene Chloride	0.0500	0.05186		mg/L		104	71 - 125	8	25
Naphthalene	0.0500	0.04909		mg/L		98	70 - 130	4	25
t-Butyl alcohol	0.500	0.5035		mg/L		101	65 - 135	0	25
sec-Butylbenzene	0.0500	0.04914		mg/L		98	75 - 125	6	25
trans-1,4-Dichloro-2-butene	0.0500	0.04455		mg/L		89	70 - 130	5	25
Styrene	0.0500	0.04841		mg/L		97	75 - 125	5	25
Tetrachloroethene	0.0500	0.04849		mg/L		97	71 - 125	7	25
Toluene	0.0500	0.04362		mg/L		87	75 - 130	5	25
Trichloroethene	0.0500	0.04881		mg/L		98	75 - 135	4	25
Trichlorofluoromethane	0.0500	0.04791		mg/L		96	60 - 140	9	25
Allyl Chloride (3-Chloropropene)	0.0500	0.04121		mg/L		82	70 - 130	14	25
2-Chloro-1,3-butadiene	0.0500	0.04437		mg/L		89	70 - 130	7	25
Propane Nitrile (Propionitrile)	0.500	0.5198		mg/L		104	70 - 130	5	25
Methacrylonitrile	0.500	0.5305		mg/L		106	70 - 130	3	25
Methyl methacrylate	0.100	0.1101		mg/L		110	70 - 130	2	25
Ethyl ether	0.0500	0.05057	J	mg/L		101	70 - 130	1	25
Ethyl acetate	0.100	0.09437		mg/L		94	70 - 130	4	25

Eurofins El Paso

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: LCSD 860-147372/4

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitropropane	0.100	0.08440		mg/L		84	75 - 125	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		63 - 144
4-Bromofluorobenzene (Surr)	105		74 - 124
Dibromofluoromethane (Surr)	109		75 - 131
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: 830-4968-1 MS

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	<0.00111	U	0.0500	0.05115		mg/L		102	60 - 140
cis-1,2-Dichloroethene	<0.000457	U	0.0500	0.05181		mg/L		104	75 - 125
cis-1,3-Dichloropropene	<0.00107	U	0.0500	0.05481		mg/L		110	74 - 125
Isopropylbenzene	<0.000592	U	0.0500	0.05309		mg/L		106	75 - 125
m,p-Xylenes	<0.00124	U	0.0500	0.05284		mg/L		106	75 - 125
n-Butylbenzene	<0.000510	U	0.0500	0.05554		mg/L		111	75 - 125
N-Propylbenzene	<0.000429	U	0.0500	0.05315		mg/L		106	75 - 125
o-Xylene	<0.000502	U	0.0500	0.05174		mg/L		103	75 - 125
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.0500	0.05723		mg/L		114	75 - 125
tert-Butylbenzene	<0.000442	U	0.0500	0.05165		mg/L		103	75 - 125
trans-1,2-Dichloroethene	<0.000368	U	0.0500	0.05104		mg/L		102	75 - 125
trans-1,3-Dichloropropene	<0.00127	U	0.0500	0.05130		mg/L		103	66 - 125
2-Chloroethyl vinyl ether	<0.000753	U	0.0500	0.05404		mg/L		108	50 - 150
2-Chlorotoluene	<0.000459	U	0.0500	0.05643		mg/L		113	73 - 125
Vinyl chloride	<0.000428	U	0.0500	0.06475		mg/L		129	60 - 140
1,1,1,2-Tetrachloroethane	<0.000644	U	0.0500	0.04940		mg/L		99	72 - 125
2-Hexanone	<0.00745	U	0.250	0.2528		mg/L		101	60 - 140
1,1,1-Trichloroethane	<0.000585	U	0.0500	0.04913		mg/L		98	75 - 125
1,1,2,2-Tetrachloroethane	<0.000470	U	0.0500	0.05842		mg/L		117	74 - 125
1,1,2-Trichloroethane	<0.000411	U	0.0500	0.05535		mg/L		111	75 - 127
4-Methyl-2-pentanone	<0.00749	U	0.250	0.2588		mg/L		104	60 - 140
1,1-Dichloroethane	<0.000635	U	0.0500	0.04727		mg/L		95	72 - 125
Acetonitrile	<0.0146	U	0.500	0.5293		mg/L		106	60 - 140
1,1-Dichloroethene	<0.000738	U	0.0500	0.04941		mg/L		99	59 - 172
Acetone	<0.00307	U	0.250	0.2715		mg/L		109	60 - 140
1,1-Dichloropropene	<0.000624	U	0.0500	0.05145		mg/L		103	75 - 125
Acrolein	<0.0111	U	0.250	0.2415		mg/L		97	50 - 150
1,2,3-Trichlorobenzene	<0.00177	U	0.0500	0.05818		mg/L		116	75 - 137
Acrylonitrile	<0.0143	U	0.500	0.5707		mg/L		114	50 - 150
1,2,3-Trichloropropane	<0.000470	U	0.0500	0.05452		mg/L		109	75 - 125
1,2,4-Trichlorobenzene	<0.00175	U	0.0500	0.05659		mg/L		113	75 - 135
1,2,4-Trimethylbenzene	<0.000417	U	0.0500	0.05034		mg/L		101	75 - 125
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.0500	0.04830		mg/L		97	59 - 125
1,2-Dibromoethane	<0.000999	U	0.0500	0.05590		mg/L		112	73 - 125
1,2-Dichlorobenzene	<0.000429	U	0.0500	0.04918		mg/L		98	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: 830-4968-1 MS

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	<0.000372	U	0.0500	0.04382		mg/L		88	68 - 127
Carbon disulfide	<0.00165	U	0.0500	0.04987		mg/L		100	60 - 140
1,2-Dichloropropane	<0.000556	U	0.0500	0.05487		mg/L		110	74 - 125
1,3,5-Trimethylbenzene	<0.000411	U	0.0500	0.05126		mg/L		103	70 - 125
1,3-Dichlorobenzene	<0.000413	U	0.0500	0.05222		mg/L		104	75 - 125
1,3-Dichloropropane	<0.000514	U	0.0500	0.05548		mg/L		111	75 - 125
1,4-Dichlorobenzene	<0.000449	U	0.0500	0.05076		mg/L		102	75 - 125
Cyclohexane	<0.00129	U	0.0500	0.05566		mg/L		111	70 - 130
Dibromomethane	<0.000357	U	0.0500	0.05210		mg/L		104	69 - 127
2,2-Dichloropropane	<0.000679	U	0.0500	0.04907		mg/L		98	75 - 125
2-Butanone	<0.00828	U	0.250	0.2681		mg/L		107	60 - 140
Iodomethane (Methyl Iodide)	<0.00652	U	0.0500	0.04465		mg/L		89	75 - 125
Isobutyl alcohol	<0.0171	U	1.24	1.382		mg/L		111	60 - 140
4-Chlorotoluene	<0.000386	U	0.0500	0.05113		mg/L		102	74 - 125
Methyl acetate	<0.00401	U	0.100	0.1092		mg/L		109	60 - 140
Methylcyclohexane	<0.000608	U	0.0500	0.05388		mg/L		108	75 - 125
Benzene	<0.000460	U	0.0500	0.05732		mg/L		115	66 - 142
Bromobenzene	<0.000486	U	0.0500	0.04849		mg/L		97	75 - 125
Bromochloromethane	<0.000577	U	0.0500	0.05194		mg/L		104	60 - 140
Bromodichloromethane	<0.000552	U	0.0500	0.05002		mg/L		100	75 - 125
Bromoform	<0.000633	U	0.0500	0.05082		mg/L		102	75 - 125
Bromomethane	<0.00142	U	0.0500	0.03984		mg/L		80	60 - 140
Tetrahydrofuran	0.0213		0.100	0.1330		mg/L		112	75 - 125
Carbon tetrachloride	<0.000896	U	0.0500	0.04714		mg/L		94	62 - 125
Chlorobenzene	<0.000455	U	0.0500	0.05175		mg/L		104	60 - 133
Chloroethane	<0.00198	U	0.0500	0.06866		mg/L		137	60 - 140
Chloroform	<0.000464	U	0.0500	0.04989		mg/L		100	70 - 130
Chloromethane	<0.00204	U	0.0500	0.05418		mg/L		108	60 - 140
Vinyl acetate	<0.00214	U	0.250	0.2745		mg/L		110	60 - 140
Dibromochloromethane	<0.000547	U	0.0500	0.04798		mg/L		96	73 - 125
Dichlorodifluoromethane	<0.000785	U	0.0500	0.04019		mg/L		80	70 - 130
Ethylbenzene	<0.000385	U	0.0500	0.05187		mg/L		104	75 - 125
Hexachlorobutadiene	<0.000627	U F1	0.0500	0.06318	F1	mg/L		126	75 - 125
n-Hexane	<0.000517	U	0.0500	0.05607		mg/L		112	72 - 125
MTBE	<0.00139	U	0.0500	0.05043		mg/L		101	65 - 135
Methylene Chloride	<0.00173	U	0.0500	0.05420		mg/L		108	75 - 125
Naphthalene	<0.00135	U	0.0500	0.05451		mg/L		109	70 - 130
t-Butyl alcohol	<0.00500	U	0.500	0.5302		mg/L		106	65 - 135
sec-Butylbenzene	<0.000468	U	0.0500	0.05433		mg/L		109	75 - 125
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0500	0.04716		mg/L		94	70 - 130
Styrene	<0.000619	U	0.0500	0.05106		mg/L		102	75 - 125
Tetrachloroethene	<0.000655	U	0.0500	0.05110		mg/L		102	71 - 125
Toluene	<0.000475	U	0.0500	0.04621		mg/L		92	59 - 139
Trichloroethene	<0.00150	U	0.0500	0.04924		mg/L		98	62 - 137
Trichlorofluoromethane	<0.000560	U	0.0500	0.05062		mg/L		101	60 - 140
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.0500	0.05086		mg/L		102	70 - 130
2-Chloro-1,3-butadiene	<0.000598	U	0.0500	0.04494		mg/L		90	70 - 130
Propane Nitrile (Propionitrile)	<0.00334	U	0.500	0.5417		mg/L		108	70 - 130
Methacrylonitrile	<0.00272	U	0.500	0.5522		mg/L		110	70 - 130

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: 830-4968-1 MS

Matrix: Water

Analysis Batch: 147372

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl methacrylate	<0.00225	U	0.100	0.1101		mg/L		110	70 - 130
Ethyl ether	<0.0100	U	0.0500	0.05339	J	mg/L		107	70 - 130
Ethyl acetate	<0.000621	U	0.100	0.1010		mg/L		101	70 - 130
2-Nitropropane	<0.00336	U	0.100	0.08651		mg/L		87	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	84		63 - 144
4-Bromofluorobenzene (Surr)	104		74 - 124
Dibromofluoromethane (Surr)	110		75 - 131
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: MB 860-147524/22

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			02/29/24 12:38	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/29/24 12:38	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/29/24 12:38	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			02/29/24 12:38	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			02/29/24 12:38	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/29/24 12:38	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			02/29/24 12:38	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			02/29/24 12:38	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/29/24 12:38	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			02/29/24 12:38	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			02/29/24 12:38	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/29/24 12:38	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			02/29/24 12:38	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			02/29/24 12:38	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			02/29/24 12:38	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/29/24 12:38	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			02/29/24 12:38	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			02/29/24 12:38	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/29/24 12:38	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/29/24 12:38	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/29/24 12:38	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			02/29/24 12:38	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/29/24 12:38	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			02/29/24 12:38	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			02/29/24 12:38	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			02/29/24 12:38	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			02/29/24 12:38	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			02/29/24 12:38	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			02/29/24 12:38	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			02/29/24 12:38	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			02/29/24 12:38	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/29/24 12:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: MB 860-147524/22

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			02/29/24 12:38	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			02/29/24 12:38	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			02/29/24 12:38	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/29/24 12:38	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/29/24 12:38	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			02/29/24 12:38	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/29/24 12:38	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			02/29/24 12:38	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			02/29/24 12:38	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			02/29/24 12:38	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/29/24 12:38	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			02/29/24 12:38	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			02/29/24 12:38	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			02/29/24 12:38	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			02/29/24 12:38	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			02/29/24 12:38	1
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			02/29/24 12:38	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			02/29/24 12:38	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			02/29/24 12:38	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			02/29/24 12:38	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			02/29/24 12:38	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/29/24 12:38	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			02/29/24 12:38	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			02/29/24 12:38	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			02/29/24 12:38	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			02/29/24 12:38	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			02/29/24 12:38	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			02/29/24 12:38	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/29/24 12:38	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			02/29/24 12:38	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			02/29/24 12:38	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/29/24 12:38	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			02/29/24 12:38	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			02/29/24 12:38	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			02/29/24 12:38	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			02/29/24 12:38	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/29/24 12:38	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			02/29/24 12:38	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			02/29/24 12:38	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/29/24 12:38	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			02/29/24 12:38	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			02/29/24 12:38	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			02/29/24 12:38	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			02/29/24 12:38	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			02/29/24 12:38	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/29/24 12:38	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			02/29/24 12:38	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/29/24 12:38	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			02/29/24 12:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

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

Lab Sample ID: MB 860-147524/22

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			02/29/24 12:38	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			02/29/24 12:38	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			02/29/24 12:38	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			02/29/24 12:38	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			02/29/24 12:38	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			02/29/24 12:38	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			02/29/24 12:38	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			02/29/24 12:38	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			02/29/24 12:38	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			02/29/24 12:38	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			02/29/24 12:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144		02/29/24 12:38	1
4-Bromofluorobenzene (Surr)	99		74 - 124		02/29/24 12:38	1
Dibromofluoromethane (Surr)	99		75 - 131		02/29/24 12:38	1
Toluene-d8 (Surr)	100		80 - 120		02/29/24 12:38	1

Lab Sample ID: LCS 860-147524/1011

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	99		75 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 860-147524/12

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 830-4968-1 MS

Matrix: Water

Analysis Batch: 147524

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	98		75 - 131
Toluene-d8 (Surr)	101		80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 860-147011/1-A

Matrix: Water

Analysis Batch: 146993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000100	U	0.000182	0.000100	mg/L		02/26/24 12:19	02/26/24 14:12	1
Acenaphthylene	<0.0000842	U	0.000182	0.0000842	mg/L		02/26/24 12:19	02/26/24 14:12	1
Anthracene	<0.0000900	U	0.000182	0.0000900	mg/L		02/26/24 12:19	02/26/24 14:12	1
Benzo[a]anthracene	<0.000134	U	0.000182	0.000134	mg/L		02/26/24 12:19	02/26/24 14:12	1
Benzo[a]pyrene	<0.0000571	U	0.000182	0.0000571	mg/L		02/26/24 12:19	02/26/24 14:12	1
Benzo[b]fluoranthene	<0.0000700	U	0.000182	0.0000700	mg/L		02/26/24 12:19	02/26/24 14:12	1
Benzo[g,h,i]perylene	0.0001780	J	0.000182	0.000113	mg/L		02/26/24 12:19	02/26/24 14:12	1
Benzo[k]fluoranthene	<0.000116	U	0.000182	0.000116	mg/L		02/26/24 12:19	02/26/24 14:12	1
Chrysene	<0.000156	U	0.000182	0.000156	mg/L		02/26/24 12:19	02/26/24 14:12	1
Dibenz(a,h)anthracene	<0.0000760	U	0.000182	0.0000760	mg/L		02/26/24 12:19	02/26/24 14:12	1
Fluoranthene	<0.000157	U	0.000182	0.000157	mg/L		02/26/24 12:19	02/26/24 14:12	1
Fluorene	<0.000101	U	0.000182	0.000101	mg/L		02/26/24 12:19	02/26/24 14:12	1
Indeno[1,2,3-cd]pyrene	<0.0000913	U	0.000182	0.0000913	mg/L		02/26/24 12:19	02/26/24 14:12	1
Naphthalene	<0.0000972	U	0.00364	0.0000972	mg/L		02/26/24 12:19	02/26/24 14:12	1
Phenanthrene	<0.0000850	U	0.000182	0.0000850	mg/L		02/26/24 12:19	02/26/24 14:12	1
Pyrene	<0.000130	U	0.000182	0.000130	mg/L		02/26/24 12:19	02/26/24 14:12	1
1-Methylnaphthalene	<0.0000795	U	0.000182	0.0000795	mg/L		02/26/24 12:19	02/26/24 14:12	1
2-Methylnaphthalene	<0.0000913	U	0.000182	0.0000913	mg/L		02/26/24 12:19	02/26/24 14:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	143		54 - 146	02/26/24 12:19	02/26/24 14:12	1
Nitrobenzene-d5 (Surr)	122		46 - 151	02/26/24 12:19	02/26/24 14:12	1
p-Terphenyl-d14 (Surr)	100		51 - 139	02/26/24 12:19	02/26/24 14:12	1

Lab Sample ID: LCS 860-147011/2-A

Matrix: Water

Analysis Batch: 146993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	0.0182	0.02267		mg/L		125	66 - 174
Acenaphthylene	0.0182	0.02274		mg/L		125	67 - 182
Anthracene	0.0182	0.02149		mg/L		118	55 - 191
Benzo[a]anthracene	0.0182	0.01870		mg/L		103	16 - 171
Benzo[a]pyrene	0.0182	0.01513		mg/L		83	10 - 165
Benzo[b]fluoranthene	0.0182	0.01767		mg/L		97	10 - 166
Benzo[g,h,i]perylene	0.0182	0.01467		mg/L		81	10 - 154
Benzo[k]fluoranthene	0.0182	0.01525		mg/L		84	10 - 178
Chrysene	0.0182	0.01622		mg/L		89	10 - 172
Dibenz(a,h)anthracene	0.0182	0.01561		mg/L		86	10 - 168
Fluoranthene	0.0182	0.02183		mg/L		120	52 - 185
Fluorene	0.0182	0.02407		mg/L		132	64 - 184
Indeno[1,2,3-cd]pyrene	0.0182	0.01517		mg/L		83	10 - 160
Naphthalene	0.0182	0.02200		mg/L		121	66 - 166
Phenanthrene	0.0182	0.02190		mg/L		120	66 - 184
Pyrene	0.0182	0.01956		mg/L		108	58 - 181
1-Methylnaphthalene	0.0182	0.02339		mg/L		129	64 - 167
2-Methylnaphthalene	0.0182	0.02340		mg/L		129	63 - 166

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 860-147011/2-A

Matrix: Water

Analysis Batch: 146993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147011

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	132		54 - 146
Nitrobenzene-d5 (Surr)	110		46 - 151
p-Terphenyl-d14 (Surr)	62		51 - 139

Lab Sample ID: LCSD 860-147011/3-A

Matrix: Water

Analysis Batch: 146993

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147011

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	0.0182	0.02418		mg/L		133	66 - 174	6	40
Acenaphthylene	0.0182	0.02440		mg/L		134	67 - 182	7	40
Anthracene	0.0182	0.02282		mg/L		125	55 - 191	6	40
Benzo[a]anthracene	0.0182	0.01362		mg/L		75	16 - 171	31	50
Benzo[a]pyrene	0.0182	0.009113		mg/L		50	10 - 165	50	50
Benzo[b]fluoranthene	0.0182	0.01145		mg/L		63	10 - 166	43	50
Benzo[g,h,i]perylene	0.0182	0.008364	*1	mg/L		46	10 - 154	55	50
Benzo[k]fluoranthene	0.0182	0.009523		mg/L		52	10 - 178	46	50
Chrysene	0.0182	0.01113		mg/L		61	10 - 172	37	50
Dibenz(a,h)anthracene	0.0182	0.008677	*1	mg/L		48	10 - 168	57	50
Fluoranthene	0.0182	0.02111		mg/L		116	52 - 185	3	40
Fluorene	0.0182	0.02551		mg/L		140	64 - 184	6	40
Indeno[1,2,3-cd]pyrene	0.0182	0.008656	*1	mg/L		48	10 - 160	55	50
Naphthalene	0.0182	0.02323		mg/L		128	66 - 166	5	40
Phenanthrene	0.0182	0.02299		mg/L		126	66 - 184	5	40
Pyrene	0.0182	0.01880		mg/L		103	58 - 181	4	40
1-Methylnaphthalene	0.0182	0.02506		mg/L		138	64 - 167	7	40
2-Methylnaphthalene	0.0182	0.02498		mg/L		137	63 - 166	7	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	131		54 - 146
Nitrobenzene-d5 (Surr)	119		46 - 151
p-Terphenyl-d14 (Surr)	59		51 - 139

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 860-146819/1-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.680	U	2.00	0.680	ug/L		02/24/24 05:15	02/24/24 10:59	1
1,2-Dichlorobenzene	<0.296	U	2.00	0.296	ug/L		02/24/24 05:15	02/24/24 10:59	1
1,3-Dichlorobenzene	<0.350	U	2.00	0.350	ug/L		02/24/24 05:15	02/24/24 10:59	1
1,4-Dichlorobenzene	<0.428	U	2.00	0.428	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,4,5-Trichlorophenol	<0.108	U	2.00	0.108	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,4,6-Trichlorophenol	<0.135	U	2.00	0.135	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,4-Dichlorophenol	<0.115	U	2.00	0.115	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,4-Dimethylphenol	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 10:59	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 860-146819/1-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	<1.46	U	8.00	1.46	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,4-Dinitrotoluene	<0.127	U	2.00	0.127	ug/L		02/24/24 05:15	02/24/24 10:59	1
2,6-Dinitrotoluene	<0.199	U	2.00	0.199	ug/L		02/24/24 05:15	02/24/24 10:59	1
2-Chloronaphthalene	<1.09	U	8.00	1.09	ug/L		02/24/24 05:15	02/24/24 10:59	1
2-Methylnaphthalene	<0.480	U	2.00	0.480	ug/L		02/24/24 05:15	02/24/24 10:59	1
2-Methylphenol	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 10:59	1
2-Nitroaniline	<0.163	U	4.00	0.163	ug/L		02/24/24 05:15	02/24/24 10:59	1
2-Nitrophenol	<0.135	U	2.00	0.135	ug/L		02/24/24 05:15	02/24/24 10:59	1
3 & 4 Methylphenol	<0.163	U	2.00	0.163	ug/L		02/24/24 05:15	02/24/24 10:59	1
3-Nitroaniline	<0.344	U	2.00	0.344	ug/L		02/24/24 05:15	02/24/24 10:59	1
4,6-Dinitro-2-methylphenol	<0.736	U	8.00	0.736	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Bromophenyl-phenylether	<0.167	U	2.00	0.167	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Chloro-3-methylphenol	<0.157	U	2.00	0.157	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Chloroaniline	<0.149	U	4.00	0.149	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Chlorophenyl-phenylether	<0.232	U	2.00	0.232	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Nitroaniline	<0.247	U	4.00	0.247	ug/L		02/24/24 05:15	02/24/24 10:59	1
4-Nitrophenol	<0.531	U	4.00	0.531	ug/L		02/24/24 05:15	02/24/24 10:59	1
Acenaphthene	<0.208	U	2.00	0.208	ug/L		02/24/24 05:15	02/24/24 10:59	1
Acenaphthylene	<0.215	U	2.00	0.215	ug/L		02/24/24 05:15	02/24/24 10:59	1
Aniline (Phenylamine, Aminobenzene)	<0.314	U	4.00	0.314	ug/L		02/24/24 05:15	02/24/24 10:59	1
Anthracene	<0.154	U	2.00	0.154	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzo[a]anthracene	<0.150	U	2.00	0.150	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzo[a]pyrene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzo[b]fluoranthene	<0.210	U	2.00	0.210	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzo[g,h,i]perylene	<0.143	U	2.00	0.143	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzo[k]fluoranthene	<0.166	U	2.00	0.166	ug/L		02/24/24 05:15	02/24/24 10:59	1
Benzoic acid	<1.06	U	8.00	1.06	ug/L		02/24/24 05:15	02/24/24 10:59	1
Butyl benzyl phthalate	<0.150	U	2.00	0.150	ug/L		02/24/24 05:15	02/24/24 10:59	1
Bis(2-chloroethoxy)methane	<0.170	U	2.00	0.170	ug/L		02/24/24 05:15	02/24/24 10:59	1
Bis(2-chloroethyl)ether	<0.278	U	2.00	0.278	ug/L		02/24/24 05:15	02/24/24 10:59	1
bis(2-chloroisopropyl) ether	<0.139	U	2.00	0.139	ug/L		02/24/24 05:15	02/24/24 10:59	1
Bis(2-ethylhexyl) phthalate	<0.225	U	2.00	0.225	ug/L		02/24/24 05:15	02/24/24 10:59	1
Chrysene	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 10:59	1
Dibenz(a,h)anthracene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 10:59	1
Dibenzofuran	<0.336	U	2.00	0.336	ug/L		02/24/24 05:15	02/24/24 10:59	1
Diethyl phthalate	<0.118	U	2.00	0.118	ug/L		02/24/24 05:15	02/24/24 10:59	1
Dimethyl phthalate	<0.143	U	2.00	0.143	ug/L		02/24/24 05:15	02/24/24 10:59	1
Di-n-butyl phthalate	<0.800	U	2.00	0.800	ug/L		02/24/24 05:15	02/24/24 10:59	1
Di-n-octyl phthalate	<0.169	U	2.00	0.169	ug/L		02/24/24 05:15	02/24/24 10:59	1
Fluoranthene	<0.148	U	2.00	0.148	ug/L		02/24/24 05:15	02/24/24 10:59	1
Fluorene	<0.205	U	2.00	0.205	ug/L		02/24/24 05:15	02/24/24 10:59	1
Hexachlorobenzene	<0.126	U	2.00	0.126	ug/L		02/24/24 05:15	02/24/24 10:59	1
Hexachlorobutadiene	<0.252	U	2.00	0.252	ug/L		02/24/24 05:15	02/24/24 10:59	1
Hexachlorocyclopentadiene	<0.431	U	2.00	0.431	ug/L		02/24/24 05:15	02/24/24 10:59	1
Hexachloroethane	<0.140	U	2.00	0.140	ug/L		02/24/24 05:15	02/24/24 10:59	1
Indeno[1,2,3-cd]pyrene	<0.852	U	2.00	0.852	ug/L		02/24/24 05:15	02/24/24 10:59	1
Isophorone	<0.168	U	2.00	0.168	ug/L		02/24/24 05:15	02/24/24 10:59	1
Naphthalene	<0.423	U	2.00	0.423	ug/L		02/24/24 05:15	02/24/24 10:59	1
Nitrobenzene	<0.934	U	2.00	0.934	ug/L		02/24/24 05:15	02/24/24 10:59	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 860-146819/1-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	<0.161	U	2.00	0.161	ug/L		02/24/24 05:15	02/24/24 10:59	1
N-Nitrosodiphenylamine	<0.155	U	2.00	0.155	ug/L		02/24/24 05:15	02/24/24 10:59	1
Pentachlorophenol	<0.441	U	2.00	0.441	ug/L		02/24/24 05:15	02/24/24 10:59	1
Phenanthrene	<0.176	U	2.00	0.176	ug/L		02/24/24 05:15	02/24/24 10:59	1
Phenol	<0.202	U	4.00	0.202	ug/L		02/24/24 05:15	02/24/24 10:59	1
Pyrene	<0.159	U	2.00	0.159	ug/L		02/24/24 05:15	02/24/24 10:59	1
Pyridine	<0.725	U	2.00	0.725	ug/L		02/24/24 05:15	02/24/24 10:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	43		31 - 132	02/24/24 05:15	02/24/24 10:59	1
2-Fluorobiphenyl (Surr)	63		40 - 130	02/24/24 05:15	02/24/24 10:59	1
2-Fluorophenol (Surr)	28		21 - 114	02/24/24 05:15	02/24/24 10:59	1
Nitrobenzene-d5 (Surr)	48		37 - 130	02/24/24 05:15	02/24/24 10:59	1
p-Terphenyl-d14 (Surr)	72		20 - 141	02/24/24 05:15	02/24/24 10:59	1
Phenol-d5 (Surr)	26		16 - 117	02/24/24 05:15	02/24/24 10:59	1

Lab Sample ID: LCS 860-146819/2-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	20.0	13.13		ug/L		66	34 - 117
1,2-Dichlorobenzene	20.0	13.08		ug/L		65	38 - 111
1,3-Dichlorobenzene	20.0	12.71		ug/L		64	37 - 111
1,4-Dichlorobenzene	20.0	12.28		ug/L		61	37 - 111
2,4,5-Trichlorophenol	20.0	14.27		ug/L		71	39 - 125
2,4,6-Trichlorophenol	20.0	14.35		ug/L		72	42 - 125
2,4-Dichlorophenol	20.0	13.77		ug/L		69	38 - 120
2,4-Dimethylphenol	20.0	14.33		ug/L		72	39 - 117
2,4-Dinitrophenol	20.0	10.12		ug/L		51	13 - 152
2,4-Dinitrotoluene	20.0	16.14		ug/L		81	41 - 128
2,6-Dinitrotoluene	20.0	15.50		ug/L		77	42 - 127
2-Chloronaphthalene	20.0	13.22		ug/L		66	40 - 118
2-Methylnaphthalene	20.0	13.47		ug/L		67	37 - 112
2-Methylphenol	20.0	11.89		ug/L		59	36 - 125
2-Nitroaniline	20.0	11.60		ug/L		58	34 - 126
2-Nitrophenol	20.0	14.41		ug/L		72	38 - 125
3 & 4 Methylphenol	20.0	11.70		ug/L		59	35 - 116
3-Nitroaniline	20.0	15.45		ug/L		77	42 - 123
4,6-Dinitro-2-methylphenol	20.0	15.64		ug/L		78	12 - 157
4-Bromophenyl-phenylether	20.0	14.08		ug/L		70	40 - 126
4-Chloro-3-methylphenol	20.0	13.61		ug/L		68	40 - 119
4-Chloroaniline	20.0	13.32		ug/L		67	39 - 111
4-Chlorophenyl-phenylether	20.0	13.87		ug/L		69	40 - 122
4-Nitroaniline	20.0	17.59		ug/L		88	42 - 125
4-Nitrophenol	20.0	10.36		ug/L		52	14 - 102
Acenaphthene	20.0	13.43		ug/L		67	41 - 116
Acenaphthylene	20.0	13.76		ug/L		69	41 - 118

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-146819/2-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline (Phenylamine, Aminobenzene)	20.0	10.82		ug/L		54	31 - 100
Anthracene	20.0	14.63		ug/L		73	39 - 127
Benzo[a]anthracene	20.0	19.85		ug/L		99	40 - 129
Benzo[a]pyrene	20.0	20.93		ug/L		105	36 - 141
Benzo[b]fluoranthene	20.0	18.91		ug/L		95	34 - 139
Benzo[g,h,i]perylene	20.0	24.96		ug/L		125	32 - 141
Benzo[k]fluoranthene	20.0	18.90		ug/L		95	31 - 139
Benzoic acid	60.0	15.85	*-	ug/L		26	27 - 195
Butyl benzyl phthalate	20.0	19.15		ug/L		96	44 - 133
Bis(2-chloroethoxy)methane	20.0	13.20		ug/L		66	36 - 113
Bis(2-chloroethyl)ether	20.0	12.66		ug/L		63	38 - 111
bis(2-chloroisopropyl) ether	20.0	10.84		ug/L		54	10 - 150
Bis(2-ethylhexyl) phthalate	20.0	15.85		ug/L		79	44 - 136
Chrysene	20.0	19.88		ug/L		99	41 - 124
Dibenz(a,h)anthracene	20.0	24.06		ug/L		120	35 - 143
Dibenzofuran	20.0	13.78		ug/L		69	41 - 119
Diethyl phthalate	20.0	14.54		ug/L		73	41 - 125
Dimethyl phthalate	20.0	14.44		ug/L		72	42 - 123
Di-n-butyl phthalate	20.0	17.83		ug/L		89	41 - 133
Di-n-octyl phthalate	20.0	14.25		ug/L		71	34 - 145
Fluoranthene	20.0	18.95		ug/L		95	38 - 132
Fluorene	20.0	14.19		ug/L		71	41 - 121
Hexachlorobenzene	20.0	14.40		ug/L		72	39 - 128
Hexachlorobutadiene	20.0	12.93		ug/L		65	31 - 120
Hexachlorocyclopentadiene	20.0	12.34		ug/L		62	15 - 117
Hexachloroethane	20.0	12.89		ug/L		64	37 - 109
Indeno[1,2,3-cd]pyrene	20.0	24.99		ug/L		125	35 - 141
Isophorone	20.0	13.43		ug/L		67	40 - 115
Naphthalene	20.0	13.28		ug/L		66	37 - 113
Nitrobenzene	20.0	12.99		ug/L		65	37 - 114
N-Nitrosodi-n-propylamine	20.0	12.58		ug/L		63	38 - 117
N-Nitrosodiphenylamine	20.0	13.80		ug/L		69	40 - 127
Pentachlorophenol	20.0	10.13		ug/L		51	10 - 137
Phenanthrene	20.0	13.84		ug/L		69	39 - 126
Phenol	20.0	8.029		ug/L		40	15 - 106
Pyrene	20.0	17.30		ug/L		86	40 - 130
Pyridine	20.0	4.904		ug/L		25	16 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	59		31 - 132
2-Fluorobiphenyl (Surr)	61		40 - 130
2-Fluorophenol (Surr)	34		21 - 114
Nitrobenzene-d5 (Surr)	55		37 - 130
p-Terphenyl-d14 (Surr)	87		20 - 141
Phenol-d5 (Surr)	30		16 - 117

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-146819/3-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146819

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
1,2,4-Trichlorobenzene	20.0	12.45		ug/L		62	34 - 117		5	30
1,2-Dichlorobenzene	20.0	12.32		ug/L		62	38 - 111		6	30
1,3-Dichlorobenzene	20.0	12.07		ug/L		60	37 - 111		5	30
1,4-Dichlorobenzene	20.0	12.23		ug/L		61	37 - 111		0	30
2,4,5-Trichlorophenol	20.0	13.50		ug/L		68	39 - 125		6	30
2,4,6-Trichlorophenol	20.0	14.16		ug/L		71	42 - 125		1	30
2,4-Dichlorophenol	20.0	13.24		ug/L		66	38 - 120		4	30
2,4-Dimethylphenol	20.0	13.01		ug/L		65	39 - 117		10	30
2,4-Dinitrophenol	20.0	9.548		ug/L		48	13 - 152		6	30
2,4-Dinitrotoluene	20.0	15.73		ug/L		79	41 - 128		3	30
2,6-Dinitrotoluene	20.0	14.69		ug/L		73	42 - 127		5	30
2-Chloronaphthalene	20.0	13.36		ug/L		67	40 - 118		1	30
2-Methylnaphthalene	20.0	12.89		ug/L		64	37 - 112		4	30
2-Methylphenol	20.0	11.51		ug/L		58	36 - 125		3	30
2-Nitroaniline	20.0	10.97		ug/L		55	34 - 126		6	30
2-Nitrophenol	20.0	13.66		ug/L		68	38 - 125		5	30
3 & 4 Methylphenol	20.0	11.64		ug/L		58	35 - 116		1	30
3-Nitroaniline	20.0	15.31		ug/L		77	42 - 123		1	30
4,6-Dinitro-2-methylphenol	20.0	15.82		ug/L		79	12 - 157		1	30
4-Bromophenyl-phenylether	20.0	13.84		ug/L		69	40 - 126		2	30
4-Chloro-3-methylphenol	20.0	12.46		ug/L		62	40 - 119		9	30
4-Chloroaniline	20.0	11.83		ug/L		59	39 - 111		12	30
4-Chlorophenyl-phenylether	20.0	13.34		ug/L		67	40 - 122		4	30
4-Nitroaniline	20.0	17.55		ug/L		88	42 - 125		0	30
4-Nitrophenol	20.0	10.78		ug/L		54	14 - 102		4	30
Acenaphthene	20.0	12.82		ug/L		64	41 - 116		5	30
Acenaphthylene	20.0	13.59		ug/L		68	41 - 118		1	30
Aniline (Phenylamine, Aminobenzene)	20.0	9.110		ug/L		46	31 - 100		17	30
Anthracene	20.0	14.36		ug/L		72	39 - 127		2	30
Benzo[a]anthracene	20.0	19.75		ug/L		99	40 - 129		1	30
Benzo[a]pyrene	20.0	21.26		ug/L		106	36 - 141		2	30
Benzo[b]fluoranthene	20.0	19.26		ug/L		96	34 - 139		2	30
Benzo[g,h,i]perylene	20.0	24.76		ug/L		124	32 - 141		1	30
Benzo[k]fluoranthene	20.0	18.90		ug/L		94	31 - 139		0	30
Benzoic acid	60.0	16.27		ug/L		27	27 - 195		3	30
Butyl benzyl phthalate	20.0	18.21		ug/L		91	44 - 133		5	30
Bis(2-chloroethoxy)methane	20.0	12.49		ug/L		62	36 - 113		6	30
Bis(2-chloroethyl)ether	20.0	11.89		ug/L		59	38 - 111		6	30
bis(2-chloroisopropyl) ether	20.0	10.08		ug/L		50	10 - 150		7	30
Bis(2-ethylhexyl) phthalate	20.0	15.10		ug/L		75	44 - 136		5	30
Chrysene	20.0	19.58		ug/L		98	41 - 124		2	30
Dibenz(a,h)anthracene	20.0	24.26		ug/L		121	35 - 143		1	30
Dibenzofuran	20.0	13.31		ug/L		67	41 - 119		3	30
Diethyl phthalate	20.0	13.80		ug/L		69	41 - 125		5	30
Dimethyl phthalate	20.0	13.83		ug/L		69	42 - 123		4	30
Di-n-butyl phthalate	20.0	17.50		ug/L		87	41 - 133		2	30
Di-n-octyl phthalate	20.0	13.74		ug/L		69	34 - 145		4	30
Fluoranthene	20.0	18.97		ug/L		95	38 - 132		0	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-146819/3-A

Matrix: Water

Analysis Batch: 146841

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146819

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene	20.0	13.45		ug/L		67	41 - 121	5	30
Hexachlorobenzene	20.0	14.20		ug/L		71	39 - 128	1	30
Hexachlorobutadiene	20.0	12.24		ug/L		61	31 - 120	5	30
Hexachlorocyclopentadiene	20.0	13.01		ug/L		65	15 - 117	5	30
Hexachloroethane	20.0	13.09		ug/L		65	37 - 109	2	30
Indeno[1,2,3-cd]pyrene	20.0	24.38		ug/L		122	35 - 141	2	30
Isophorone	20.0	12.38		ug/L		62	40 - 115	8	30
Naphthalene	20.0	12.42		ug/L		62	37 - 113	7	30
Nitrobenzene	20.0	11.65		ug/L		58	37 - 114	11	30
N-Nitrosodi-n-propylamine	20.0	12.65		ug/L		63	38 - 117	1	30
N-Nitrosodiphenylamine	20.0	14.02		ug/L		70	40 - 127	2	30
Pentachlorophenol	20.0	10.76		ug/L		54	10 - 137	6	30
Phenanthrene	20.0	13.64		ug/L		68	39 - 126	1	30
Phenol	20.0	7.725		ug/L		39	15 - 106	4	30
Pyrene	20.0	16.85		ug/L		84	40 - 130	3	30
Pyridine	20.0	4.910		ug/L		25	16 - 135	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	60		31 - 132
2-Fluorobiphenyl (Surr)	65		40 - 130
2-Fluorophenol (Surr)	34		21 - 114
Nitrobenzene-d5 (Surr)	53		37 - 130
p-Terphenyl-d14 (Surr)	85		20 - 141
Phenol-d5 (Surr)	29		16 - 117

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-413719/1-A

Matrix: Water

Analysis Batch: 414280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 413719

Analyte							Prepared		
MB	MB						Prepared		
Result	Qualifier	RL	MDL	Unit	D		Analyzed	Dil Fac	
Tributyltin	<1.14 U	3.00	1.14	ng/L			02/23/24 16:58	02/26/24 17:57	
								1	
Surrogate							Prepared		
MB	MB						Analyzed	Dil Fac	
%Recovery	Qualifier	Limits							
Triphenyltin	98	10 - 120					02/23/24 16:58	02/26/24 17:57	
								1	

Lab Sample ID: LCS 570-413719/2-A

Matrix: Water

Analysis Batch: 414280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 413719

Trip Data: 11/1/15							Trip Data: 11/1/15				
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Tributyltin			178	100.1		ng/L		56	10 - 120		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
Triphenyltin	67		10 - 120								

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: Organotins SIM - Organotins (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 570-413719/3-A

Matrix: Water

Analysis Batch: 414280

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 413719

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tributyltin	178	146.9	*1	ng/L		82	10 - 120	38	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
Triphenyltin	96		10 - 120						

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-146976/1-A

Matrix: Water

Analysis Batch: 147157

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.988	U	5.00	0.988	mg/L		02/26/24 09:26	02/28/24 01:29	1
Diesel Range Organics (Over C10-C28)	1.460	J	5.00	0.988	mg/L		02/26/24 09:26	02/28/24 01:29	1
Oil Range Organics (Over C28-C36)	<0.954	U	5.00	0.954	mg/L		02/26/24 09:26	02/28/24 01:29	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 135				02/26/24 09:26	02/28/24 01:29	1
o-Terphenyl	104		70 - 135				02/26/24 09:26	02/28/24 01:29	1

Lab Sample ID: LCS 860-146976/2-A

Matrix: Water

Analysis Batch: 147157

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	99.9	90.28		mg/L		90	70 - 135		
Diesel Range Organics (Over C10-C28)	100	105.9		mg/L		106	70 - 135		
Surrogate	%Recovery	LCS Qualifier	Limits						
1-Chlorooctane	96		70 - 135						
o-Terphenyl	100		70 - 135						

Lab Sample ID: LCSD 860-146976/3-A

Matrix: Water

Analysis Batch: 147157

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146976

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	99.9	100.9		mg/L		101	70 - 135	11	35
Diesel Range Organics (Over C10-C28)	100	116.3		mg/L		116	70 - 135	9	35
Surrogate	%Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	94		70 - 135						
o-Terphenyl	96		70 - 135						

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8081B_LL - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-147139/1-A
Matrix: Water
Analysis Batch: 146954

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	3			23					
4,4'-DDE	<0.00000013	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	1			31					
4,4'-DDT	<0.00000069	U	0.0000200	0.0000006	mg/L		02/27/24 08:18	02/27/24 13:27	1
	5			95					
Aldrin	<0.00000013	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	7			37					
alpha-BHC	<0.00000014	U	0.0000090	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	3		0	43					
alpha-Chlordane	<0.00000023	U	0.0000100	0.0000002	mg/L		02/27/24 08:18	02/27/24 13:27	1
	7			37					
beta-BHC	<0.00000190	U	0.0000180	0.0000019	mg/L		02/27/24 08:18	02/27/24 13:27	1
				0					
Chlorodane	<0.00000851	U	0.000250	0.0000085	mg/L		02/27/24 08:18	02/27/24 13:27	1
				1					
delta-BHC	<0.00000038	U	0.000250	0.0000003	mg/L		02/27/24 08:18	02/27/24 13:27	1
	7			87					
Dieldrin	<0.00000008	U	0.0000100	0.0000000	mg/L		02/27/24 08:18	02/27/24 13:27	1
	06			806					
Endosulfan I	<0.00000014	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	6			46					
Endosulfan II	<0.00000008	U	0.0000100	0.0000000	mg/L		02/27/24 08:18	02/27/24 13:27	1
	19			819					
Endosulfan sulfate	<0.00000031	U	0.0000100	0.0000003	mg/L		02/27/24 08:18	02/27/24 13:27	1
	2			12					
Endrin	<0.00000016	U	0.0000100	0.0000001	mg/L		02/27/24 08:18	02/27/24 13:27	1
	8			68					
Endrin aldehyde	<0.00000038	U	0.0000100	0.0000003	mg/L		02/27/24 08:18	02/27/24 13:27	1
	4			84					
Endrin ketone	<0.00000040	U	0.0000100	0.0000004	mg/L		02/27/24 08:18	02/27/24 13:27	1
	5			05					
gamma-BHC (Lindane)	<0.00000060	U	0.0000100	0.0000006	mg/L		02/27/24 08:18	02/27/24 13:27	1
	0			00					
Heptachlor	<0.00000109	U	0.0000090	0.0000010	mg/L		02/27/24 08:18	02/27/24 13:27	1
			0	9					
Heptachlor epoxide	<0.00000008	U	0.0000100	0.0000000	mg/L		02/27/24 08:18	02/27/24 13:27	1
	71			871					
Methoxychlor	<0.00000056	U	0.0000200	0.0000005	mg/L		02/27/24 08:18	02/27/24 13:27	1
	6			66					
Toxaphene	<0.0000196	U	0.000200	0.0000196	mg/L		02/27/24 08:18	02/27/24 13:27	1
trans-Chlordane	<0.00000059	U	0.0000100	0.0000005	mg/L		02/27/24 08:18	02/27/24 13:27	1
	9			99					
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/27/24 08:18	02/27/24 13:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	128		15 - 136				02/27/24 08:18	02/27/24 13:27	1
Tetrachloro-m-xylene	100		18 - 126				02/27/24 08:18	02/27/24 13:27	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 860-147139/2-A

Matrix: Water

Analysis Batch: 146954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.000100	0.0001189		mg/L		119	45 - 130
4,4'-DDE	0.000100	0.0001036		mg/L		104	44 - 133
4,4'-DDT	0.000100	0.0001376		mg/L		138	46 - 150
Aldrin	0.000100	0.00009475		mg/L		95	40 - 120
alpha-BHC	0.000100	0.0001050		mg/L		105	46 - 115
alpha-Chlordane	0.000100	0.0001105		mg/L		111	47 - 127
beta-BHC	0.000100	0.0001148		mg/L		115	45 - 127
delta-BHC	0.000100	0.00009911	J	mg/L		99	16 - 130
Dieldrin	0.000100	0.0001047		mg/L		105	46 - 127
Endosulfan I	0.000100	0.0001169		mg/L		117	44 - 125
Endosulfan II	0.000100	0.0001189		mg/L		119	47 - 132
Endosulfan sulfate	0.000100	0.0001105		mg/L		110	48 - 134
Endrin	0.000100	0.0001194		mg/L		119	48 - 145
Endrin aldehyde	0.000100	0.0001237	*+	mg/L		124	22 - 121
Endrin ketone	0.000100	0.0001261		mg/L		126	41 - 153
gamma-BHC (Lindane)	0.000100	0.0001148		mg/L		115	50 - 118
Heptachlor	0.000100	0.0001314		mg/L		131	43 - 138
Heptachlor epoxide	0.000100	0.0001144		mg/L		114	46 - 123
Methoxychlor	0.000100	0.0001422		mg/L		142	49 - 152
trans-Chlordane	0.000100	0.0001076		mg/L		108	45 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	121		15 - 136
Tetrachloro-m-xylene	96		18 - 126

Lab Sample ID: LCSD 860-147139/3-A

Matrix: Water

Analysis Batch: 146954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147139

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
4,4'-DDD	0.000100	0.0001163		mg/L		116	45 - 130	2	25
4,4'-DDE	0.000100	0.00009723		mg/L		97	44 - 133	6	25
4,4'-DDT	0.000100	0.0001307		mg/L		131	46 - 150	5	25
Aldrin	0.000100	0.00009127		mg/L		91	40 - 120	4	25
alpha-BHC	0.000100	0.0001009		mg/L		101	46 - 115	4	25
alpha-Chlordane	0.000100	0.0001037		mg/L		104	47 - 127	6	25
beta-BHC	0.000100	0.0001073		mg/L		107	45 - 127	7	25
delta-BHC	0.000100	0.00009374	J	mg/L		94	16 - 130	6	25
Dieldrin	0.000100	0.00009838		mg/L		98	46 - 127	6	25
Endosulfan I	0.000100	0.0001125		mg/L		112	44 - 125	4	25
Endosulfan II	0.000100	0.0001209		mg/L		121	47 - 132	2	25
Endosulfan sulfate	0.000100	0.0001105		mg/L		110	48 - 134	0	25
Endrin	0.000100	0.0001159		mg/L		116	48 - 145	3	25
Endrin aldehyde	0.000100	0.0001222	*+	mg/L		122	22 - 121	1	25
Endrin ketone	0.000100	0.0001272		mg/L		127	41 - 153	1	25
gamma-BHC (Lindane)	0.000100	0.0001091		mg/L		109	50 - 118	5	25
Heptachlor	0.000100	0.0001240		mg/L		124	43 - 138	6	25
Heptachlor epoxide	0.000100	0.0001085		mg/L		109	46 - 123	5	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 860-147139/3-A

Matrix: Water

Analysis Batch: 146954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147139

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methoxychlor	0.000100	0.0001409		mg/L		141	49 - 152	1	25
trans-Chlordane	0.000100	0.0001005		mg/L		101	45 - 128	7	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	116		15 - 136						
Tetrachloro-m-xylene	92		18 - 126						

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-147139/1-A

Matrix: Water

Analysis Batch: 147142

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1254	<0.00000780	U	0.000200	0.00000780	mg/L		02/27/24 08:18	02/27/24 13:35	1
PCB-1260	<0.00000780	U	0.000200	0.00000780	mg/L		02/27/24 08:18	02/27/24 13:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits						
Tetrachloro-m-xylene	93		18 - 116						
DCB Decachlorobiphenyl (Surr)	119		27 - 123						
							Prepared	Analyzed	Dil Fac
							02/27/24 08:18	02/27/24 13:35	1
							02/27/24 08:18	02/27/24 13:35	1

Lab Sample ID: LCS 860-147139/4-A

Matrix: Water

Analysis Batch: 147142

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147139

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
PCB-1016			0.00100	0.001156		mg/L		116	54 - 125		
PCB-1260			0.00100	0.0009890		mg/L		99	41 - 126		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
Tetrachloro-m-xylene	100		18 - 116								
DCB Decachlorobiphenyl (Surr)	119		27 - 123								

Lab Sample ID: LCSD 860-147139/5-A

Matrix: Water

Analysis Batch: 147142

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147139

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.00100	0.001114		mg/L		111	54 - 125	4	20
PCB-1260	0.00100	0.0009546		mg/L		95	41 - 126	4	

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCSD 860-147139/5-A

Matrix: Water

Analysis Batch: 147142

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147139

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	101		18 - 116
DCB Decachlorobiphenyl (Surr)	116		27 - 123

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-146277/1-A

Matrix: Water

Analysis Batch: 146458

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146277

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Pentachlorophenol	<0.00400	U	0.00400	0.00400	mg/L		02/21/24 10:07	02/22/24 11:00	1	
MCPP	<0.0592	U	0.752	0.0592	mg/L		02/21/24 10:07	02/22/24 11:00	1	
MCPA	<0.0555	U	0.749	0.0555	mg/L		02/21/24 10:07	02/22/24 11:00	1	
Dinoseb	<0.000340	U	0.00378	0.000340	mg/L		02/21/24 10:07	02/22/24 11:00	1	
Dichlorprop	<0.000420	U	0.00378	0.000420	mg/L		02/21/24 10:07	02/22/24 11:00	1	
Dicamba	<0.000390	U	0.00376	0.000390	mg/L		02/21/24 10:07	02/22/24 11:00	1	
Dalapon	<0.000373	U	0.00365	0.000373	mg/L		02/21/24 10:07	02/22/24 11:00	1	
2,4-DB	<0.000365	U	0.00379	0.000365	mg/L		02/21/24 10:07	02/22/24 11:00	1	
2,4-D	<0.000412	U	0.00376	0.000412	mg/L		02/21/24 10:07	02/22/24 11:00	1	
2,4,5-TP (Silvex)	<0.00165	U	0.00381	0.00165	mg/L		02/21/24 10:07	02/22/24 11:00	1	
2,4,5-T	<0.000362	U	0.00379	0.000362	mg/L		02/21/24 10:07	02/22/24 11:00	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
2,4-Dichlorophenylacetic acid	75		41 - 131	02/21/24 10:07	02/22/24 11:00	1				

Lab Sample ID: LCS 860-146277/2-A

Matrix: Water

Analysis Batch: 146458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146277

Analyte	Spike	LCS	LCS							
	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Pentachlorophenol	0.00200	<0.00400	U	mg/L		74	40 - 130			
MCPP	0.200	0.1807	J	mg/L		90	13 - 114			
MCPA	0.200	0.1564	J	mg/L		78	28 - 137			
Dinoseb	0.00200	0.001289	J	mg/L		64	25 - 125			
Dichlorprop	0.00200	0.001305	J	mg/L		65	10 - 152			
Dicamba	0.00200	0.001647	J	mg/L		82	20 - 173			
Dalapon	0.00200	0.001556	J	mg/L		78	23 - 123			
2,4-DB	0.00200	0.001732	J	mg/L		87	10 - 169			
2,4-D	0.00200	0.001238	J	mg/L		62	30 - 134			
2,4,5-TP (Silvex)	0.00200	0.002406	J	mg/L		120	32 - 140			
2,4,5-T	0.00200	0.001623	J	mg/L		81	30 - 145			

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	84		41 - 131

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 860-146277/3-A

Matrix: Water

Analysis Batch: 146458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146277

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	0.00200	<0.00400	U	mg/L		72	40 - 130	3	25
MCPP	0.200	0.1673	J	mg/L		84	13 - 114	8	25
MCPA	0.200	0.1492	J	mg/L		75	28 - 137	5	25
Dinoseb	0.00200	0.001158	J	mg/L		58	25 - 125	11	25
Dichlorprop	0.00200	0.001393	J	mg/L		70	10 - 152	7	25
Dicamba	0.00200	0.001614	J	mg/L		81	20 - 173	2	25
Dalapon	0.00200	0.001514	J	mg/L		76	23 - 123	3	25
2,4-DB	0.00200	0.001597	J	mg/L		80	10 - 169	8	25
2,4-D	0.00200	0.001493	J	mg/L		75	30 - 134	19	25
2,4,5-TP (Silvex)	0.00200	0.001803	J *1	mg/L		90	32 - 140	29	25
2,4,5-T	0.00200	0.001653	J	mg/L		83	30 - 145	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4-Dichlorophenylacetic acid	80		41 - 131

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 180-460552/1-A

Matrix: Water

Analysis Batch: 460567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 460552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0695	U	0.200	0.0695	ug/L		02/25/24 21:40	02/26/24 12:53	1
Demeton, Total	<0.0489	U	0.400	0.0489	ug/L		02/25/24 21:40	02/26/24 12:53	1
Chlorpyrifos	<0.0865	U	0.200	0.0865	ug/L		02/25/24 21:40	02/26/24 12:53	1
Malathion	<0.0794	U	0.200	0.0794	ug/L		02/25/24 21:40	02/26/24 12:53	1
Diazinon	<0.0782	U	0.200	0.0782	ug/L		02/25/24 21:40	02/26/24 12:53	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	107		56 - 150	02/25/24 21:40	02/26/24 12:53	1
Triphenylphosphate	109		67 - 138	02/25/24 21:40	02/26/24 12:53	1

Lab Sample ID: LCS 180-460552/2-A

Matrix: Water

Analysis Batch: 460567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 460552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Guthion	2.00	1.917		ug/L		96	51 - 135
Demeton, Total	2.00	1.919		ug/L		96	67 - 133
Chlorpyrifos	2.00	1.914		ug/L		96	67 - 128
Malathion	2.00	2.007		ug/L		100	68 - 133
Diazinon	2.00	1.964		ug/L		98	64 - 140

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
Tributyl phosphate	119		56 - 150
Triphenylphosphate	105		67 - 138

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: EPA 8141B - Organophosphorous Pesticides (GC) (Continued)

Lab Sample ID: LCSD 180-460552/3-A

Matrix: Water

Analysis Batch: 460567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 460552

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Guthion	2.00	1.772		ug/L		89	51 - 135	8	15
Demeton, Total	2.00	1.784		ug/L		89	67 - 133	7	20
Chlorpyrifos	2.00	1.783		ug/L		89	67 - 128	7	15
Malathion	2.00	1.844		ug/L		92	68 - 133	8	15
Diazinon	2.00	1.788		ug/L		89	64 - 140	9	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tributyl phosphate	111		56 - 150
Triphenylphosphate	94		67 - 138

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-146152/3

Matrix: Water

Analysis Batch: 146152

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/21/24 16:25	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/21/24 16:25	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/21/24 16:25	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/21/24 16:25	1

Lab Sample ID: LCS 860-146152/4

Matrix: Water

Analysis Batch: 146152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.610		mg/L		96	90 - 110
Chloride	10.0	9.822		mg/L		98	90 - 110
Sulfate	10.0	9.919		mg/L		99	90 - 110
Fluoride	10.0	10.87		mg/L		109	90 - 110

Lab Sample ID: LCSD 860-146152/5

Matrix: Water

Analysis Batch: 146152

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.641		mg/L		96	90 - 110	0	20
Chloride	10.0	9.855		mg/L		99	90 - 110	0	20
Sulfate	10.0	9.928		mg/L		99	90 - 110	0	20
Fluoride	10.0	10.93		mg/L		109	90 - 110	0	20

Lab Sample ID: LLCS 860-146152/7

Matrix: Water

Analysis Batch: 146152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.5525		mg/L		110	50 - 150
Chloride	0.500	0.5155		mg/L		103	50 - 150

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 860-146152/7

Matrix: Water

Analysis Batch: 146152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	0.500	0.5201		mg/L		104	50 - 150
Fluoride	0.500	0.5261		mg/L		105	50 - 150

Lab Sample ID: MB 860-146153/3

Matrix: Water

Analysis Batch: 146153

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/21/24 16:25	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L			02/21/24 16:25	1

Lab Sample ID: LCS 860-146153/4

Matrix: Water

Analysis Batch: 146153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	10.06		mg/L		101	80 - 120
Nitrite as N	10.0	10.55		mg/L		106	80 - 120

Lab Sample ID: LCSD 860-146153/5

Matrix: Water

Analysis Batch: 146153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	10.07		mg/L		101	80 - 120	0	20
Nitrite as N	10.0	10.58		mg/L		106	80 - 120	0	20

Lab Sample ID: LLCS 860-146153/6

Matrix: Water

Analysis Batch: 146153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.1193		mg/L		119	50 - 150
Nitrite as N	0.100	0.1301		mg/L		130	50 - 150

Method: 632 - Carbamate and Urea Pesticides (HPLC)

Lab Sample ID: MB 860-147038/1-A

Matrix: Water

Analysis Batch: 147897

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		02/26/24 14:17	02/29/24 19:10	1

Lab Sample ID: LCS 860-147038/2-A

Matrix: Water

Analysis Batch: 147897

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147038

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbaryl	100	117.7		ug/L		118	70 - 130

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 632 - Carbamate and Urea Pesticides (HPLC) (Continued)

Lab Sample ID: LCSD 860-147038/3-A

Matrix: Water

Analysis Batch: 147897

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147038

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbaryl	100	108.3		ug/L		108	70 - 130	8	20

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 410-476810/1-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 476810

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		02/26/24 10:11	02/27/24 00:09	1
RDX	<0.637	U	1.40	0.637	ug/L		02/26/24 10:11	02/27/24 00:09	1
1,3,5-Trinitrobenzene	<0.460	U	1.00	0.460	ug/L		02/26/24 10:11	02/27/24 00:09	1
Tetryl	<0.398	U	1.60	0.398	ug/L		02/26/24 10:11	02/27/24 00:09	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		02/26/24 10:11	02/27/24 00:09	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		02/26/24 10:11	02/27/24 00:09	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		02/26/24 10:11	02/27/24 00:09	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		02/26/24 10:11	02/27/24 00:09	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		02/26/24 10:11	02/27/24 00:09	1
4-Amino-2,6-dinitrotoluene	<0.920	U	2.00	0.920	ug/L		02/26/24 10:11	02/27/24 00:09	1
2-Amino-4,6-dinitrotoluene	<0.426	U	0.850	0.426	ug/L		02/26/24 10:11	02/27/24 00:09	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		02/26/24 10:11	02/27/24 00:09	1
2,4-Dinitrotoluene	<0.330	U	0.700	0.330	ug/L		02/26/24 10:11	02/27/24 00:09	1
PETN	<10.1	U	23.0	10.1	ug/L		02/26/24 10:11	02/27/24 00:09	1
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		02/26/24 10:11	02/27/24 00:09	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		02/26/24 10:11	02/27/24 00:09	1
3-Nitrotoluene	<0.378	U	0.800	0.378	ug/L		02/26/24 10:11	02/27/24 00:09	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		02/26/24 10:11	02/27/24 00:09	1
2,4-diamino-6-nitrotoluene	<1.04	U	2.10	1.04	ug/L		02/26/24 10:11	02/27/24 00:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		68 - 122	02/26/24 10:11	02/27/24 00:09	1
2-Nitro-m-xylene	99		68 - 122	02/26/24 10:11	02/27/24 00:09	1

Lab Sample ID: LCS 410-476810/2-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 476810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HMX	10.0	9.577		ug/L		95	59 - 134
RDX	10.1	9.861		ug/L		98	72 - 127
1,3,5-Trinitrobenzene	10.1	9.675		ug/L		96	71 - 122
Tetryl	10.1	9.550		ug/L		95	67 - 120
1,3-Dinitrobenzene	10.1	9.900		ug/L		98	75 - 120
3,5-Dinitroaniline	10.1	9.613		ug/L		95	71 - 121
Nitroglycerin	111	105.2		ug/L		95	44 - 133
2,4,6-Trinitrotoluene	10.1	10.55		ug/L		105	81 - 128
Nitrobenzene	10.1	9.913	p	ug/L		99	85 - 120
4-Amino-2,6-dinitrotoluene	10.1	9.805		ug/L		97	67 - 132
2-Amino-4,6-dinitrotoluene	10.1	9.769		ug/L		97	72 - 120

Eurofins El Paso

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 410-476810/2-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 476810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	10.1	9.880		ug/L		98	85 - 122
2,4-Dinitrotoluene	10.1	9.990		ug/L		99	76 - 122
PETN	110	101.7		ug/L		92	71 - 121
2-Nitrotoluene	10.1	9.851		ug/L		98	72 - 122
4-Nitrotoluene	10.1	10.11		ug/L		100	70 - 127
3-Nitrotoluene	10.1	10.11		ug/L		100	72 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	93		68 - 122

Lab Sample ID: LCS 410-476810/4-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 476810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-diamino-4-nitrotoluene	20.1	17.60		ug/L		87	50 - 150
2,4-diamino-6-nitrotoluene	20.0	14.78		ug/L		74	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		68 - 122
2-Nitro-m-xylene	99		68 - 122

Lab Sample ID: LCSD 410-476810/3-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 476810

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
HMX	10.0	9.923		ug/L		99	59 - 134	4	30
RDX	10.1	10.27		ug/L		102	72 - 127	4	30
1,3,5-Trinitrobenzene	10.1	10.11		ug/L		100	71 - 122	4	30
Tetryl	10.1	9.778		ug/L		97	67 - 120	2	30
1,3-Dinitrobenzene	10.1	10.37		ug/L		103	75 - 120	5	30
3,5-Dinitroaniline	10.1	10.02		ug/L		99	71 - 121	4	30
Nitroglycerin	111	109.0		ug/L		99	44 - 133	4	30
2,4,6-Trinitrotoluene	10.1	11.01		ug/L		109	81 - 128	4	30
Nitrobenzene	10.1	10.39	p	ug/L		103	85 - 120	5	30
4-Amino-2,6-dinitrotoluene	10.1	10.28		ug/L		102	67 - 132	5	30
2-Amino-4,6-dinitrotoluene	10.1	10.22		ug/L		101	72 - 120	5	30
2,6-Dinitrotoluene	10.1	10.36		ug/L		103	85 - 122	5	30
2,4-Dinitrotoluene	10.1	10.48		ug/L		104	76 - 122	5	30
PETN	110	104.9		ug/L		95	71 - 121	3	30
2-Nitrotoluene	10.1	10.36		ug/L		103	72 - 122	5	30
4-Nitrotoluene	10.1	10.59		ug/L		105	70 - 127	5	30
3-Nitrotoluene	10.1	10.58		ug/L		105	72 - 126	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	97		68 - 122

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCSD 410-476810/3-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 476810

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Nitro-m-xylene	96		68 - 122

Lab Sample ID: LCSD 410-476810/5-A

Matrix: Water

Analysis Batch: 477175

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 476810

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,6-diamino-4-nitrotoluene	20.1	19.50		ug/L		97	50 - 150	10	30
2,4-diamino-6-nitrotoluene	20.0	16.06		ug/L		80	50 - 150	8	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Nitro-m-xylene	96		68 - 122
2-Nitro-m-xylene	98		68 - 122

Method: VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Lab Sample ID: MB 860-149577/3

Matrix: Water

Analysis Batch: 149577

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Propionic acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Valeric acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1
Butyric-Isobutyric Acid	<2.00	U	2.00	2.00	mg/L			03/13/24 19:08	1

Lab Sample ID: LCS 860-149577/4

Matrix: Water

Analysis Batch: 149577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Caproic acid	100	97.51		mg/L		98	70 - 130
Heptanoic acid	100	108.2		mg/L		108	70 - 130
Isocaproic acid	100	101.9		mg/L		102	70 - 130
Isovaleric acid	100	99.00		mg/L		99	70 - 130
Propionic acid	100	99.55		mg/L		100	70 - 130
Valeric acid	100	97.18		mg/L		97	70 - 130
Butyric-Isobutyric Acid	200	194.5		mg/L		97	70 - 130

Lab Sample ID: LCSD 860-149577/5

Matrix: Water

Analysis Batch: 149577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Caproic acid	100	95.33		mg/L		95	70 - 130	2	30
Heptanoic acid	100	103.1		mg/L		103	70 - 130	5	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: VFA - HPLC - Volatile Fatty Acids (HPLC/UV) (Continued)

Lab Sample ID: LCSD 860-149577/5

Matrix: Water

Analysis Batch: 149577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Isocaproic acid	100	99.21		mg/L		99	70 - 130	NaN	30
Isovaleric acid	100	96.18		mg/L		96	70 - 130	3	30
Propionic acid	100	97.11		mg/L		97	70 - 130	2	30
Valeric acid	100	94.64		mg/L		95	70 - 130	3	30
Butyric-Isobutyric Acid	200	189.2		mg/L		95	70 - 130	3	25

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Lab Sample ID: MB 410-476922/1-A

Matrix: Water

Analysis Batch: 476314

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 476922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<0.230	U	1.00	0.230	ug/L		02/26/24 09:51	02/28/24 18:06	1

Lab Sample ID: LCS 410-476922/2-A

Matrix: Water

Analysis Batch: 476314

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 476922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perchlorate	1.00	0.9756	J	ug/L		97	80 - 120

Lab Sample ID: LCSD 410-476922/3-A

Matrix: Water

Analysis Batch: 476314

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 476922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perchlorate	1.00	1.023		ug/L		102	80 - 120	5	15

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 410-477413/1-A

Matrix: Water

Analysis Batch: 479087

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 477413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	<4.53	U	25.0	4.53	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,4,6,7,8-HpCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,4,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,4,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,4,7,8,9-HpCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,6,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,7,8-PeCDD	<3.16	U	25.0	3.16	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,7,8-PeCDF	<2.76	U	25.0	2.76	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,7,8,9-HxCDD	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
1,2,3,7,8,9-HxCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
2,3,4,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
2,3,4,7,8-PeCDF	<2.50	U	25.0	2.50	pg/L		02/27/24 10:17	03/03/24 20:29	1
2,3,7,8-TCDD	<0.873	U	5.00	0.873	pg/L		02/27/24 10:17	03/03/24 20:29	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 410-477413/1-A

Matrix: Water

Analysis Batch: 479087

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 477413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	<0.812	U	5.00	0.812	pg/L		02/27/24 10:17	03/03/24 20:29	1
OCDD	<36.2	U	110	36.2	pg/L		02/27/24 10:17	03/03/24 20:29	1
OCDF	<6.15	U	50.0	6.15	pg/L		02/27/24 10:17	03/03/24 20:29	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	89		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,4,6,7,8-HpCDF	92		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,4,7,8-HxCDD	85		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,4,7,8-HxCDF	97		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,4,7,8,9-HpCDF	86		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,6,7,8-HxCDF	95		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,7,8-PeCDD	84		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,7,8-PeCDF	93		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,7,8,9-HxCDD	93		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-1,2,3,7,8,9-HxCDF	91		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-2,3,4,6,7,8-HxCDF	93		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-2,3,4,7,8-PeCDF	92		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-2,3,7,8-TCDD	93		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-2,3,7,8-TCDF	97		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-OCDD	83		40 - 135				02/27/24 10:17	03/03/24 20:29	1
13C-OCDF	83		40 - 135				02/27/24 10:17	03/03/24 20:29	1

Lab Sample ID: LCS 410-477413/2-A

Matrix: Water

Analysis Batch: 479087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 477413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3,4,6,7,8-HpCDD	1000	837.6		pg/L		84	76 - 123
1,2,3,4,6,7,8-HpCDF	1000	844.8		pg/L		84	74 - 123
1,2,3,4,7,8-HxCDD	1000	890.2		pg/L		89	79 - 129
1,2,3,4,7,8-HxCDF	1000	881.7		pg/L		88	78 - 127
1,2,3,4,7,8,9-HpCDF	1000	856.6		pg/L		86	75 - 124
1,2,3,6,7,8-HxCDD	1000	908.3		pg/L		91	80 - 128
1,2,3,6,7,8-HxCDF	1000	891.7		pg/L		89	78 - 125
1,2,3,7,8-PeCDD	1000	949.5		pg/L		95	80 - 133
1,2,3,7,8-PeCDF	1000	888.2		pg/L		89	80 - 131
1,2,3,7,8,9-HxCDD	1000	894.1		pg/L		89	80 - 133
1,2,3,7,8,9-HxCDF	1000	888.2		pg/L		89	78 - 125
2,3,4,6,7,8-HxCDF	1000	873.3		pg/L		87	77 - 126
2,3,4,7,8-PeCDF	1000	909.2		pg/L		91	80 - 130
2,3,7,8-TCDD	200	181.7		pg/L		91	75 - 128
2,3,7,8-TCDF	200	170.9		pg/L		85	72 - 128
OCDD	2000	1691		pg/L		85	80 - 123
OCDF	2000	1693		pg/L		85	78 - 125
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C-1,2,3,4,6,7,8-HpCDD	94		40 - 135				
13C-1,2,3,4,6,7,8-HpCDF	97		40 - 135				

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 410-477413/2-A
Matrix: Water
Analysis Batch: 479087

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477413

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-1,2,3,4,7,8-HxCDD	93		40 - 135
13C-1,2,3,4,7,8-HxCDF	105		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	92		40 - 135
13C-1,2,3,6,7,8-HxCDD	97		40 - 135
13C-1,2,3,6,7,8-HxCDF	100		40 - 135
13C-1,2,3,7,8-PeCDD	86		40 - 135
13C-1,2,3,7,8-PeCDF	98		40 - 135
13C-1,2,3,7,8,9-HxCDD	103		40 - 135
13C-1,2,3,7,8,9-HxCDF	96		40 - 135
13C-2,3,4,6,7,8-HxCDF	100		40 - 135
13C-2,3,4,7,8-PeCDF	97		40 - 135
13C-2,3,7,8-TCDD	97		40 - 135
13C-2,3,7,8-TCDF	97		40 - 135
13C-OCDD	87		40 - 135
13C-OCDF	86		40 - 135

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-146910/1-A
Matrix: Water
Analysis Batch: 147356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		02/25/24 12:30	02/27/24 15:51	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		02/25/24 12:30	02/27/24 15:51	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		02/25/24 12:30	02/27/24 15:51	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		02/25/24 12:30	02/27/24 15:51	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/25/24 12:30	02/27/24 15:51	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/25/24 12:30	02/27/24 15:51	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/25/24 12:30	02/27/24 15:51	1
Calcium	<0.102	U	0.200	0.102	mg/L		02/25/24 12:30	02/27/24 15:51	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/25/24 12:30	02/27/24 15:51	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/25/24 12:30	02/27/24 15:51	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/25/24 12:30	02/27/24 15:51	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/25/24 12:30	02/27/24 15:51	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/25/24 12:30	02/27/24 15:51	1
Magnesium	<0.0445	U	0.200	0.0445	mg/L		02/25/24 12:30	02/27/24 15:51	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		02/25/24 12:30	02/27/24 15:51	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		02/25/24 12:30	02/27/24 15:51	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/25/24 12:30	02/27/24 15:51	1
Phosphorus	<0.0184	U	0.0400	0.0184	mg/L		02/25/24 12:30	02/27/24 15:51	1
Potassium	<0.106	U	0.500	0.106	mg/L		02/25/24 12:30	02/27/24 15:51	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		02/25/24 12:30	02/27/24 15:51	1
Silicon	<0.173	U	0.500	0.173	mg/L		02/25/24 12:30	02/27/24 15:51	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		02/25/24 12:30	02/27/24 15:51	1
Sodium	<0.152	U	0.500	0.152	mg/L		02/25/24 12:30	02/27/24 15:51	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		02/25/24 12:30	02/27/24 15:51	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/25/24 12:30	02/27/24 15:51	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/25/24 12:30	02/27/24 15:51	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 860-146910/1-A
Matrix: Water
Analysis Batch: 147356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/25/24 12:30	02/27/24 15:51	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/25/24 12:30	02/27/24 15:51	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/25/24 12:30	02/27/24 15:51	1
Lithium	<0.0174	U	0.0400	0.0174	mg/L		02/25/24 12:30	02/27/24 15:51	1
Phosphate as PO4	<0.0564	U	0.123	0.0564	mg/L		02/25/24 12:30	02/27/24 15:51	1

Lab Sample ID: LCS 860-146910/2-A
Matrix: Water
Analysis Batch: 147356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	4.910		mg/L		98	80 - 120
Antimony	1.00	0.9390		mg/L		94	80 - 120
Arsenic	1.00	0.9680		mg/L		97	80 - 120
Barium	1.00	0.9770		mg/L		98	80 - 120
Beryllium	1.00	0.9860		mg/L		99	80 - 120
Boron	1.00	0.9800		mg/L		98	80 - 120
Cadmium	1.00	0.9630		mg/L		96	80 - 120
Calcium	25.0	24.40		mg/L		98	80 - 120
Chromium	1.00	1.010		mg/L		101	80 - 120
Cobalt	1.00	0.9720		mg/L		97	80 - 120
Copper	1.00	0.9730		mg/L		97	80 - 120
Iron	5.00	4.970		mg/L		99	80 - 120
Lead	1.00	1.010		mg/L		101	80 - 120
Magnesium	25.0	24.20		mg/L		97	80 - 120
Manganese	1.00	1.010		mg/L		101	80 - 120
Molybdenum	1.00	1.010		mg/L		101	80 - 120
Nickel	1.00	0.9700		mg/L		97	80 - 120
Phosphorus	1.00	1.010		mg/L		101	80 - 120
Potassium	10.0	9.530		mg/L		95	80 - 120
Selenium	1.00	0.9540		mg/L		95	80 - 120
Silicon	10.0	9.660		mg/L		97	80 - 120
Silver	0.500	0.4350		mg/L		87	80 - 120
Sodium	25.0	24.20		mg/L		97	80 - 120
Strontium	1.00	1.010		mg/L		101	80 - 120
Thallium	1.00	1.010		mg/L		101	80 - 120
Tin	1.00	0.9780		mg/L		98	80 - 120
Titanium	1.00	0.9690		mg/L		97	80 - 120
Vanadium	1.00	0.9980		mg/L		100	80 - 120
Zinc	1.00	0.9830		mg/L		98	80 - 120
Lithium	1.00	1.020		mg/L		102	80 - 120

Lab Sample ID: LCSD 860-146910/3-A
Matrix: Water
Analysis Batch: 147356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146910

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	5.00	4.990		mg/L		100	80 - 120	2	20
Antimony	1.00	0.9600		mg/L		96	80 - 120	2	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 860-146910/3-A

Matrix: Water

Analysis Batch: 147356

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146910

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.00	0.9740		mg/L		97	80 - 120	1	20
Barium	1.00	0.9910		mg/L		99	80 - 120	1	20
Beryllium	1.00	1.000		mg/L		100	80 - 120	1	20
Boron	1.00	0.9960		mg/L		100	80 - 120	2	20
Cadmium	1.00	0.9740		mg/L		97	80 - 120	1	20
Calcium	25.0	24.90		mg/L		100	80 - 120	2	20
Chromium	1.00	1.020		mg/L		102	80 - 120	1	20
Cobalt	1.00	0.9880		mg/L		99	80 - 120	2	20
Copper	1.00	0.9810		mg/L		98	80 - 120	1	20
Iron	5.00	5.060		mg/L		101	80 - 120	2	20
Lead	1.00	1.020		mg/L		102	80 - 120	1	20
Magnesium	25.0	24.60		mg/L		98	80 - 120	2	20
Manganese	1.00	1.030		mg/L		103	80 - 120	2	20
Molybdenum	1.00	1.030		mg/L		103	80 - 120	2	20
Nickel	1.00	0.9850		mg/L		99	80 - 120	2	20
Phosphorus	1.00	1.020		mg/L		102	80 - 120	1	20
Potassium	10.0	9.710		mg/L		97	80 - 120	2	20
Selenium	1.00	0.9640		mg/L		96	80 - 120	1	20
Silicon	10.0	9.830		mg/L		98	80 - 120	2	20
Silver	0.500	0.4420		mg/L		88	80 - 120	2	20
Sodium	25.0	24.60		mg/L		98	80 - 120	2	20
Strontium	1.00	1.020		mg/L		102	80 - 120	1	20
Thallium	1.00	1.030		mg/L		103	80 - 120	2	20
Tin	1.00	0.9900		mg/L		99	80 - 120	1	20
Titanium	1.00	0.9850		mg/L		99	80 - 120	2	20
Vanadium	1.00	1.020		mg/L		102	80 - 120	2	20
Zinc	1.00	0.9990		mg/L		100	80 - 120	2	20
Lithium	1.00	1.040		mg/L		104	80 - 120	2	20

Lab Sample ID: MB 860-147483/1-B

Matrix: Water

Analysis Batch: 147846

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 147580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		02/29/24 09:30	03/01/24 11:12	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		02/29/24 09:30	03/01/24 11:12	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		02/29/24 09:30	03/01/24 11:12	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		02/29/24 09:30	03/01/24 11:12	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/29/24 09:30	03/01/24 11:12	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/29/24 09:30	03/01/24 11:12	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/29/24 09:30	03/01/24 11:12	1
Dissolved Calcium	<0.102	U	0.200	0.102	mg/L		02/29/24 09:30	03/01/24 11:12	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/29/24 09:30	03/01/24 11:12	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/29/24 09:30	03/01/24 11:12	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/29/24 09:30	03/01/24 11:12	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/29/24 09:30	03/01/24 11:12	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/29/24 09:30	03/01/24 11:12	1
Dissolved Magnesium	<0.0445	U	0.200	0.0445	mg/L		02/29/24 09:30	03/01/24 11:12	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		02/29/24 09:30	03/01/24 11:12	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 860-147483/1-B

Matrix: Water

Analysis Batch: 147846

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 147580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		02/29/24 09:30	03/01/24 11:12	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/29/24 09:30	03/01/24 11:12	1
P	<0.0184	U	0.0400	0.0184	mg/L		02/29/24 09:30	03/01/24 11:12	1
Potassium	<0.106	U	0.500	0.106	mg/L		02/29/24 09:30	03/01/24 11:12	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		02/29/24 09:30	03/01/24 11:12	1
Silver	0.003820	J	0.0200	0.00371	mg/L		02/29/24 09:30	03/01/24 11:12	1
Sodium	<0.152	U	0.500	0.152	mg/L		02/29/24 09:30	03/01/24 11:12	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		02/29/24 09:30	03/01/24 11:12	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/29/24 09:30	03/01/24 11:12	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/29/24 09:30	03/01/24 11:12	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/29/24 09:30	03/01/24 11:12	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/29/24 09:30	03/01/24 11:12	1
SiO2	<0.370	U	1.07	0.370	mg/L		02/29/24 09:30	03/01/24 11:12	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/29/24 09:30	03/01/24 11:12	1
Phosphorus as PO4	<0.0564	U	0.123	0.0564	mg/L		02/29/24 09:30	03/01/24 11:12	1

Lab Sample ID: LCS 860-147483/2-B

Matrix: Water

Analysis Batch: 147846

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 147580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	5.380		mg/L		108	80 - 120
Antimony	1.00	1.020		mg/L		102	80 - 120
Arsenic	1.00	1.060		mg/L		106	80 - 120
Barium	1.00	1.040		mg/L		104	80 - 120
Beryllium	1.00	1.030		mg/L		103	80 - 120
Boron	1.00	1.060		mg/L		106	80 - 120
Cadmium	1.00	0.9700		mg/L		97	80 - 120
Dissolved Calcium	25.0	25.90		mg/L		104	80 - 120
Chromium	1.00	1.030		mg/L		103	80 - 120
Cobalt	1.00	1.030		mg/L		103	80 - 120
Copper	1.00	1.030		mg/L		103	80 - 120
Iron	5.00	5.270		mg/L		105	80 - 120
Lead	1.00	1.050		mg/L		105	80 - 120
Dissolved Magnesium	25.0	25.40		mg/L		102	80 - 120
Manganese	1.00	1.060		mg/L		106	80 - 120
Molybdenum	1.00	1.060		mg/L		106	80 - 120
Nickel	1.00	1.020		mg/L		102	80 - 120
P	1.00	0.9990		mg/L		100	80 - 120
Potassium	10.0	10.10		mg/L		101	80 - 120
Selenium	1.00	1.010		mg/L		101	80 - 120
Silver	0.500	0.4620		mg/L		92	80 - 120
Sodium	25.0	25.70		mg/L		103	80 - 120
Strontium	1.00	1.020		mg/L		102	80 - 120
Thallium	1.00	1.060		mg/L		106	80 - 120
Tin	1.00	1.050		mg/L		105	80 - 120
Titanium	1.00	1.030		mg/L		103	80 - 120
Vanadium	1.00	1.070		mg/L		107	80 - 120
SiO2	21.4	22.47		mg/L		105	80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-147483/2-B
Matrix: Water
Analysis Batch: 147846

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 147580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	1.00	1.060		mg/L		106	80 - 120

Lab Sample ID: LCSD 860-147483/3-B
Matrix: Water
Analysis Batch: 147846

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 147580

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Aluminum	5.00	5.340		mg/L		107	80 - 120	1	20
Antimony	1.00	1.020		mg/L		102	80 - 120	0	20
Arsenic	1.00	1.040		mg/L		104	80 - 120	2	20
Barium	1.00	1.030		mg/L		103	80 - 120	1	20
Beryllium	1.00	1.020		mg/L		102	80 - 120	1	20
Boron	1.00	1.060		mg/L		106	80 - 120	0	20
Cadmium	1.00	0.9600		mg/L		96	80 - 120	1	20
Dissolved Calcium	25.0	25.70		mg/L		103	80 - 120	1	20
Chromium	1.00	1.020		mg/L		102	80 - 120	1	20
Cobalt	1.00	1.020		mg/L		102	80 - 120	1	20
Copper	1.00	1.020		mg/L		102	80 - 120	1	20
Iron	5.00	5.220		mg/L		104	80 - 120	1	20
Lead	1.00	1.040		mg/L		104	80 - 120	1	20
Dissolved Magnesium	25.0	25.20		mg/L		101	80 - 120	1	20
Manganese	1.00	1.050		mg/L		105	80 - 120	1	20
Molybdenum	1.00	1.050		mg/L		105	80 - 120	1	20
Nickel	1.00	1.010		mg/L		101	80 - 120	1	20
P	1.00	1.010		mg/L		101	80 - 120	1	20
Potassium	10.0	10.10		mg/L		101	80 - 120	0	20
Selenium	1.00	0.9910		mg/L		99	80 - 120	2	20
Silver	0.500	0.4580		mg/L		92	80 - 120	1	20
Sodium	25.0	25.60		mg/L		102	80 - 120	0	20
Strontium	1.00	1.010		mg/L		101	80 - 120	1	20
Thallium	1.00	1.040		mg/L		104	80 - 120	2	20
Tin	1.00	1.040		mg/L		104	80 - 120	1	20
Titanium	1.00	1.020		mg/L		102	80 - 120	1	20
Vanadium	1.00	1.060		mg/L		106	80 - 120	1	20
SiO2	21.4	22.26		mg/L		104	80 - 120	1	20
Zinc	1.00	1.050		mg/L		105	80 - 120	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-146899/1-A
Matrix: Water
Analysis Batch: 147083

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146899

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	<0.000211	U	0.00100	0.000211	mg/L		02/25/24 10:00	02/26/24 12:07	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-146899/2-A
Matrix: Water
Analysis Batch: 147083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	0.0250	0.02295		mg/L		92	80 - 120

Lab Sample ID: LCSD 860-146899/3-A
Matrix: Water
Analysis Batch: 147083

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146899

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	0.0250	0.02292		mg/L		92	80 - 120	0	20

Method: 6020B - Rare Earth Metals (ICP/MS)

Lab Sample ID: MB 860-146999/1-A
Matrix: Water
Analysis Batch: 147217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Dy	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Pr	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Zr	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
La	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Ce	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Nd	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Y	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Tb	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1
Eu	<0.00100	U	0.00100	0.00100	mg/L		02/26/24 10:30	02/27/24 13:08	1

Lab Sample ID: LCS 860-146999/2-A
Matrix: Water
Analysis Batch: 147217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146999

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Au	0.0500	0.05342		mg/L		107	80 - 120
Dy	0.0500	0.05368		mg/L		107	80 - 120
Pr	0.0500	0.05370		mg/L		107	80 - 120
Zr	0.0500	0.05344		mg/L		107	80 - 120
La	0.0500	0.05351		mg/L		107	80 - 120
Ce	0.0500	0.05353		mg/L		107	80 - 120
Nd	0.0500	0.05321		mg/L		106	80 - 120
Y	0.0500	0.05383		mg/L		108	80 - 120
Tb	0.0500	0.05349		mg/L		107	80 - 120
Eu	0.0500	0.05381		mg/L		108	80 - 120

Lab Sample ID: LCSD 860-146999/3-A
Matrix: Water
Analysis Batch: 147217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146999

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Au	0.0500	0.05288		mg/L		106	80 - 120	1	20
Dy	0.0500	0.05278		mg/L		106	80 - 120	2	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 6020B - Rare Earth Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-146999/3-A

Matrix: Water

Analysis Batch: 147218

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146999

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pr	0.0500	0.05316		mg/L		106	80 - 120	1	20
Zr	0.0500	0.05284		mg/L		106	80 - 120	1	20
La	0.0500	0.05286		mg/L		106	80 - 120	1	20
Ce	0.0500	0.05307		mg/L		106	80 - 120	1	20
Nd	0.0500	0.05336		mg/L		107	80 - 120	0	20
Y	0.0500	0.05293		mg/L		106	80 - 120	2	20
Tb	0.0500	0.05295		mg/L		106	80 - 120	1	20
Eu	0.0500	0.05288		mg/L		106	80 - 120	2	20

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 860-147461/1

Matrix: Water

Analysis Batch: 147461

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.57	U	5.00	1.57	mg/L			02/28/24 15:50	1

Lab Sample ID: LCS 860-147461/2

Matrix: Water

Analysis Batch: 147461

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	39.00		mg/L		97	78 - 114

Lab Sample ID: LCSD 860-147461/3

Matrix: Water

Analysis Batch: 147461

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM	40.0	40.20		mg/L		100	78 - 114	3	18

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 860-146459/3

Matrix: Water

Analysis Batch: 146459

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	<0.50	U	1.0	0.50	NTU			02/22/24 08:59	1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 860-147820/164

Matrix: Water

Analysis Batch: 147820

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.0508	U	0.100	0.0508	mg/L			02/29/24 18:10	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 860-147820/165
Matrix: Water
Analysis Batch: 147820

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	1.085		mg/L		108	90 - 110

Lab Sample ID: LCSD 860-147820/166
Matrix: Water
Analysis Batch: 147820

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	1.00	1.085		mg/L		108	90 - 110	0	20

Method: 8000 - COD

Lab Sample ID: MB 860-147428/3
Matrix: Water
Analysis Batch: 147428

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<3.36	U	20.0	3.36	mg/L			02/28/24 14:01	1

Lab Sample ID: LCS 860-147428/4
Matrix: Water
Analysis Batch: 147428

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	100	108.0		mg/L		108	90 - 110

Lab Sample ID: 830-4968-1 MS
Matrix: Water
Analysis Batch: 147428

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	64.0		100	167.0		mg/L		103	90 - 110

Lab Sample ID: 830-4968-1 MSD
Matrix: Water
Analysis Batch: 147428

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	64.0		100	167.0		mg/L		103	90 - 110	0	20

Method: 8146 - Iron, Ferrous

Lab Sample ID: MB 860-148866/3
Matrix: Water
Analysis Batch: 148866

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	<0.0280	U	0.0500	0.0280	mg/L			03/08/24 12:42	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 8146 - Iron, Ferrous (Continued)

Lab Sample ID: LCS 860-148866/4
Matrix: Water
Analysis Batch: 148866

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ferrous Iron	1.00	0.8100		mg/L		81	75 - 125

Lab Sample ID: LCSD 860-148866/5
Matrix: Water
Analysis Batch: 148866

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ferrous Iron	1.00	0.8100		mg/L		81	75 - 125	0	25

Lab Sample ID: 830-4968-1 DU
Matrix: Water
Analysis Batch: 148866

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	<0.0280	U HF	<0.0280	U	mg/L		NC	25

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 860-148884/4-A
Matrix: Water
Analysis Batch: 148950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 148884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<2.00	U	5.00	2.00	ug/L		03/08/24 13:54	03/08/24 18:21	1

Lab Sample ID: LCS 860-148884/5-A
Matrix: Water
Analysis Batch: 148950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	200	213.4		ug/L		107	90 - 110

Lab Sample ID: 830-4968-1 MS
Matrix: Water
Analysis Batch: 148950

Client Sample ID: Post-Treated Water
Prep Type: Total/NA
Prep Batch: 148884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	8.08	H F1 ^2	100	83.63	F1	ug/L		76	90 - 110

Lab Sample ID: 830-4968-1 MSD
Matrix: Water
Analysis Batch: 148950

Client Sample ID: Post-Treated Water
Prep Type: Total/NA
Prep Batch: 148884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	8.08	H F1 ^2	100	86.15	F1	ug/L		78	90 - 110	3	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-824768/1-A

Matrix: Water

Analysis Batch: 824778

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 824768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<14.0	U	40.0	14.0	ug/L		02/26/24 08:12	02/26/24 09:56	1

Lab Sample ID: LCS 680-824768/2-A

Matrix: Water

Analysis Batch: 824778

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 824768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TOX Result 1	400	392.8		ug/L		98	60 - 140
TOX Result 2	400	392.8		ug/L		98	60 - 140

Lab Sample ID: LCSD 680-824768/14-A

Matrix: Water

Analysis Batch: 824778

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 824768

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TOX Result 1	400	457.9		ug/L		114	60 - 140	15	40
TOX Result 2	400	457.9		ug/L		114	60 - 140	15	40

Lab Sample ID: 830-4968-1 MS

Matrix: Water

Analysis Batch: 824778

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Prep Batch: 824768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
TOX Result 1	54.7		400	400.8		ug/L		87	60 - 140
TOX Result 2	65.2		400	400.8		ug/L		84	60 - 140

Lab Sample ID: 830-4968-1 MSD

Matrix: Water

Analysis Batch: 824778

Client Sample ID: Post-Treated Water

Prep Type: Total/NA

Prep Batch: 824768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TOX Result 1	54.7		400	365.6		ug/L		78	60 - 140	9	40
TOX Result 2	65.2		400	365.6		ug/L		75	60 - 140	9	40

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-148225/2

Matrix: Water

Analysis Batch: 148225

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			03/04/24 16:24	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			03/04/24 16:24	1

Lab Sample ID: LCS 860-148225/3

Matrix: Water

Analysis Batch: 148225

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	250	247.9		mg/L		99	85 - 115

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 860-148225/4
Matrix: Water
Analysis Batch: 148225

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	250	246.2		mg/L		98	85 - 115	1	20

Lab Sample ID: 830-4968-1 DU
Matrix: Water
Analysis Batch: 148225

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3	27.3		24.73		mg/L		10	20
Bicarbonate Alkalinity as CaCO3	27.3		24.73		mg/L		10	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: 830-4968-1 DU
Matrix: Water
Analysis Batch: 148144

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	161		161.0		umho/cm @ 25C		0.2	20

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

Lab Sample ID: MB 860-147301/1
Matrix: Water
Analysis Batch: 147301

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/27/24 22:22	1

Lab Sample ID: LCS 860-147301/2
Matrix: Water
Analysis Batch: 147301

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1110		mg/L		111	80 - 120

Lab Sample ID: LCSD 860-147301/3
Matrix: Water
Analysis Batch: 147301

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1111		mg/L		111	80 - 120	0	10

Lab Sample ID: LLCS 860-147301/4
Matrix: Water
Analysis Batch: 147301

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	6.000		mg/L		120	50 - 150

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 860-147432/1
Matrix: Water
Analysis Batch: 147432

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<40.0	U	40.0	40.0	mg/L			02/28/24 14:11	1

Lab Sample ID: LCS 860-147432/2
Matrix: Water
Analysis Batch: 147432

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	10.0	11.10		mg/L		111	80 - 120

Lab Sample ID: LCSD 860-147432/3
Matrix: Water
Analysis Batch: 147432

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	10.0	11.10		mg/L		111	80 - 120	0	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 860-146366/3
Matrix: Water
Analysis Batch: 146366

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00200	U	0.0100	0.00200	mg/L			02/21/24 12:19	1

Lab Sample ID: LCS 860-146366/4
Matrix: Water
Analysis Batch: 146366

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.200	0.1861		mg/L		93	80 - 120

Lab Sample ID: LCSD 860-146366/5
Matrix: Water
Analysis Batch: 146366

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.200	0.1888		mg/L		94	80 - 120	1	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 860-147280/3
Matrix: Water
Analysis Batch: 147280

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.0400	U	0.100	0.0400	mg/L			02/27/24 19:32	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: LCS 860-147280/4
Matrix: Water
Analysis Batch: 147280

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	1.00	1.079		mg/L		108	90 - 110

Lab Sample ID: LCSD 860-147280/5
Matrix: Water
Analysis Batch: 147280

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	1.00	1.077		mg/L		108	90 - 110	0	20

Lab Sample ID: 830-4968-1 MS
Matrix: Water
Analysis Batch: 147280

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<0.0400	U F1	1.00	1.132	F1	mg/L		113	90 - 110

Lab Sample ID: 830-4968-1 MSD
Matrix: Water
Analysis Batch: 147280

Client Sample ID: Post-Treated Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.0400	U F1	1.00	1.129	F1	mg/L		113	90 - 110	0	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 400-662988/38
Matrix: Water
Analysis Batch: 662988

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.500	U	1.00	0.500	mg/L			03/01/24 03:24	1

Lab Sample ID: MB 400-662988/6
Matrix: Water
Analysis Batch: 662988

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/29/24 21:02	1

Lab Sample ID: LCS 400-662988/39
Matrix: Water
Analysis Batch: 662988

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.73		mg/L		99	85 - 115

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 400-662988/40
Matrix: Water
Analysis Batch: 662988

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.77		mg/L		99	85 - 115	0	30

Lab Sample ID: MRL 400-662988/5
Matrix: Water
Analysis Batch: 662988

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	1.00	0.6582	J	mg/L		66	50 - 150		

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 400-663053/1-A
Matrix: Water
Analysis Batch: 663051

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	<0.500	U	1.00	0.500	mg/L			03/02/24 22:17	1

Lab Sample ID: LCS 400-663053/2-A
Matrix: Water
Analysis Batch: 663051

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	20.0	20.04		mg/L		100	85 - 115		

Lab Sample ID: LCSD 400-663053/3-A
Matrix: Water
Analysis Batch: 663051

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.90		mg/L		99	85 - 115	1	30

Lab Sample ID: MRL 400-663051/5
Matrix: Water
Analysis Batch: 663051

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	1.00	0.6280	J	mg/L		63	50 - 150		

Lab Sample ID: 830-4968-1 DU
Matrix: Water
Analysis Batch: 663051

Client Sample ID: Post-Treated Water
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Dissolved Organic Carbon	3.45		3.187		mg/L			8	16

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-649953/1-A
Matrix: Water
Analysis Batch: 651013

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649953

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.2895	U	0.513	0.514	3.00	0.896	pCi/L	02/27/24 09:46	03/05/24 07:29	1
Gross Beta	0.2716	U	0.484	0.485	4.00	0.814	pCi/L	02/27/24 09:46	03/05/24 07:29	1

Lab Sample ID: LCS 160-649953/2-A
Matrix: Water
Analysis Batch: 651013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649953

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Alpha	49.6	48.22		7.08	3.00	1.60	pCi/L	97	75 - 125

Lab Sample ID: LCSB 160-649953/3-A
Matrix: Water
Analysis Batch: 651013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649953

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	71.8	65.72		7.10	4.00	0.870	pCi/L	91	75 - 125

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-649852/1-A
Matrix: Water
Analysis Batch: 652976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649852

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	5.575	U	13.9	13.9		116	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Actinium-228	9.261	U	20.7	20.7		50.7	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Bismuth-212	0.0000068	U	109	109		199	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Bismuth-214	9.961	U	4.98	5.12		59.8	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Lead-210	-49.13	U	171	171		265	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Lead-212	4.164	U	16.5	16.5		28.1	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Lead-214	8.849	U	16.0	16.1		27.0	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Potassium-40	114.5		57.2	58.8		52.7	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Protactinium-231	0.0000	U	111	111		1190	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Radium-226	9.961	U G	4.98	5.12	50.0	59.8	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Radium-228	9.261	U G	20.7	20.7	50.0	50.7	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Thallium-208	2.403	U	4.62	4.63		12.9	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Thorium-232	9.261	U	20.7	20.7		50.7	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Thorium-234	-333.6	U	243	246		432	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Uranium 235	20.31	U	46.8	46.9		79.3	pCi/L	02/26/24 15:29	03/18/24 15:37	1
Uranium 238	-333.6	U	243	246		432	pCi/L	02/26/24 15:29	03/18/24 15:37	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: LCS 160-649852/2-A
Matrix: Water
Analysis Batch: 652973

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649852

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	135600		15900		442	pCi/L	101	75 - 125
Cesium-137	39900	40730		4800		115	pCi/L	102	75 - 125
Cobalt-60	15700	16150		1910		78.1	pCi/L	103	75 - 125

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-649792/1-A
Matrix: Water
Analysis Batch: 653003

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649792

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02079	U	0.0392	0.0392	1.00	0.0964	pCi/L	02/26/24 10:37	03/19/24 07:17	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					02/26/24 10:37	03/19/24 07:17	1

Lab Sample ID: LCS 160-649792/2-A
Matrix: Water
Analysis Batch: 653018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649792

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.49		1.09	1.00	0.0998	pCi/L	93	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	104		30 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-649795/1-A
Matrix: Water
Analysis Batch: 651960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649795

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2058	U	0.220	0.221	1.00	0.473	pCi/L	02/26/24 10:43	03/11/24 11:40	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					02/26/24 10:43	03/11/24 11:40	1
Y Carrier	81.5		30 - 110					02/26/24 10:43	03/11/24 11:40	1

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-649795/2-A
Matrix: Water
Analysis Batch: 651960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649795

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228		9.13	9.904		1.29	1.00	0.440	pCi/L	108	75 - 125
	LCS	LCS								
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	104		30 - 110							
Y Carrier	78.1		30 - 110							

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-649797/1-A
Matrix: Water
Analysis Batch: 651035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649797

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.1129	U	0.175	0.175	3.00	0.295	pCi/L	02/26/24 10:54	03/05/24 14:52	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits							
Sr Carrier	80.1		30 - 110							
Y Carrier	84.1		30 - 110							

Lab Sample ID: LCS 160-649797/2-A
Matrix: Water
Analysis Batch: 651035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649797

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Strontium-90		7.18	8.021		0.888	3.00	0.328	pCi/L	112	75 - 125
	LCS	LCS								
Carrier	%Yield	Qualifier	Limits							
Sr Carrier	84.2		30 - 110							
Y Carrier	80.0		30 - 110							

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

GC/MS VOA

Analysis Batch: 147372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8260D	
MB 860-147372/9	Method Blank	Total/NA	Water	8260D	
LCS 860-147372/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-147372/4	Lab Control Sample Dup	Total/NA	Water	8260D	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	8260D	

Analysis Batch: 147524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1 - RA	Post-Treated Water	Total/NA	Water	8260D	
MB 860-147524/22	Method Blank	Total/NA	Water	8260D	
LCS 860-147524/1011	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-147524/12	Lab Control Sample Dup	Total/NA	Water	8260D	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 146819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3510C	
MB 860-146819/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-146819/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-146819/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 146841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8270E LL	146819
MB 860-146819/1-A	Method Blank	Total/NA	Water	8270E LL	146819
LCS 860-146819/2-A	Lab Control Sample	Total/NA	Water	8270E LL	146819
LCSD 860-146819/3-A	Lab Control Sample Dup	Total/NA	Water	8270E LL	146819

Analysis Batch: 146993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8270D SIM	147011
MB 860-147011/1-A	Method Blank	Total/NA	Water	8270D SIM	147011
LCS 860-147011/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	147011
LCSD 860-147011/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	147011

Prep Batch: 147011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3511	
MB 860-147011/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-147011/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-147011/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Prep Batch: 413719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	Organotin	
MB 570-413719/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-413719/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-413719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

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QC Association Summary

Client: New Mexico State University
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Job ID: 830-4968-1

GC/MS Semi VOA

Analysis Batch: 414280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	Organotins SIM	413719
MB 570-413719/1-A	Method Blank	Total/NA	Water	Organotins SIM	413719
LCS 570-413719/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	413719
LCSD 570-413719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	413719

GC Semi VOA

Analysis Batch: 143859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8015 NM	

Prep Batch: 146277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8151A	
MB 860-146277/1-A	Method Blank	Total/NA	Water	8151A	
LCS 860-146277/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 860-146277/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 146458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8151A	146277
MB 860-146277/1-A	Method Blank	Total/NA	Water	8151A	146277
LCS 860-146277/2-A	Lab Control Sample	Total/NA	Water	8151A	146277
LCSD 860-146277/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	146277

Analysis Batch: 146954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8081B_LL	147139
MB 860-147139/1-A	Method Blank	Total/NA	Water	8081B_LL	147139
LCS 860-147139/2-A	Lab Control Sample	Total/NA	Water	8081B_LL	147139
LCSD 860-147139/3-A	Lab Control Sample Dup	Total/NA	Water	8081B_LL	147139

Prep Batch: 146976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8015NM Aq Prep	
MB 860-146976/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 860-146976/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 860-146976/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

Prep Batch: 147139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3510C	
MB 860-147139/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-147139/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 860-147139/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-147139/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 860-147139/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 147142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8082A	147139

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QC Association Summary

Client: New Mexico State University
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Job ID: 830-4968-1

GC Semi VOA (Continued)

Analysis Batch: 147142 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-147139/1-A	Method Blank	Total/NA	Water	8082A	147139
LCS 860-147139/4-A	Lab Control Sample	Total/NA	Water	8082A	147139
LCSD 860-147139/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	147139

Analysis Batch: 147157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-146976/1-A	Method Blank	Total/NA	Water	8015B NM	146976
LCS 860-146976/2-A	Lab Control Sample	Total/NA	Water	8015B NM	146976
LCSD 860-146976/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	146976

Analysis Batch: 148813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8015B NM	146976

Prep Batch: 460552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3510C	
MB 180-460552/1-A	Method Blank	Total/NA	Water	3510C	
LCS 180-460552/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-460552/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 460567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	EPA 8141B	460552
MB 180-460552/1-A	Method Blank	Total/NA	Water	EPA 8141B	460552
LCS 180-460552/2-A	Lab Control Sample	Total/NA	Water	EPA 8141B	460552
LCSD 180-460552/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 8141B	460552

HPLC/IC

Analysis Batch: 146152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	300.0	
MB 860-146152/3	Method Blank	Total/NA	Water	300.0	
LCS 860-146152/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-146152/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-146152/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 146153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	300.0	
MB 860-146153/3	Method Blank	Total/NA	Water	300.0	
LCS 860-146153/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-146153/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-146153/6	Lab Control Sample	Total/NA	Water	300.0	

Prep Batch: 147038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	CWA_Prep	
MB 860-147038/1-A	Method Blank	Total/NA	Water	CWA_Prep	
LCS 860-147038/2-A	Lab Control Sample	Total/NA	Water	CWA_Prep	

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QC Association Summary

Client: New Mexico State University
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Job ID: 830-4968-1

HPLC/IC (Continued)

Prep Batch: 147038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-147038/3-A	Lab Control Sample Dup	Total/NA	Water	CWA_Prep	

Analysis Batch: 147897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	632	147038
MB 860-147038/1-A	Method Blank	Total/NA	Water	632	147038
LCS 860-147038/2-A	Lab Control Sample	Total/NA	Water	632	147038
LCSD 860-147038/3-A	Lab Control Sample Dup	Total/NA	Water	632	147038

Analysis Batch: 149577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	VFA - HPLC	
MB 860-149577/3	Method Blank	Total/NA	Water	VFA - HPLC	
LCS 860-149577/4	Lab Control Sample	Total/NA	Water	VFA - HPLC	
LCSD 860-149577/5	Lab Control Sample Dup	Total/NA	Water	VFA - HPLC	

Prep Batch: 476810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8330-Prep	
MB 410-476810/1-A	Method Blank	Total/NA	Water	8330-Prep	
LCS 410-476810/2-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCS 410-476810/4-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCSD 410-476810/3-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	
LCSD 410-476810/5-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	

Analysis Batch: 477175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8330B	476810
MB 410-476810/1-A	Method Blank	Total/NA	Water	8330B	476810
LCS 410-476810/2-A	Lab Control Sample	Total/NA	Water	8330B	476810
LCS 410-476810/4-A	Lab Control Sample	Total/NA	Water	8330B	476810
LCSD 410-476810/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	476810
LCSD 410-476810/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	476810

LCMS

Analysis Batch: 476314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SW846 6850	476922
MB 410-476922/1-A	Method Blank	Total/NA	Water	SW846 6850	476922
LCS 410-476922/2-A	Lab Control Sample	Total/NA	Water	SW846 6850	476922
LCSD 410-476922/3-A	Lab Control Sample Dup	Total/NA	Water	SW846 6850	476922

Prep Batch: 476922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	6850 Prep	
MB 410-476922/1-A	Method Blank	Total/NA	Water	6850 Prep	
LCS 410-476922/2-A	Lab Control Sample	Total/NA	Water	6850 Prep	
LCSD 410-476922/3-A	Lab Control Sample Dup	Total/NA	Water	6850 Prep	

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

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LCMS

Prep Batch: 479959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SPE	

Analysis Batch: 480216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	537 IDA	479959

Specialty Organics

Prep Batch: 477413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8290A	
MB 410-477413/1-A	Method Blank	Total/NA	Water	8290A	
LCS 410-477413/2-A	Lab Control Sample	Total/NA	Water	8290A	

Analysis Batch: 478912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8290A	477413

Analysis Batch: 479087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-477413/1-A	Method Blank	Total/NA	Water	8290A	477413
LCS 410-477413/2-A	Lab Control Sample	Total/NA	Water	8290A	477413

Metals

Prep Batch: 146899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3010A	
MB 860-146899/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-146899/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-146899/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Prep Batch: 146910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3010A	
MB 860-146910/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-146910/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-146910/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Prep Batch: 146999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	3010A	
MB 860-146999/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-146999/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-146999/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 147083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	6020B	146899
MB 860-146899/1-A	Method Blank	Total/NA	Water	6020B	146899
LCS 860-146899/2-A	Lab Control Sample	Total/NA	Water	6020B	146899
LCSD 860-146899/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	146899

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Metals

Analysis Batch: 147217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	6020B	146999
MB 860-146999/1-A	Method Blank	Total/NA	Water	6020B	146999
LCS 860-146999/2-A	Lab Control Sample	Total/NA	Water	6020B	146999
LCSD 860-146999/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	146999

Analysis Batch: 147218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	6020B	146999
MB 860-146999/1-A	Method Blank	Total/NA	Water	6020B	146999
LCS 860-146999/2-A	Lab Control Sample	Total/NA	Water	6020B	146999
LCSD 860-146999/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	146999

Analysis Batch: 147356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	6010D	146910
MB 860-146910/1-A	Method Blank	Total/NA	Water	6010D	146910
LCS 860-146910/2-A	Lab Control Sample	Total/NA	Water	6010D	146910
LCSD 860-146910/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	146910

Filtration Batch: 147483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Dissolved	Water	Filtration	
MB 860-147483/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 860-147483/2-B	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 860-147483/3-B	Lab Control Sample Dup	Dissolved	Water	Filtration	

Prep Batch: 147580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Dissolved	Water	3010A	147483
MB 860-147483/1-B	Method Blank	Dissolved	Water	3010A	147483
LCS 860-147483/2-B	Lab Control Sample	Dissolved	Water	3010A	147483
LCSD 860-147483/3-B	Lab Control Sample Dup	Dissolved	Water	3010A	147483

Analysis Batch: 147647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 2340B	

Analysis Batch: 147846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Dissolved	Water	6010D	147580
MB 860-147483/1-B	Method Blank	Dissolved	Water	6010D	147580
LCS 860-147483/2-B	Lab Control Sample	Dissolved	Water	6010D	147580
LCSD 860-147483/3-B	Lab Control Sample Dup	Dissolved	Water	6010D	147580

General Chemistry

Analysis Batch: 138272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM4500 S2 H	

QC Association Summary

Client: New Mexico State University
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Job ID: 830-4968-1

General Chemistry

Analysis Batch: 144137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 3500	

Analysis Batch: 146366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 3500 CR B	
MB 860-146366/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 860-146366/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 860-146366/5	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 146459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	180.1	
MB 860-146459/3	Method Blank	Total/NA	Water	180.1	
LCS 860-146459/4	Lab Control Sample	Total/NA	Water	180.1	
LCSD 860-146459/5	Lab Control Sample Dup	Total/NA	Water	180.1	
LLCS 860-146459/6	Lab Control Sample	Total/NA	Water	180.1	

Analysis Batch: 146574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	360.1	

Analysis Batch: 147280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 4500 S2 D	
MB 860-147280/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 860-147280/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 860-147280/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	SM 4500 S2 D	
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 147301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 2540C	
MB 860-147301/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-147301/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-147301/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-147301/4	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 147428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8000	
MB 860-147428/3	Method Blank	Total/NA	Water	8000	
LCS 860-147428/4	Lab Control Sample	Total/NA	Water	8000	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	8000	
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	8000	

Analysis Batch: 147432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 2540D	
MB 860-147432/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 860-147432/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Eurofins El Paso

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

General Chemistry (Continued)

Analysis Batch: 147432 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-147432/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 147461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	1664B	
MB 860-147461/1	Method Blank	Total/NA	Water	1664B	
LCS 860-147461/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 860-147461/3	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 147820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	350.1	
MB 860-147820/164	Method Blank	Total/NA	Water	350.1	
LCS 860-147820/165	Lab Control Sample	Total/NA	Water	350.1	
LCSD 860-147820/166	Lab Control Sample Dup	Total/NA	Water	350.1	

Analysis Batch: 148144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 2510B	
LCS 860-148144/2	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-148144/3	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
LLCS 860-148144/4	Lab Control Sample	Total/NA	Water	SM 2510B	
830-4968-1 DU	Post-Treated Water	Total/NA	Water	SM 2510B	

Analysis Batch: 148225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 2320B	
MB 860-148225/2	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-148225/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-148225/4	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
830-4968-1 DU	Post-Treated Water	Total/NA	Water	SM 2320B	

Analysis Batch: 148866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	8146	
MB 860-148866/3	Method Blank	Total/NA	Water	8146	
LCS 860-148866/4	Lab Control Sample	Total/NA	Water	8146	
LCSD 860-148866/5	Lab Control Sample Dup	Total/NA	Water	8146	
830-4968-1 DU	Post-Treated Water	Total/NA	Water	8146	

Prep Batch: 148884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	9012B	
MB 860-148884/4-A	Method Blank	Total/NA	Water	9012B	
LCS 860-148884/5-A	Lab Control Sample	Total/NA	Water	9012B	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	9012B	
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	9012B	

Analysis Batch: 148950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	9012B	148884

Eurofins El Paso

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

General Chemistry (Continued)

Analysis Batch: 148950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-148884/4-A	Method Blank	Total/NA	Water	9012B	148884
LCS 860-148884/5-A	Lab Control Sample	Total/NA	Water	9012B	148884
830-4968-1 MS	Post-Treated Water	Total/NA	Water	9012B	148884
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	9012B	148884

Analysis Batch: 149315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-149315/2	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-149315/25	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
LLCS 860-149315/3	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 149316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 662988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	SM 5310B	
MB 400-662988/38	Method Blank	Total/NA	Water	SM 5310B	
MB 400-662988/6	Method Blank	Total/NA	Water	SM 5310B	
LCS 400-662988/39	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 400-662988/40	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
MRL 400-662988/5	Lab Control Sample	Total/NA	Water	SM 5310B	

Analysis Batch: 663051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Dissolved	Water	SM 5310B	663053
MB 400-663053/1-A	Method Blank	Dissolved	Water	SM 5310B	663053
LCS 400-663053/2-A	Lab Control Sample	Dissolved	Water	SM 5310B	663053
LCSD 400-663053/3-A	Lab Control Sample Dup	Dissolved	Water	SM 5310B	663053
MRL 400-663051/5	Lab Control Sample	Dissolved	Water	SM 5310B	
830-4968-1 DU	Post-Treated Water	Dissolved	Water	SM 5310B	663053

Filtration Batch: 663053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Dissolved	Water	FILTRATION	
MB 400-663053/1-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 400-663053/2-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 400-663053/3-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
830-4968-1 DU	Post-Treated Water	Dissolved	Water	FILTRATION	

Prep Batch: 824768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	Carbon Trap	
MB 680-824768/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-824768/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
LCSD 680-824768/14-A	Lab Control Sample Dup	Total/NA	Water	Carbon Trap	
830-4968-1 MS	Post-Treated Water	Total/NA	Water	Carbon Trap	
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	Carbon Trap	

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

General Chemistry

Analysis Batch: 824778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	9020B	824768
MB 680-824768/1-A	Method Blank	Total/NA	Water	9020B	824768
LCS 680-824768/2-A	Lab Control Sample	Total/NA	Water	9020B	824768
LCSD 680-824768/14-A	Lab Control Sample Dup	Total/NA	Water	9020B	824768
830-4968-1 MS	Post-Treated Water	Total/NA	Water	9020B	824768
830-4968-1 MSD	Post-Treated Water	Total/NA	Water	9020B	824768

Rad

Prep Batch: 649792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	PrecSep-21	
MB 160-649792/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-649792/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 649795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	PrecSep_0	
MB 160-649795/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-649795/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 649797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	PrecSep-7	
MB 160-649797/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-649797/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Prep Batch: 649852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	Fill_Geo-21	
MB 160-649852/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-649852/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	

Prep Batch: 649953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4968-1	Post-Treated Water	Total/NA	Water	Evaporation	
MB 160-649953/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-649953/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-649953/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	147372	02/28/24 13:42	NA	EET HOU
Total/NA	Analysis	8260D	RA	1	5 mL	5 mL	147524	02/29/24 12:59	NA	EET HOU
Total/NA	Prep	3511			55.00 mL	2.00 mL	147011	02/26/24 12:19	DR	EET HOU
Total/NA	Analysis	8270D SIM		1	1 mL	1 mL	146993	02/26/24 19:05	PXS	EET HOU
Total/NA	Prep	3510C			250 mL	1.00 mL	146819	02/24/24 05:15	DR	EET HOU
Total/NA	Analysis	8270E LL		1	1 mL	1 mL	146841	02/24/24 15:24	PXS	EET HOU
Total/NA	Prep	Organotin			1018.8 mL	1 mL	413719	02/23/24 17:04	UWEZ	EET CAL 4
Total/NA	Analysis	Organotins SIM		1	1 mL	1 mL	414280	02/26/24 19:11	ULLI	EET CAL 4
Total/NA	Analysis	8015 NM		1			143859	03/08/24 15:29	ELJ	EET HOU
Total/NA	Prep	8015NM Aq Prep			30.00 mL	3.00 mL	146976	02/26/24 09:26	DR	EET HOU
Total/NA	Analysis	8015B NM		1			148813	03/08/24 15:29	KN	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	147139	02/27/24 08:18	BH	EET HOU
Total/NA	Analysis	8081B_LL		1			146954	02/27/24 14:51	WP	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	147139	02/27/24 08:18	BH	EET HOU
Total/NA	Analysis	8082A		1			147142	02/27/24 14:49	WP	EET HOU
Total/NA	Prep	8151A			52.8 mL	4 mL	146277	02/21/24 10:07	TH	EET HOU
Total/NA	Analysis	8151A		1			146458	02/22/24 18:03	WP	EET HOU
Total/NA	Prep	3510C			1040 mL	1.0 mL	460552	02/25/24 21:40	CBY	EET PIT
Total/NA	Analysis	EPA 8141B		1	1 mL	1 mL	460567	02/26/24 14:27	C1F	EET PIT
Total/NA	Analysis	300.0		1			146152	02/21/24 20:07	A1S	EET HOU
Total/NA	Analysis	300.0		1			146153	02/21/24 20:07	A1S	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	147038	02/26/24 14:17	DR	EET HOU
Total/NA	Analysis	632		1			147897	03/01/24 01:45	YG	EET HOU
Total/NA	Prep	8330-Prep			500 mL	10 mL	476810	02/26/24 10:11	U9KU	ELLE
Total/NA	Analysis	8330B		1			477175	02/27/24 05:35	GM5C	ELLE
Total/NA	Analysis	VFA - HPLC		1			149577	03/14/24 00:22	AA	EET HOU
Total/NA	Prep	SPE			250.5 mL	1 mL	479959	03/05/24 16:06	D5VP	ELLE
Total/NA	Analysis	537 IDA		1			480216	03/06/24 16:43	R7RE	ELLE
Total/NA	Prep	6850 Prep			10 mL	10 mL	476922	02/26/24 09:51	VVE5	ELLE
Total/NA	Analysis	SW846 6850		1	1 mL	1 mL	476314	02/28/24 18:45	VVE5	ELLE
Total/NA	Prep	8290A			1003.2 mL	20 uL	477413	02/27/24 10:17	UJSZ	ELLE
Total/NA	Analysis	8290A		1	20 uL	0 mL	478912	03/03/24 11:36	RGA5	ELLE
Dissolved	Filtration	Filtration			250 mL	200 mL	147483	02/27/24 17:00	MD	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	147580	02/29/24 09:30	MD	EET HOU
Dissolved	Analysis	6010D		1			147846	03/01/24 13:52	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	146910	02/25/24 12:30	MD	EET HOU
Total/NA	Analysis	6010D		1			147356	02/27/24 18:49	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	146899	02/25/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		1			147083	02/26/24 12:52	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	146999	02/26/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		1			147217	02/27/24 13:35	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	146999	02/26/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		1			147218	02/27/24 13:35	DP	EET HOU

Eurofins El Paso

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Client Sample ID: Post-Treated Water

Lab Sample ID: 830-4968-1

Date Collected: 02/20/24 12:30

Matrix: Water

Date Received: 02/20/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2340B		1			147647	02/29/24 13:51	JDM	EET HOU
Total/NA	Analysis	1664B		1	1000 mL	1000 mL	147461	02/28/24 15:50	TB	EET HOU
Total/NA	Analysis	180.1		1			146459	02/22/24 08:59	ADL	EET HOU
Total/NA	Analysis	350.1		1	10 mL	10 mL	147820	02/29/24 19:15	ADL	EET HOU
Total/NA	Analysis	360.1		1			146574	02/22/24 18:01	HN	EET HOU
Total/NA	Analysis	8000		1	2 mL	2 mL	147428	02/28/24 14:10	HN	EET HOU
Total/NA	Analysis	8146		1	25 mL	25 mL	148866	03/08/24 12:42	SCI	EET HOU
Total/NA	Prep	9012B			6 mL	6 mL	148884	03/08/24 13:54	SA	EET HOU
Total/NA	Analysis	9012B		1			148950	03/08/24 18:23	HN	EET HOU
Total/NA	Prep	Carbon Trap			25 mL	100 mL	824768	02/26/24 08:12	CLJ	EET SAV
Total/NA	Analysis	9020B		1			824778	02/26/24 12:58	CLJ	EET SAV
Total/NA	Analysis	SM 2320B		1			148225	03/04/24 18:22	SC	EET HOU
Total/NA	Analysis	SM 2510B		1			148144	03/04/24 15:16	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	147301	02/27/24 22:22	FN	EET HOU
Total/NA	Analysis	SM 2540D		1	600 mL	1000 mL	147432	02/28/24 14:11	YG	EET HOU
Total/NA	Analysis	SM 3500		1			144137	03/10/24 19:23	MC	EET HOU
Total/NA	Analysis	SM 3500 CR B		1	25 mL	25 mL	146366	02/21/24 17:59	SCI	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			149316	03/12/24 10:36	SC	EET HOU
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	147280	02/27/24 19:32	SCI	EET HOU
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	663053	03/02/24 14:17	DEK	EET PEN
Dissolved	Analysis	SM 5310B		1			663051	03/02/24 23:00	DEK	EET PEN
Total/NA	Analysis	SM 5310B		1	50 mL	50 mL	662988	03/01/24 07:48	DEK	EET PEN
Total/NA	Analysis	SM4500 S2 H		1			138272	03/21/24 17:23	MC	EET HOU
Total/NA	Prep	Evaporation			200.00 mL	1.0 g	649953	02/27/24 09:46	ASG	EET SL
Total/NA	Analysis	900.0		1			651016	03/05/24 07:44	CMM	EET SL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	649852	02/26/24 15:29	SAC	EET SL
Total/NA	Analysis	901.1		1			652978	03/18/24 17:09	CAH	EET SL
Total/NA	Prep	PrecSep-21			997.14 mL	1.0 g	649792	02/26/24 10:37	KAC	EET SL
Total/NA	Analysis	903.0		1			653003	03/19/24 07:20	SWS	EET SL
Total/NA	Prep	PrecSep_0			997.14 mL	1.0 g	649795	02/26/24 10:43	KAC	EET SL
Total/NA	Analysis	904.0		1	1.0 mL	1.0 mL	651790	03/11/24 11:44	FLC	EET SL
Total/NA	Prep	PrecSep-7			989.74 mL	1.0 g	649797	02/26/24 10:54	KAC	EET SL
Total/NA	Analysis	905		1			651035	03/05/24 14:56	FLC	EET SL

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins El Paso

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
California	Los Angeles County Sanitation Districts	10109	08-01-24
California	State	3082	07-31-24
Kansas	NELAP	E-10420	08-01-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-03-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-11-24
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins El Paso

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-24
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-28-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24
Wyoming (UST)	A2LA	0001.01	11-30-24

Laboratory: Eurofins Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins El Paso

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-24
Illinois	NELAP	004375	06-30-24
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23 *
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-24
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-24
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-25
Pennsylvania	NELAP	02-00416	04-30-24
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-24
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	07-14-24
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-24

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins El Paso

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Laboratory: Eurofins Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24
Hawaii	State	<cert No.>	06-30-24
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins El Paso

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins El Paso

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET HOU
8270E LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET HOU
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	EET CAL 4
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8081B_LL	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
EPA 8141B	Organophosphorous Pesticides (GC)	SW846	EET PIT
300.0	Anions, Ion Chromatography	EPA	EET HOU
632	Carbamate and Urea Pesticides (HPLC)	EPA-01	EET HOU
8330B	Nitroaromatics and Nitramines (HPLC)	SW846	ELLE
VFA - HPLC	Volatile Fatty Acids (HPLC/UV)	Lab SOP	EET HOU
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
SW846 6850	Perchlorate by LC/MS or LC/MS/MS	SW846	ELLE
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	ELLE
6010D	Metals (ICP)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
6020B	Rare Earth Metals (ICP/MS)	SW846	EET HOU
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	EET HOU
1664B	HEM and SGT-HEM	1664B	EET HOU
180.1	Turbidity, Nephelometric	EPA	EET HOU
350.1	Nitrogen, Ammonia	EPA	EET HOU
360.1	Oxygen, Dissolved	EPA	EET HOU
8000	COD	Hach	EET HOU
8146	Iron, Ferrous	Hach	EET HOU
9012B	Cyanide, Total and/or Amenable	SW846	EET HOU
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
SM 2320B	Alkalinity	SM	EET HOU
SM 2510B	Conductivity, Specific Conductance	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 2540D	Solids, Total Suspended (TSS)	SM	EET HOU
SM 3500	Iron, Ferric	SM	EET HOU
SM 3500 CR B	Chromium, Hexavalent	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
SM 4500 S2 D	Sulfide, Total	SM	EET HOU
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET HOU
Subcontract	Method 1003.0: Green Algae-Selenastrum capricornutum Chronic Toxicity Test	None	EET MID
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET PIT
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
6850 Prep	Perchlorate Water Prep	EPA	ELLE
8015NM Aq Prep	Microextraction	SW846	EET HOU
8151A	Extraction (Herbicides)	SW846	EET HOU
8290A	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	ELLE
8330-Prep	Solid-Phase Extraction (Explosives)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET HOU
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV

Eurofins El Paso

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Method	Method Description	Protocol	Laboratory
CWA_Prep	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET HOU
Filtration	Sample Filtration	None	EET HOU
FILTRATION	Sample Filtration	None	EET PEN
Organotin	Extraction (Organotins)	WRC	EET CAL 4
SPE	PFAS by SPE	Lab SOP	ELLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

Hach = Hach Company

Lab SOP = Laboratory Standard Operating Procedure

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 830-4968-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
830-4968-1	Post-Treated Water	Water	02/20/24 12:30	02/20/24 15:00

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- 15
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- 17

Eurofins J3 Resources, Inc.
6110 W. 34th Street, Houston, Texas 77092
Phone: (713) 290-0221 Fax: (713) 290-0248



J3 Resources

Asbestos in Water by Transmission Electron Microscopy (TEM)
EPA/600/R-94/134 - (EPA 100.2)

John Builes
Eurofins XENCO Laboratories
4143 Greenbriar Drive
Stafford, TX 77477

Order #: 3549597
Project #: 88001781 / 830-4968-1
Receipt Date/Time: 02-26-2024 18:00
Analysis Date: 03/04/2024
Report Date: 03/04/2024

Water Quality Analysis

Client Sample ID	Sample Collection Date/Time	Sample Filtration Date/Time	Aliquot Volume (mL)	Dilution Factor	Asbestos Structures (> 0.5 µm)	Asbestos Structures (> 10 µm)	Asbestos Type	Analytical Sensitivity	Asbestos Concentration	95% Confidence Limits (Lower - Upper)
Post-Treated Water (830-4968-1)	2/20/24 12:30	2/27/24 9:15	70	1	0	0	None Detected	0.19	< 0.19	< 0.19 - 0.72 MFL

Analyst: Taylor Smylie


Scott M. Ward, Ph.D. Lab Director

This report relates only to the samples tested. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). All samples received in good condition and filtered within 48 hours of receipt unless otherwise noted. Only asbestos structures greater than 10µm are considered in calculating asbestos concentration in MFL. This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. mL = Milliliters; MFL = Million Fibers per Liter; N/A = Not Applicable
* - Indicates sample was received outside of holding time for method.

NVLAP Lab Code: 200525-0

TDSHS License: 30-0273

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A7 DTHA		PRIORITY OVERNIGHT	
92780		CA-US SNA	



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Part# 15B146-434MTW EXP 01/24

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ORIGIN ID: 308A (201) 340 4500
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 3010 HOUSTON
 4145 GREENHURST DR
 STAFFORD, TX 77477
 UNITED STATES US

SHIP DATE 22FEB24
 ACTWGT 10.00 LB
 CAD 110189107/NET#700
 DIMS 24x14x14 IN
 BILL GENDRY

TO SHIPPING AND RECEIVING
 EUROFINS TEST AMERICA, PITTSBURGH
 301 ALPHA DRIVE RIDC PARK

PITTSBURGH PA 15238

Uncorrected temp
 Thermometer ID 2.9 21

CF 0 Initials RLO

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830-4968 Waybill

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Chain of Custody Record

[illegible]

3/21/2024

Eurofins El Paso
200 East Sunset Rd. Suite E
El Paso TX 79922
Phone: 915-585-3443

Chain of Custody Record



10

Client Information (Sub Contract Lab)				Sampler	Lab Pk.	Carrier Tracking No. (S)	COC No.
Client Contact: Shipping/Receiving Eurofins Environment Testing South Cent				Phone:	Bulles, John		830-2081 1
Address: 4145 Greenbriar Dr City: State, Zip: TX, 77477 Phone: 281-240-4200 (e) Email: Project Name: Water Quality Analysis Site:				Due Date Requested: 2/27/2024 TAT Requested (days):	E-Mail: John.Bulles@efk.eurofins.com	State of Origin: New Mexico	Page: Page 1 of 3
Analysis Requested				Preservation Codes:			
☐ Field Filtered Sample (Yes/No)				A-HCl B-MOH C-Zn Acetate D-Nitric Acid E-NaHSO4 F-MOH G-Ammonia H-Ascorbic Acid I-Ascorbic Acid J-DI Water K-EDTA L-EDTA Other:			
☐ Perform MS/MSD (Yes/No)				M-None N-None O-AsnO2 P-Na2OAS Q-Na2SO3 R-Na2S2O4 S-H2SO4 T-TSP Dodecylsulfate U-Xylenes V-MCA W-pH 4.5 Y-Titania Z-Other (Specify)			
Sample Identification Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=Cont, G=grab)	Matrix (M=Water, S=Soil, L=Leaves, Y=Yield)
Post-Treated Water (330-4988-1)				2/20/24	12:30	Mountain	Water
830-4988 Chain of Custody							
Barcode							
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Cent, LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analyte(s) being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Cent, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Cent, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Cent, LLC.							
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				☐ Return To Client ☐ Dispose By Lab ☐ Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (Specify)				Primary Deliverable Rank: 2			
Empty Kit Relinquished by				Date:	Time:	Method of Shipment:	
Relinquished by				Date/Time:	Company:	Received by:	Date/Time:
Relinquished by				Date/Time:	Company:	Received by:	Date/Time:
Relinquished by				Date/Time:	Company:	Received by:	Date/Time:
Custody Seals Intact: ☐ Yes ☐ No				Custody Seal No.			
Cooler Temperature(s) °C and Other Remarks:				1.7° AND 3.1° IN HUMIDITY			

Ver: 06/08/2021

Figure 7.

சென்னை, 15 சூன் (ஐ.வி.என்) - தமிழக அரசு, கிராம சபைகளில் பணியாற்றும் பெண்கள் மற்றும் குழந்தைகளைப் பற்றிய தகவலைப் பெறும் முறைகளை வலுவாகப் பின்பற்ற வேண்டும் என உத்தரவிட்டிருக்கிறது.

1986-2000

Ver. 06/08/2021

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 1

Creator: Aparicio, Niria

List Source: Eurofins El Paso

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 6

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 02/23/24 03:21 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 2

Creator: Grandits, Corey

List Source: Eurofins Houston

List Creation: 02/21/24 03:25 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 3

List Creation: 02/23/24 11:04 AM

Creator: Ballard, Megan

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temp acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $> 6\text{mm}$ in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 8

Creator: Earnest, Tamantha

List Source: Eurofins Pensacola

List Creation: 02/24/24 12:30 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 7

Creator: Rucker, Keenyn J

List Source: Eurofins Pittsburgh

List Creation: 02/23/24 06:52 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 830-4968-1

Login Number: 4968

List Number: 4

Creator: Sims, Robert D

List Source: Eurofins Savannah

List Creation: 02/23/24 02:39 PM

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Pei Xu, PhD
New Mexico State University
3035 S. Espina Street
Box 30001, MSC-3CE
Las Cruces, New Mexico 88003

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JOB DESCRIPTION

Water Quality Analysis

JOB NUMBER

880-38528-1

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

LCMS

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

Dioxin

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

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Qualifiers (Continued)

General Chemistry (Continued)

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

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

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

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38528-1

Job ID: 880-38528-1

Eurofins Midland

Job Narrative 880-38528-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 1/26/2024 12:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 37.0°C.

Subcontract Work

Method Asbestos: This method was subcontracted to Eurofins J3 Resources x HOU. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-142954 recovered above the upper control limit for 1,2,4-Trichlorobenzene(20.1%). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-142954/2).

Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

Method 8270E_LL: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-143128 and analytical batch 860-143331 recovered outside control limits for the following analytes: 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,6-Dinitrotoluene, 2-Nitroaniline, Aniline (Phenylamine, Aminobenzene), Benzoic acid and Pyridine.

Method 8270E_LL: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 8270E_LL: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: Raw Produced (880-38528-1). These results have been reported and qualified.

Method Organotins_SIM: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-405719.Organotins-W

Method Organotins_SIM: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 8270D_SIM: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 8270D_SIM: Surrogate recovery for the following sample was outside control limits: Raw Produced (880-38528-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Eurofins Midland

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38528-1

Job ID: 880-38528-1 (Continued)

Eurofins Midland

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

GC Semi VOA

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

Herbicides

Method 8151A_MOD: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 860-142589 and analytical batch 860-142760 recovered outside control limits for the following analyte(s): Dinoseb. Dinoseb has been identified as a poor performing analyte when analyzed using this method. .

Method 8151A_MOD: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-142589 and analytical batch 860-142760 recovered outside control limits for the following analytes: Dinoseb.

Method 8151A_MOD: The method blank for preparation batch 860-142589 contained MCPA above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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

PCBs

Method 8082A_LL: The surrogate recovery for the blank associated with preparation batch 860-143280 and analytical batch 860-143420 was outside the upper control limits.

(MB 860-143280/1-A)

Method 8082A_LL: The surrogate recovery for the LCS/LCSD associated with preparation batch 860-143280 and analytical batch 860-143420 was outside the upper control limits.
(LCS 860-143280/13-A) and (LCSD 860-143280/14-A)

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

Pesticides

Method 8081B_LL: The surrogate recovery for the blank associated with preparation batch 860-143280 and analytical batch 860-143426 was outside the upper control limits.

(MB 860-143280/1-A)

Method 8081B_LL: The surrogate recovery for the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with preparation batch 860-143280 and analytical batch 860-143426 was outside the upper control limits.

(LCS 860-143280/2-A) and (LCSD 860-143280/3-A)

Method 8081B_LL: Surrogate recovery for the following sample was outside the upper control limit: Raw Produced (880-38528-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B_LL: The laboratory control sample (LCS) for preparation batch 860-143280 and analytical batch 860-143426 recovered outside control limits for the following analytes: Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B_LL: The laboratory control sample duplicate (LCSD) for preparation batch 860-143280 and analytical batch 860-143426 recovered outside control limits for the following analytes: 4,4'-DDD and Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8141B_LL: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-458082.

Method 8141B_LL: The continuing calibration verification (CCV) associated with 180-458212 recovered high and outside the control limits for Demeton-O on one column. Results are confirmed on both columns and reported from the passing column. The associated sample is: (CCV 180-458212/22).

Eurofins Midland

Case Narrative

Client: New Mexico State University
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Eurofins Midland

Method 8141B_LL: The continuing calibration verification (CCV) associated with batch 180-458212 recovered above the upper control limit for Chlorpyrifos, Demeton, Total, Demeton-O, Demeton-S, Diazinon, Malathion, Tributyl phosphate, Triphenylphosphate and Guthion. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 180-458212/30).

Method 8141B_LL: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 180-458082 and analytical batch 180-458212 recovered outside control limits for the following analytes: Guthion

Method 8141B_LL: The continuing calibration verification (CCV) associated with 180-458212 recovered high and outside the control limits for Tributyl phosphate on one column. Results are confirmed on both columns and reported from the passing column. The associated sample is: (CCVRT 180-458212/1).

Method 8141B_LL: The continuing calibration verification (CCV) associated with batch 180-458212 recovered above the upper control limit for Tributyl phosphate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 180-458212/22).

Method 8141B_LL: The continuing calibration verification (CCV) associated with batch 180-458212 recovered above the upper control limit for Azinphos-methyl, Bolstar, Chlorpyrifos, Coumaphos, Demeton, Total, Diazinon, Dichlorvos, Dimethoate, Disulfoton, EPN, Mocap, Famphur, Fensulfothion, Fenthion, Malathion, Parathion, Methyl parathion, Mevinphos, Phorate, Ronnel, Stirophos, Sulfotepp, Thionazin, Tokuthion, Trichloronate, O,O,O-Triethyl phosphorothioate, Tributyl phosphate and Triphenylphosphate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 180-458212/30).

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

HPLC/IC

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-143493 contained Chloride greater than the method detection limit (MDL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank/CCB. The data have been qualified and reported.

Method 300_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 300_ORGFMS: The following sample was diluted due to the abundance of non-target analytes: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided. Note: High chloride concentration.

Method 300_ORGFMS: The following sample was received outside of holding time: Raw Produced (880-38528-1).

Method 300_ORGFMS: Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis: Raw Produced (880-38528-1).

Method 8015D_DAI_VFA: The method blank for preparation batch 410-468290 contained Oxalic Acid above the method detection limit (MDL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8330B: Sample has a 2-4-diamino-6-nitrotoluene detection of 24.6 ug/L on the Luna-Phenyl-Hexel column and 3.69 ug/L on the Synergi-Hydro column resulting in a dual column relative percent difference (RPD) of 148%. 2-4-diamino-6-nitrotoluene method detection limit (MDL) of 1.04 ug/L and reporting limit (RL) of 2.10 ug/L was raised to 3.7 ug/L.

Raw Produced (880-38528-1)

Method 8330B: Sample has a 4-amino-2,6-dinitrotoluene detection of 22.9 ug/L on the Luna-Phenyl-Hexel column and 5.84 ug/L on the Synergi-Hydro column resulting in a dual column relative percent difference (RPD) of 119%. 4-amino-2,6-dinitrotoluene method detection limit (MDL) of 0.92 ug/L and reporting limit (RL) of 2.00 ug/L was raised to 5.9 ug/L.

Raw Produced (880-38528-1)

Eurofins Midland

Case Narrative

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Project: Water Quality Analysis

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Eurofins Midland

Method 8330B: With the exception of CCVRT 410-471494/5-A, 2,4,6-TNT and Nitrobenzene co-elute on the Synergi-Hydro column (UV/0). The retention time and the peak for these co-elutors is labeled as Nitrobenzene. All data reporting from the Luna Phenyl-Hexyl column.

Raw Produced (880-38528-1)

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

LCMS

Method 6850: Sample diluted due to the nature of the sample matrix.

Raw Produced (880-38528-1)

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

PFAS

Method PFC_IDA: Reporting limits were raised for the following sample: Raw Produced (880-38528-1) due to interference from the sample matrix.

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

Dioxin

Method 8290A: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation/analysis: Raw Produced (880-38528-1).

Method 8290A: The bracketing continuing calibration verification (CCV) associated with batch 410-476019 has analytes with percent difference values that are between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotope Dilution Analyte (IDA) recovery in the associated samples.

Method 8290A: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 410-474882 and analytical batch 410-476547 recovered outside control limits for the following analytes: 1,2,3,7,8-PeCDD, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF and 2,3,7,8-TCDD. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Metals

Method 6010D: The method blank for preparation batch 860-143032 and analytical batch 860-143222 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010D: The method blank for preparation batch 860-143032 and analytical batch 860-143222 contained Phosphorous and Zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010D: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-142731 and 860-148652 and analytical batch 860-148827 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020B: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38528-1

Job ID: 880-38528-1 (Continued)

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Method 6020B - Dissolved: The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

Method 6020B_U: preparation batch 160-647099 and analytical batch 160-650329

The following sample was diluted due to the nature of the sample matrix: Raw Produced (880-38528-1). Elevated reporting limits (RLs) are provided.

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

General Chemistry

Method 180.1: The following sample was received outside of holding time: Raw Produced (880-38528-1).

Method 2320B: The instrument blank for analytical batch 860-144279 contained Alkalinity and Bicarbonate Alkalinity as CaCO₃ greater than the reporting limit (RL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank. The data have been qualified and reported.

Method 2510B: The following sample was analyzed outside of analytical holding time due to analyst error: Raw Produced (880-38528-1).

Method 350.1: The following sample was analyzed outside of analytical holding time due to <>: Raw Produced (880-38528-1).

Method 3500_CR_B: The following sample was received outside of holding time: Raw Produced (880-38528-1).

Method 5540C: The following sample was received outside of holding time: Raw Produced (880-38528-1).

Method 9020B: Breakthrough exceeded 10% for the following sample: Raw Produced (880-38528-1).

Method SM5310B: The following samples were diluted due to the nature of the sample matrix: Raw Produced (880-38528-1), (890-6022-D-1) and (890-6022-D-1 DU). Elevated reporting limits (RLs) are provided.

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

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160-646186:

The method blank has bismuth-214 and lead-214 results above the achieved MDCs. This is possibly due to ambient radon present during sample count that was not present during the long monthly background count that is used for background subtraction. This ambient radon could also potentially affect the sample counts, and particularly affects non-soil matrices. Gamma spectroscopy is not very sensitive to radium and daughters (i.e. bismuth-214, lead-214). If the client is concerned with the results and desires a more reliable method for radium, the laboratory suggests EPA method 903.0 if TDS is relatively low

(MB 160-646186/1-A)

Method 901.1_Ra: Gamma 160-646186

The following sample(s), analyzed by gamma spectroscopy, did not meet the detection goal for Ra228 due to high concentrations of the analyte. The data have been reported with this narrative. Raw Produced (880-38528-1)

Method 901.1_Ra: Gamma Prep batch 160-646186

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38528-1

Job ID: 880-38528-1 (Continued)

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Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

Raw Produced (880-38528-1), (550-213457-M-8-A) and (550-213457-M-8-B DU)

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

Gas Flow Proportional Counter

Method 900.0: Gross Alpha Beta prep batch 160-646914:

The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Raw Produced (880-38528-1), (160-52979-A-3-A) and (160-52979-A-3-D DU). Analytical results are reported with the detection limit achieved.

Method 903.0: Radium 226 prep batch 160-646710

The barium carrier recovery is outside the upper control limit (110%) for the following sample: Raw Produced (880-38528-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 903.0: Radium-226 prep batch 160-646710:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. Raw Produced (880-38528-1)

Method 904.0: Radium 228 prep batch 160-646711

The barium carrier recovery is outside the upper control limit (110%) for the following sample: Raw Produced (880-38528-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 904.0: Radium-228 batch 646711

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. Raw Produced (880-38528-1)

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Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38528-1

Job ID: 880-38528-1 (Continued)

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Method 904.0: Radium-228 batch 646711

The following sample(s) did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences. The data have been reported with this narrative. Raw Produced (880-38528-1)

Method 905_Sr90: Strontium-90 Prep Batch 160-646341

The strontium carrier recovery is outside the upper control limit (110%) for the following sample: Raw Produced (880-38528-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 905_Sr90: Strontium-90 batch 646341

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: Raw Produced (880-38528-1). Analytical results are reported with the detection limit achieved.

Method 905_Sr90: Strontium-90 batch 646341

The Sr Carrier recovery is outside the lower control limit (40%) for the following sample: Raw Produced (880-38528-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

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

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00555	U	0.0500	0.00555	mg/L			01/31/24 13:42	5
Xylenes, Total	0.128		0.0500	0.00620	mg/L			01/31/24 13:42	5
cis-1,2-Dichloroethene	<0.00229	U	0.00500	0.00229	mg/L			01/31/24 13:42	5
cis-1,3-Dichloropropene	<0.00534	U	0.0250	0.00534	mg/L			01/31/24 13:42	5
Isopropylbenzene	<0.00296	U	0.00500	0.00296	mg/L			01/31/24 13:42	5
m,p-Xylenes	0.0862		0.0500	0.00620	mg/L			01/31/24 13:42	5
n-Butylbenzene	<0.00255	U	0.00500	0.00255	mg/L			01/31/24 13:42	5
N-Propylbenzene	0.00272	J	0.00500	0.00215	mg/L			01/31/24 13:42	5
o-Xylene	0.0420		0.00500	0.00251	mg/L			01/31/24 13:42	5
p-Cymene (p-Isopropyltoluene)	<0.00338	U	0.00500	0.00338	mg/L			01/31/24 13:42	5
tert-Butylbenzene	<0.00221	U	0.00500	0.00221	mg/L			01/31/24 13:42	5
trans-1,2-Dichloroethene	<0.00184	U	0.00500	0.00184	mg/L			01/31/24 13:42	5
trans-1,3-Dichloropropene	<0.00634	U	0.0250	0.00634	mg/L			01/31/24 13:42	5
2-Chloroethyl vinyl ether	<0.00377	U	0.0250	0.00377	mg/L			01/31/24 13:42	5
2-Chlorotoluene	<0.00230	U	0.0100	0.00230	mg/L			01/31/24 13:42	5
Vinyl chloride	<0.00214	U	0.0100	0.00214	mg/L			01/31/24 13:42	5
1,1,1,2-Tetrachloroethane	<0.00322	U	0.00500	0.00322	mg/L			01/31/24 13:42	5
2-Hexanone	<0.0372	U	0.250	0.0372	mg/L			01/31/24 13:42	5
1,1,1-Trichloroethane	<0.00293	U	0.0250	0.00293	mg/L			01/31/24 13:42	5
1,1,2,2-Tetrachloroethane	<0.00235	U	0.00500	0.00235	mg/L			01/31/24 13:42	5
1,1,2-Trichloroethane	<0.00206	U	0.00500	0.00206	mg/L			01/31/24 13:42	5
4-Methyl-2-pentanone	0.0526	J	0.250	0.0375	mg/L			01/31/24 13:42	5
1,1-Dichloroethane	<0.00318	U	0.00500	0.00318	mg/L			01/31/24 13:42	5
Acetonitrile	<0.0730	U	0.500	0.0730	mg/L			01/31/24 13:42	5
1,1-Dichloroethene	<0.00369	U	0.00500	0.00369	mg/L			01/31/24 13:42	5
Acetone	0.618		0.500	0.0153	mg/L			01/31/24 13:42	5
1,1-Dichloropropene	<0.00312	U	0.0250	0.00312	mg/L			01/31/24 13:42	5
Acrolein	<0.0556	U	0.250	0.0556	mg/L			01/31/24 13:42	5
1,2,3-Trichlorobenzene	<0.00885	U	0.0250	0.00885	mg/L			01/31/24 13:42	5
Acrylonitrile	<0.0716	U	0.250	0.0716	mg/L			01/31/24 13:42	5
1,2,3-Trichloropropane	<0.00235	U	0.00500	0.00235	mg/L			01/31/24 13:42	5
1,2,4-Trichlorobenzene	<0.00877	U	0.0250	0.00877	mg/L			01/31/24 13:42	5
1,2,4-Trimethylbenzene	0.0297		0.00500	0.00209	mg/L			01/31/24 13:42	5
1,2-Dibromo-3-Chloropropane	<0.00336	U	0.0250	0.00336	mg/L			01/31/24 13:42	5
1,2-Dibromoethane	<0.00500	U	0.0250	0.00500	mg/L			01/31/24 13:42	5
1,2-Dichlorobenzene	<0.00215	U	0.00500	0.00215	mg/L			01/31/24 13:42	5
1,2-Dichloroethane	<0.00186	U	0.00500	0.00186	mg/L			01/31/24 13:42	5
Carbon disulfide	<0.00825	U	0.0250	0.00825	mg/L			01/31/24 13:42	5
1,2-Dichloropropane	<0.00278	U	0.0250	0.00278	mg/L			01/31/24 13:42	5
1,3,5-Trimethylbenzene	0.00845		0.00500	0.00206	mg/L			01/31/24 13:42	5
1,3-Dichlorobenzene	<0.00207	U	0.00500	0.00207	mg/L			01/31/24 13:42	5
1,3-Dichloropropane	<0.00257	U	0.0250	0.00257	mg/L			01/31/24 13:42	5
1,4-Dichlorobenzene	<0.00225	U	0.00500	0.00225	mg/L			01/31/24 13:42	5
Cyclohexane	0.0355		0.0250	0.00643	mg/L			01/31/24 13:42	5
Dibromomethane	<0.00179	U	0.00500	0.00179	mg/L			01/31/24 13:42	5
2,2-Dichloropropane	<0.00340	U	0.0250	0.00340	mg/L			01/31/24 13:42	5
2-Butanone	0.0768	J	0.250	0.0414	mg/L			01/31/24 13:42	5
Iodomethane (Methyl Iodide)	<0.0326	U	0.100	0.0326	mg/L			01/31/24 13:42	5
Isobutyl alcohol	<0.0855	U	0.250	0.0855	mg/L			01/31/24 13:42	5

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Propanol	2.04		0.0500	0.0261	mg/L			01/31/24 13:42	5
4-Chlorotoluene	<0.00193	U	0.00500	0.00193	mg/L			01/31/24 13:42	5
Methyl acetate	0.114		0.100	0.0200	mg/L			01/31/24 13:42	5
Methylcyclohexane	<0.00304	U	0.0500	0.00304	mg/L			01/31/24 13:42	5
Benzene	0.445		0.00500	0.00230	mg/L			01/31/24 13:42	5
Bromobenzene	<0.00243	U	0.00500	0.00243	mg/L			01/31/24 13:42	5
Bromochloromethane	<0.00289	U	0.00500	0.00289	mg/L			01/31/24 13:42	5
Bromodichloromethane	<0.00276	U	0.00500	0.00276	mg/L			01/31/24 13:42	5
Bromoform	<0.00317	U	0.0250	0.00317	mg/L			01/31/24 13:42	5
Bromomethane	<0.00710	U	0.0250	0.00710	mg/L			01/31/24 13:42	5
Tetrahydrofuran	<0.00917	U	0.0500	0.00917	mg/L			01/31/24 13:42	5
Carbon tetrachloride	<0.00448	U	0.0250	0.00448	mg/L			01/31/24 13:42	5
Chlorobenzene	<0.00228	U	0.00500	0.00228	mg/L			01/31/24 13:42	5
Chloroethane	<0.00992	U	0.0500	0.00992	mg/L			01/31/24 13:42	5
Chloroform	<0.00232	U	0.00500	0.00232	mg/L			01/31/24 13:42	5
Chloromethane	<0.0102	U	0.0500	0.0102	mg/L			01/31/24 13:42	5
Vinyl acetate	<0.0107	U	0.100	0.0107	mg/L			01/31/24 13:42	5
Dibromochloromethane	<0.00274	U	0.0250	0.00274	mg/L			01/31/24 13:42	5
Dichlorodifluoromethane	<0.00393	U	0.00500	0.00393	mg/L			01/31/24 13:42	5
Ethylbenzene	0.0208		0.00500	0.00193	mg/L			01/31/24 13:42	5
Hexachlorobutadiene	<0.00314	U	0.0250	0.00314	mg/L			01/31/24 13:42	5
n-Hexane	0.0106	J	0.0250	0.00259	mg/L			01/31/24 13:42	5
MTBE	<0.00696	U	0.0250	0.00696	mg/L			01/31/24 13:42	5
Methylene Chloride	<0.00863	U	0.0250	0.00863	mg/L			01/31/24 13:42	5
Naphthalene	0.00867	J	0.0500	0.00677	mg/L			01/31/24 13:42	5
t-Butyl alcohol	<0.0250	U	0.250	0.0250	mg/L			01/31/24 13:42	5
sec-Butylbenzene	<0.00234	U	0.00500	0.00234	mg/L			01/31/24 13:42	5
trans-1,4-Dichloro-2-butene	<0.00675	U	0.0500	0.00675	mg/L			01/31/24 13:42	5
Styrene	<0.00310	U	0.00500	0.00310	mg/L			01/31/24 13:42	5
Tetrachloroethene	<0.00328	U	0.00500	0.00328	mg/L			01/31/24 13:42	5
Toluene	0.307		0.00500	0.00238	mg/L			01/31/24 13:42	5
Trichloroethene	<0.00750	U	0.0250	0.00750	mg/L			01/31/24 13:42	5
Trichlorofluoromethane	<0.00280	U	0.00500	0.00280	mg/L			01/31/24 13:42	5
Allyl Chloride (3-Chloropropene)	<0.00299	U	0.0250	0.00299	mg/L			01/31/24 13:42	5
2-Chloro-1,3-butadiene	<0.00299	U	0.0250	0.00299	mg/L			01/31/24 13:42	5
Propane Nitrile (Propionitrile)	<0.0167	U	0.0500	0.0167	mg/L			01/31/24 13:42	5
Methacrylonitrile	<0.0136	U	0.0500	0.0136	mg/L			01/31/24 13:42	5
Methyl methacrylate	<0.0113	U	0.0500	0.0113	mg/L			01/31/24 13:42	5
Ethyl ether	<0.0500	U	0.500	0.0500	mg/L			01/31/24 13:42	5
Ethyl acetate	<0.00311	U	0.0100	0.00311	mg/L			01/31/24 13:42	5
2-Nitropropane	<0.0168	U	0.0500	0.0168	mg/L			01/31/24 13:42	5
Ethyl methacrylate	<0.00559	U	0.0250	0.00559	mg/L			01/31/24 13:42	5
Isopropyl acetate	<0.00288	U	0.0250	0.00288	mg/L			01/31/24 13:42	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 144		01/31/24 13:42	5
4-Bromofluorobenzene (Surr)	101		74 - 124		01/31/24 13:42	5
Dibromofluoromethane (Surr)	116		75 - 131		01/31/24 13:42	5
Toluene-d8 (Surr)	101		80 - 120		01/31/24 13:42	5

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000984	U	0.00179	0.000984	mg/L		02/01/24 16:11	02/02/24 15:23	10
Acenaphthylene	<0.000828	U	0.00179	0.000828	mg/L		02/01/24 16:11	02/02/24 15:23	10
Anthracene	<0.000886	U	0.00179	0.000886	mg/L		02/01/24 16:11	02/02/24 15:23	10
Benzo[a]anthracene	<0.00132	U	0.00179	0.00132	mg/L		02/01/24 16:11	02/02/24 15:23	10
Benzo[a]pyrene	<0.000562	U	0.00179	0.000562	mg/L		02/01/24 16:11	02/02/24 15:23	10
Benzo[b]fluoranthene	<0.000689	U	0.00179	0.000689	mg/L		02/01/24 16:11	02/02/24 15:23	10
Benzo[g,h,i]perylene	<0.00111	U	0.00179	0.00111	mg/L		02/01/24 16:11	02/02/24 15:23	10
Benzo[k]fluoranthene	<0.00114	U	0.00179	0.00114	mg/L		02/01/24 16:11	02/02/24 15:23	10
Chrysene	<0.00153	U	0.00179	0.00153	mg/L		02/01/24 16:11	02/02/24 15:23	10
Dibenz(a,h)anthracene	<0.000748	U	0.00179	0.000748	mg/L		02/01/24 16:11	02/02/24 15:23	10
Fluoranthene	<0.00154	U	0.00179	0.00154	mg/L		02/01/24 16:11	02/02/24 15:23	10
Fluorene	0.0103		0.00179	0.000994	mg/L		02/01/24 16:11	02/02/24 15:23	10
Indeno[1,2,3-cd]pyrene	<0.000898	U	0.00179	0.000898	mg/L		02/01/24 16:11	02/02/24 15:23	10
Naphthalene	0.0306	J	0.0358	0.000956	mg/L		02/01/24 16:11	02/02/24 15:23	10
Phenanthrene	0.0145		0.00179	0.000836	mg/L		02/01/24 16:11	02/02/24 15:23	10
Pyrene	<0.00128	U	0.00179	0.00128	mg/L		02/01/24 16:11	02/02/24 15:23	10
1-Methylnaphthalene	0.0800		0.00179	0.000782	mg/L		02/01/24 16:11	02/02/24 15:23	10
2-Methylnaphthalene	0.112		0.00179	0.000898	mg/L		02/01/24 16:11	02/02/24 15:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	94		54 - 146	02/01/24 16:11	02/02/24 15:23	10
Nitrobenzene-d5 (Surr)	200	S1+	46 - 151	02/01/24 16:11	02/02/24 15:23	10
p-Terphenyl-d14 (Surr)	83		51 - 139	02/01/24 16:11	02/02/24 15:23	10

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<6.80	U	20.0	6.80	ug/L		01/31/24 16:54	02/03/24 00:43	10
1,2-Dichlorobenzene	7.05	J	20.0	2.96	ug/L		01/31/24 16:54	02/03/24 00:43	10
1,3-Dichlorobenzene	<3.50	U	20.0	3.50	ug/L		01/31/24 16:54	02/03/24 00:43	10
1,4-Dichlorobenzene	<4.28	U	20.0	4.28	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4,5-Trichlorophenol	<1.08	U *1	20.0	1.08	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4,6-Trichlorophenol	<1.35	U *1	20.0	1.35	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4-Dichlorophenol	<1.15	U	20.0	1.15	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4-Dimethylphenol	<1.48	U	20.0	1.48	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4-Dinitrophenol	<14.6	U	80.0	14.6	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,4-Dinitrotoluene	<1.27	U	20.0	1.27	ug/L		01/31/24 16:54	02/03/24 00:43	10
2,6-Dinitrotoluene	<1.99	U *1	20.0	1.99	ug/L		01/31/24 16:54	02/03/24 00:43	10
2-Chloronaphthalene	<10.9	U	80.0	10.9	ug/L		01/31/24 16:54	02/03/24 00:43	10
2-Methylnaphthalene	18.0	J	20.0	4.80	ug/L		01/31/24 16:54	02/03/24 00:43	10
2-Methylphenol	12.0	J	20.0	1.59	ug/L		01/31/24 16:54	02/03/24 00:43	10
2-Nitroaniline	<1.63	U *1	40.0	1.63	ug/L		01/31/24 16:54	02/03/24 00:43	10
2-Nitrophenol	<1.35	U	20.0	1.35	ug/L		01/31/24 16:54	02/03/24 00:43	10
3 & 4 Methylphenol	24.2		20.0	1.63	ug/L		01/31/24 16:54	02/03/24 00:43	10
3-Nitroaniline	<3.44	U	20.0	3.44	ug/L		01/31/24 16:54	02/03/24 00:43	10
4,6-Dinitro-2-methylphenol	<7.36	U	80.0	7.36	ug/L		01/31/24 16:54	02/03/24 00:43	10
4-Bromophenyl-phenylether	<1.67	U	20.0	1.67	ug/L		01/31/24 16:54	02/03/24 00:43	10
4-Chloro-3-methylphenol	<1.57	U	20.0	1.57	ug/L		01/31/24 16:54	02/03/24 00:43	10
4-Chloroaniline	<1.49	U	40.0	1.49	ug/L		01/31/24 16:54	02/03/24 00:43	10
4-Chlorophenyl-phenylether	<2.32	U	20.0	2.32	ug/L		01/31/24 16:54	02/03/24 00:43	10
4-Nitroaniline	<2.47	U	40.0	2.47	ug/L		01/31/24 16:54	02/03/24 00:43	10

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<5.31	U	40.0	5.31	ug/L		01/31/24 16:54	02/03/24 00:43	10
Acenaphthene	<2.08	U	20.0	2.08	ug/L		01/31/24 16:54	02/03/24 00:43	10
Acenaphthylene	<2.15	U	20.0	2.15	ug/L		01/31/24 16:54	02/03/24 00:43	10
Aniline (Phenylamine, Aminobenzene)	<3.14	U *1	40.0	3.14	ug/L		01/31/24 16:54	02/03/24 00:43	10
Anthracene	<1.54	U	20.0	1.54	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzo[a]anthracene	<1.50	U	20.0	1.50	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzo[a]pyrene	<1.48	U	20.0	1.48	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzo[b]fluoranthene	<2.10	U	20.0	2.10	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzo[g,h,i]perylene	<1.43	U	20.0	1.43	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzo[k]fluoranthene	<1.66	U	20.0	1.66	ug/L		01/31/24 16:54	02/03/24 00:43	10
Benzoic acid	<10.6	U *1	80.0	10.6	ug/L		01/31/24 16:54	02/03/24 00:43	10
Butyl benzyl phthalate	<1.50	U	20.0	1.50	ug/L		01/31/24 16:54	02/03/24 00:43	10
Bis(2-chloroethoxy)methane	<1.70	U	20.0	1.70	ug/L		01/31/24 16:54	02/03/24 00:43	10
Bis(2-chloroethyl)ether	<2.78	U	20.0	2.78	ug/L		01/31/24 16:54	02/03/24 00:43	10
bis(2-chloroisopropyl) ether	<1.39	U	20.0	1.39	ug/L		01/31/24 16:54	02/03/24 00:43	10
Bis(2-ethylhexyl) phthalate	<2.25	U	20.0	2.25	ug/L		01/31/24 16:54	02/03/24 00:43	10
Chrysene	<1.59	U	20.0	1.59	ug/L		01/31/24 16:54	02/03/24 00:43	10
Dibenz(a,h)anthracene	<1.48	U	20.0	1.48	ug/L		01/31/24 16:54	02/03/24 00:43	10
Dibenzofuran	<3.36	U	20.0	3.36	ug/L		01/31/24 16:54	02/03/24 00:43	10
Diethyl phthalate	<1.18	U	20.0	1.18	ug/L		01/31/24 16:54	02/03/24 00:43	10
Dimethyl phthalate	<1.43	U	20.0	1.43	ug/L		01/31/24 16:54	02/03/24 00:43	10
Di-n-butyl phthalate	<8.00	U	20.0	8.00	ug/L		01/31/24 16:54	02/03/24 00:43	10
Di-n-octyl phthalate	<1.69	U	20.0	1.69	ug/L		01/31/24 16:54	02/03/24 00:43	10
Fluoranthene	<1.48	U	20.0	1.48	ug/L		01/31/24 16:54	02/03/24 00:43	10
Fluorene	<2.05	U	20.0	2.05	ug/L		01/31/24 16:54	02/03/24 00:43	10
Hexachlorobenzene	<1.26	U	20.0	1.26	ug/L		01/31/24 16:54	02/03/24 00:43	10
Hexachlorobutadiene	<2.52	U	20.0	2.52	ug/L		01/31/24 16:54	02/03/24 00:43	10
Hexachlorocyclopentadiene	<4.31	U	20.0	4.31	ug/L		01/31/24 16:54	02/03/24 00:43	10
Hexachloroethane	<1.40	U	20.0	1.40	ug/L		01/31/24 16:54	02/03/24 00:43	10
Indeno[1,2,3-cd]pyrene	<8.52	U	20.0	8.52	ug/L		01/31/24 16:54	02/03/24 00:43	10
Isophorone	<1.68	U	20.0	1.68	ug/L		01/31/24 16:54	02/03/24 00:43	10
Naphthalene	7.30	J	20.0	4.23	ug/L		01/31/24 16:54	02/03/24 00:43	10
Nitrobenzene	<9.34	U	20.0	9.34	ug/L		01/31/24 16:54	02/03/24 00:43	10
N-Nitrosodi-n-propylamine	<1.61	U	20.0	1.61	ug/L		01/31/24 16:54	02/03/24 00:43	10
N-Nitrosodiphenylamine	<1.55	U	20.0	1.55	ug/L		01/31/24 16:54	02/03/24 00:43	10
Pentachlorophenol	<4.41	U	20.0	4.41	ug/L		01/31/24 16:54	02/03/24 00:43	10
Phenanthrene	<1.76	U	20.0	1.76	ug/L		01/31/24 16:54	02/03/24 00:43	10
Phenol	20.8	J	40.0	2.02	ug/L		01/31/24 16:54	02/03/24 00:43	10
Pyrene	<1.59	U	20.0	1.59	ug/L		01/31/24 16:54	02/03/24 00:43	10
Pyridine	8.72	J *1	20.0	7.25	ug/L		01/31/24 16:54	02/03/24 00:43	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	63		31 - 132	01/31/24 16:54	02/03/24 00:43	10
2-Fluorobiphenyl (Surr)	47		40 - 130	01/31/24 16:54	02/03/24 00:43	10
2-Fluorophenol (Surr)	42		21 - 114	01/31/24 16:54	02/03/24 00:43	10
Nitrobenzene-d5 (Surr)	50		37 - 130	01/31/24 16:54	02/03/24 00:43	10
p-Terphenyl-d14 (Surr)	84		20 - 141	01/31/24 16:54	02/03/24 00:43	10
Phenol-d5 (Surr)	0	S1-	16 - 117	01/31/24 16:54	02/03/24 00:43	10

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: Lab SOP Organotins SIM - Organotins (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	<9.99	U	26.3	9.99	ng/L		01/31/24 08:20	02/01/24 16:40	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Triphenyltin	39		10 - 120				01/31/24 08:20	02/01/24 16:40	10

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.0		5.14	1.02	mg/L			01/29/24 12:12	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7.27		5.14	1.02	mg/L		01/29/24 07:37	01/29/24 12:12	1
Diesel Range Organics (Over C10-C28)	43.1		5.14	1.02	mg/L		01/29/24 07:37	01/29/24 12:12	1
Oil Range Organics (Over C28-C36)	8.65		5.14	0.980	mg/L		01/29/24 07:37	01/29/24 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 135				01/29/24 07:37	01/29/24 12:12	1
o-Terphenyl	78		70 - 135				01/29/24 07:37	01/29/24 12:12	1

Method: SW846 8081B_LL - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012	U **	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	3			23					
4,4'-DDE	<0.00000013	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	1			31					
4,4'-DDT	<0.00000069	U	0.0000200	0.0000006	mg/L		02/01/24 12:24	02/02/24 13:57	1
	5			95					
Aldrin	<0.00000013	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	7			37					
alpha-BHC	<0.00000014	U	0.0000090	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	3		0	43					
alpha-Chlordane	<0.00000023	U	0.0000100	0.0000002	mg/L		02/01/24 12:24	02/02/24 13:57	1
	7			37					
beta-BHC	<0.00000190	U	0.0000180	0.0000019	mg/L		02/01/24 12:24	02/02/24 13:57	1
				0					
Chlorodane	<0.00000851	U	0.000250	0.0000085	mg/L		02/01/24 12:24	02/02/24 13:57	1
				1					
delta-BHC	<0.00000038	U	0.000250	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:57	1
	7			87					
Dieldrin	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:57	1
	06			806					
Endosulfan I	<0.00000014	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	6			46					
Endosulfan II	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:57	1
	19			819					
Endosulfan sulfate	<0.00000031	U	0.0000100	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:57	1
	2			12					
Endrin	<0.00000016	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:57	1
	8			68					
Endrin aldehyde	<0.00000038	U **	0.0000100	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:57	1
	4			84					

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	<0.00000040	U	0.0000100	0.0000004	mg/L		02/01/24 12:24	02/02/24 13:57	1
	5			05					
gamma-BHC (Lindane)	<0.00000060	U	0.0000100	0.0000006	mg/L		02/01/24 12:24	02/02/24 13:57	1
	0			00					
Heptachlor	<0.00000109	U	0.0000090	0.0000010	mg/L		02/01/24 12:24	02/02/24 13:57	1
			0	9					
Heptachlor epoxide	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:57	1
	71			871					
Methoxychlor	<0.00000056	U	0.0000200	0.0000005	mg/L		02/01/24 12:24	02/02/24 13:57	1
	6			66					
Toxaphene	<0.0000196	U	0.000200	0.0000196	mg/L		02/01/24 12:24	02/02/24 13:57	1
trans-Chlordane	<0.00000059	U	0.0000100	0.0000005	mg/L		02/01/24 12:24	02/02/24 13:57	1
	9			99					
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/01/24 12:24	02/02/24 13:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	48		15 - 136				02/01/24 12:24	02/02/24 13:57	1
Tetrachloro-m-xylene	227	S1+	18 - 126				02/01/24 12:24	02/02/24 13:57	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:32	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:32	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:32	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:32	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:32	1
PCB-1254	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 13:32	1
				0					
PCB-1260	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 13:32	1
				0					
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		18 - 116				02/01/24 12:24	02/02/24 13:32	1
DCB Decachlorobiphenyl (Surr)	114		27 - 123				02/01/24 12:24	02/02/24 13:32	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 17:43	1
MCP	<0.00187	U	0.0200	0.00187	mg/L		01/29/24 09:51	01/30/24 17:43	1
MCPA	<0.00116	U	0.0200	0.00116	mg/L		01/29/24 09:51	01/30/24 17:43	1
Dinoseb	<0.0000321	U *- *1	0.000200	0.0000321	mg/L		01/29/24 09:51	01/30/24 17:43	1
Dichlorprop	<0.0000441	U	0.000200	0.0000441	mg/L		01/29/24 09:51	01/30/24 17:43	1
Dicamba	<0.0000521	U	0.000200	0.0000521	mg/L		01/29/24 09:51	01/30/24 17:43	1
Dalapon	<0.0000741	U	0.000200	0.0000741	mg/L		01/29/24 09:51	01/30/24 17:43	1
2,4-DB	<0.0000551	U	0.000200	0.0000551	mg/L		01/29/24 09:51	01/30/24 17:43	1
2,4-D	<0.000155	U	0.000200	0.000155	mg/L		01/29/24 09:51	01/30/24 17:43	1
2,4,5-TP (Silvex)	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 17:43	1
2,4,5-T	<0.0000511	U	0.000200	0.0000511	mg/L		01/29/24 09:51	01/30/24 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	70	p	42 - 150				01/29/24 09:51	01/30/24 17:43	1

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 EPA 8141B - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0688	U *1	0.198	0.0688	ug/L		01/28/24 21:50	01/31/24 00:04	1
Demeton, Total	<0.0484	U	0.396	0.0484	ug/L		01/28/24 21:50	01/31/24 00:04	1
Chlorpyrifos	<0.0856	U	0.198	0.0856	ug/L		01/28/24 21:50	01/31/24 00:04	1
Malathion	<0.0786	U	0.198	0.0786	ug/L		01/28/24 21:50	01/31/24 00:04	1
Diazinon	<0.0774	U	0.198	0.0774	ug/L		01/28/24 21:50	01/31/24 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	109		28 - 128	01/28/24 21:50	01/31/24 00:04	1
Triphenylphosphate	107		76 - 138	01/28/24 21:50	01/31/24 00:04	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetate	<100	U	200	100	mg/L			02/20/24 03:46	100
Nitrate as N	<3.91	U H	10.0	3.91	mg/L			02/06/24 06:52	100
Bromide	550		50.0	7.11	mg/L			02/03/24 04:34	100
Nitrite as N	<2.93	U H	10.0	2.93	mg/L			02/03/24 04:34	100
Fluoride	28.1	J	50.0	10.0	mg/L			02/03/24 04:34	100
Formate	<100	U	200	100	mg/L			02/20/24 03:46	100
Sulfate	226		50.0	20.0	mg/L			02/03/24 04:34	100

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72100		100	50.0	mg/L			02/06/24 14:58	200

Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<185	U	500	185	ug/L		01/29/24 15:49	02/21/24 02:12	100

Method: SW846 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetic acid	112000		10000	3200	ug/L		01/30/24 17:21	01/31/24 13:36	1
Butyric acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Citric Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Formic-acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Isovaleric acid	<3500	U	7100	3500	ug/L		01/30/24 17:21	01/31/24 13:36	1
L-Lactic Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Oxalic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 13:36	1
Propionic acid	6640	J	10000	2000	ug/L		01/30/24 17:21	01/31/24 13:56	1
Pyruvic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 13:36	1
Quinic Acid	<2400	U	5000	2400	ug/L		01/30/24 17:21	01/31/24 13:36	1
Succinic Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Tartaric Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 13:36	1
Valeric acid	<2000	U	5000	2000	ug/L		01/30/24 17:21	01/31/24 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fumaric Acid	110		68 - 139	01/30/24 17:21	01/31/24 13:36	1
Fumaric Acid	110		68 - 139	01/30/24 17:21	01/31/24 13:56	1

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		01/30/24 10:37	02/08/24 03:44	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	11.4	p	1.40	0.637	ug/L		01/30/24 10:37	02/08/24 03:44	1
1,3,5-Trinitrobenzene	<0.460	U	1.00	0.460	ug/L		01/30/24 10:37	02/08/24 03:44	1
Tetryl	<0.398	U	1.60	0.398	ug/L		01/30/24 10:37	02/08/24 03:44	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		01/30/24 10:37	02/08/24 03:44	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		01/30/24 10:37	02/08/24 03:44	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		01/30/24 10:37	02/08/24 03:44	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		01/30/24 10:37	02/08/24 03:44	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		01/30/24 10:37	02/08/24 03:44	1
4-Amino-2,6-dinitrotoluene	<5.90	U p	5.90	5.90	ug/L		01/30/24 10:37	02/08/24 03:44	1
2-Amino-4,6-dinitrotoluene	<0.426	U	0.850	0.426	ug/L		01/30/24 10:37	02/08/24 03:44	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		01/30/24 10:37	02/08/24 03:44	1
2,4-Dinitrotoluene	1.56		0.700	0.330	ug/L		01/30/24 10:37	02/08/24 03:44	1
PETN	<10.1	U	23.0	10.1	ug/L		01/30/24 10:37	02/08/24 03:44	1
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		01/30/24 10:37	02/08/24 03:44	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		01/30/24 10:37	02/08/24 03:44	1
3-Nitrotoluene	4.84	p	0.800	0.378	ug/L		01/30/24 10:37	02/08/24 03:44	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		01/30/24 10:37	02/08/24 03:44	1
2,4-diamino-6-nitrotoluene	<3.70	U p *1	3.70	3.70	ug/L		01/30/24 10:37	02/08/24 03:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	80		68 - 122	01/30/24 10:37	02/08/24 03:44	1
2-Nitro-m-xylene	90		68 - 122	01/30/24 10:37	02/08/24 03:44	1

Method: Lab SOP VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Propionic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Valeric acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1
Butyric-Isobutyric Acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:57	1

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.67	J	5.00	2.50	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluoroheptanoic acid	<0.750	U	5.00	0.750	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorooctanoic acid	<0.750	U	5.00	0.750	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorononanoic acid	<0.500	U	5.00	0.500	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorodecanoic acid	<0.750	U	5.00	0.750	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorotridecanoic acid	<1.00	U	5.00	1.00	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorotetradecanoic acid	<1.00	U	5.00	1.00	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorobutanesulfonic acid	<0.750	U	5.00	0.750	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorohexanesulfonic acid	<0.500	U	5.00	0.500	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorooctanesulfonic acid	<1.25	U	5.00	1.25	ng/L		01/31/24 06:46	02/02/24 18:38	1
NEtFOSAA	<1.25	U	5.00	1.25	ng/L		01/31/24 06:46	02/02/24 18:38	1
NMeFOSAA	<1.00	U	5.00	1.00	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluorododecanoic acid	<1.00	U	5.00	1.00	ng/L		01/31/24 06:46	02/02/24 18:38	1
HFPODA	<1.00	U	5.00	1.00	ng/L		01/31/24 06:46	02/02/24 18:38	1
9CI-PF3ONS	<1.25	U	5.00	1.25	ng/L		01/31/24 06:46	02/02/24 18:38	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11Cl-PF3OUdS	<1.25	U	5.00	1.25	ng/L		01/31/24 06:46	02/02/24 18:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.25	U	5.00	1.25	ng/L		01/31/24 06:46	02/02/24 18:38	1
Perfluoroundecanoic acid	<0.750	U	5.00	0.750	ng/L		01/31/24 06:46	02/02/24 18:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFHxA	90		28 - 166				01/31/24 06:46	02/02/24 18:38	1
13C4 PFHpA	95		40 - 165				01/31/24 06:46	02/02/24 18:38	1
13C8 PFOA	98		52 - 153				01/31/24 06:46	02/02/24 18:38	1
13C9 PFNA	136		52 - 168				01/31/24 06:46	02/02/24 18:38	1
13C6 PFDA	101		53 - 151				01/31/24 06:46	02/02/24 18:38	1
13C2-PFDoDA	26		22 - 165				01/31/24 06:46	02/02/24 18:38	1
13C2 PFTeDA	65		10 - 171				01/31/24 06:46	02/02/24 18:38	1
13C3 PFBS	107		34 - 200				01/31/24 06:46	02/02/24 18:38	1
13C3 PFHxS	89		48 - 169				01/31/24 06:46	02/02/24 18:38	1
13C8 PFOS	100		59 - 155				01/31/24 06:46	02/02/24 18:38	1
d3-NMeFOSAA	109		38 - 168				01/31/24 06:46	02/02/24 18:38	1
d5-NEtFOSAA	37		34 - 181				01/31/24 06:46	02/02/24 18:38	1
13C3 HFPO-DA	79		13 - 170				01/31/24 06:46	02/02/24 18:38	1
13C7 PFUnA	46		41 - 163				01/31/24 06:46	02/02/24 18:38	1

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<2.30	U	10.0	2.30	ug/L		01/31/24 13:12	02/01/24 11:16	10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	<7.90	U	43.6	7.90	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,4,6,7,8-HpCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,4,7,8-HxCDD	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,4,7,8-HxCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,4,7,8,9-HpCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,6,7,8-HxCDD	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,6,7,8-HxCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,7,8-PeCDD	<5.51	U *	43.6	5.51	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,7,8-PeCDF	<4.82	U *	43.6	4.82	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,7,8,9-HxCDD	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
1,2,3,7,8,9-HxCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
2,3,4,6,7,8-HxCDF	<4.36	U	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
2,3,4,7,8-PeCDF	<4.36	U *	43.6	4.36	pg/L		02/20/24 03:36	02/24/24 13:20	1
2,3,7,8-TCDD	<1.52	U *	8.72	1.52	pg/L		02/20/24 03:36	02/24/24 13:20	1
2,3,7,8-TCDF	<1.42	U	8.72	1.42	pg/L		02/20/24 03:36	02/24/24 13:20	1
OCDD	<63.2	U	192	63.2	pg/L		02/20/24 03:36	02/24/24 13:20	1
OCDF	<10.7	U	87.2	10.7	pg/L		02/20/24 03:36	02/24/24 13:20	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	80		40 - 135				02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,4,6,7,8-HpCDF	104		40 - 135				02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,4,7,8-HxCDD	99		40 - 135				02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,4,7,8-HxCDF	130		40 - 135				02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,4,7,8,9-HpCDF	95		40 - 135				02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,6,7,8-HxCDD	97		40 - 135				02/20/24 03:36	02/24/24 13:20	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	125		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,7,8-PeCDD	87		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,7,8-PeCDF	90		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,7,8,9-HxCDD	99		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-1,2,3,7,8,9-HxCDF	117		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-2,3,4,6,7,8-HxCDF	123		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-2,3,4,7,8-PeCDF	102		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-2,3,7,8-TCDD	104		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-2,3,7,8-TCDF	126		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-OCDD	71		40 - 135	02/20/24 03:36	02/24/24 13:20	1
13C-OCDF	79		40 - 135	02/20/24 03:36	02/24/24 13:20	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.80	J	10.0	1.76	mg/L		01/31/24 10:30	01/31/24 20:37	50
Antimony	<0.402	U	1.00	0.402	mg/L		01/31/24 10:30	01/31/24 20:37	50
Arsenic	<0.325	U	0.500	0.325	mg/L		01/31/24 10:30	01/31/24 20:37	50
Barium	30.3		0.500	0.0625	mg/L		01/31/24 10:30	01/31/24 20:37	50
Beryllium	<0.0535	U	0.200	0.0535	mg/L		01/31/24 10:30	01/31/24 20:37	50
Boron	13.2		2.50	0.809	mg/L		01/31/24 10:30	01/31/24 20:37	50
Cadmium	<0.0416	U	0.250	0.0416	mg/L		01/31/24 10:30	01/31/24 20:37	50
Calcium	8200	B	100	50.8	mg/L		01/31/24 10:30	01/31/24 20:47	500
Chromium	<0.108	U	0.500	0.108	mg/L		01/31/24 10:30	01/31/24 20:37	50
Cobalt	<0.0615	U	0.500	0.0615	mg/L		01/31/24 10:30	01/31/24 20:37	50
Copper	<0.194	U	1.00	0.194	mg/L		01/31/24 10:30	01/31/24 20:37	50
Iron	43.6		10.0	1.41	mg/L		01/31/24 10:30	01/31/24 20:37	50
Lead	<0.184	U	0.500	0.184	mg/L		01/31/24 10:30	01/31/24 20:37	50
Magnesium	1100		10.0	2.22	mg/L		01/31/24 10:30	01/31/24 20:37	50
Manganese	2.53		1.00	0.218	mg/L		01/31/24 10:30	01/31/24 20:37	50
Molybdenum	<0.130	U	0.500	0.130	mg/L		01/31/24 10:30	01/31/24 20:37	50
Nickel	0.259	J	0.500	0.0885	mg/L		01/31/24 10:30	01/31/24 20:37	50
Phosphorus	8.20	B	2.00	0.921	mg/L		01/31/24 10:30	01/31/24 20:37	50
Potassium	180		25.0	5.30	mg/L		01/31/24 10:30	01/31/24 20:37	50
Selenium	<0.464	U	1.50	0.464	mg/L		01/31/24 10:30	01/31/24 20:37	50
Silicon	12.7	J	25.0	8.65	mg/L		01/31/24 10:30	01/31/24 20:37	50
Silver	<0.186	U	1.00	0.186	mg/L		01/31/24 10:30	01/31/24 20:37	50
Sodium	47600		250	75.9	mg/L		01/31/24 10:30	01/31/24 20:47	500
Strontium	3610		10.0	1.54	mg/L		01/31/24 10:30	01/31/24 20:47	500
Thallium	<0.551	U	1.00	0.551	mg/L		01/31/24 10:30	01/31/24 20:37	50
Tin	<0.345	U	1.00	0.345	mg/L		01/31/24 10:30	01/31/24 20:37	50
Titanium	<0.199	U	1.50	0.199	mg/L		01/31/24 10:30	01/31/24 20:37	50
Vanadium	<0.259	U	1.00	0.259	mg/L		01/31/24 10:30	01/31/24 20:37	50
Zinc	<0.419	U	1.50	0.419	mg/L		01/31/24 10:30	01/31/24 20:37	50
Lithium	25.9		2.00	0.868	mg/L		01/31/24 10:30	01/31/24 20:37	50
Phosphate as PO4	25.1		6.13	2.82	mg/L		01/31/24 10:30	01/31/24 20:37	50

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<1.76	U F2	10.0	1.76	mg/L		03/07/24 11:00	03/07/24 17:24	50
Antimony	<0.402	U F1 F2	1.00	0.402	mg/L		03/07/24 11:00	03/07/24 17:24	50

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 6010D - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.325	U F1 F2	0.500	0.325	mg/L		03/07/24 11:00	03/07/24 17:24	50
Barium	31.0		0.500	0.0625	mg/L		03/07/24 11:00	03/07/24 17:24	50
Beryllium	<0.0535	U	0.200	0.0535	mg/L		03/07/24 11:00	03/07/24 17:24	50
Boron	14.2		2.50	0.809	mg/L		03/07/24 11:00	03/07/24 17:24	50
Cadmium	<0.0416	U	0.250	0.0416	mg/L		03/07/24 11:00	03/07/24 17:24	50
Dissolved Calcium	6350		100	50.8	mg/L		03/07/24 11:00	03/07/24 17:42	500
Chromium	<0.108	U F2	0.500	0.108	mg/L		03/07/24 11:00	03/07/24 17:24	50
Cobalt	<0.0615	U	0.500	0.0615	mg/L		03/07/24 11:00	03/07/24 17:24	50
Copper	<0.194	U	1.00	0.194	mg/L		03/07/24 11:00	03/07/24 17:24	50
Iron	34.0		10.0	1.41	mg/L		03/07/24 11:00	03/07/24 17:24	50
Lead	<0.184	U	0.500	0.184	mg/L		03/07/24 11:00	03/07/24 17:24	50
Dissolved Magnesium	1270		10.0	2.22	mg/L		03/07/24 11:00	03/07/24 17:24	50
Manganese	2.71	F1	1.00	0.218	mg/L		03/07/24 11:00	03/07/24 17:24	50
Molybdenum	<0.130	U	0.500	0.130	mg/L		03/07/24 11:00	03/07/24 17:24	50
Nickel	0.118	J F1 F2	0.500	0.0885	mg/L		03/07/24 11:00	03/07/24 17:24	50
P	5.40		2.00	0.921	mg/L		03/07/24 11:00	03/07/24 17:24	50
Potassium	349		25.0	5.30	mg/L		03/07/24 11:00	03/07/24 17:24	50
Selenium	0.745	J F1 F2	1.50	0.464	mg/L		03/07/24 11:00	03/07/24 17:24	50
Silver	<0.186	U F2	1.00	0.186	mg/L		03/07/24 11:00	03/07/24 17:24	50
Sodium	38100		250	75.9	mg/L		03/07/24 11:00	03/07/24 17:42	500
Strontium	2900		10.0	1.54	mg/L		03/07/24 11:00	03/07/24 17:42	500
Thallium	<0.551	U F1	1.00	0.551	mg/L		03/07/24 11:00	03/07/24 17:24	50
Tin	<0.345	U F1 F2	1.00	0.345	mg/L		03/07/24 11:00	03/07/24 17:24	50
Titanium	<0.199	U	1.50	0.199	mg/L		03/07/24 11:00	03/07/24 17:24	50
Vanadium	<0.259	U	1.00	0.259	mg/L		03/07/24 11:00	03/07/24 17:24	50
Zinc	<0.419	U	1.50	0.419	mg/L		03/07/24 11:00	03/07/24 17:24	50
SiO2	31.2	J F1	53.5	18.5	mg/L		03/07/24 11:00	03/07/24 17:24	50

Method: SW846 6020A - Rare Earth Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dysprosium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Praseodymium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Lanthanum	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Cerium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Neodymium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Yttrium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Terbium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1
Europium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:37	1

Method: SW846 6020B - Metals (ICP/MS), Isotopic Uranium

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium-233	<0.0667	U	0.600	0.0667	ug/L		02/06/24 12:51	02/08/24 12:09	20
Uranium-234	<0.0348	U	0.600	0.0348	ug/L		02/06/24 12:51	02/08/24 12:09	20
Uranium-235	<0.280	U	0.600	0.280	ug/L		02/06/24 12:51	02/08/24 12:09	20
Uranium-236	<0.148	U	0.600	0.148	ug/L		02/06/24 12:51	02/08/24 12:09	20
Uranium-238	<0.240	U	0.600	0.240	ug/L		02/06/24 12:51	02/08/24 12:09	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gold	<0.0500	U	0.0500	0.0500	mg/L			01/31/24 12:37	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	<0.0211	U	0.100	0.0211	mg/L		01/30/24 09:30	01/31/24 13:19	100
Zirconium	<0.0500	U	0.0500	0.0500	mg/L			01/31/24 12:37	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.0500	U	0.0500	0.0500	mg/L		02/09/24 10:30	02/14/24 13:07	1
Uranium	<0.0211	U	0.100	0.0211	mg/L		01/30/24 09:30	01/31/24 12:58	100
Zirconium	<0.0500	U	0.0500	0.0500	mg/L		02/09/24 10:30	02/14/24 13:07	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	25000		0.400	0.400	mg/L			02/06/24 12:48	1
Total hardness as CaCO3	25000		0.400	0.400	mg/L			02/06/24 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	751		5.00	1.57	mg/L			02/21/24 10:19	1
Turbidity (EPA 180.1)	39	H	1.0	0.50	NTU			01/28/24 08:30	1
Ammonia (EPA 350.1)	139	H	5.00	2.55	mg/L			03/03/24 18:54	50
Oxygen, Dissolved (EPA 360.1)	4.57	HF	1.00	1.00	mg/L			01/28/24 16:36	1
Chemical Oxygen Demand (Hach 8000)	2220		400	67.2	mg/L			02/22/24 18:32	20
Ferrous Iron (Hach 8146)	23.8	HF	0.500	0.280	mg/L			02/07/24 12:19	10
Cyanide, Total (SW846 9012B)	2.14	J	5.00	2.00	ug/L		01/29/24 19:37	01/30/24 17:27	1
Halogens, Total Organic (SW846 9020B)	26500		1000	350	ug/L		02/20/24 06:30	02/21/24 10:57	1
Total Alkalinity as CaCO3 (SM 2320B)	105	^2	4.00	4.00	mg/L			02/07/24 13:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	105	^2	4.00	4.00	mg/L			02/07/24 13:10	1
Electrical Conductivity (25C) (SM 2510B)	177000	H	10.0	10.0	umho/cm @ 25C			03/04/24 15:21	1
Total Dissolved Solids (SM 2540C)	172000		1000	1000	mg/L			02/01/24 11:19	1
Total Suspended Solids (SM 2540D)	165		7.27	7.27	mg/L			02/01/24 11:54	1
Ferric Iron (SM 3500)	19.8		0.0500	0.0280	mg/L			03/04/24 09:14	1
Cr (VI) (SM 3500 CR B)	0.00268	J H H3	0.0100	0.00200	mg/L			01/29/24 09:49	1
pH (SM 4500 H+ B)	6.1	HF	0.1	0.1	S.U.			03/04/24 15:21	1
Sulfide (SM 4500 S2 D)	<0.0400	U	0.100	0.0400	mg/L			01/30/24 13:21	1
Total Organic Carbon (SM 5310B)	79.8		2.00	1.00	mg/L			02/03/24 08:41	2
Methylene Blue Active Substances (SM 5540C)	0.127	H	0.100	0.0800	mg/L			01/27/24 18:27	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	<5.00	U	5.00	5.00	mg/L			03/08/24 12:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	71.5		1.00	0.500	mg/L			02/03/24 00:13	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1320	U G	1030	1040	3.00	1590	pCi/L	02/05/24 10:15	02/08/24 18:34	1
Gross Beta	563	G	330	334	4.00	481	pCi/L	02/05/24 10:15	02/08/24 18:34	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	-77.8	U	190	190		243	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Actinium-228	435		58.3	77.5		59.1	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Bismuth-212	2.66	U	236	236		410	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Bismuth-214	862		70.2	123		37.9	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Lead-210	171	U	274	275		357	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Lead-212	-20.5	U	39.9	39.9		72.4	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Lead-214	813		58.5	112		36.6	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Potassium-40	55.6	U	235	235		268	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Protactinium-231	0.000	U	190	190		2790	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Radium-226	862		70.2	123	50.0	37.9	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Radium-228	435	G	58.3	77.5	50.0	59.1	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Thallium-208	9.22	U	22.0	22.0		24.0	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Thorium-232	435		58.3	77.5		59.1	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Thorium-234	-92.8	U	571	571		955	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Uranium 235	-6.39	U	184	184		231	pCi/L	01/30/24 12:50	02/20/24 20:47	1
Uranium 238	-92.8	U	571	571		955	pCi/L	01/30/24 12:50	02/20/24 20:47	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	24.3		1.26	2.52	1.00	0.215	pCi/L	02/02/24 09:54	02/26/24 12:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	324	X	30 - 110					02/02/24 09:54	02/26/24 12:19	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	18.6	G	1.92	2.58	1.00	1.09	pCi/L	02/02/24 09:58	02/15/24 11:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	324	X	30 - 110					02/02/24 09:58	02/15/24 11:24	1
Y Carrier	72.5		30 - 110					02/02/24 09:58	02/15/24 11:24	1

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	3.16	U G	5.15	5.15	3.00	8.64	pCi/L	01/31/24 09:16	02/12/24 16:18	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Sr Carrier	16.0	X	30 - 110	01/31/24 09:16	02/12/24 16:18	1
Y Carrier	85.6		30 - 110	01/31/24 09:16	02/12/24 16:18	1

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- 17

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
880-38528-1	Raw Produced	104	101	116	101
LCS 860-142954/4	Lab Control Sample	99	100	100	100
LCSD 860-142954/5	Lab Control Sample Dup	100	102	100	100
MB 860-142954/11	Method Blank	102	107	99	100

Surrogate Legend

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

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (54-146)	NBZ (46-151)	TPHd14 (51-139)
880-38528-1	Raw Produced	94	200 S1+	83
LCS 860-143347/2-A	Lab Control Sample	127	110	69
LCSD 860-143347/3-A	Lab Control Sample Dup	116	102	58
MB 860-143347/1-A	Method Blank	132	107	84

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (40-130)	2FP (21-114)	NBZ (37-130)	TPHd14 (20-141)	PHL (16-117)
880-38528-1	Raw Produced	63	47	42	50	84	0 S1-
LCS 860-143128/2-A	Lab Control Sample	70	65	43	68	103	34
LCSD 860-143128/3-A	Lab Control Sample Dup	87	85	54	74	97	43
MB 860-143128/1-A	Method Blank	46	60	36	55	87	26

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
880-38528-1	Raw Produced	39
LCS 570-405719/2-A	Lab Control Sample	100
LCSD 570-405719/3-A	Lab Control Sample Dup	86
MB 570-405719/1-A	Method Blank	95

Surrogate Legend

TPTT = Triphenyltin

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-135)	OTPH1 (70-135)
880-38528-1	Raw Produced	105	78
LCS 860-142559/2-A	Lab Control Sample	107	103
LCSD 860-142559/3-A	Lab Control Sample Dup	106	101
MB 860-142559/1-A	Method Blank	97	96

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Method: 8081B_LL - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-136)	TCX1 (18-126)
880-38528-1	Raw Produced	48	227 S1+
LCS 860-143280/2-A	Lab Control Sample	140 S1+	95
LCSD 860-143280/3-A	Lab Control Sample Dup	143 S1+	102
MB 860-143280/1-A	Method Blank	143 S1+	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (18-116)	DCB1 (27-123)
880-38528-1	Raw Produced	71	114
LCS 860-143280/13-A	Lab Control Sample	122 S1+	149 S1+
LCSD 860-143280/14-A	Lab Control Sample Dup	121 S1+	140 S1+
MB 860-143280/1-A	Method Blank	115	146 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA2 (42-150)
880-38528-1	Raw Produced	70 p
LCS 860-142589/2-A	Lab Control Sample	90
LCSD 860-142589/3-A	Lab Control Sample Dup	93
MB 860-142589/1-A	Method Blank	77

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBPH1 (28-128)	TPP1 (76-138)
880-38528-1	Raw Produced	109	107
MB 180-458082/1-A	Method Blank	84	98

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBPH2 (28-128)	TPP1 (76-138)
LCS 180-458082/2-A	Lab Control Sample	112	99
LCSD 180-458082/3-A	Lab Control Sample Dup	116	103

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FumAcid1 (68-139)
880-38528-1	Raw Produced	110
880-38528-1	Raw Produced	110
LCS 410-468290/4-A	Lab Control Sample	90
LCS 410-468290/4-A	Lab Control Sample	102
LCSD 410-468290/3-A	Lab Control Sample Dup	107
MB 410-468290/1-A	Method Blank	83
MB 410-468290/1-A	Method Blank	107

Surrogate Legend

FumAcid = Fumaric Acid

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)
Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	2NMX1 (68-122)	2NMX2 (68-122)
880-38528-1	Raw Produced	90	80
LCS 410-468013/2-A	Lab Control Sample	95	93
LCS 410-468013/4-A	Lab Control Sample	97	93
LCSD 410-468013/3-A	Lab Control Sample Dup	94	93
LCSD 410-468013/5-A	Lab Control Sample Dup	92	87
MB 410-468013/1-A	Method Blank	96	92
Surrogate Legend			
2NMX = 2-Nitro-m-xylene			

Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13C5PHA (28-166)	C4PFHA (40-165)	C8PFOA (52-153)	C9PFNA (52-168)	C6PFDA (53-151)	PFDODA (22-165)	PFTDA (10-171)	C3PFBS (34-200)
880-38528-1	Raw Produced	90	95	98	136	101	26	65	107
LCS 410-468437/2-A	Lab Control Sample	91	90	93	105	94	97	100	100
LCSD 410-468437/3-A	Lab Control Sample Dup	91	93	98	107	99	98	102	103
MB 410-468437/1-A	Method Blank	88	90	94	101	90	90	90	96

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C3PFHS (48-169)	C8PFOS (59-155)	d3NMFOFOS (38-168)	d5NEFOS (34-181)	HFPODA (13-170)	13C7PUA (41-163)
880-38528-1	Raw Produced	89	100	109	37	79	46
LCS 410-468437/2-A	Lab Control Sample	96	97	108	122	95	91
LCSD 410-468437/3-A	Lab Control Sample Dup	99	100	111	121	104	94
MB 410-468437/1-A	Method Blank	94	94	98	111	94	86

Surrogate Legend

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
HFPODA = 13C3 HFPO-DA
13C7PUA = 13C7 PFUnA

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF (40-135)	HxCDD (40-135)	HxCDF (40-135)	HpCDF2 (40-135)	HxDD (40-135)	HxDF (40-135)	PeCDD (40-135)
880-38528-1	Raw Produced	80	104	99	130	95	97	125	87
LCS 410-474882/2-A	Lab Control Sample	97	110	103	124	118	101	118	73
MB 410-474882/1-A	Method Blank	112	115	113	121	134	115	119	93

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PeCDF (40-135)	13CHxCD (40-135)	HxCF (40-135)	13CHxCF (40-135)	PeCF (40-135)	TCDD (40-135)	TCDF (40-135)	OCDD (40-135)
880-38528-1	Raw Produced	90	99	117	123	102	104	126	71
LCS 410-474882/2-A	Lab Control Sample	94	101	111	117	87	117	118	94
MB 410-474882/1-A	Method Blank	109	117	120	115	111	128	106	129

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDF (40-135)
880-38528-1	Raw Produced	79
LCS 410-474882/2-A	Lab Control Sample	111
MB 410-474882/1-A	Method Blank	134

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Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HxCDD = 13C-1,2,3,4,7,8-HxCDD

HxCDF = 13C-1,2,3,4,7,8-HxCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

HxDD = 13C-1,2,3,6,7,8-HxCDD

HxDF = 13C-1,2,3,6,7,8-HxCDF

PeCDD = 13C-1,2,3,7,8-PeCDD

PeCDF = 13C-1,2,3,7,8-PeCDF

13CHxCD = 13C-1,2,3,7,8,9-HxCDD

HxCF = 13C-1,2,3,7,8,9-HxCDF

13CHxCF = 13C-2,3,4,6,7,8-HxCDF

PeCF = 13C-2,3,4,7,8-PeCDF

TCDD = 13C-2,3,7,8-TCDD

TCDF = 13C-2,3,7,8-TCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

Tracer/Carrier Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)					
880-38528-1	Raw Produced	324 X					
LCS 160-646710/2-A	Lab Control Sample	93.3					
MB 160-646710/1-A	Method Blank	97.8					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)				
880-38528-1	Raw Produced	324 X	72.5				
LCS 160-646711/2-A	Lab Control Sample	93.3	84.5				
MB 160-646711/1-A	Method Blank	97.8	86.0				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)				
880-38528-1	Raw Produced	16.0 X	85.6				
LCS 160-646341/2-A	Lab Control Sample	82.1	92.7				
MB 160-646341/1-A	Method Blank	83.1	95.3				
Tracer/Carrier Legend							
Sr = Sr Carrier							
Y = Y Carrier							

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/31/24 10:38	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/31/24 10:38	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/31/24 10:38	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/31/24 10:38	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/31/24 10:38	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			01/31/24 10:38	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/31/24 10:38	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/31/24 10:38	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/31/24 10:38	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/31/24 10:38	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/31/24 10:38	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/31/24 10:38	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/31/24 10:38	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/31/24 10:38	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/31/24 10:38	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/31/24 10:38	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			01/31/24 10:38	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/31/24 10:38	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/31/24 10:38	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/31/24 10:38	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			01/31/24 10:38	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/31/24 10:38	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/31/24 10:38	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/31/24 10:38	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/31/24 10:38	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/31/24 10:38	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			01/31/24 10:38	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/31/24 10:38	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/31/24 10:38	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/31/24 10:38	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/31/24 10:38	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/31/24 10:38	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/31/24 10:38	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/31/24 10:38	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/31/24 10:38	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/31/24 10:38	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/31/24 10:38	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/31/24 10:38	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			01/31/24 10:38	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/31/24 10:38	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/31/24 10:38	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			01/31/24 10:38	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/31/24 10:38	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			01/31/24 10:38	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/31/24 10:38	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			01/31/24 10:38	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/31/24 10:38	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/31/24 10:38	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/31/24 10:38	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/31/24 10:38	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/31/24 10:38	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/31/24 10:38	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/31/24 10:38	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/31/24 10:38	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/31/24 10:38	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/31/24 10:38	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/31/24 10:38	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/31/24 10:38	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/31/24 10:38	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/31/24 10:38	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			01/31/24 10:38	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/31/24 10:38	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/31/24 10:38	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/31/24 10:38	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			01/31/24 10:38	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			01/31/24 10:38	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/31/24 10:38	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/31/24 10:38	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/31/24 10:38	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			01/31/24 10:38	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/31/24 10:38	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/31/24 10:38	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/31/24 10:38	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/31/24 10:38	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/31/24 10:38	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/31/24 10:38	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/31/24 10:38	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/31/24 10:38	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/31/24 10:38	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/31/24 10:38	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/31/24 10:38	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/31/24 10:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		01/31/24 10:38	1
4-Bromofluorobenzene (Surr)	107		74 - 124		01/31/24 10:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		75 - 131		01/31/24 10:38	1
Toluene-d8 (Surr)	100		80 - 120		01/31/24 10:38	1

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	0.0500	0.05290		mg/L		106	60 - 140
cis-1,2-Dichloroethene	0.0500	0.05396		mg/L		108	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05490		mg/L		110	74 - 125
Isopropylbenzene	0.0500	0.05429		mg/L		109	75 - 125
m,p-Xylenes	0.0500	0.05411		mg/L		108	75 - 125
n-Butylbenzene	0.0500	0.05454		mg/L		109	75 - 125
N-Propylbenzene	0.0500	0.05347		mg/L		107	75 - 125
o-Xylene	0.0500	0.05380		mg/L		108	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05348		mg/L		107	75 - 125
tert-Butylbenzene	0.0500	0.05242		mg/L		105	75 - 125
trans-1,2-Dichloroethene	0.0500	0.05195		mg/L		104	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05563		mg/L		111	66 - 125
2-Chloroethyl vinyl ether	0.0500	0.05662		mg/L		113	50 - 150
2-Chlorotoluene	0.0500	0.05189		mg/L		104	73 - 125
Vinyl chloride	0.0500	0.05852		mg/L		117	60 - 140
1,1,1,2-Tetrachloroethane	0.0500	0.05452		mg/L		109	72 - 125
2-Hexanone	0.250	0.2712		mg/L		108	60 - 140
1,1,1-Trichloroethane	0.0500	0.05459		mg/L		109	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05210		mg/L		104	74 - 125
1,1,2-Trichloroethane	0.0500	0.05460		mg/L		109	75 - 130
4-Methyl-2-pentanone	0.250	0.2695		mg/L		108	60 - 140
1,1-Dichloroethane	0.0500	0.05461		mg/L		109	71 - 130
Acetonitrile	0.500	0.4797		mg/L		96	60 - 140
1,1-Dichloroethene	0.0500	0.05072		mg/L		101	50 - 150
Acetone	0.250	0.2544		mg/L		102	60 - 140
1,1-Dichloropropene	0.0500	0.05151		mg/L		103	75 - 125
Acrolein	0.250	0.3095		mg/L		124	60 - 140
1,2,3-Trichlorobenzene	0.0500	0.05332		mg/L		107	75 - 137
Acrylonitrile	0.500	0.4886		mg/L		98	60 - 140
1,2,3-Trichloropropane	0.0500	0.05103		mg/L		102	75 - 125
1,2,4-Trichlorobenzene	0.0500	0.05570		mg/L		111	75 - 135
1,2,4-Trimethylbenzene	0.0500	0.05318		mg/L		106	75 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.06050		mg/L		121	59 - 125
1,2-Dibromoethane	0.0500	0.05174		mg/L		103	73 - 125
1,2-Dichlorobenzene	0.0500	0.05257		mg/L		105	75 - 125
1,2-Dichloroethane	0.0500	0.05434		mg/L		109	72 - 130
Carbon disulfide	0.0500	0.04976		mg/L		100	60 - 140
1,2-Dichloropropane	0.0500	0.05586		mg/L		112	74 - 125
1,3,5-Trimethylbenzene	0.0500	0.05273		mg/L		105	60 - 140
1,3-Dichlorobenzene	0.0500	0.05253		mg/L		105	75 - 125

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	0.0500	0.05295		mg/L		106	75 - 125
1,4-Dichlorobenzene	0.0500	0.05239		mg/L		105	75 - 125
Cyclohexane	0.0500	0.04747		mg/L		95	70 - 130
Dibromomethane	0.0500	0.05495		mg/L		110	69 - 127
2,2-Dichloropropane	0.0500	0.05511		mg/L		110	75 - 125
2-Butanone	0.250	0.2475		mg/L		99	60 - 140
Iodomethane (Methyl Iodide)	0.0500	0.05107		mg/L		102	75 - 125
Isobutyl alcohol	1.24	1.203		mg/L		97	60 - 140
4-Chlorotoluene	0.0500	0.05355		mg/L		107	74 - 125
Methyl acetate	0.100	0.09044		mg/L		90	60 - 140
Methylcyclohexane	0.0500	0.05438		mg/L		109	75 - 125
Benzene	0.0500	0.05386		mg/L		108	75 - 125
Bromobenzene	0.0500	0.05254		mg/L		105	75 - 125
Bromochloromethane	0.0500	0.05411		mg/L		108	60 - 140
Bromodichloromethane	0.0500	0.05470		mg/L		109	75 - 125
Bromoform	0.0500	0.05632		mg/L		113	70 - 130
Bromomethane	0.0500	0.05039		mg/L		101	60 - 140
Tetrahydrofuran	0.100	0.1059		mg/L		106	75 - 125
Carbon tetrachloride	0.0500	0.05030		mg/L		101	70 - 125
Chlorobenzene	0.0500	0.05358		mg/L		107	82 - 135
Chloroethane	0.0500	0.05287		mg/L		106	60 - 140
Chloroform	0.0500	0.05399		mg/L		108	70 - 121
Chloromethane	0.0500	0.05836		mg/L		117	60 - 140
Vinyl acetate	0.250	0.2625		mg/L		105	60 - 140
Dibromochloromethane	0.0500	0.05588		mg/L		112	73 - 125
Dichlorodifluoromethane	0.0500	0.05506		mg/L		110	50 - 150
Ethylbenzene	0.0500	0.05423		mg/L		108	75 - 125
Hexachlorobutadiene	0.0500	0.05439		mg/L		109	75 - 125
n-Hexane	0.0500	0.05738		mg/L		115	72 - 125
MTBE	0.0500	0.05042		mg/L		101	65 - 135
Methylene Chloride	0.0500	0.04810		mg/L		96	71 - 125
Naphthalene	0.0500	0.05415		mg/L		108	70 - 130
t-Butyl alcohol	0.500	0.4507		mg/L		90	65 - 135
sec-Butylbenzene	0.0500	0.05310		mg/L		106	75 - 125
trans-1,4-Dichloro-2-butene	0.0500	0.05133		mg/L		103	70 - 130
Styrene	0.0500	0.05507		mg/L		110	75 - 125
Tetrachloroethene	0.0500	0.05466		mg/L		109	71 - 125
Toluene	0.0500	0.05354		mg/L		107	75 - 130
Trichloroethene	0.0500	0.05527		mg/L		111	75 - 135
Trichlorofluoromethane	0.0500	0.05353		mg/L		107	60 - 140
Allyl Chloride (3-Chloropropene)	0.0500	0.04807		mg/L		96	70 - 130
2-Chloro-1,3-butadiene	0.0500	0.05672		mg/L		113	70 - 130
Propane Nitrile (Propionitrile)	0.500	0.5327		mg/L		107	70 - 130
Methacrylonitrile	0.500	0.5294		mg/L		106	70 - 130
Methyl methacrylate	0.100	0.1102		mg/L		110	70 - 130
Ethyl ether	0.0500	0.05209	J	mg/L		104	70 - 130
Ethyl acetate	0.100	0.1035		mg/L		103	70 - 130
2-Nitropropane	0.100	0.1161		mg/L		116	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Freon 113	0.0500	0.05169		mg/L		103	60 - 140	2	25
cis-1,2-Dichloroethene	0.0500	0.05367		mg/L		107	75 - 125	1	25
cis-1,3-Dichloropropene	0.0500	0.05404		mg/L		108	74 - 125	2	25
Isopropylbenzene	0.0500	0.05333		mg/L		107	75 - 125	2	25
m,p-Xylenes	0.0500	0.05343		mg/L		107	75 - 125	1	25
n-Butylbenzene	0.0500	0.05429		mg/L		109	75 - 125	0	25
N-Propylbenzene	0.0500	0.05353		mg/L		107	75 - 125	0	25
o-Xylene	0.0500	0.05264		mg/L		105	75 - 125	2	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05328		mg/L		107	75 - 125	0	25
tert-Butylbenzene	0.0500	0.05247		mg/L		105	75 - 125	0	25
trans-1,2-Dichloroethene	0.0500	0.04979		mg/L		100	75 - 125	4	25
trans-1,3-Dichloropropene	0.0500	0.05471		mg/L		109	66 - 125	2	25
2-Chloroethyl vinyl ether	0.0500	0.05536		mg/L		111	50 - 150	2	25
2-Chlorotoluene	0.0500	0.05139		mg/L		103	73 - 125	1	25
Vinyl chloride	0.0500	0.05264		mg/L		105	60 - 140	11	25
1,1,1,2-Tetrachloroethane	0.0500	0.05349		mg/L		107	72 - 125	2	25
2-Hexanone	0.250	0.2621		mg/L		105	60 - 140	3	25
1,1,1-Trichloroethane	0.0500	0.05484		mg/L		110	70 - 130	0	25
1,1,2,2-Tetrachloroethane	0.0500	0.05243		mg/L		105	74 - 125	1	25
1,1,2-Trichloroethane	0.0500	0.05368		mg/L		107	75 - 130	2	25
4-Methyl-2-pentanone	0.250	0.2613		mg/L		105	60 - 140	3	25
1,1-Dichloroethane	0.0500	0.05372		mg/L		107	71 - 130	2	25
Acetonitrile	0.500	0.4432		mg/L		89	60 - 140	8	25
1,1-Dichloroethene	0.0500	0.05035		mg/L		101	50 - 150	1	25
Acetone	0.250	0.2446		mg/L		98	60 - 140	4	25
1,1-Dichloropropene	0.0500	0.05303		mg/L		106	75 - 125	3	25
Acrolein	0.250	0.2997		mg/L		120	60 - 140	3	25
1,2,3-Trichlorobenzene	0.0500	0.06595		mg/L		132	75 - 137	21	25
Acrylonitrile	0.500	0.4609		mg/L		92	60 - 140	6	25
1,2,3-Trichloropropane	0.0500	0.05128		mg/L		103	75 - 125	0	25
1,2,4-Trichlorobenzene	0.0500	0.06012		mg/L		120	75 - 135	8	25
1,2,4-Trimethylbenzene	0.0500	0.05272		mg/L		105	75 - 125	1	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05345		mg/L		107	59 - 125	12	25
1,2-Dibromoethane	0.0500	0.05051		mg/L		101	73 - 125	2	25
1,2-Dichlorobenzene	0.0500	0.05212		mg/L		104	75 - 125	1	25
1,2-Dichloroethane	0.0500	0.05370		mg/L		107	72 - 130	1	25
Carbon disulfide	0.0500	0.04781		mg/L		96	60 - 140	4	25
1,2-Dichloropropane	0.0500	0.05521		mg/L		110	74 - 125	1	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	0.0500	0.05274		mg/L		105	60 - 140	0	25
1,3-Dichlorobenzene	0.0500	0.05209		mg/L		104	75 - 125	1	25
1,3-Dichloropropane	0.0500	0.05271		mg/L		105	75 - 125	0	25
1,4-Dichlorobenzene	0.0500	0.05146		mg/L		103	75 - 125	2	25
Cyclohexane	0.0500	0.04673		mg/L		93	70 - 130	2	25
Dibromomethane	0.0500	0.05376		mg/L		108	69 - 127	2	25
2,2-Dichloropropane	0.0500	0.05509		mg/L		110	75 - 125	0	25
2-Butanone	0.250	0.2446		mg/L		98	60 - 140	1	25
Iodomethane (Methyl Iodide)	0.0500	0.04887		mg/L		98	75 - 125	4	25
Isobutyl alcohol	1.24	1.108		mg/L		89	60 - 140	8	25
4-Chlorotoluene	0.0500	0.05321		mg/L		106	74 - 125	1	25
Methyl acetate	0.100	0.09426		mg/L		94	60 - 140	4	25
Methylcyclohexane	0.0500	0.05442		mg/L		109	75 - 125	0	25
Benzene	0.0500	0.05247		mg/L		105	75 - 125	3	25
Bromobenzene	0.0500	0.05285		mg/L		106	75 - 125	1	25
Bromochloromethane	0.0500	0.05431		mg/L		109	60 - 140	0	25
Bromodichloromethane	0.0500	0.05403		mg/L		108	75 - 125	1	25
Bromoform	0.0500	0.05459		mg/L		109	70 - 130	3	25
Bromomethane	0.0500	0.04731		mg/L		95	60 - 140	6	25
Tetrahydrofuran	0.100	0.09859		mg/L		99	75 - 125	7	25
Carbon tetrachloride	0.0500	0.04926		mg/L		99	70 - 125	2	25
Chlorobenzene	0.0500	0.05253		mg/L		105	82 - 135	2	25
Chloroethane	0.0500	0.05258		mg/L		105	60 - 140	1	25
Chloroform	0.0500	0.05322		mg/L		106	70 - 121	1	25
Chloromethane	0.0500	0.05070		mg/L		101	60 - 140	14	25
Vinyl acetate	0.250	0.2649		mg/L		106	60 - 140	1	25
Dibromochloromethane	0.0500	0.05469		mg/L		109	73 - 125	2	25
Dichlorodifluoromethane	0.0500	0.04517		mg/L		90	50 - 150	20	25
Ethylbenzene	0.0500	0.05304		mg/L		106	75 - 125	2	25
Hexachlorobutadiene	0.0500	0.06200		mg/L		124	75 - 125	13	25
n-Hexane	0.0500	0.04614		mg/L		92	72 - 125	22	25
MTBE	0.0500	0.04884		mg/L		98	65 - 135	3	25
Methylene Chloride	0.0500	0.04753		mg/L		95	71 - 125	1	25
Naphthalene	0.0500	0.06012		mg/L		120	70 - 130	10	25
t-Butyl alcohol	0.500	0.4365		mg/L		87	65 - 135	3	25
sec-Butylbenzene	0.0500	0.05313		mg/L		106	75 - 125	0	25
trans-1,4-Dichloro-2-butene	0.0500	0.05166		mg/L		103	70 - 130	1	25
Styrene	0.0500	0.05333		mg/L		107	75 - 125	3	25
Tetrachloroethene	0.0500	0.05412		mg/L		108	71 - 125	1	25
Toluene	0.0500	0.05255		mg/L		105	75 - 130	2	25
Trichloroethene	0.0500	0.05336		mg/L		107	75 - 135	4	25
Trichlorofluoromethane	0.0500	0.05043		mg/L		101	60 - 140	6	25
Allyl Chloride (3-Chloropropene)	0.0500	0.04441		mg/L		89	70 - 130	8	25
2-Chloro-1,3-butadiene	0.0500	0.05643		mg/L		113	70 - 130	1	25
Propane Nitrile (Propionitrile)	0.500	0.5183		mg/L		104	70 - 130	3	25
Methacrylonitrile	0.500	0.5258		mg/L		105	70 - 130	1	25
Methyl methacrylate	0.100	0.1085		mg/L		109	70 - 130	2	25
Ethyl ether	0.0500	0.05228	J	mg/L		105	70 - 130	0	25
Ethyl acetate	0.100	0.1030		mg/L		103	70 - 130	0	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitropropane	0.100	0.1142		mg/L		114	75 - 125	2	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	100		63 - 144						
4-Bromofluorobenzene (Surr)	102		74 - 124						
Dibromofluoromethane (Surr)	100		75 - 131						
Toluene-d8 (Surr)	100		80 - 120						

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 860-143347/1-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000100	U	0.000182	0.000100	mg/L		02/01/24 16:11	02/02/24 10:12	1
Acenaphthylene	<0.0000842	U	0.000182	0.0000842	mg/L		02/01/24 16:11	02/02/24 10:12	1
Anthracene	<0.0000900	U	0.000182	0.0000900	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]anthracene	<0.000134	U	0.000182	0.000134	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]pyrene	<0.0000571	U	0.000182	0.0000571	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[b]fluoranthene	<0.0000700	U	0.000182	0.0000700	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[g,h,i]perylene	<0.000113	U	0.000182	0.000113	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[k]fluoranthene	<0.000116	U	0.000182	0.000116	mg/L		02/01/24 16:11	02/02/24 10:12	1
Chrysene	<0.000156	U	0.000182	0.000156	mg/L		02/01/24 16:11	02/02/24 10:12	1
Dibenz(a,h)anthracene	<0.0000760	U	0.000182	0.0000760	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluoranthene	<0.000157	U	0.000182	0.000157	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluorene	<0.000101	U	0.000182	0.000101	mg/L		02/01/24 16:11	02/02/24 10:12	1
Indeno[1,2,3-cd]pyrene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1
Naphthalene	<0.0000972	U	0.00364	0.0000972	mg/L		02/01/24 16:11	02/02/24 10:12	1
Phenanthrene	<0.0000850	U	0.000182	0.0000850	mg/L		02/01/24 16:11	02/02/24 10:12	1
Pyrene	<0.000130	U	0.000182	0.000130	mg/L		02/01/24 16:11	02/02/24 10:12	1
1-Methylnaphthalene	<0.0000795	U	0.000182	0.0000795	mg/L		02/01/24 16:11	02/02/24 10:12	1
2-Methylnaphthalene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	132		54 - 146			02/01/24 16:11	02/02/24 10:12	1	
Nitrobenzene-d5 (Surr)	107		46 - 151			02/01/24 16:11	02/02/24 10:12	1	
p-Terphenyl-d14 (Surr)	84		51 - 139			02/01/24 16:11	02/02/24 10:12	1	

Lab Sample ID: LCS 860-143347/2-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene	0.0182	0.02355		mg/L		130	66 - 174		
Acenaphthylene	0.0182	0.02444		mg/L		134	67 - 182		
Anthracene	0.0182	0.02454		mg/L		135	55 - 191		
Benzo[a]anthracene	0.0182	0.01623		mg/L		89	16 - 171		

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 860-143347/2-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	0.0182	0.01289		mg/L		71	10 - 165
Benzo[b]fluoranthene	0.0182	0.01508		mg/L		83	10 - 166
Benzo[g,h,i]perylene	0.0182	0.01308		mg/L		72	10 - 154
Benzo[k]fluoranthene	0.0182	0.01351		mg/L		74	10 - 178
Chrysene	0.0182	0.01407		mg/L		77	10 - 172
Dibenz(a,h)anthracene	0.0182	0.01500		mg/L		83	10 - 168
Fluoranthene	0.0182	0.02231		mg/L		123	52 - 185
Fluorene	0.0182	0.02525		mg/L		139	64 - 184
Indeno[1,2,3-cd]pyrene	0.0182	0.01466		mg/L		81	10 - 160
Naphthalene	0.0182	0.02274		mg/L		125	66 - 166
Phenanthrene	0.0182	0.02340		mg/L		129	66 - 184
Pyrene	0.0182	0.01964		mg/L		108	58 - 181
1-Methylnaphthalene	0.0182	0.02445		mg/L		134	64 - 167
2-Methylnaphthalene	0.0182	0.02456		mg/L		135	63 - 166

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	127		54 - 146
Nitrobenzene-d5 (Surr)	110		46 - 151
p-Terphenyl-d14 (Surr)	69		51 - 139

Lab Sample ID: LCSD 860-143347/3-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	0.0182	0.02249		mg/L		124	66 - 174	5	40
Acenaphthylene	0.0182	0.02312		mg/L		127	67 - 182	6	40
Anthracene	0.0182	0.02267		mg/L		125	55 - 191	8	40
Benzo[a]anthracene	0.0182	0.01379		mg/L		76	16 - 171	16	50
Benzo[a]pyrene	0.0182	0.01080		mg/L		59	10 - 165	18	50
Benzo[b]fluoranthene	0.0182	0.01255		mg/L		69	10 - 166	18	50
Benzo[g,h,i]perylene	0.0182	0.01066		mg/L		59	10 - 154	20	50
Benzo[k]fluoranthene	0.0182	0.01145		mg/L		63	10 - 178	16	50
Chrysene	0.0182	0.01154		mg/L		63	10 - 172	20	50
Dibenz(a,h)anthracene	0.0182	0.01220		mg/L		67	10 - 168	21	50
Fluoranthene	0.0182	0.02057		mg/L		113	52 - 185	8	40
Fluorene	0.0182	0.02407		mg/L		132	64 - 184	5	40
Indeno[1,2,3-cd]pyrene	0.0182	0.01183		mg/L		65	10 - 160	21	50
Naphthalene	0.0182	0.02174		mg/L		120	66 - 166	5	40
Phenanthrene	0.0182	0.02190		mg/L		120	66 - 184	7	40
Pyrene	0.0182	0.01772		mg/L		97	58 - 181	10	40
1-Methylnaphthalene	0.0182	0.02389		mg/L		131	64 - 167	2	40
2-Methylnaphthalene	0.0182	0.02351		mg/L		129	63 - 166	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	116		54 - 146
Nitrobenzene-d5 (Surr)	102		46 - 151
p-Terphenyl-d14 (Surr)	58		51 - 139

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 860-143128/1-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.680	U	2.00	0.680	ug/L		01/31/24 16:54	02/01/24 17:40	1
1,2-Dichlorobenzene	<0.296	U	2.00	0.296	ug/L		01/31/24 16:54	02/01/24 17:40	1
1,3-Dichlorobenzene	<0.350	U	2.00	0.350	ug/L		01/31/24 16:54	02/01/24 17:40	1
1,4-Dichlorobenzene	<0.428	U	2.00	0.428	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4,5-Trichlorophenol	<0.108	U	2.00	0.108	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4,6-Trichlorophenol	<0.135	U	2.00	0.135	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4-Dichlorophenol	<0.115	U	2.00	0.115	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4-Dimethylphenol	<0.148	U	2.00	0.148	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4-Dinitrophenol	<1.46	U	8.00	1.46	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,4-Dinitrotoluene	<0.127	U	2.00	0.127	ug/L		01/31/24 16:54	02/01/24 17:40	1
2,6-Dinitrotoluene	<0.199	U	2.00	0.199	ug/L		01/31/24 16:54	02/01/24 17:40	1
2-Chloronaphthalene	<1.09	U	8.00	1.09	ug/L		01/31/24 16:54	02/01/24 17:40	1
2-Methylnaphthalene	<0.480	U	2.00	0.480	ug/L		01/31/24 16:54	02/01/24 17:40	1
2-Methylphenol	<0.159	U	2.00	0.159	ug/L		01/31/24 16:54	02/01/24 17:40	1
2-Nitroaniline	<0.163	U	4.00	0.163	ug/L		01/31/24 16:54	02/01/24 17:40	1
2-Nitrophenol	<0.135	U	2.00	0.135	ug/L		01/31/24 16:54	02/01/24 17:40	1
3 & 4 Methylphenol	<0.163	U	2.00	0.163	ug/L		01/31/24 16:54	02/01/24 17:40	1
3-Nitroaniline	<0.344	U	2.00	0.344	ug/L		01/31/24 16:54	02/01/24 17:40	1
4,6-Dinitro-2-methylphenol	<0.736	U	8.00	0.736	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Bromophenyl-phenylether	<0.167	U	2.00	0.167	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Chloro-3-methylphenol	<0.157	U	2.00	0.157	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Chloroaniline	<0.149	U	4.00	0.149	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Chlorophenyl-phenylether	<0.232	U	2.00	0.232	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Nitroaniline	<0.247	U	4.00	0.247	ug/L		01/31/24 16:54	02/01/24 17:40	1
4-Nitrophenol	<0.531	U	4.00	0.531	ug/L		01/31/24 16:54	02/01/24 17:40	1
Acenaphthene	<0.208	U	2.00	0.208	ug/L		01/31/24 16:54	02/01/24 17:40	1
Acenaphthylene	<0.215	U	2.00	0.215	ug/L		01/31/24 16:54	02/01/24 17:40	1
Aniline (Phenylamine, Aminobenzene)	<0.314	U	4.00	0.314	ug/L		01/31/24 16:54	02/01/24 17:40	1
Anthracene	<0.154	U	2.00	0.154	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzo[a]anthracene	<0.150	U	2.00	0.150	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzo[a]pyrene	<0.148	U	2.00	0.148	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzo[b]fluoranthene	<0.210	U	2.00	0.210	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzo[g,h,i]perylene	<0.143	U	2.00	0.143	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzo[k]fluoranthene	<0.166	U	2.00	0.166	ug/L		01/31/24 16:54	02/01/24 17:40	1
Benzoic acid	<1.06	U	8.00	1.06	ug/L		01/31/24 16:54	02/01/24 17:40	1
Butyl benzyl phthalate	<0.150	U	2.00	0.150	ug/L		01/31/24 16:54	02/01/24 17:40	1
Bis(2-chloroethoxy)methane	<0.170	U	2.00	0.170	ug/L		01/31/24 16:54	02/01/24 17:40	1
Bis(2-chloroethyl)ether	<0.278	U	2.00	0.278	ug/L		01/31/24 16:54	02/01/24 17:40	1
bis(2-chloroisopropyl) ether	<0.139	U	2.00	0.139	ug/L		01/31/24 16:54	02/01/24 17:40	1
Bis(2-ethylhexyl) phthalate	<0.225	U	2.00	0.225	ug/L		01/31/24 16:54	02/01/24 17:40	1
Chrysene	<0.159	U	2.00	0.159	ug/L		01/31/24 16:54	02/01/24 17:40	1
Dibenz(a,h)anthracene	<0.148	U	2.00	0.148	ug/L		01/31/24 16:54	02/01/24 17:40	1
Dibenzofuran	<0.336	U	2.00	0.336	ug/L		01/31/24 16:54	02/01/24 17:40	1
Diethyl phthalate	<0.118	U	2.00	0.118	ug/L		01/31/24 16:54	02/01/24 17:40	1
Dimethyl phthalate	<0.143	U	2.00	0.143	ug/L		01/31/24 16:54	02/01/24 17:40	1
Di-n-butyl phthalate	<0.800	U	2.00	0.800	ug/L		01/31/24 16:54	02/01/24 17:40	1
Di-n-octyl phthalate	<0.169	U	2.00	0.169	ug/L		01/31/24 16:54	02/01/24 17:40	1
Fluoranthene	<0.148	U	2.00	0.148	ug/L		01/31/24 16:54	02/01/24 17:40	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 860-143128/1-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.205	U	2.00	0.205	ug/L		01/31/24 16:54	02/01/24 17:40	1
Hexachlorobenzene	<0.126	U	2.00	0.126	ug/L		01/31/24 16:54	02/01/24 17:40	1
Hexachlorobutadiene	<0.252	U	2.00	0.252	ug/L		01/31/24 16:54	02/01/24 17:40	1
Hexachlorocyclopentadiene	<0.431	U	2.00	0.431	ug/L		01/31/24 16:54	02/01/24 17:40	1
Hexachloroethane	<0.140	U	2.00	0.140	ug/L		01/31/24 16:54	02/01/24 17:40	1
Indeno[1,2,3-cd]pyrene	<0.852	U	2.00	0.852	ug/L		01/31/24 16:54	02/01/24 17:40	1
Isophorone	<0.168	U	2.00	0.168	ug/L		01/31/24 16:54	02/01/24 17:40	1
Naphthalene	<0.423	U	2.00	0.423	ug/L		01/31/24 16:54	02/01/24 17:40	1
Nitrobenzene	<0.934	U	2.00	0.934	ug/L		01/31/24 16:54	02/01/24 17:40	1
N-Nitrosodi-n-propylamine	<0.161	U	2.00	0.161	ug/L		01/31/24 16:54	02/01/24 17:40	1
N-Nitrosodiphenylamine	<0.155	U	2.00	0.155	ug/L		01/31/24 16:54	02/01/24 17:40	1
Pentachlorophenol	<0.441	U	2.00	0.441	ug/L		01/31/24 16:54	02/01/24 17:40	1
Phenanthrene	<0.176	U	2.00	0.176	ug/L		01/31/24 16:54	02/01/24 17:40	1
Phenol	<0.202	U	4.00	0.202	ug/L		01/31/24 16:54	02/01/24 17:40	1
Pyrene	<0.159	U	2.00	0.159	ug/L		01/31/24 16:54	02/01/24 17:40	1
Pyridine	<0.725	U	2.00	0.725	ug/L		01/31/24 16:54	02/01/24 17:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	46		31 - 132	01/31/24 16:54	02/01/24 17:40	1
2-Fluorobiphenyl (Surr)	60		40 - 130	01/31/24 16:54	02/01/24 17:40	1
2-Fluorophenol (Surr)	36		21 - 114	01/31/24 16:54	02/01/24 17:40	1
Nitrobenzene-d5 (Surr)	55		37 - 130	01/31/24 16:54	02/01/24 17:40	1
p-Terphenyl-d14 (Surr)	87		20 - 141	01/31/24 16:54	02/01/24 17:40	1
Phenol-d5 (Surr)	26		16 - 117	01/31/24 16:54	02/01/24 17:40	1

Lab Sample ID: LCS 860-143128/2-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	20.0	12.83		ug/L		64	34 - 117
1,2-Dichlorobenzene	20.0	13.35		ug/L		67	38 - 111
1,3-Dichlorobenzene	20.0	13.02		ug/L		65	37 - 111
1,4-Dichlorobenzene	20.0	13.41		ug/L		67	37 - 111
2,4,5-Trichlorophenol	20.0	13.16		ug/L		66	39 - 125
2,4,6-Trichlorophenol	20.0	13.24		ug/L		66	42 - 125
2,4-Dichlorophenol	20.0	12.74		ug/L		64	38 - 120
2,4-Dimethylphenol	20.0	13.69		ug/L		68	39 - 117
2,4-Dinitrophenol	20.0	11.97		ug/L		60	13 - 152
2,4-Dinitrotoluene	20.0	15.81		ug/L		79	41 - 128
2,6-Dinitrotoluene	20.0	14.78		ug/L		74	42 - 127
2-Chloronaphthalene	20.0	12.44		ug/L		62	40 - 118
2-Methylnaphthalene	20.0	13.79		ug/L		69	37 - 112
2-Methylphenol	20.0	12.20		ug/L		61	36 - 125
2-Nitroaniline	20.0	11.20		ug/L		56	34 - 126
2-Nitrophenol	20.0	13.65		ug/L		68	38 - 125
3 & 4 Methylphenol	20.0	10.99		ug/L		55	35 - 116
3-Nitroaniline	20.0	14.24		ug/L		71	42 - 123

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143128/2-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,6-Dinitro-2-methylphenol	20.0	15.87		ug/L		79	12 - 157
4-Bromophenyl-phenylether	20.0	14.81		ug/L		74	40 - 126
4-Chloro-3-methylphenol	20.0	12.83		ug/L		64	40 - 119
4-Chloroaniline	20.0	11.43		ug/L		57	39 - 111
4-Chlorophenyl-phenylether	20.0	13.62		ug/L		68	40 - 122
4-Nitroaniline	20.0	18.00		ug/L		90	42 - 125
4-Nitrophenol	20.0	10.71		ug/L		54	14 - 102
Acenaphthene	20.0	13.38		ug/L		67	41 - 116
Acenaphthylene	20.0	13.85		ug/L		69	41 - 118
Aniline (Phenylamine, Aminobenzene)	20.0	7.552		ug/L		38	31 - 100
Anthracene	20.0	14.55		ug/L		73	39 - 127
Benzo[a]anthracene	20.0	19.39		ug/L		97	40 - 129
Benzo[a]pyrene	20.0	20.88		ug/L		104	36 - 141
Benzo[b]fluoranthene	20.0	20.02		ug/L		100	34 - 139
Benzo[g,h,i]perylene	20.0	22.92		ug/L		115	32 - 141
Benzo[k]fluoranthene	20.0	19.12		ug/L		96	31 - 139
Benzoic acid	60.0	18.44		ug/L		31	27 - 195
Butyl benzyl phthalate	20.0	19.50		ug/L		97	44 - 133
Bis(2-chloroethoxy)methane	20.0	14.00		ug/L		70	36 - 113
Bis(2-chloroethyl)ether	20.0	13.77		ug/L		69	38 - 111
bis(2-chloroisopropyl) ether	20.0	13.17		ug/L		66	10 - 150
Bis(2-ethylhexyl) phthalate	20.0	17.65		ug/L		88	44 - 136
Chrysene	20.0	19.41		ug/L		97	41 - 124
Dibenz(a,h)anthracene	20.0	22.43		ug/L		112	35 - 143
Dibenzofuran	20.0	13.74		ug/L		69	41 - 119
Diethyl phthalate	20.0	15.94		ug/L		80	41 - 125
Dimethyl phthalate	20.0	14.71		ug/L		74	42 - 123
Di-n-butyl phthalate	20.0	20.79		ug/L		104	41 - 133
Di-n-octyl phthalate	20.0	16.67		ug/L		83	34 - 145
Fluoranthene	20.0	22.10		ug/L		111	38 - 132
Fluorene	20.0	14.00		ug/L		70	41 - 121
Hexachlorobenzene	20.0	15.38		ug/L		77	39 - 128
Hexachlorobutadiene	20.0	12.68		ug/L		63	31 - 120
Hexachlorocyclopentadiene	20.0	15.61		ug/L		78	15 - 117
Hexachloroethane	20.0	13.29		ug/L		66	37 - 109
Indeno[1,2,3-cd]pyrene	20.0	22.68		ug/L		113	35 - 141
Isophorone	20.0	14.04		ug/L		70	40 - 115
Naphthalene	20.0	13.51		ug/L		68	37 - 113
Nitrobenzene	20.0	13.14		ug/L		66	37 - 114
N-Nitrosodi-n-propylamine	20.0	14.08		ug/L		70	38 - 117
N-Nitrosodiphenylamine	20.0	13.44		ug/L		67	40 - 127
Pentachlorophenol	20.0	13.45		ug/L		67	10 - 137
Phenanthrene	20.0	14.29		ug/L		71	39 - 126
Phenol	20.0	7.359		ug/L		37	15 - 106
Pyrene	20.0	17.19		ug/L		86	40 - 130
Pyridine	20.0	3.984		ug/L		20	16 - 135

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143128/2-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	70		31 - 132
2-Fluorobiphenyl (Surr)	65		40 - 130
2-Fluorophenol (Surr)	43		21 - 114
Nitrobenzene-d5 (Surr)	68		37 - 130
p-Terphenyl-d14 (Surr)	103		20 - 141
Phenol-d5 (Surr)	34		16 - 117

Lab Sample ID: LCSD 860-143128/3-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143128

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	20.0	15.91		ug/L		80	34 - 117	21	30
1,2-Dichlorobenzene	20.0	15.51		ug/L		78	38 - 111	15	30
1,3-Dichlorobenzene	20.0	15.15		ug/L		76	37 - 111	15	30
1,4-Dichlorobenzene	20.0	15.25		ug/L		76	37 - 111	13	30
2,4,5-Trichlorophenol	20.0	19.26	*1	ug/L		96	39 - 125	38	30
2,4,6-Trichlorophenol	20.0	18.69	*1	ug/L		93	42 - 125	34	30
2,4-Dichlorophenol	20.0	16.54		ug/L		83	38 - 120	26	30
2,4-Dimethylphenol	20.0	16.63		ug/L		83	39 - 117	19	30
2,4-Dinitrophenol	20.0	15.32		ug/L		77	13 - 152	24	30
2,4-Dinitrotoluene	20.0	19.75		ug/L		99	41 - 128	22	30
2,6-Dinitrotoluene	20.0	21.01	*1	ug/L		105	42 - 127	35	30
2-Chloronaphthalene	20.0	16.10		ug/L		80	40 - 118	26	30
2-Methylnaphthalene	20.0	17.11		ug/L		86	37 - 112	21	30
2-Methylphenol	20.0	15.61		ug/L		78	36 - 125	25	30
2-Nitroaniline	20.0	18.34	*1	ug/L		92	34 - 126	48	30
2-Nitrophenol	20.0	16.61		ug/L		83	38 - 125	20	30
3 & 4 Methylphenol	20.0	14.14		ug/L		71	35 - 116	25	30
3-Nitroaniline	20.0	18.90		ug/L		94	42 - 123	28	30
4,6-Dinitro-2-methylphenol	20.0	18.37		ug/L		92	12 - 157	15	30
4-Bromophenyl-phenylether	20.0	17.03		ug/L		85	40 - 126	14	30
4-Chloro-3-methylphenol	20.0	15.96		ug/L		80	40 - 119	22	30
4-Chloroaniline	20.0	14.28		ug/L		71	39 - 111	22	30
4-Chlorophenyl-phenylether	20.0	16.27		ug/L		81	40 - 122	18	30
4-Nitroaniline	20.0	18.98		ug/L		95	42 - 125	5	30
4-Nitrophenol	20.0	11.93		ug/L		60	14 - 102	11	30
Acenaphthene	20.0	15.70		ug/L		79	41 - 116	16	30
Acenaphthylene	20.0	17.93		ug/L		90	41 - 118	26	30
Aniline (Phenylamine, Aminobenzene)	20.0	11.11	*1	ug/L		56	31 - 100	38	30
Anthracene	20.0	18.40		ug/L		92	39 - 127	23	30
Benzo[a]anthracene	20.0	18.53		ug/L		93	40 - 129	5	30
Benzo[a]pyrene	20.0	20.05		ug/L		100	36 - 141	4	30
Benzo[b]fluoranthene	20.0	18.99		ug/L		95	34 - 139	5	30
Benzo[g,h,i]perylene	20.0	22.73		ug/L		114	32 - 141	1	30
Benzo[k]fluoranthene	20.0	18.56		ug/L		93	31 - 139	3	30
Benzoic acid	60.0	25.67	*1	ug/L		43	27 - 195	33	30
Butyl benzyl phthalate	20.0	19.39		ug/L		97	44 - 133	1	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-143128/3-A

Matrix: Water

Analysis Batch: 143331

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143128

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	20.0	16.58		ug/L		83	36 - 113	17	30
Bis(2-chloroethyl)ether	20.0	16.40		ug/L		82	38 - 111	17	30
bis(2-chloroisopropyl) ether	20.0	16.12		ug/L		81	10 - 150	20	30
Bis(2-ethylhexyl) phthalate	20.0	17.16		ug/L		86	44 - 136	3	30
Chrysene	20.0	17.87		ug/L		89	41 - 124	8	30
Dibenz(a,h)anthracene	20.0	20.94		ug/L		105	35 - 143	7	30
Dibenzofuran	20.0	15.93		ug/L		80	41 - 119	15	30
Diethyl phthalate	20.0	18.71		ug/L		94	41 - 125	16	30
Dimethyl phthalate	20.0	19.70		ug/L		99	42 - 123	29	30
Di-n-butyl phthalate	20.0	21.35		ug/L		107	41 - 133	3	30
Di-n-octyl phthalate	20.0	16.55		ug/L		83	34 - 145	1	30
Fluoranthene	20.0	20.62		ug/L		103	38 - 132	7	30
Fluorene	20.0	16.83		ug/L		84	41 - 121	18	30
Hexachlorobenzene	20.0	16.90		ug/L		85	39 - 128	9	30
Hexachlorobutadiene	20.0	15.60		ug/L		78	31 - 120	21	30
Hexachlorocyclopentadiene	20.0	20.79		ug/L		104	15 - 117	28	30
Hexachloroethane	20.0	16.06		ug/L		80	37 - 109	19	30
Indeno[1,2,3-cd]pyrene	20.0	20.80		ug/L		104	35 - 141	9	30
Isophorone	20.0	17.30		ug/L		87	40 - 115	21	30
Naphthalene	20.0	16.13		ug/L		81	37 - 113	18	30
Nitrobenzene	20.0	14.96		ug/L		75	37 - 114	13	30
N-Nitrosodi-n-propylamine	20.0	17.51		ug/L		88	38 - 117	22	30
N-Nitrosodiphenylamine	20.0	17.50		ug/L		88	40 - 127	26	30
Pentachlorophenol	20.0	15.83		ug/L		79	10 - 137	16	30
Phenanthrene	20.0	17.26		ug/L		86	39 - 126	19	30
Phenol	20.0	9.206		ug/L		46	15 - 106	22	30
Pyrene	20.0	17.24		ug/L		86	40 - 130	0	30
Pyridine	20.0	5.676	*1	ug/L		28	16 - 135	35	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	87		31 - 132
2-Fluorobiphenyl (Surr)	85		40 - 130
2-Fluorophenol (Surr)	54		21 - 114
Nitrobenzene-d5 (Surr)	74		37 - 130
p-Terphenyl-d14 (Surr)	97		20 - 141
Phenol-d5 (Surr)	43		16 - 117

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-405719/1-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 405719

Analysis Date: 10/1/15							Prep Date: 10/1/15		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	<1.14	U	3.00	1.14	ng/L	-	01/30/24 08:24	02/01/24 12:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits						
Triphenyltin	95		10 - 120						

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: Organotins SIM - Organotins (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-405719/2-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 405719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tributyltin	178	195.3		ng/L		110	10 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tripentyltin	100		10 - 120				

Lab Sample ID: LCSD 570-405719/3-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 405719

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tributyltin			178	162.3		ng/L		91	10 - 120	18	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
Tripentyltin	86		10 - 120								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-142559/1-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142559

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<0.988	U	5.00	0.988	mg/L		01/29/24 07:37	01/29/24 11:12	1
Diesel Range Organics (Over C10-C28)	<0.988	U	5.00	0.988	mg/L		01/29/24 07:37	01/29/24 11:12	1
Oil Range Organics (Over C28-C36)	<0.954	U	5.00	0.954	mg/L		01/29/24 07:37	01/29/24 11:12	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
1-Chlorooctane	97		70 - 135				01/29/24 07:37	01/29/24 11:12	1
o-Terphenyl	96		70 - 135				01/29/24 07:37	01/29/24 11:12	1

Lab Sample ID: LCS 860-142559/2-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142559

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits			
Gasoline Range Organics (GRO)-C6-C10			100	90.06		mg/L		90	70 - 135		
Diesel Range Organics (Over C10-C28)			100	104.9		mg/L		105	70 - 135		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	107		70 - 135								
o-Terphenyl	103		70 - 135								

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 860-142559/3-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142559

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	100	97.58		mg/L		98	70 - 135	8	35
Diesel Range Organics (Over C10-C28)	100	108.0		mg/L		108	70 - 135	3	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	106		70 - 135						
o-Terphenyl	101		70 - 135						

Method: 8081B_LL - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-143280/1-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012 3	U	0.0000100	0.0000001 23	mg/L		02/01/24 12:24	02/02/24 10:35	1
4,4'-DDE	<0.00000013 1	U	0.0000100	0.0000001 31	mg/L		02/01/24 12:24	02/02/24 10:35	1
4,4'-DDT	<0.00000069 5	U	0.0000200	0.0000006 95	mg/L		02/01/24 12:24	02/02/24 10:35	1
Aldrin	<0.00000013 7	U	0.0000100	0.0000001 37	mg/L		02/01/24 12:24	02/02/24 10:35	1
alpha-BHC	<0.00000014 3	U	0.0000090 0	0.0000001 43	mg/L		02/01/24 12:24	02/02/24 10:35	1
alpha-Chlordane	<0.00000023 7	U	0.0000100	0.0000002 37	mg/L		02/01/24 12:24	02/02/24 10:35	1
beta-BHC	<0.00000190	U	0.0000180	0.0000019 0	mg/L		02/01/24 12:24	02/02/24 10:35	1
Chlorodane	<0.00000851	U	0.000250	0.0000085 1	mg/L		02/01/24 12:24	02/02/24 10:35	1
delta-BHC	<0.00000038 7	U	0.000250	0.0000003 87	mg/L		02/01/24 12:24	02/02/24 10:35	1
Dieldrin	<0.00000008 06	U	0.0000100	0.0000000 806	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan I	<0.00000014 6	U	0.0000100	0.0000001 46	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan II	<0.00000008 19	U	0.0000100	0.0000000 819	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan sulfate	<0.00000031 2	U	0.0000100	0.0000003 12	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin	<0.00000016 8	U	0.0000100	0.0000001 68	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin aldehyde	<0.00000038 4	U	0.0000100	0.0000003 84	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin ketone	<0.00000040 5	U	0.0000100	0.0000004 05	mg/L		02/01/24 12:24	02/02/24 10:35	1
gamma-BHC (Lindane)	<0.00000060 0	U	0.0000100	0.0000006 00	mg/L		02/01/24 12:24	02/02/24 10:35	1
Heptachlor	<0.00000109	U	0.0000090 0	0.0000010 9	mg/L		02/01/24 12:24	02/02/24 10:35	1
Heptachlor epoxide	<0.00000008 71	U	0.0000100	0.0000000 871	mg/L		02/01/24 12:24	02/02/24 10:35	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 860-143280/1-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	<0.00000056	U	0.0000200	0.0000005	mg/L		02/01/24 12:24	02/02/24 10:35	1
	6			66					
Toxaphene	<0.0000196	U	0.000200	0.0000196	mg/L		02/01/24 12:24	02/02/24 10:35	1
trans-Chlordane	<0.00000059	U	0.0000100	0.0000005	mg/L		02/01/24 12:24	02/02/24 10:35	1
	9			99					
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/01/24 12:24	02/02/24 10:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	143	S1+	15 - 136				02/01/24 12:24	02/02/24 10:35	1
Tetrachloro-m-xylene	89		18 - 126				02/01/24 12:24	02/02/24 10:35	1

Lab Sample ID: LCS 860-143280/2-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.000100	0.0001294		mg/L		129	45 - 130
4,4'-DDE	0.000100	0.0001076		mg/L		108	44 - 133
4,4'-DDT	0.000100	0.0001272		mg/L		127	46 - 150
Aldrin	0.000100	0.00009059		mg/L		91	40 - 120
alpha-BHC	0.000100	0.00009424		mg/L		94	46 - 115
alpha-Chlordane	0.000100	0.0001071		mg/L		107	47 - 127
beta-BHC	0.000100	0.0001003		mg/L		100	45 - 127
delta-BHC	0.000100	0.00004738	J	mg/L		47	16 - 130
Dieldrin	0.000100	0.00009350		mg/L		93	46 - 127
Endosulfan I	0.000100	0.0001108		mg/L		111	44 - 125
Endosulfan II	0.000100	0.0001174		mg/L		117	47 - 132
Endosulfan sulfate	0.000100	0.0001027		mg/L		103	48 - 134
Endrin	0.000100	0.0001086		mg/L		109	48 - 145
Endrin aldehyde	0.000100	0.0001294	*+	mg/L		129	22 - 121
Endrin ketone	0.000100	0.0001316		mg/L		132	41 - 153
gamma-BHC (Lindane)	0.000100	0.0001008		mg/L		101	50 - 118
Heptachlor	0.000100	0.0001151		mg/L		115	43 - 138
Heptachlor epoxide	0.000100	0.0001096		mg/L		110	46 - 123
Methoxychlor	0.000100	0.0001352		mg/L		135	49 - 152
trans-Chlordane	0.000100	0.0001032		mg/L		103	45 - 128
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	140	S1+	15 - 136				
Tetrachloro-m-xylene	95		18 - 126				

Lab Sample ID: LCSD 860-143280/3-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
4,4'-DDD	0.000100	0.0001435	*+	mg/L		143	45 - 130	10	25
4,4'-DDE	0.000100	0.0001204		mg/L		120	44 - 133	11	25
4,4'-DDT	0.000100	0.0001353		mg/L		135	46 - 150	6	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 860-143280/3-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin	0.000100	0.0001022		mg/L		102	40 - 120	12	25
alpha-BHC	0.000100	0.0001068		mg/L		107	46 - 115	12	25
alpha-Chlordane	0.000100	0.0001212		mg/L		121	47 - 127	12	25
beta-BHC	0.000100	0.0001188		mg/L		119	45 - 127	17	25
delta-BHC	0.000100	0.00005583	J	mg/L		56	16 - 130	16	25
Dieldrin	0.000100	0.0001060		mg/L		106	46 - 127	12	25
Endosulfan I	0.000100	0.0001247		mg/L		125	44 - 125	12	25
Endosulfan II	0.000100	0.0001306		mg/L		131	47 - 132	11	25
Endosulfan sulfate	0.000100	0.0001114		mg/L		111	48 - 134	8	25
Endrin	0.000100	0.0001181		mg/L		118	48 - 145	8	25
Endrin aldehyde	0.000100	0.0001438	*+	mg/L		144	22 - 121	11	25
Endrin ketone	0.000100	0.0001428		mg/L		143	41 - 153	8	25
gamma-BHC (Lindane)	0.000100	0.0001180		mg/L		118	50 - 118	16	25
Heptachlor	0.000100	0.0001295		mg/L		130	43 - 138	12	25
Heptachlor epoxide	0.000100	0.0001230		mg/L		123	46 - 123	12	25
Methoxychlor	0.000100	0.0001446		mg/L		145	49 - 152	7	25
trans-Chlordane	0.000100	0.0001171		mg/L		117	45 - 128	13	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	143	S1+	15 - 136
Tetrachloro-m-xylene	102		18 - 126

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-143280/1-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1254	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1260	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 10:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	115		18 - 116	02/01/24 12:24	02/02/24 10:27	1
DCB Decachlorobiphenyl (Surr)	146	S1+	27 - 123	02/01/24 12:24	02/02/24 10:27	1

Lab Sample ID: LCS 860-143280/13-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.00100	0.001027		mg/L		103	54 - 125

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 860-143280/13-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1260	0.00100	0.001133		mg/L		113	41 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	122	S1+	18 - 116
DCB Decachlorobiphenyl (Surr)	149	S1+	27 - 123

Lab Sample ID: LCSD 860-143280/14-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.00100	0.001045		mg/L		104	54 - 125	2	20
PCB-1260	0.00100	0.001142		mg/L		114	41 - 126	1	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	121	S1+	18 - 116
DCB Decachlorobiphenyl (Surr)	140	S1+	27 - 123

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-142589/1-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 12:26	1
MCPP	<0.00187	U	0.0200	0.00187	mg/L		01/29/24 09:51	01/30/24 12:26	1
MCPA	0.01960	J	0.0200	0.00116	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dinoseb	<0.0000321	U	0.000200	0.0000321	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dichlorprop	<0.0000441	U	0.000200	0.0000441	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dicamba	<0.0000521	U	0.000200	0.0000521	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dalapon	<0.0000741	U	0.000200	0.0000741	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4-DB	<0.0000551	U	0.000200	0.0000551	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4-D	<0.000155	U	0.000200	0.000155	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4,5-TP (Silvex)	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4,5-T	<0.0000511	U	0.000200	0.0000511	mg/L		01/29/24 09:51	01/30/24 12:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		42 - 150	01/29/24 09:51	01/30/24 12:26	1

Lab Sample ID: LCS 860-142589/2-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pentachlorophenol	0.00201	0.001336		mg/L		67	48 - 134
MCPP	0.201	0.1868		mg/L		93	45 - 132
MCPA	0.201	0.2017		mg/L		100	42 - 129

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 860-142589/2-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dinoseb	0.00201	0.0003657	*	mg/L		18	20 - 128
Dichlorprop	0.00201	0.001611		mg/L		80	45 - 125
Dicamba	0.00201	0.001670		mg/L		83	48 - 134
Dalapon	0.00201	0.001350		mg/L		67	48 - 134
2,4-DB	0.00201	0.001604		mg/L		80	48 - 148
2,4-D	0.00201	0.001563		mg/L		78	45 - 124
2,4,5-TP (Silvex)	0.00201	0.001797		mg/L		90	45 - 124
2,4,5-T	0.00201	0.001680		mg/L		84	40 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	90		42 - 150

Lab Sample ID: LCSD 860-142589/3-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	0.00204	0.001390		mg/L		68	48 - 134	4	25
MCPP	0.204	0.2082		mg/L		102	45 - 132	11	25
MCPA	0.204	0.1936		mg/L		95	42 - 129	4	25
Dinoseb	0.00204	0.0001044	J * - *1	mg/L		5	20 - 128	111	25
Dichlorprop	0.00204	0.001697		mg/L		83	45 - 125	5	25
Dicamba	0.00204	0.001750		mg/L		86	48 - 134	5	25
Dalapon	0.00204	0.001425		mg/L		70	48 - 134	5	25
2,4-DB	0.00204	0.001608		mg/L		79	48 - 148	0	25
2,4-D	0.00204	0.001660		mg/L		81	45 - 124	6	25
2,4,5-TP (Silvex)	0.00204	0.001860		mg/L		91	45 - 124	3	25
2,4,5-T	0.00204	0.001741		mg/L		85	40 - 134	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	93		42 - 150

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 180-458082/1-A

Matrix: Water

Analysis Batch: 458212

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0695	U	0.200	0.0695	ug/L		01/28/24 21:50	01/30/24 22:30	1
Demeton, Total	<0.0489	U	0.400	0.0489	ug/L		01/28/24 21:50	01/30/24 22:30	1
Chlorpyrifos	<0.0865	U	0.200	0.0865	ug/L		01/28/24 21:50	01/30/24 22:30	1
Malathion	<0.0794	U	0.200	0.0794	ug/L		01/28/24 21:50	01/30/24 22:30	1
Diazinon	<0.0782	U	0.200	0.0782	ug/L		01/28/24 21:50	01/30/24 22:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	84		28 - 128	01/28/24 21:50	01/30/24 22:30	1
Triphenylphosphate	98		76 - 138	01/28/24 21:50	01/30/24 22:30	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Lab Sample ID: LCS 180-458082/2-A

Matrix: Water

Analysis Batch: 458212

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Guthion	2.00	1.608		ug/L		80	48 - 124
Demeton, Total	2.00	1.639		ug/L		82	30 - 170
Chlorpyrifos	2.00	1.641		ug/L		82	73 - 128
Malathion	2.00	1.650		ug/L		83	68 - 133
Diazinon	2.00	1.680		ug/L		84	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tributyl phosphate	112		28 - 128
Triphenylphosphate	99		76 - 138

Lab Sample ID: LCSD 180-458082/3-A

Matrix: Water

Analysis Batch: 458212

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 458082

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Guthion	2.00	1.898	*1	ug/L		95	48 - 124	17	15
Demeton, Total	2.00	1.875		ug/L		94	30 - 170	13	35
Chlorpyrifos	2.00	1.858		ug/L		93	73 - 128	12	24
Malathion	2.00	1.896		ug/L		95	68 - 133	14	34
Diazinon	2.00	1.913		ug/L		96	74 - 123	13	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tributyl phosphate	116		28 - 128
Triphenylphosphate	103		76 - 138

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-143493/3

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/02/24 12:34	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/02/24 12:34	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/02/24 12:34	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/02/24 12:34	1

Lab Sample ID: LCS 860-143493/4

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.944		mg/L		99	90 - 110
Chloride	10.0	9.644		mg/L		96	90 - 110
Fluoride	10.0	10.14		mg/L		101	90 - 110
Sulfate	10.0	10.10		mg/L		101	90 - 110

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-143493/5

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.885		mg/L		99	90 - 110	1	20
Chloride	10.0	9.636		mg/L		96	90 - 110	0	20
Fluoride	10.0	10.14		mg/L		101	90 - 110	0	20
Sulfate	10.0	10.06		mg/L		101	90 - 110	0	20

Lab Sample ID: LLCS 860-143493/7

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4199	J	mg/L		84	50 - 150
Chloride	0.500	0.2792	J	mg/L		56	50 - 150
Fluoride	0.500	0.4764	J	mg/L		95	50 - 150
Sulfate	0.500	0.2751	J	mg/L		55	50 - 150

Lab Sample ID: MB 860-143494/3

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/02/24 12:34	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L			02/02/24 12:34	1

Lab Sample ID: LCS 860-143494/4

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	9.596		mg/L		96	80 - 120
Nitrite as N	10.0	9.443		mg/L		94	80 - 120

Lab Sample ID: LCSD 860-143494/5

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	9.564		mg/L		96	80 - 120	0	20
Nitrite as N	10.0	9.398		mg/L		94	80 - 120	0	20

Lab Sample ID: MB 860-143834/13

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/05/24 18:35	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/05/24 18:35	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/05/24 18:35	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/05/24 18:35	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-143834/14

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.758		mg/L		95	90 - 110
Chloride	5.00	4.853		mg/L		97	90 - 110
Fluoride	5.00	5.189		mg/L		104	90 - 110
Sulfate	5.00	5.072		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-143834/15

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.729		mg/L		95	90 - 110	1	20
Chloride	5.00	4.862		mg/L		97	90 - 110	0	20
Fluoride	5.00	5.207		mg/L		104	90 - 110	0	20
Sulfate	5.00	5.060		mg/L		101	90 - 110	0	20

Lab Sample ID: LLCS 860-143834/17

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4433	J	mg/L		89	50 - 150
Chloride	0.500	0.4719	J	mg/L		94	50 - 150
Fluoride	0.500	0.4207	J	mg/L		84	50 - 150
Sulfate	0.500	0.3727	J	mg/L		75	50 - 150

Lab Sample ID: MB 860-143835/13

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/05/24 18:35	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L			02/05/24 18:35	1

Lab Sample ID: LCS 860-143835/14

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	4.936		mg/L		99	80 - 120
Nitrite as N	5.00	5.014		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-143835/15

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	4.919		mg/L		98	80 - 120	0	20
Nitrite as N	5.00	5.015		mg/L		100	80 - 120	0	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 860-143835/16

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.09518	J	mg/L		95	50 - 150

Lab Sample ID: MB 860-144041/3

Matrix: Water

Analysis Batch: 144041

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/06/24 13:53	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/06/24 13:53	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/06/24 13:53	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/06/24 13:53	1

Lab Sample ID: LCS 860-144041/4

Matrix: Water

Analysis Batch: 144041

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.818		mg/L		96	90 - 110
Chloride	5.00	4.824		mg/L		96	90 - 110
Fluoride	5.00	5.135		mg/L		103	90 - 110
Sulfate	5.00	5.106		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-144041/5

Matrix: Water

Analysis Batch: 144041

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.830		mg/L		97	90 - 110	0	20
Chloride	5.00	4.837		mg/L		97	90 - 110	0	20
Fluoride	5.00	5.140		mg/L		103	90 - 110	0	20
Sulfate	5.00	5.110		mg/L		102	90 - 110	0	20

Lab Sample ID: LLCS 860-144041/33

Matrix: Water

Analysis Batch: 144041

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4842	J	mg/L		97	50 - 150
Chloride	0.500	0.5014		mg/L		100	50 - 150
Fluoride	0.500	0.4476	J	mg/L		90	50 - 150
Sulfate	0.500	0.4267	J	mg/L		85	50 - 150

Lab Sample ID: MB 860-145833/43

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetate	<1.00	U	2.00	1.00	mg/L			02/19/24 00:13	1
Formate	<1.00	U	2.00	1.00	mg/L			02/19/24 00:13	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-145833/44

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetate	10.0	9.142		mg/L		91	70 - 130
Formate	10.0	9.795		mg/L		98	70 - 130

Lab Sample ID: LCSD 860-145833/45

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetate	10.0	9.126		mg/L		91	70 - 130	0	30
Formate	10.0	9.675		mg/L		97	70 - 130	1	30

Method: 632 - Carbamate and Urea Pesticides (HPLC)

Lab Sample ID: MB 860-142666/1-A

Matrix: Water

Analysis Batch: 146224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142666

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		01/29/24 15:49	02/21/24 00:34	1

Lab Sample ID: LCS 860-142666/2-A

Matrix: Water

Analysis Batch: 146224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142666

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbaryl	100	123.7		ug/L		124	70 - 130

Lab Sample ID: LCSD 860-142666/3-A

Matrix: Water

Analysis Batch: 146224

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142666

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbaryl	100	123.3		ug/L		123	70 - 130	0	20

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Lab Sample ID: MB 410-468290/1-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetic acid	<3200	U	10000	3200	ug/L		01/30/24 17:21	01/31/24 07:52	1
Butyric acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Citric Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Formic-acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Isovaleric acid	<3500	U	7100	3500	ug/L		01/30/24 17:21	01/31/24 07:52	1
L-Lactic Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Oxalic Acid	275.3	J	1250	250	ug/L		01/30/24 17:21	01/31/24 07:52	1
Pyruvic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 07:52	1
Quinic Acid	<2400	U	5000	2400	ug/L		01/30/24 17:21	01/31/24 07:52	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC) (Continued)

Lab Sample ID: MB 410-468290/1-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Succinic Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Tartaric Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Valeric acid	<2000	U	5000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fumaric Acid	83		68 - 139				01/30/24 17:21	01/31/24 07:52	1

Lab Sample ID: MB 410-468290/1-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Propionic acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 10:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fumaric Acid	107		68 - 139				01/30/24 17:21	01/31/24 10:18	1

Lab Sample ID: LCS 410-468290/4-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetic acid	101000	87180		ug/L		87	77 - 123
Butyric acid	100000	88970		ug/L		89	73 - 134
Citric Acid	50000	48560		ug/L		97	77 - 123
Formic-acid	100000	87180		ug/L		87	73 - 129
L-Lactic Acid	50400	42950		ug/L		85	71 - 115
Oxalic Acid	12600	9891		ug/L		78	59 - 138
Pyruvic Acid	12600	11570		ug/L		92	74 - 115
Quinic Acid	50400	45500		ug/L		90	85 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Fumaric Acid	90		68 - 139				

Lab Sample ID: LCS 410-468290/4-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Propionic acid	101000	96310		ug/L		96	42 - 145
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Fumaric Acid	102		68 - 139				

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC) (Continued)

Lab Sample ID: LCSD 410-468290/3-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Isovaleric acid	100000	91030		ug/L		91	70 - 115	0	30
Succinic Acid	50000	44400		ug/L		89	65 - 142	0	30
Tartaric Acid	50000	45300		ug/L		91	75 - 115	0	30
Valeric acid	101000	92270		ug/L		92	57 - 126	0	30

Lab Sample ID: LCSD 410-468290/3-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468290

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Fumaric Acid	107		68 - 139

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 410-468013/1-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		01/30/24 10:37	02/07/24 23:30	1
RDX	<0.637	U	1.40	0.637	ug/L		01/30/24 10:37	02/07/24 23:30	1
1,3,5-Trinitrobenzene	<0.460	U	1.00	0.460	ug/L		01/30/24 10:37	02/07/24 23:30	1
Tetryl	<0.398	U	1.60	0.398	ug/L		01/30/24 10:37	02/07/24 23:30	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		01/30/24 10:37	02/07/24 23:30	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		01/30/24 10:37	02/07/24 23:30	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		01/30/24 10:37	02/07/24 23:30	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		01/30/24 10:37	02/07/24 23:30	1
4-Amino-2,6-dinitrotoluene	<0.920	U	2.00	0.920	ug/L		01/30/24 10:37	02/07/24 23:30	1
2-Amino-4,6-dinitrotoluene	<0.426	U	0.850	0.426	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4-Dinitrotoluene	<0.330	U	0.700	0.330	ug/L		01/30/24 10:37	02/07/24 23:30	1
PETN	<10.1	U	23.0	10.1	ug/L		01/30/24 10:37	02/07/24 23:30	1
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		01/30/24 10:37	02/07/24 23:30	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		01/30/24 10:37	02/07/24 23:30	1
3-Nitrotoluene	<0.378	U	0.800	0.378	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4-diamino-6-nitrotoluene	<1.04	U	2.10	1.04	ug/L		01/30/24 10:37	02/07/24 23:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		68 - 122	01/30/24 10:37	02/07/24 23:30	1
2-Nitro-m-xylene	96		68 - 122	01/30/24 10:37	02/07/24 23:30	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 410-468013/2-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HMX	10.0	9.883		ug/L		98	59 - 134
RDX	10.1	10.11		ug/L		100	72 - 127
1,3,5-Trinitrobenzene	10.1	9.918		ug/L		98	71 - 122
Tetryl	10.1	10.20		ug/L		101	67 - 120
1,3-Dinitrobenzene	10.1	10.17		ug/L		101	75 - 120
3,5-Dinitroaniline	10.1	9.800		ug/L		97	71 - 121
Nitroglycerin	111	142.9		ug/L		129	44 - 133
2,4,6-Trinitrotoluene	10.1	10.67		ug/L		106	81 - 128
Nitrobenzene	10.1	10.09	p	ug/L		100	85 - 120
4-Amino-2,6-dinitrotoluene	10.1	13.06		ug/L		129	67 - 132
2-Amino-4,6-dinitrotoluene	10.1	9.965		ug/L		99	72 - 120
2,6-Dinitrotoluene	10.1	10.12		ug/L		100	85 - 122
2,4-Dinitrotoluene	10.1	10.22		ug/L		101	76 - 122
PETN	110	103.1		ug/L		93	71 - 121
2-Nitrotoluene	10.1	9.841		ug/L		97	72 - 122
4-Nitrotoluene	10.1	10.29		ug/L		102	70 - 127
3-Nitrotoluene	10.1	10.25		ug/L		102	72 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	95		68 - 122

Lab Sample ID: LCS 410-468013/4-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-diamino-4-nitrotoluene	20.1	16.61		ug/L		82	50 - 150
2,4-diamino-6-nitrotoluene	20.0	11.11		ug/L		56	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	97		68 - 122

Lab Sample ID: LCSD 410-468013/3-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
HMX	10.0	9.618		ug/L		96	59 - 134	3	30
RDX	10.1	10.03		ug/L		99	72 - 127	1	30
1,3,5-Trinitrobenzene	10.1	9.929		ug/L		99	71 - 122	0	30
Tetryl	10.1	10.11		ug/L		100	67 - 120	1	30
1,3-Dinitrobenzene	10.1	10.15		ug/L		101	75 - 120	0	30
3,5-Dinitroaniline	10.1	9.796		ug/L		97	71 - 121	0	30
Nitroglycerin	111	141.9		ug/L		128	44 - 133	1	30
2,4,6-Trinitrotoluene	10.1	10.65		ug/L		106	81 - 128	0	30
Nitrobenzene	10.1	10.06	p	ug/L		100	85 - 120	0	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCSD 410-468013/3-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Amino-2,6-dinitrotoluene	10.1	13.11		ug/L		130	67 - 132	0	30
2-Amino-4,6-dinitrotoluene	10.1	9.957		ug/L		99	72 - 120	0	30
2,6-Dinitrotoluene	10.1	10.11		ug/L		100	85 - 122	0	30
2,4-Dinitrotoluene	10.1	10.18		ug/L		101	76 - 122	0	30
PETN	110	102.5		ug/L		93	71 - 121	1	30
2-Nitrotoluene	10.1	9.791		ug/L		97	72 - 122	1	30
4-Nitrotoluene	10.1	10.31		ug/L		102	70 - 127	1	30
3-Nitrotoluene	10.1	10.19		ug/L		101	72 - 126	1	30

Surrogate	%Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	94		68 - 122

Lab Sample ID: LCSD 410-468013/5-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,6-diamino-4-nitrotoluene	20.1	18.41		ug/L		91	50 - 150	10	30
2,4-diamino-6-nitrotoluene	20.0	14.67		ug/L		73	50 - 150	28	30

Surrogate	%Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	87		68 - 122
2-Nitro-m-xylene	92		68 - 122

Method: VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Lab Sample ID: MB 860-145354/3

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Propionic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Valeric acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Butyric-Isobutyric Acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1

Lab Sample ID: LCS 860-145354/4

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Caproic acid	50.0	48.50		mg/L		97	70 - 130
Heptanoic acid	50.0	48.15		mg/L		96	70 - 130
Isocaproic acid	50.0	48.92		mg/L		98	70 - 130
Isovaleric acid	50.0	49.62		mg/L		99	70 - 130

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: VFA - HPLC - Volatile Fatty Acids (HPLC/UV) (Continued)

Lab Sample ID: LCS 860-145354/4

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Propionic acid	50.0	50.87		mg/L		102	70 - 130
Valeric acid	50.0	49.00		mg/L		98	70 - 130
Butyric-Isobutyric Acid	100	100.5		mg/L		101	70 - 130

Lab Sample ID: LCSD 860-145354/5

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Caproic acid	50.0	49.33		mg/L		99	70 - 130	2	30
Heptanoic acid	50.0	47.58		mg/L		95	70 - 130	1	30
Isocaproic acid	50.0	49.72		mg/L		99	70 - 130	2	30
Isovaleric acid	50.0	49.93		mg/L		100	70 - 130	1	30
Propionic acid	50.0	50.45		mg/L		101	70 - 130	1	30
Valeric acid	50.0	49.19		mg/L		98	70 - 130	0	30
Butyric-Isobutyric Acid	100	100.0		mg/L		100	70 - 130	0	25

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-468437/1-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<1.00	U	2.00	1.00	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluoroheptanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorooctanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorononanoic acid	<0.200	U	2.00	0.200	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorodecanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorotridecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorotetradecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorobutanesulfonic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorohexanesulfonic acid	<0.200	U	2.00	0.200	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorooctanesulfonic acid	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
NEtFOSAA	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
NMeFOSAA	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorododecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
HFPODA	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
9CI-PF3ONS	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
11CI-PF3OUdS	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluoroundecanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	88		28 - 166	01/31/24 06:46	02/02/24 16:09	1
13C4 PFHpA	90		40 - 165	01/31/24 06:46	02/02/24 16:09	1
13C8 PFOA	94		52 - 153	01/31/24 06:46	02/02/24 16:09	1
13C9 PFNA	101		52 - 168	01/31/24 06:46	02/02/24 16:09	1
13C6 PFDA	90		53 - 151	01/31/24 06:46	02/02/24 16:09	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-468437/1-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468437

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFDoDA	90		22 - 165	01/31/24 06:46	02/02/24 16:09	1
13C2 PFTeDA	90		10 - 171	01/31/24 06:46	02/02/24 16:09	1
13C3 PFBS	96		34 - 200	01/31/24 06:46	02/02/24 16:09	1
13C3 PFHxS	94		48 - 169	01/31/24 06:46	02/02/24 16:09	1
13C8 PFOS	94		59 - 155	01/31/24 06:46	02/02/24 16:09	1
d3-NMeFOSAA	98		38 - 168	01/31/24 06:46	02/02/24 16:09	1
d5-NEtFOSAA	111		34 - 181	01/31/24 06:46	02/02/24 16:09	1
13C3 HFPO-DA	94		13 - 170	01/31/24 06:46	02/02/24 16:09	1
13C7 PFUnA	86		41 - 163	01/31/24 06:46	02/02/24 16:09	1

Lab Sample ID: LCS 410-468437/2-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	22.08		ng/L		86	59 - 130
Perfluoroheptanoic acid	25.6	22.23		ng/L		87	64 - 130
Perfluorooctanoic acid	25.6	21.95		ng/L		86	58 - 132
Perfluorononanoic acid	25.6	21.15		ng/L		83	63 - 133
Perfluorodecanoic acid	25.6	23.44		ng/L		92	62 - 133
Perfluorotridecanoic acid	25.6	22.27		ng/L		87	59 - 136
Perfluorotetradecanoic acid	25.6	21.94		ng/L		86	62 - 131
Perfluorobutanesulfonic acid	22.7	19.63		ng/L		87	64 - 132
Perfluorohexanesulfonic acid	23.3	19.54		ng/L		84	62 - 130
Perfluorooctanesulfonic acid	23.7	19.45		ng/L		82	62 - 130
NEtFOSAA	25.6	20.88		ng/L		82	63 - 130
NMeFOSAA	25.6	20.38		ng/L		80	62 - 131
Perfluorododecanoic acid	25.6	22.12		ng/L		86	61 - 132
HFPODA	25.6	20.27		ng/L		79	53 - 131
9Cl-PF3ONS	23.8	20.15		ng/L		85	60 - 130
11Cl-PF3OUdS	23.8	19.61		ng/L		82	57 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	24.2	20.75		ng/L		86	61 - 130
Perfluoroundecanoic acid	25.6	23.97		ng/L		94	62 - 131

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C5 PFHxA	91		28 - 166
13C4 PFHpA	90		40 - 165
13C8 PFOA	93		52 - 153
13C9 PFNA	105		52 - 168
13C6 PFDA	94		53 - 151
13C2-PFDoDA	97		22 - 165
13C2 PFTeDA	100		10 - 171
13C3 PFBS	100		34 - 200
13C3 PFHxS	96		48 - 169
13C8 PFOS	97		59 - 155
d3-NMeFOSAA	108		38 - 168
d5-NEtFOSAA	122		34 - 181
13C3 HFPO-DA	95		13 - 170

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-468437/2-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468437

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C7 PFUnA	91		41 - 163

Lab Sample ID: LCSD 410-468437/3-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468437

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.6	23.58		ng/L		92	59 - 130	7	30
Perfluoroheptanoic acid	25.6	23.33		ng/L		91	64 - 130	5	30
Perfluorooctanoic acid	25.6	22.47		ng/L		88	58 - 132	2	30
Perfluorononanoic acid	25.6	21.42		ng/L		84	63 - 133	1	30
Perfluorodecanoic acid	25.6	23.62		ng/L		92	62 - 133	1	30
Perfluorotridecanoic acid	25.6	22.36		ng/L		87	59 - 136	0	30
Perfluorotetradecanoic acid	25.6	22.25		ng/L		87	62 - 131	1	30
Perfluorobutanesulfonic acid	22.7	20.07		ng/L		89	64 - 132	2	30
Perfluorohexanesulfonic acid	23.3	20.05		ng/L		86	62 - 130	3	30
Perfluorooctanesulfonic acid	23.7	19.66		ng/L		83	62 - 130	1	30
NEtFOSAA	25.6	21.93		ng/L		86	63 - 130	5	30
NMeFOSAA	25.6	21.19		ng/L		83	62 - 131	4	30
Perfluorododecanoic acid	25.6	22.21		ng/L		87	61 - 132	0	30
HFPODA	25.6	19.88		ng/L		78	53 - 131	2	30
9CI-PF3ONS	23.8	20.28		ng/L		85	60 - 130	1	30
11CI-PF3OUdS	23.8	20.09		ng/L		84	57 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	24.2	21.01		ng/L		87	61 - 130	1	30
Perfluoroundecanoic acid	25.6	23.18		ng/L		91	62 - 131	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C5 PFHxA	91		28 - 166
13C4 PFHpA	93		40 - 165
13C8 PFOA	98		52 - 153
13C9 PFNA	107		52 - 168
13C6 PFDA	99		53 - 151
13C2-PFDoDA	98		22 - 165
13C2 PFTeDA	102		10 - 171
13C3 PFBS	103		34 - 200
13C3 PFHxS	99		48 - 169
13C8 PFOS	100		59 - 155
d3-NMeFOSAA	111		38 - 168
d5-NEtFOSAA	121		34 - 181
13C3 HFPO-DA	104		13 - 170
13C7 PFUnA	94		41 - 163

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Lab Sample ID: MB 410-468684/1-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468684

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<0.230	U	1.00	0.230	ug/L		01/31/24 13:12	01/31/24 15:00	1

Lab Sample ID: LCS 410-468684/2-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468684

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perchlorate	1.00	0.9575	J	ug/L		96	80 - 120

Lab Sample ID: LCSD 410-468684/3-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468684

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perchlorate	1.00	0.9588	J	ug/L		96	80 - 120	0	15

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 410-474882/1-A
Matrix: Water
Analysis Batch: 476019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	<4.53	U	25.0	4.53	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,4,6,7,8-HpCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,4,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,4,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,4,7,8,9-HpCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,6,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,7,8-PeCDD	<3.16	U	25.0	3.16	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,7,8-PeCDF	<2.76	U	25.0	2.76	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,7,8,9-HxCDD	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
1,2,3,7,8,9-HxCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
2,3,4,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
2,3,4,7,8-PeCDF	<2.50	U	25.0	2.50	pg/L		02/20/24 03:36	02/22/24 22:21	1
2,3,7,8-TCDD	<0.873	U	5.00	0.873	pg/L		02/20/24 03:36	02/22/24 22:21	1
2,3,7,8-TCDF	<0.812	U	5.00	0.812	pg/L		02/20/24 03:36	02/22/24 22:21	1
OCDD	<36.2	U	110	36.2	pg/L		02/20/24 03:36	02/22/24 22:21	1
OCDF	<6.15	U	50.0	6.15	pg/L		02/20/24 03:36	02/22/24 22:21	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	112		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,4,6,7,8-HpCDF	115		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,4,7,8-HxCDD	113		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,4,7,8-HxCDF	121		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,4,7,8,9-HpCDF	134		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,6,7,8-HxCDD	115		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,6,7,8-HxCDF	119		40 - 135	02/20/24 03:36	02/22/24 22:21	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 410-474882/1-A
Matrix: Water
Analysis Batch: 476019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474882

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,7,8-PeCDD	93		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,7,8-PeCDF	109		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,7,8,9-HxCDD	117		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-1,2,3,7,8,9-HxCDF	120		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-2,3,4,6,7,8-HxCDF	115		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-2,3,4,7,8-PeCDF	111		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-2,3,7,8-TCDD	128		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-2,3,7,8-TCDF	106		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-OCDD	129		40 - 135	02/20/24 03:36	02/22/24 22:21	1
13C-OCDF	134		40 - 135	02/20/24 03:36	02/22/24 22:21	1

Lab Sample ID: LCS 410-474882/2-A
Matrix: Water
Analysis Batch: 476019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3,4,6,7,8-HpCDD	1000	1194		pg/L		119	76 - 123
1,2,3,4,6,7,8-HpCDF	1000	1051		pg/L		105	74 - 123
1,2,3,4,7,8-HxCDD	1000	1215		pg/L		122	79 - 129
1,2,3,4,7,8-HxCDF	1000	1099		pg/L		110	78 - 127
1,2,3,4,7,8,9-HpCDF	1000	1026		pg/L		103	75 - 124
1,2,3,6,7,8-HxCDD	1000	1248		pg/L		125	80 - 128
1,2,3,6,7,8-HxCDF	1000	1118		pg/L		112	78 - 125
1,2,3,7,8-PeCDD	1000	1345	*+	pg/L		135	80 - 133
1,2,3,7,8-PeCDF	1000	1327	*+	pg/L		133	80 - 131
1,2,3,7,8,9-HxCDD	1000	1306		pg/L		131	80 - 133
1,2,3,7,8,9-HxCDF	1000	1130		pg/L		113	78 - 125
2,3,4,6,7,8-HxCDF	1000	1077		pg/L		108	77 - 126
2,3,4,7,8-PeCDF	1000	1348	*+	pg/L		135	80 - 130
2,3,7,8-TCDD	200	258.1	*+	pg/L		129	75 - 128
2,3,7,8-TCDF	200	214.6		pg/L		107	72 - 128
OCDD	2000	2433		pg/L		122	80 - 123
OCDF	2000	2374		pg/L		119	78 - 125

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-1,2,3,4,6,7,8-HpCDD	97		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	110		40 - 135
13C-1,2,3,4,7,8-HxCDD	103		40 - 135
13C-1,2,3,4,7,8-HxCDF	124		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	118		40 - 135
13C-1,2,3,6,7,8-HxCDD	101		40 - 135
13C-1,2,3,6,7,8-HxCDF	118		40 - 135
13C-1,2,3,7,8-PeCDD	73		40 - 135
13C-1,2,3,7,8-PeCDF	94		40 - 135
13C-1,2,3,7,8,9-HxCDD	101		40 - 135
13C-1,2,3,7,8,9-HxCDF	111		40 - 135
13C-2,3,4,6,7,8-HxCDF	117		40 - 135
13C-2,3,4,7,8-PeCDF	87		40 - 135
13C-2,3,7,8-TCDD	117		40 - 135

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 410-474882/2-A

Matrix: Water

Analysis Batch: 476019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 474882

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDF	118		40 - 135
13C-OCDD	94		40 - 135
13C-OCDF	111		40 - 135

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-143032/1-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143032

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		01/31/24 10:30	01/31/24 18:55	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		01/31/24 10:30	01/31/24 18:55	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		01/31/24 10:30	01/31/24 18:55	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		01/31/24 10:30	01/31/24 18:55	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		01/31/24 10:30	01/31/24 18:55	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		01/31/24 10:30	01/31/24 18:55	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		01/31/24 10:30	01/31/24 18:55	1
Calcium	0.5950		0.200	0.102	mg/L		01/31/24 10:30	01/31/24 18:55	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		01/31/24 10:30	01/31/24 18:55	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		01/31/24 10:30	01/31/24 18:55	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		01/31/24 10:30	01/31/24 18:55	1
Iron	<0.0283	U	0.200	0.0283	mg/L		01/31/24 10:30	01/31/24 18:55	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		01/31/24 10:30	01/31/24 18:55	1
Magnesium	<0.0445	U	0.200	0.0445	mg/L		01/31/24 10:30	01/31/24 18:55	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		01/31/24 10:30	01/31/24 18:55	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		01/31/24 10:30	01/31/24 18:55	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		01/31/24 10:30	01/31/24 18:55	1
Phosphorus	0.02170	J	0.0400	0.0184	mg/L		01/31/24 10:30	01/31/24 18:55	1
Potassium	<0.106	U	0.500	0.106	mg/L		01/31/24 10:30	01/31/24 18:55	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		01/31/24 10:30	01/31/24 18:55	1
Silicon	<0.173	U	0.500	0.173	mg/L		01/31/24 10:30	01/31/24 18:55	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		01/31/24 10:30	01/31/24 18:55	1
Sodium	<0.152	U	0.500	0.152	mg/L		01/31/24 10:30	01/31/24 18:55	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		01/31/24 10:30	01/31/24 18:55	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		01/31/24 10:30	01/31/24 18:55	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		01/31/24 10:30	01/31/24 18:55	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		01/31/24 10:30	01/31/24 18:55	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		01/31/24 10:30	01/31/24 18:55	1
Zinc	0.01630	J	0.0300	0.00837	mg/L		01/31/24 10:30	01/31/24 18:55	1
Lithium	<0.0174	U	0.0400	0.0174	mg/L		01/31/24 10:30	01/31/24 18:55	1
Phosphate as PO4	0.06653	J	0.123	0.0564	mg/L		01/31/24 10:30	01/31/24 18:55	1

Lab Sample ID: LCS 860-143032/2-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	4.600		mg/L		92	80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-143032/2-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	0.8850		mg/L		89	80 - 120
Arsenic	1.00	0.9900		mg/L		99	80 - 120
Barium	1.00	0.9450		mg/L		95	80 - 120
Beryllium	1.00	0.9560		mg/L		96	80 - 120
Boron	1.00	0.9650		mg/L		97	80 - 120
Cadmium	1.00	0.9780		mg/L		98	80 - 120
Calcium	25.0	25.40		mg/L		102	80 - 120
Chromium	1.00	0.9920		mg/L		99	80 - 120
Cobalt	1.00	0.9470		mg/L		95	80 - 120
Copper	1.00	1.010		mg/L		101	80 - 120
Iron	5.00	5.120		mg/L		102	80 - 120
Lead	1.00	0.9910		mg/L		99	80 - 120
Magnesium	25.0	25.20		mg/L		101	80 - 120
Manganese	1.00	1.040		mg/L		104	80 - 120
Molybdenum	1.00	0.9700		mg/L		97	80 - 120
Nickel	1.00	0.9370		mg/L		94	80 - 120
Phosphorus	1.00	0.9410		mg/L		94	80 - 120
Potassium	10.0	9.620		mg/L		96	80 - 120
Selenium	1.00	0.9690		mg/L		97	80 - 120
Silicon	10.0	9.610		mg/L		96	80 - 120
Silver	0.500	0.5420		mg/L		108	80 - 120
Sodium	25.0	25.40		mg/L		102	80 - 120
Strontium	1.00	1.050		mg/L		105	80 - 120
Thallium	1.00	1.000		mg/L		100	80 - 120
Tin	1.00	0.9850		mg/L		99	80 - 120
Titanium	1.00	1.010		mg/L		101	80 - 120
Vanadium	1.00	0.9860		mg/L		99	80 - 120
Zinc	1.00	0.9370		mg/L		94	80 - 120
Lithium	1.00	0.9330		mg/L		93	80 - 120

Lab Sample ID: LCSD 860-143032/3-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143032

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Aluminum	5.00	4.680		mg/L		94	80 - 120	2	20
Antimony	1.00	0.9220		mg/L		92	80 - 120	4	20
Arsenic	1.00	1.010		mg/L		101	80 - 120	2	20
Barium	1.00	0.9600		mg/L		96	80 - 120	2	20
Beryllium	1.00	0.9720		mg/L		97	80 - 120	2	20
Boron	1.00	0.9780		mg/L		98	80 - 120	1	20
Cadmium	1.00	0.9940		mg/L		99	80 - 120	2	20
Calcium	25.0	25.70		mg/L		103	80 - 120	1	20
Chromium	1.00	1.010		mg/L		101	80 - 120	2	20
Cobalt	1.00	0.9620		mg/L		96	80 - 120	2	20
Copper	1.00	1.030		mg/L		103	80 - 120	2	20
Iron	5.00	5.200		mg/L		104	80 - 120	2	20
Lead	1.00	1.010		mg/L		101	80 - 120	2	20
Magnesium	25.0	25.60		mg/L		102	80 - 120	2	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 860-143032/3-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143032

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	1.00	1.060		mg/L		106	80 - 120	2	20
Molybdenum	1.00	0.9980		mg/L		100	80 - 120	3	20
Nickel	1.00	0.9500		mg/L		95	80 - 120	1	20
Phosphorus	1.00	0.9450		mg/L		95	80 - 120	0	20
Potassium	10.0	9.750		mg/L		98	80 - 120	1	20
Selenium	1.00	0.9930		mg/L		99	80 - 120	2	20
Silicon	10.0	9.780		mg/L		98	80 - 120	2	20
Silver	0.500	0.5490		mg/L		110	80 - 120	1	20
Sodium	25.0	25.80		mg/L		103	80 - 120	2	20
Strontium	1.00	1.070		mg/L		107	80 - 120	2	20
Thallium	1.00	1.020		mg/L		102	80 - 120	2	20
Tin	1.00	1.000		mg/L		100	80 - 120	2	20
Titanium	1.00	1.030		mg/L		103	80 - 120	2	20
Vanadium	1.00	1.000		mg/L		100	80 - 120	1	20
Zinc	1.00	0.9530		mg/L		95	80 - 120	2	20
Lithium	1.00	0.9460		mg/L		95	80 - 120	1	20

Lab Sample ID: MB 860-142731/22-D

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 148652

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		03/07/24 11:00	03/07/24 17:07	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		03/07/24 11:00	03/07/24 17:07	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		03/07/24 11:00	03/07/24 17:07	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		03/07/24 11:00	03/07/24 17:07	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		03/07/24 11:00	03/07/24 17:07	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		03/07/24 11:00	03/07/24 17:07	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		03/07/24 11:00	03/07/24 17:07	1
Dissolved Calcium	<0.102	U	0.200	0.102	mg/L		03/07/24 11:00	03/07/24 17:07	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		03/07/24 11:00	03/07/24 17:07	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		03/07/24 11:00	03/07/24 17:07	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		03/07/24 11:00	03/07/24 17:07	1
Iron	<0.0283	U	0.200	0.0283	mg/L		03/07/24 11:00	03/07/24 17:07	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		03/07/24 11:00	03/07/24 17:07	1
Dissolved Magnesium	<0.0445	U	0.200	0.0445	mg/L		03/07/24 11:00	03/07/24 17:07	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		03/07/24 11:00	03/07/24 17:07	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		03/07/24 11:00	03/07/24 17:07	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		03/07/24 11:00	03/07/24 17:07	1
P	<0.0184	U	0.0400	0.0184	mg/L		03/07/24 11:00	03/07/24 17:07	1
Potassium	<0.106	U	0.500	0.106	mg/L		03/07/24 11:00	03/07/24 17:07	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		03/07/24 11:00	03/07/24 17:07	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		03/07/24 11:00	03/07/24 17:07	1
Sodium	<0.152	U	0.500	0.152	mg/L		03/07/24 11:00	03/07/24 17:07	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		03/07/24 11:00	03/07/24 17:07	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		03/07/24 11:00	03/07/24 17:07	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		03/07/24 11:00	03/07/24 17:07	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		03/07/24 11:00	03/07/24 17:07	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		03/07/24 11:00	03/07/24 17:07	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 860-142731/22-D

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 148652

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SiO2	<0.370	U	1.07	0.370	mg/L		03/07/24 11:00	03/07/24 17:07	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		03/07/24 11:00	03/07/24 17:07	1

Lab Sample ID: LCS 860-142731/23-D

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	4.880		mg/L		98	80 - 120
Antimony	1.00	0.9900		mg/L		99	80 - 120
Arsenic	1.00	0.9880		mg/L		99	80 - 120
Barium	1.00	0.9690		mg/L		97	80 - 120
Beryllium	1.00	1.040		mg/L		104	80 - 120
Boron	1.00	0.9860		mg/L		99	80 - 120
Cadmium	1.00	0.9690		mg/L		97	80 - 120
Dissolved Calcium	25.0	25.50		mg/L		102	80 - 120
Chromium	1.00	1.010		mg/L		101	80 - 120
Cobalt	1.00	1.000		mg/L		100	80 - 120
Copper	1.00	1.010		mg/L		101	80 - 120
Iron	5.00	5.100		mg/L		102	80 - 120
Lead	1.00	1.050		mg/L		105	80 - 120
Dissolved Magnesium	25.0	25.20		mg/L		101	80 - 120
Manganese	1.00	1.050		mg/L		105	80 - 120
Molybdenum	1.00	1.040		mg/L		104	80 - 120
Nickel	1.00	0.9970		mg/L		100	80 - 120
P	1.00	1.020		mg/L		102	80 - 120
Potassium	10.0	9.690		mg/L		97	80 - 120
Selenium	1.00	0.9810		mg/L		98	80 - 120
Silver	0.500	0.4990		mg/L		100	80 - 120
Sodium	25.0	25.10		mg/L		100	80 - 120
Strontium	1.00	1.040		mg/L		104	80 - 120
Thallium	1.00	1.050		mg/L		105	80 - 120
Tin	1.00	1.030		mg/L		103	80 - 120
Titanium	1.00	0.9750		mg/L		98	80 - 120
Vanadium	1.00	0.9900		mg/L		99	80 - 120
SiO2	21.4	20.99		mg/L		98	80 - 120
Zinc	1.00	1.020		mg/L		102	80 - 120

Lab Sample ID: LCSD 860-142731/24-D

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	5.00	4.870		mg/L		97	80 - 120	0	20
Antimony	1.00	0.9890		mg/L		99	80 - 120	0	20
Arsenic	1.00	0.9900		mg/L		99	80 - 120	0	20
Barium	1.00	0.9670		mg/L		97	80 - 120	0	20
Beryllium	1.00	1.040		mg/L		104	80 - 120	0	20
Boron	1.00	0.9820		mg/L		98	80 - 120	0	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 860-142731/24-D

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	1.00	0.9670		mg/L		97	80 - 120	0	20
Dissolved Calcium	25.0	25.40		mg/L		102	80 - 120	0	20
Chromium	1.00	1.010		mg/L		101	80 - 120	0	20
Cobalt	1.00	1.000		mg/L		100	80 - 120	0	20
Copper	1.00	1.010		mg/L		101	80 - 120	0	20
Iron	5.00	5.090		mg/L		102	80 - 120	0	20
Lead	1.00	1.050		mg/L		105	80 - 120	0	20
Dissolved Magnesium	25.0	25.10		mg/L		100	80 - 120	0	20
Manganese	1.00	1.050		mg/L		105	80 - 120	0	20
Molybdenum	1.00	1.040		mg/L		104	80 - 120	0	20
Nickel	1.00	0.9990		mg/L		100	80 - 120	0	20
P	1.00	1.020		mg/L		102	80 - 120	0	20
Potassium	10.0	9.710		mg/L		97	80 - 120	0	20
Selenium	1.00	0.9830		mg/L		98	80 - 120	0	20
Silver	0.500	0.4980		mg/L		100	80 - 120	0	20
Sodium	25.0	25.10		mg/L		100	80 - 120	0	20
Strontium	1.00	1.040		mg/L		104	80 - 120	0	20
Thallium	1.00	1.050		mg/L		105	80 - 120	0	20
Tin	1.00	1.020		mg/L		102	80 - 120	1	20
Titanium	1.00	0.9740		mg/L		97	80 - 120	0	20
Vanadium	1.00	0.9880		mg/L		99	80 - 120	0	20
SiO2	21.4	20.99		mg/L		98	80 - 120	0	20
Zinc	1.00	1.020		mg/L		102	80 - 120	0	20

Lab Sample ID: 880-38528-1 MS

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Raw Produced

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<1.76	U F2	5.00	3.785	J	mg/L		76	75 - 125
Antimony	<0.402	U F1 F2	1.00	0.6200	J F1	mg/L		62	75 - 125
Arsenic	<0.325	U F1 F2	1.00	0.6250	F1	mg/L		63	75 - 125
Barium	31.0		1.00	23.20	4	mg/L		-780	75 - 125
Beryllium	<0.0535	U	1.00	0.7900		mg/L		79	75 - 125
Boron	14.2		1.00	10.85	4	mg/L		-330	75 - 125
Cadmium	<0.0416	U	1.00	0.8400		mg/L		84	75 - 125
Dissolved Calcium	9050		25.0	5950	4	mg/L		-1240	75 - 125
Chromium	<0.108	U F2	1.00	0.8400		mg/L		84	75 - 125
Cobalt	<0.0615	U	1.00	0.7850		mg/L		79	75 - 125
Copper	<0.194	U	1.00	0.9800	J	mg/L		98	75 - 125
Iron	34.0		5.00	27.25	4	mg/L		-135	75 - 125
Lead	<0.184	U	1.00	0.8850		mg/L		89	75 - 125
Dissolved Magnesium	1270		25.0	845.0	4	mg/L		-1680	75 - 125
Manganese	2.71	F1	1.00	2.785	F1	mg/L		8	75 - 125
Molybdenum	<0.130	U	1.00	0.9500		mg/L		95	75 - 125
Nickel	0.118	J F1 F2	1.00	0.8150	F1	mg/L		70	75 - 125
P	5.40		1.00	4.710	4	mg/L		-69	75 - 125
Potassium	349		10.0	248.5	4	mg/L		-1000	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 880-38528-1 MS

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Raw Produced

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.745	J F1 F2	1.00	1.195	J F1	mg/L		45	75 - 125
Silver	<0.186	U F2	0.500	0.3825	J	mg/L		77	75 - 125
Sodium	51500		25.0	34600	4	mg/L		-6760 0	75 - 125
Strontium	OVER	F1 E	1.00	OVER	E	ppb			75 - 125
Thallium	<0.551	U F1	1.00	<0.551	U F1	mg/L		0	75 - 125
Tin	<0.345	U F1 F2	1.00	0.6950	J F1	mg/L		70	75 - 125
Titanium	<0.199	U	1.00	0.8150	J	mg/L		82	75 - 125
Vanadium	<0.259	U	1.00	0.7950	J	mg/L		80	75 - 125
SiO2	31.2	J F1	21.4	39.06	J F1	mg/L		37	75 - 125
Zinc	<0.419	U	1.00	0.8600	J	mg/L		86	75 - 125

Lab Sample ID: 880-38528-1 MSD

Matrix: Water

Analysis Batch: 148827

Client Sample ID: Raw Produced

Prep Type: Dissolved

Prep Batch: 148652

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	<1.76	U F2	5.00	4.715	J F2	mg/L		94	75 - 125	22	20
Antimony	<0.402	U F1 F2	1.00	1.100	F2	mg/L		110	75 - 125	56	20
Arsenic	<0.325	U F1 F2	1.00	1.065	F2	mg/L		107	75 - 125	52	20
Barium	31.0		1.00	27.65	4	mg/L		-335	75 - 125	18	20
Beryllium	<0.0535	U	1.00	0.9250		mg/L		93	75 - 125	16	20
Boron	14.2		1.00	12.95	4	mg/L		-120	75 - 125	18	20
Cadmium	<0.0416	U	1.00	0.9700		mg/L		97	75 - 125	14	20
Dissolved Calcium	9050		25.0	7100	4	mg/L		-7800	75 - 125	18	20
Chromium	<0.108	U F2	1.00	1.045	F2	mg/L		105	75 - 125	22	20
Cobalt	<0.0615	U	1.00	0.9400		mg/L		94	75 - 125	18	20
Copper	<0.194	U	1.00	1.145		mg/L		115	75 - 125	16	20
Iron	34.0		5.00	32.00	4	mg/L		-40	75 - 125	16	20
Lead	<0.184	U	1.00	1.035		mg/L		104	75 - 125	16	20
Dissolved Magnesium	1270		25.0	1010	4	mg/L		-1020	75 - 125	18	20
Manganese	2.71	F1	1.00	3.310	F1	mg/L		61	75 - 125	17	20
Molybdenum	<0.130	U	1.00	1.045		mg/L		105	75 - 125	10	20
Nickel	0.118	J F1 F2	1.00	1.015	F2	mg/L		90	75 - 125	22	20
P	5.40		1.00	5.150	4	mg/L		-25	75 - 125	9	20
Potassium	349		10.0	273.0	4	mg/L		-755	75 - 125	9	20
Selenium	0.745	J F1 F2	1.00	1.495	J F2	mg/L		75	75 - 125	22	20
Silver	<0.186	U F2	0.500	0.4820	J F2	mg/L		96	75 - 125	23	20
Sodium	51500		25.0	40950	4	mg/L		-4220 0	75 - 125	17	20
Strontium	OVER	F1 E	1.00	OVER	E F1	ppb		0	75 - 125	NC	20
Thallium	<0.551	U F1	1.00	<0.551	U F1	mg/L		0	75 - 125	NC	20
Tin	<0.345	U F1 F2	1.00	0.8650	J F2	mg/L		87	75 - 125	22	20
Titanium	<0.199	U	1.00	0.9550	J	mg/L		96	75 - 125	16	20
Vanadium	<0.259	U	1.00	0.9650	J	mg/L		97	75 - 125	19	20
SiO2	31.2	J F1	21.4	46.76	J F1	mg/L		73	75 - 125	18	20
Zinc	<0.419	U	1.00	1.030	J	mg/L		103	75 - 125	18	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6020A - Rare Earth Metals (ICP/MS)

Lab Sample ID: MB 860-142814/1-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 142814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dysprosium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Praseodymium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Lanthanum	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Cerium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Neodymium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Yttrium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Terbium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Europium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1

Lab Sample ID: LCS 860-142814/2-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 142814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dysprosium	0.0500	0.04816		mg/L		96	80 - 120
Praseodymium	0.0500	0.04806		mg/L		96	80 - 120
Lanthanum	0.0500	0.04797		mg/L		96	80 - 120
Cerium	0.0500	0.04815		mg/L		96	80 - 120
Neodymium	0.0500	0.04843		mg/L		97	80 - 120
Europium	0.0500	0.04799		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-142814/3-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 142814

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dysprosium	0.0500	0.04797		mg/L		96	80 - 120	0	20
Praseodymium	0.0500	0.04809		mg/L		96	80 - 120	0	20
Lanthanum	0.0500	0.04781		mg/L		96	80 - 120	0	20
Cerium	0.0500	0.04806		mg/L		96	80 - 120	0	20
Neodymium	0.0500	0.04813		mg/L		96	80 - 120	1	20
Europium	0.0500	0.04792		mg/L		96	80 - 120	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 860-144617/2-A
Matrix: Water
Analysis Batch: 145320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144617

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Au	0.0500	0.05541		mg/L		111	80 - 120

Lab Sample ID: LCSD 860-144617/3-A
Matrix: Water
Analysis Batch: 145320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144617

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Au	0.0500	0.05431		mg/L		109	80 - 120	2	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-142731/1-B
Matrix: Water
Analysis Batch: 143084

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 142784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/30/24 09:30	01/31/24 12:25	1

Lab Sample ID: LCS 860-142731/2-B
Matrix: Water
Analysis Batch: 143084

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 142784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	0.0250	0.02436		mg/L		97	80 - 120

Lab Sample ID: LCSD 860-142731/3-B
Matrix: Water
Analysis Batch: 143084

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 142784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	0.0250	0.02455		mg/L		98	80 - 120	1	20

Lab Sample ID: MB 860-142731/1-D
Matrix: Water
Analysis Batch: 145320

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 144617

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 12:37	1
Zirconium	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 12:37	1

Method: 6020B - Metals (ICP/MS), Isotopic Uranium

Lab Sample ID: MB 160-647099/1-A
Matrix: Water
Analysis Batch: 650329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium-233	<0.00667	U	0.0600	0.00667	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-234	<0.00348	U	0.0600	0.00348	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-235	<0.0280	U	0.0600	0.0280	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-236	<0.0148	U	0.0600	0.0148	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-238	<0.0240	U	0.0600	0.0240	ug/L		02/06/24 12:51	02/08/24 10:22	2

Lab Sample ID: LCS 160-647099/2-A
Matrix: Water
Analysis Batch: 650329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium-234	0.0764	0.07936		ug/L		104	80 - 120
Uranium-235	4.50	4.701		ug/L		104	80 - 120
Uranium-238	5.02	5.382		ug/L		107	80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 860-146283/1
Matrix: Water
Analysis Batch: 146283

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.57	U	5.00	1.57	mg/L			02/21/24 10:19	1

Lab Sample ID: LCS 860-146283/2
Matrix: Water
Analysis Batch: 146283

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	43.90		mg/L		110	78 - 114

Lab Sample ID: LCSD 860-146283/3
Matrix: Water
Analysis Batch: 146283

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM	40.0	44.50		mg/L		111	78 - 114	1	18

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 860-142519/3
Matrix: Water
Analysis Batch: 142519

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	<0.50	U	1.0	0.50	NTU			01/28/24 08:30	1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 860-148017/68
Matrix: Water
Analysis Batch: 148017

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.0510	U	0.100	0.0510	mg/L			03/03/24 17:52	1

Lab Sample ID: LCS 860-148017/69
Matrix: Water
Analysis Batch: 148017

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.9969		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-148017/70
Matrix: Water
Analysis Batch: 148017

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	1.00	1.006		mg/L		101	90 - 110	1	20

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 8000 - COD

Lab Sample ID: MB 860-146661/3
Matrix: Water
Analysis Batch: 146661

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<3.36	U	20.0	3.36	mg/L			02/22/24 18:22	1

Lab Sample ID: LCS 860-146661/4
Matrix: Water
Analysis Batch: 146661

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	100	108.0		mg/L		108	90 - 110

Method: 8146 - Iron, Ferrous

Lab Sample ID: MB 860-144250/3
Matrix: Water
Analysis Batch: 144250

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	<0.0280	U	0.0500	0.0280	mg/L			02/07/24 12:19	1

Lab Sample ID: LCS 860-144250/4
Matrix: Water
Analysis Batch: 144250

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ferrous Iron	1.00	0.8400		mg/L		84	75 - 125

Lab Sample ID: LCSD 860-144250/5
Matrix: Water
Analysis Batch: 144250

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ferrous Iron	1.00	0.8400		mg/L		84	75 - 125	0	25

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 860-142713/30-A
Matrix: Water
Analysis Batch: 143080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 142713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<24.0	U	60.0	24.0	ug/L		01/29/24 19:37	01/30/24 17:29	1

Lab Sample ID: MB 860-142713/4-A
Matrix: Water
Analysis Batch: 143080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 142713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<2.00	U	5.00	2.00	ug/L		01/29/24 19:37	01/30/24 16:47	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 860-142713/5-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	100	98.34		ug/L		98	90 - 110

Lab Sample ID: LCSD 860-142713/32-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	1250	1252		ug/L		100	90 - 110	2	20

Lab Sample ID: LLCS 860-142713/6-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	5.00	4.485	J	ug/L		90	50 - 150

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-823765/1-A

Matrix: Water

Analysis Batch: 823796

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 823765

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<14.0	U	40.0	14.0	ug/L		02/20/24 06:30	02/20/24 12:22	1

Lab Sample ID: LCS 680-823765/2-A

Matrix: Water

Analysis Batch: 823796

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 823765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TOX Result 1	400	364.8		ug/L		91	60 - 140
TOX Result 2	400	364.8		ug/L		91	60 - 140

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-144279/3

Matrix: Water

Analysis Batch: 144279

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			02/07/24 09:44	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			02/07/24 09:44	1

Lab Sample ID: LCS 860-144279/4

Matrix: Water

Analysis Batch: 144279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	250	260.6		mg/L		104	85 - 115

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 860-144279/5
Matrix: Water
Analysis Batch: 144279

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	250	255.5		mg/L		102	85 - 115	2	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: LCS 860-148144/2
Matrix: Water
Analysis Batch: 148144

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Electrical Conductivity (25C)	1410	1414		umho/cm @ 25C		100	85 - 115		

Lab Sample ID: LCSD 860-148144/3
Matrix: Water
Analysis Batch: 148144

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Electrical Conductivity (25C)	1410	1414		umho/cm @ 25C		100	85 - 115	0	20

Lab Sample ID: LLCS 860-148144/4
Matrix: Water
Analysis Batch: 148144

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Electrical Conductivity (25C)	10.0	11.07		umho/cm @ 25C		111	50 - 150		

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

Lab Sample ID: MB 860-143260/1
Matrix: Water
Analysis Batch: 143260

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/01/24 11:19	1

Lab Sample ID: LCS 860-143260/2
Matrix: Water
Analysis Batch: 143260

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1110		mg/L		111	80 - 120		

Lab Sample ID: LCSD 860-143260/3
Matrix: Water
Analysis Batch: 143260

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1100		mg/L		110	80 - 120	1	10

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

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

Lab Sample ID: LLCS 860-143260/26
Matrix: Water
Analysis Batch: 143260

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	7.000		mg/L		140	50 - 150

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 860-143275/1
Matrix: Water
Analysis Batch: 143275

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<4.00	U	4.00	4.00	mg/L			02/01/24 11:54	1

Lab Sample ID: LCS 860-143275/2
Matrix: Water
Analysis Batch: 143275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	100.0		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-143275/3
Matrix: Water
Analysis Batch: 143275

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	100	99.00		mg/L		99	80 - 120	1	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 860-142587/3
Matrix: Water
Analysis Batch: 142587

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00200	U	0.0100	0.00200	mg/L			01/29/24 09:49	1

Lab Sample ID: LCS 860-142587/4
Matrix: Water
Analysis Batch: 142587

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.200	0.1808		mg/L		90	80 - 120

Lab Sample ID: LCSD 860-142587/5
Matrix: Water
Analysis Batch: 142587

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.200	0.1821		mg/L		91	80 - 120	1	20

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 860-142852/3

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.0400	U	0.100	0.0400	mg/L			01/30/24 13:21	1

Lab Sample ID: LCS 860-142852/4

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	1.00	1.095		mg/L		110	90 - 110

Lab Sample ID: LCSD 860-142852/5

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	1.00	1.092		mg/L		109	90 - 110	0	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 400-659665/52

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/03/24 06:56	1

Lab Sample ID: LCS 400-659665/53

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.93		mg/L		100	85 - 115

Lab Sample ID: LCSD 400-659665/54

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.24		mg/L		101	85 - 115	2	30

Lab Sample ID: MRL 400-659665/6

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 400-659673/1-A
Matrix: Water
Analysis Batch: 659666

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/02/24 21:58	1

Lab Sample ID: LCS 400-659673/2-A
Matrix: Water
Analysis Batch: 659666

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.33		mg/L		97	85 - 115

Lab Sample ID: LCSD 400-659673/3-A
Matrix: Water
Analysis Batch: 659666

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.88		mg/L		99	85 - 115	3	30

Lab Sample ID: MRL 400-659666/6
Matrix: Water
Analysis Batch: 659666

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 860-142599/3
Matrix: Water
Analysis Batch: 142599

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	<0.0800	U	0.100	0.0800	mg/L			01/27/24 18:19	1

Lab Sample ID: LCS 860-142599/4
Matrix: Water
Analysis Batch: 142599

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Blue Active Substances	1.00	0.9663		mg/L		97	90 - 110

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-646914/1-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646914

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.1792	U	0.458	0.458	3.00	0.964	pCi/L	02/05/24 10:15	02/08/24 18:18	1
Gross Beta	0.03519	U	0.489	0.489	4.00	0.873	pCi/L	02/05/24 10:15	02/08/24 18:18	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: LCS 160-646914/2-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Alpha	49.3	54.21		7.90	3.00	2.54	pCi/L	110	75 - 125

Lab Sample ID: LCSB 160-646914/3-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	72.0	73.18		7.85	4.00	0.797	pCi/L	102	75 - 125

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-646186/1-A
Matrix: Water
Analysis Batch: 649533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646186

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	26.36	U	74.0	74.0		97.8	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Actinium-228	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-212	66.70	U	123	123		208	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-214	65.56		22.6	23.9		17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-210	-209.4	U	171	173		308	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-212	-18.53	U	19.7	19.8		36.2	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-214	41.66		14.4	15.3		22.4	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Potassium-40	52.54	U	93.1	93.3		101	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Protactinium-231	0.0000	U	163	163		1190	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-226	65.56		22.6	23.9	50.0	17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-228	-32.44	U G	56.6	56.8	50.0	63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thallium-208	12.95		10.7	10.8		10.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-232	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-234	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 235	17.83	U	47.5	47.5		173	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 238	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1

Lab Sample ID: LCS 160-646186/2-A
Matrix: Water
Analysis Batch: 648904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646186

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	139200		16600		479	pCi/L	103	75 - 125
Cesium-137	40000	41430		4940		110	pCi/L	104	75 - 125
Cobalt-60	15800	16600		1980		66.7	pCi/L	105	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-646710/1-A
Matrix: Water
Analysis Batch: 649794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646710

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1956		0.0830	0.0848	1.00	0.0873	pCi/L	02/02/24 09:54	02/26/24 12:13	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.8		30 - 110					02/02/24 09:54	02/26/24 12:13	1

Lab Sample ID: LCS 160-646710/2-A
Matrix: Water
Analysis Batch: 649794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646710

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226			11.3	9.986		1.04	1.00	0.0962	pCi/L	88	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits								
Ba Carrier	93.3		30 - 110								

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-646711/1-A
Matrix: Water
Analysis Batch: 648422

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646711

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2913	U	0.248	0.250	1.00	0.384	pCi/L	02/02/24 09:58	02/15/24 11:23	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.8		30 - 110					02/02/24 09:58	02/15/24 11:23	1
Y Carrier	86.0		30 - 110					02/02/24 09:58	02/15/24 11:23	1

Lab Sample ID: LCS 160-646711/2-A
Matrix: Water
Analysis Batch: 648422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646711

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			9.21	9.149		1.23	1.00	0.443	pCi/L	99	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits								
Ba Carrier	93.3		30 - 110								
Y Carrier	84.5		30 - 110								

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-646341/1-A
Matrix: Water
Analysis Batch: 647857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646341

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.1007	U	0.187	0.187	3.00	0.318	pCi/L	01/31/24 09:16	02/12/24 16:04	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	83.1		30 - 110					01/31/24 09:16	02/12/24 16:04	1
Y Carrier	95.3		30 - 110					01/31/24 09:16	02/12/24 16:04	1

Lab Sample ID: LCS 160-646341/2-A
Matrix: Water
Analysis Batch: 647857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646341

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Strontium-90	7.19	8.116		0.877	3.00	0.304	pCi/L	113	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Sr Carrier	82.1		30 - 110						
Y Carrier	92.7		30 - 110						

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

GC/MS VOA

Analysis Batch: 142954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8260D	
MB 860-142954/11	Method Blank	Total/NA	Water	8260D	
LCS 860-142954/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-142954/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 143128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3510C	
MB 860-143128/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-143128/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-143128/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 143331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-143128/1-A	Method Blank	Total/NA	Water	8270E LL	143128
LCS 860-143128/2-A	Lab Control Sample	Total/NA	Water	8270E LL	143128
LCSD 860-143128/3-A	Lab Control Sample Dup	Total/NA	Water	8270E LL	143128

Prep Batch: 143347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3511	
MB 860-143347/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 143428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8270D SIM	143347
MB 860-143347/1-A	Method Blank	Total/NA	Water	8270D SIM	143347
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	143347
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	143347

Analysis Batch: 143536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8270E LL	143128

Prep Batch: 405719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	Organotin	
MB 570-405719/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-405719/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-405719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

Analysis Batch: 406749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	Organotins SIM	405719
MB 570-405719/1-A	Method Blank	Total/NA	Water	Organotins SIM	405719
LCS 570-405719/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	405719
LCSD 570-405719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	405719

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

GC Semi VOA

Analysis Batch: 130308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015 NM	

Analysis Batch: 142550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015B NM	142559
MB 860-142559/1-A	Method Blank	Total/NA	Water	8015B NM	142559
LCS 860-142559/2-A	Lab Control Sample	Total/NA	Water	8015B NM	142559
LCSD 860-142559/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	142559

Prep Batch: 142559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015NM Aq Prep	
MB 860-142559/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 860-142559/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 860-142559/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

Prep Batch: 142589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3511	
MB 860-142589/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-142589/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-142589/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 142760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8151A	142589
MB 860-142589/1-A	Method Blank	Total/NA	Water	8151A	142589
LCS 860-142589/2-A	Lab Control Sample	Total/NA	Water	8151A	142589
LCSD 860-142589/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	142589

Prep Batch: 143280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3510C	
MB 860-143280/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-143280/13-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 860-143280/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-143280/14-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 860-143280/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 143420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8082A	143280
MB 860-143280/1-A	Method Blank	Total/NA	Water	8082A	143280
LCS 860-143280/13-A	Lab Control Sample	Total/NA	Water	8082A	143280
LCSD 860-143280/14-A	Lab Control Sample Dup	Total/NA	Water	8082A	143280

Analysis Batch: 143426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8081B_LL	143280
MB 860-143280/1-A	Method Blank	Total/NA	Water	8081B_LL	143280
LCS 860-143280/2-A	Lab Control Sample	Total/NA	Water	8081B_LL	143280

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

GC Semi VOA (Continued)

Analysis Batch: 143426 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-143280/3-A	Lab Control Sample Dup	Total/NA	Water	8081B_LL	143280

Prep Batch: 458082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3510C	
MB 180-458082/1-A	Method Blank	Total/NA	Water	3510C	
LCS 180-458082/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-458082/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 458212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	EPA 8141B	458082
MB 180-458082/1-A	Method Blank	Total/NA	Water	EPA 8141B	458082
LCS 180-458082/2-A	Lab Control Sample	Total/NA	Water	EPA 8141B	458082
LCSD 180-458082/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 8141B	458082

HPLC/IC

Prep Batch: 142666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	CWA_Prep	
MB 860-142666/1-A	Method Blank	Total/NA	Water	CWA_Prep	
LCS 860-142666/2-A	Lab Control Sample	Total/NA	Water	CWA_Prep	
LCSD 860-142666/3-A	Lab Control Sample Dup	Total/NA	Water	CWA_Prep	

Analysis Batch: 143493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	300.0	
MB 860-143493/3	Method Blank	Total/NA	Water	300.0	
LCS 860-143493/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143493/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143493/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 143494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	300.0	
MB 860-143494/3	Method Blank	Total/NA	Water	300.0	
LCS 860-143494/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143494/5	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 143834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-143834/13	Method Blank	Total/NA	Water	300.0	
LCS 860-143834/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143834/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143834/17	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 143835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	300.0	
MB 860-143835/13	Method Blank	Total/NA	Water	300.0	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

HPLC/IC (Continued)

Analysis Batch: 143835 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-143835/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143835/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143835/16	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 144041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1 - DL	Raw Produced	Total/NA	Water	300.0	
MB 860-144041/3	Method Blank	Total/NA	Water	300.0	
LCS 860-144041/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-144041/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-144041/33	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 145354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	VFA - HPLC	
MB 860-145354/3	Method Blank	Total/NA	Water	VFA - HPLC	
LCS 860-145354/4	Lab Control Sample	Total/NA	Water	VFA - HPLC	
LCSD 860-145354/5	Lab Control Sample Dup	Total/NA	Water	VFA - HPLC	

Analysis Batch: 145833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	300.0	
MB 860-145833/43	Method Blank	Total/NA	Water	300.0	
LCS 860-145833/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-145833/45	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 146224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	632	142666
MB 860-142666/1-A	Method Blank	Total/NA	Water	632	142666
LCS 860-142666/2-A	Lab Control Sample	Total/NA	Water	632	142666
LCSD 860-142666/3-A	Lab Control Sample Dup	Total/NA	Water	632	142666

Prep Batch: 468013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8330-Prep	
MB 410-468013/1-A	Method Blank	Total/NA	Water	8330-Prep	
LCS 410-468013/2-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCS 410-468013/4-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCSD 410-468013/3-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	
LCSD 410-468013/5-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	

Prep Batch: 468290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015 VFA	
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015 VFA	
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015 VFA	
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015 VFA	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

HPLC/IC

Analysis Batch: 468365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015D VFA	468290
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015D VFA	468290
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015D VFA	468290
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015D VFA	468290

Analysis Batch: 468367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8015D VFA	468290
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015D VFA	468290
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015D VFA	468290
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015D VFA	468290

Analysis Batch: 471494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8330B	468013
MB 410-468013/1-A	Method Blank	Total/NA	Water	8330B	468013
LCS 410-468013/2-A	Lab Control Sample	Total/NA	Water	8330B	468013
LCS 410-468013/4-A	Lab Control Sample	Total/NA	Water	8330B	468013
LCSD 410-468013/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	468013
LCSD 410-468013/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	468013

LCMS

Prep Batch: 468437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SPE	
MB 410-468437/1-A	Method Blank	Total/NA	Water	SPE	
LCS 410-468437/2-A	Lab Control Sample	Total/NA	Water	SPE	
LCSD 410-468437/3-A	Lab Control Sample Dup	Total/NA	Water	SPE	

Prep Batch: 468684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	6850 Prep	
MB 410-468684/1-A	Method Blank	Total/NA	Water	6850 Prep	
LCS 410-468684/2-A	Lab Control Sample	Total/NA	Water	6850 Prep	
LCSD 410-468684/3-A	Lab Control Sample Dup	Total/NA	Water	6850 Prep	

Analysis Batch: 468704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-468684/1-A	Method Blank	Total/NA	Water	SW846 6850	468684
LCS 410-468684/2-A	Lab Control Sample	Total/NA	Water	SW846 6850	468684
LCSD 410-468684/3-A	Lab Control Sample Dup	Total/NA	Water	SW846 6850	468684

Analysis Batch: 469061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SW846 6850	468684

Analysis Batch: 469600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	537 IDA	468437
MB 410-468437/1-A	Method Blank	Total/NA	Water	537 IDA	468437

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

LCMS (Continued)

Analysis Batch: 469600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-468437/2-A	Lab Control Sample	Total/NA	Water	537 IDA	468437
LCSD 410-468437/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	468437

Specialty Organics

Prep Batch: 474882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8290A	
MB 410-474882/1-A	Method Blank	Total/NA	Water	8290A	
LCS 410-474882/2-A	Lab Control Sample	Total/NA	Water	8290A	

Analysis Batch: 476019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-474882/1-A	Method Blank	Total/NA	Water	8290A	474882
LCS 410-474882/2-A	Lab Control Sample	Total/NA	Water	8290A	474882

Analysis Batch: 476547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8290A	474882

Metals

Filtration Batch: 142731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	Filtration	
MB 860-142731/1-B	Method Blank	Dissolved	Water	Filtration	
MB 860-142731/1-D	Method Blank	Dissolved	Water	Filtration	
MB 860-142731/22-D	Method Blank	Dissolved	Water	Filtration	
LCS 860-142731/23-D	Lab Control Sample	Dissolved	Water	Filtration	
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 860-142731/24-D	Lab Control Sample Dup	Dissolved	Water	Filtration	
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	Filtration	
880-38528-1 MS	Raw Produced	Dissolved	Water	Filtration	
880-38528-1 MSD	Raw Produced	Dissolved	Water	Filtration	

Prep Batch: 142784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	3010A	142731
880-38528-1	Raw Produced	Total/NA	Water	3010A	
MB 860-142731/1-B	Method Blank	Dissolved	Water	3010A	142731
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	3010A	142731
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	3010A	142731

Prep Batch: 142814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3010A	
MB 860-142814/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-142814/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-142814/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Metals

Prep Batch: 143032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3010A	
MB 860-143032/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-143032/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-143032/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 143074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	6020A	142814
MB 860-142814/1-A	Method Blank	Total/NA	Water	6020A	142814
LCS 860-142814/2-A	Lab Control Sample	Total/NA	Water	6020A	142814
LCSD 860-142814/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	142814

Analysis Batch: 143075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	6020B	

Analysis Batch: 143084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	6020B	142784
880-38528-1	Raw Produced	Total/NA	Water	6020B	142784
MB 860-142731/1-B	Method Blank	Dissolved	Water	6020B	142784
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	6020B	142784
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	6020B	142784

Analysis Batch: 143222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	6010D	143032
880-38528-1	Raw Produced	Total/NA	Water	6010D	143032
MB 860-143032/1-A	Method Blank	Total/NA	Water	6010D	143032
LCS 860-143032/2-A	Lab Control Sample	Total/NA	Water	6010D	143032
LCSD 860-143032/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	143032

Analysis Batch: 144035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 2340B	

Prep Batch: 144617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	3010A	142731
MB 860-142731/1-D	Method Blank	Dissolved	Water	3010A	142731
LCS 860-144617/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-144617/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 145320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	6020B	144617
MB 860-142731/1-D	Method Blank	Dissolved	Water	6020B	144617
LCS 860-144617/2-A	Lab Control Sample	Total/NA	Water	6020B	144617
LCSD 860-144617/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	144617

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Metals

Prep Batch: 148652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	3010A	142731
MB 860-142731/22-D	Method Blank	Dissolved	Water	3010A	142731
LCS 860-142731/23-D	Lab Control Sample	Dissolved	Water	3010A	142731
LCSD 860-142731/24-D	Lab Control Sample Dup	Dissolved	Water	3010A	142731
880-38528-1 MS	Raw Produced	Dissolved	Water	3010A	142731
880-38528-1 MSD	Raw Produced	Dissolved	Water	3010A	142731

Analysis Batch: 148827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	6010D	148652
880-38528-1	Raw Produced	Dissolved	Water	6010D	148652
MB 860-142731/22-D	Method Blank	Dissolved	Water	6010D	148652
LCS 860-142731/23-D	Lab Control Sample	Dissolved	Water	6010D	148652
LCSD 860-142731/24-D	Lab Control Sample Dup	Dissolved	Water	6010D	148652
880-38528-1 MS	Raw Produced	Dissolved	Water	6010D	148652
880-38528-1 MSD	Raw Produced	Dissolved	Water	6010D	148652

Prep Batch: 647099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	3010A	
MB 160-647099/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-647099/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 650329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	6020B	647099
MB 160-647099/1-A	Method Blank	Total/NA	Water	6020B	647099
LCS 160-647099/2-A	Lab Control Sample	Total/NA	Water	6020B	647099

General Chemistry

Analysis Batch: 138272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM4500 S2 H	

Analysis Batch: 142519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	180.1	
MB 860-142519/3	Method Blank	Total/NA	Water	180.1	
LCS 860-142519/5	Lab Control Sample	Total/NA	Water	180.1	
LCSD 860-142519/6	Lab Control Sample Dup	Total/NA	Water	180.1	
LLCS 860-142519/4	Lab Control Sample	Total/NA	Water	180.1	

Analysis Batch: 142528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	360.1	

Analysis Batch: 142587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 3500 CR B	
MB 860-142587/3	Method Blank	Total/NA	Water	SM 3500 CR B	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

General Chemistry (Continued)

Analysis Batch: 142587 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-142587/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 860-142587/5	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 142599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 5540C	
MB 860-142599/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 860-142599/4	Lab Control Sample	Total/NA	Water	SM 5540C	

Prep Batch: 142713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	9012B	
MB 860-142713/30-A	Method Blank	Total/NA	Water	9012B	
MB 860-142713/4-A	Method Blank	Total/NA	Water	9012B	
LCS 860-142713/5-A	Lab Control Sample	Total/NA	Water	9012B	
LCSD 860-142713/32-A	Lab Control Sample Dup	Total/NA	Water	9012B	
LLCS 860-142713/6-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 142852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 4500 S2 D	
MB 860-142852/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 860-142852/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 860-142852/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 143080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	9012B	142713
MB 860-142713/30-A	Method Blank	Total/NA	Water	9012B	142713
MB 860-142713/4-A	Method Blank	Total/NA	Water	9012B	142713
LCS 860-142713/5-A	Lab Control Sample	Total/NA	Water	9012B	142713
LCSD 860-142713/32-A	Lab Control Sample Dup	Total/NA	Water	9012B	142713
LLCS 860-142713/6-A	Lab Control Sample	Total/NA	Water	9012B	142713

Analysis Batch: 143260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 2540C	
MB 860-143260/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-143260/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-143260/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-143260/26	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 143275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 2540D	
MB 860-143275/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 860-143275/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 860-143275/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

General Chemistry

Analysis Batch: 144137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 3500	

Analysis Batch: 144250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8146	
MB 860-144250/3	Method Blank	Total/NA	Water	8146	
LCS 860-144250/4	Lab Control Sample	Total/NA	Water	8146	
LCSD 860-144250/5	Lab Control Sample Dup	Total/NA	Water	8146	

Analysis Batch: 144279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 2320B	
MB 860-144279/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-144279/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-144279/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 146283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	1664B	
MB 860-146283/1	Method Blank	Total/NA	Water	1664B	
LCS 860-146283/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 860-146283/3	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 146661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	8000	
MB 860-146661/3	Method Blank	Total/NA	Water	8000	
LCS 860-146661/4	Lab Control Sample	Total/NA	Water	8000	

Analysis Batch: 148017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	350.1	
MB 860-148017/68	Method Blank	Total/NA	Water	350.1	
LCS 860-148017/69	Lab Control Sample	Total/NA	Water	350.1	
LCSD 860-148017/70	Lab Control Sample Dup	Total/NA	Water	350.1	

Analysis Batch: 148144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 2510B	
LCS 860-148144/2	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-148144/3	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
LLCS 860-148144/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 148145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 659665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	SM 5310B	
MB 400-659665/52	Method Blank	Total/NA	Water	SM 5310B	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

General Chemistry (Continued)

Analysis Batch: 659665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-659665/53	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 400-659665/54	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
MRL 400-659665/6	Lab Control Sample	Total/NA	Water	SM 5310B	

Analysis Batch: 659666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	SM 5310B	659673
MB 400-659673/1-A	Method Blank	Dissolved	Water	SM 5310B	659673
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	SM 5310B	659673
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	SM 5310B	659673
MRL 400-659666/6	Lab Control Sample	Dissolved	Water	SM 5310B	

Filtration Batch: 659673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Dissolved	Water	FILTRATION	
MB 400-659673/1-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Prep Batch: 823765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	Carbon Trap	
MB 680-823765/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-823765/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

Analysis Batch: 823796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	9020B	823765
MB 680-823765/1-A	Method Blank	Total/NA	Water	9020B	823765
LCS 680-823765/2-A	Lab Control Sample	Total/NA	Water	9020B	823765

Rad

Prep Batch: 646186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	Fill_Geo-21	
MB 160-646186/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-646186/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	

Prep Batch: 646341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	PrecSep-7	
MB 160-646341/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-646341/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Prep Batch: 646710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	PrecSep-21	
MB 160-646710/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-646710/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Rad

Prep Batch: 646711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	PrecSep_0	
MB 160-646711/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-646711/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 646914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38528-1	Raw Produced	Total/NA	Water	Evaporation	
MB 160-646914/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-646914/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-646914/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5	5 mL	5 mL	142954	01/31/24 13:42	NA	EET HOU
Total/NA	Prep	3511			55.9 mL	2.00 mL	143347	02/01/24 16:11	DR	EET HOU
Total/NA	Analysis	8270D SIM		10	1 mL	1 mL	143428	02/02/24 15:23	LPL	EET HOU
Total/NA	Prep	3510C			250 mL	1.00 mL	143128	01/31/24 16:54	DR	EET HOU
Total/NA	Analysis	8270E LL		10	1 mL	1 mL	143536	02/03/24 00:43	PXS	EET HOU
Total/NA	Prep	Organotin			1139.6 mL	1 mL	405719	01/31/24 08:20	UWEZ	EET CAL 4
Total/NA	Analysis	Organotins SIM		10	1 mL	1 mL	406749	02/01/24 16:40	ULLI	EET CAL 4
Total/NA	Analysis	8015 NM		1			130308	01/29/24 12:12	ELJ	EET HOU
Total/NA	Prep	8015NM Aq Prep			29.2 mL	3 mL	142559	01/29/24 07:37	TH	EET HOU
Total/NA	Analysis	8015B NM		1			142550	01/29/24 12:12	TH	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	143280	02/01/24 12:24	BH	EET HOU
Total/NA	Analysis	8081B_LL		1			143426	02/02/24 13:57	WP	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	143280	02/01/24 12:24	BH	EET HOU
Total/NA	Analysis	8082A		1			143420	02/02/24 13:32	WP	EET HOU
Total/NA	Prep	3511			49.9 mL	4 mL	142589	01/29/24 09:51	JN	EET HOU
Total/NA	Analysis	8151A		1			142760	01/30/24 17:43	WP	EET HOU
Total/NA	Prep	3510C			1010 mL	1.0 mL	458082	01/28/24 21:50	CBY	EET PIT
Total/NA	Analysis	EPA 8141B		1	1 mL	1 mL	458212	01/31/24 00:04	SMW	EET PIT
Total/NA	Analysis	300.0		100			143493	02/03/24 04:34	WP	EET HOU
Total/NA	Analysis	300.0		100			143494	02/03/24 04:34	WP	EET HOU
Total/NA	Analysis	300.0		100			143835	02/06/24 06:52	RBNS	EET HOU
Total/NA	Analysis	300.0	DL	200			144041	02/06/24 14:58	WP	EET HOU
Total/NA	Analysis	300.0		100			145833	02/20/24 03:46	WP	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	142666	01/29/24 15:49	DR	EET HOU
Total/NA	Analysis	632		100			146224	02/21/24 02:12	YG	EET HOU
Total/NA	Prep	8015 VFA			1 mL	1 mL	468290	01/30/24 17:21	GM5C	ELLE
Total/NA	Analysis	8015D VFA		1	1 mL	1 mL	468367	01/31/24 13:56	UHEW	ELLE
Total/NA	Prep	8015 VFA			1 mL	1 mL	468290	01/30/24 17:21	GM5C	ELLE
Total/NA	Analysis	8015D VFA		1	1 mL	1 mL	468365	01/31/24 13:36	UHEW	ELLE
Total/NA	Prep	8330-Prep			500 mL	10 mL	468013	01/30/24 10:37	LJG2	ELLE
Total/NA	Analysis	8330B		1			471494	02/08/24 03:44	GM5C	ELLE
Total/NA	Analysis	VFA - HPLC		1			145354	02/10/24 03:57	YG	EET HOU
Total/NA	Prep	SPE			100 mL	1 mL	468437	01/31/24 06:46	M4QQ	ELLE
Total/NA	Analysis	537 IDA		1			469600	02/02/24 18:38	DQV6	ELLE
Total/NA	Prep	6850 Prep			10 mL	10 mL	468684	01/31/24 13:12	VVE5	ELLE
Total/NA	Analysis	SW846 6850		10	1 mL	1 mL	469061	02/01/24 11:16	UAD3	ELLE
Total/NA	Prep	8290A			573.2 mL	20 uL	474882	02/20/24 03:36	UDPW	ELLE
Total/NA	Analysis	8290A		1	20 uL	20 uL	476547	02/24/24 13:20	TJK2	ELLE
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	148652	03/07/24 11:00	MD	EET HOU
Dissolved	Analysis	6010D		50			148827	03/07/24 17:24	JDM	EET HOU

Eurofins Midland

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	148652	03/07/24 11:00	MD	EET HOU
Dissolved	Analysis	6010D		500			148827	03/07/24 17:42	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	143032	01/31/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		50			143222	01/31/24 20:37	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	143032	01/31/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		500			143222	01/31/24 20:47	JDM	EET HOU
Total/NA	Prep	3010A			1 mL	50 mL	142814	01/30/24 11:00	MD	EET HOU
Total/NA	Analysis	6020A		1			143074	01/31/24 12:37	DP	EET HOU
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	142784	01/30/24 09:30	MD	EET HOU
Dissolved	Analysis	6020B		100			143084	01/31/24 12:58	DP	EET HOU
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			1 mL	50 mL	144617	02/09/24 10:30	MD	EET HOU
Dissolved	Analysis	6020B		1			145320	02/14/24 13:07	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	142784	01/30/24 09:30	MD	EET HOU
Total/NA	Analysis	6020B		100			143084	01/31/24 13:19	DP	EET HOU
Total/NA	Analysis	6020B		1			143075	01/31/24 12:37	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	647099	02/06/24 12:51	LKP	EET SL
Total/NA	Analysis	6020B		20			650329	02/08/24 12:09	CGB	EET SL
Total/NA	Analysis	SM 2340B		1			144035	02/06/24 12:48	DP	EET HOU
Total/NA	Analysis	1664B		1	1000 mL	1000 mL	146283	02/21/24 10:19	TB	EET HOU
Total/NA	Analysis	180.1		1			142519	01/28/24 08:30	PSC	EET HOU
Total/NA	Analysis	350.1		50	10 mL	10 mL	148017	03/03/24 18:54	ADL	EET HOU
Total/NA	Analysis	360.1		1			142528	01/28/24 16:36	ALL	EET HOU
Total/NA	Analysis	8000		20	2 mL	2 mL	146661	02/22/24 18:32	HN	EET HOU
Total/NA	Analysis	8146		10	25 mL	25 mL	144250	02/07/24 12:19	SCI	EET HOU
Total/NA	Prep	9012B			6 mL	6 mL	142713	01/29/24 19:37	LD	EET HOU
Total/NA	Analysis	9012B		1			143080	01/30/24 17:27	AA	EET HOU
Total/NA	Prep	Carbon Trap			1.0 mL	100 mL	823765	02/20/24 06:30	CLJ	EET SAV
Total/NA	Analysis	9020B		1			823796	02/21/24 10:57	CLJ	EET SAV
Total/NA	Analysis	SM 2320B		1			144279	02/07/24 13:10	KEG	EET HOU
Total/NA	Analysis	SM 2510B		1			148144	03/04/24 15:21	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	1 mL	200 mL	143260	02/01/24 11:19	GD	EET HOU
Total/NA	Analysis	SM 2540D		1	550 mL	1000 mL	143275	02/01/24 11:54	GD	EET HOU
Total/NA	Analysis	SM 3500		1			144137	03/04/24 09:14	MC	EET HOU
Total/NA	Analysis	SM 3500 CR B		1	25 mL	25 mL	142587	01/29/24 09:49	SCI	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			148145	03/04/24 15:21	MC	EET HOU
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	142852	01/30/24 13:21	SCI	EET HOU
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	659673	02/02/24 14:30	DEK	EET PEN
Dissolved	Analysis	SM 5310B		1			659666	02/03/24 00:13	DEK	EET PEN
Total/NA	Analysis	SM 5310B		2	50 mL	50 mL	659665	02/03/24 08:41	DEK	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	142599	01/27/24 18:27	JM	EET HOU

Eurofins Midland

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Client Sample ID: Raw Produced

Lab Sample ID: 880-38528-1

Date Collected: 01/25/24 00:00

Matrix: Water

Date Received: 01/26/24 12:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM4500 S2 H		1			138272	03/08/24 12:08	MC	EET HOU
Total/NA	Prep	Evaporation			0.3991 mL	1.0 g	646914	02/05/24 10:15	ASG	EET SL
Total/NA	Analysis	900.0		1			647476	02/08/24 18:34	FLC	EET SL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	646186	01/30/24 12:50	SAC	EET SL
Total/NA	Analysis	901.1		1			648902	02/20/24 20:47	EMH	EET SL
Total/NA	Prep	PrecSep-21			495.54 mL	1.0 g	646710	02/02/24 09:54	KAC	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	649794	02/26/24 12:19	SCB	EET SL
Total/NA	Prep	PrecSep_0			495.54 mL	1.0 g	646711	02/02/24 09:58	KAC	EET SL
Total/NA	Analysis	904.0		1			648422	02/15/24 11:24	FLC	EET SL
Total/NA	Prep	PrecSep-7			260.73 mL	1.0 g	646341	01/31/24 09:16	KAC	EET SL
Total/NA	Analysis	905		1			647894	02/12/24 16:18	SCB	EET SL

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins J = Eurofins J3 Resources, 6110 W 34th St, Houston, TX 77092

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
California	Los Angeles County Sanitation Districts	10109	08-01-24
California	State	3082	07-31-24
Kansas	NELAP	E-10420	08-01-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-24
Arizona	State	AZ0780	03-11-24
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-24
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-28-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24
Wyoming (UST)	A2LA	0001.01	11-30-24

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-24
Illinois	NELAP	004375	06-30-24
Kansas	NELAP	E-10350	01-31-24
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23 *
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-24
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-24
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	04-30-24
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-24
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	07-14-24
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-24

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Laboratory: Eurofins Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	<cert No.>	06-30-24
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET HOU
8270E LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET HOU
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	EET CAL 4
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8081B_LL	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
EPA 8141B	Organophosphorous Pesticides (GC)	SW846	EET PIT
300.0	Anions, Ion Chromatography	EPA	EET HOU
632	Carbamate and Urea Pesticides (HPLC)	EPA-01	EET HOU
8015D VFA	Volatile Fatty Acids - Direct Aqueous Injection (HPLC)	SW846	ELLE
8330B	Nitroaromatics and Nitramines (HPLC)	SW846	ELLE
VFA - HPLC	Volatile Fatty Acids (HPLC/UV)	Lab SOP	EET HOU
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
SW846 6850	Perchlorate by LC/MS or LC/MS/MS	SW846	ELLE
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	ELLE
6010D	Metals (ICP)	SW846	EET HOU
6020A	Rare Earth Metals (ICP/MS)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
6020B	Metals (ICP/MS), Isotopic Uranium	SW846	EET SL
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	EET HOU
1664B	HEM and SGT-HEM	1664B	EET HOU
180.1	Turbidity, Nephelometric	EPA	EET HOU
350.1	Nitrogen, Ammonia	EPA	EET HOU
360.1	Oxygen, Dissolved	EPA	EET HOU
8000	COD	Hach	EET HOU
8146	Iron, Ferrous	Hach	EET HOU
9012B	Cyanide, Total and/or Amenable	SW846	EET HOU
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
SM 2320B	Alkalinity	SM	EET HOU
SM 2510B	Conductivity, Specific Conductance	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 2540D	Solids, Total Suspended (TSS)	SM	EET HOU
SM 3500	Iron, Ferric	SM	EET HOU
SM 3500 CR B	Chromium, Hexavalent	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
SM 4500 S2 D	Sulfide, Total	SM	EET HOU
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET HOU
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET HOU
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
905	Strontium-90 (GFPC)	EPA	EET SL
Subcontract	Asbestos	None	Eurofins J
3010A	Preparation, Total Metals	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET SL
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET PIT

Eurofins Midland

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Method	Method Description	Protocol	Laboratory
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
6850 Prep	Perchlorate Water Prep	EPA	ELLE
8015 VFA	Volatile Fatty Acids - Water Prep	SW846	ELLE
8015NM Aq Prep	Microextraction	SW846	EET HOU
8290A	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	ELLE
8330-Prep	Solid-Phase Extraction (Explosives)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET HOU
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
CWA_Prep	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET HOU
Evaporation	Preparation, Evaporation	None	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL
Filtration	Sample Filtration	None	EET HOU
FILTRATION	Sample Filtration	None	EET PEN
Organotin	Extraction (Organotins)	WRC	EET CAL 4
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL
PrecSep-7	Preparation, Precipitate Separation (7-Day In-Growth)	None	EET SL
SPE	PFAS by SPE	Lab SOP	ELLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colorimetric Titration," EPA, February 1992

Hach = Hach Company

Lab SOP = Laboratory Standard Operating Procedure

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins J = Eurofins J3 Resources, 6110 W 34th St, Houston, TX 77092

Sample Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38528-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38528-1	Raw Produced	Water	01/25/24 00:00	01/26/24 12:18

- 1
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Eurofins J3 Resources, Inc.
6110 W. 34th Street, Houston, Texas 77092
Phone: (713) 290-0221 Fax: (713) 290-0248



J3 Resources

Asbestos in Water by Transmission Electron Microscopy (TEM)
EPA/600/R-94/134 - (EPA 100.2)

John Builes
Eurofins XENCO, Midland
1211 W. Florida Ave.
Midland, TX 79701

Order #: 3521178
Project #: 88001781
Receipt Date/Time: 01-29-2024 8:00
Analysis Date: 02/05/2024
Report Date: 02/05/2024

Water Quality Analysis

Client Sample ID	Sample Collection Date/Time	Sample Filtration Date/Time	Aliquot Volume (mL)	Dilution Factor	Asbestos Structures (> 0.5 µm)	Asbestos Structures (> 10 µm)	Asbestos Type	Analytical Sensitivity	Asbestos Concentration	95% Confidence Limits (Lower - Upper)
*Raw Produced (880-38528-1)	1/25/24 8:00	1/29/24 10:15	1	1	0	0	None Detected	8.15	< 8.15	< 8.15 - 30.06 MFL

Analyst: Taylor Smylie


Scott M. Ward, Ph.D. Lab Director

This report relates only to the samples tested. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). All samples received in good condition and filtered within 48 hours of receipt unless otherwise noted. Only asbestos structures greater than 10µm are considered in calculating asbestos concentration in MFL. This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. mL = Milliliters; MFL = Million Fibers per Liter; N/A = Not Applicable
* - Indicates sample was received outside of holding time for method.

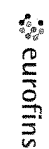
NVLAP Lab Code: 200525-0

TDSHS License: 30-0273

Client Information		Sampler <i>Himal, Delanka-Pedige</i>		Lab PM	Carrier Tracking No(s)	COC No: 880-25914-9145 1
Client Contact: <i>Pei Xu PhD</i>		Phone <i>575-6501873</i>		Builes John	State of Origin:	Page 1 of 3
Company: <i>New Mexico State University</i>		PMSID		E-Mail <i>John Builes@et.eurofins.com</i>		Job #
Address <i>3035 S Espina Street Box 30001 MSC-3CE</i>		Due Date Requested		Analysis Requested		
City <i>Las Cruces</i>		TAT Requested (days):				
State Zip <i>NM 88003</i>		Compliance Project ☐ Yes ☐ No				
Phone <i>575-646-8570(Tel)</i>		PO #				
Email <i>pkxu@nmsu.edu</i>		Advance Payment Required				
Project Name <i>Water Quality Analysis</i>		Project # <i>86006449</i>				
Site <i>Big Spring, TX</i>		SSON#				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=soil, O=wastewater, B=Tissue, A=Air)	Field Filtered Sample (Yes or No)
Raw Produced water		<i>01/26/24</i>	<i>8 am</i>	<i>G</i>	<i>Water</i>	☒ Yes ☐ No
Thermal Distillate		<i>01/26/24</i>	<i>8 am</i>	<i>G</i>	<i>Water</i>	☒ Yes ☐ No
Boat-treated water		<i>01/26/24</i>	<i>8 am</i>	<i>G</i>	<i>Water</i>	☒ Yes ☐ No
Generate		<i>01/26/24</i>	<i>8 am</i>	<i>G</i>	<i>Water</i>	☒ Yes ☐ No
Custody Seal <i>0802102</i>		eurofins				
DATE <i>01/26/2024</i>		Environment Testing TestAmerica				
SIGNATURE <i>[Signature]</i>		2012080				
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological		☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months				
Deliverable Requested I II III IV Other (specify)		Special Instructions/QC Requirements				
Empty Kit Relinquished by		Date	Time	Method of Shipment		
Relinquished by <i>[Signature]</i>		<i>01/26/24</i>	<i>9 46 am</i>	Received by <i>[Signature]</i>		
Relinquished by		Date/Time	Company	Received by <i>940</i>		
Relinquished by		Date/Time	Company	Received by		
Custody Seal Intact ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>3.5/3.7</i>		

1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record



E 1 TO P 1 Page 172

Client Information		Sampler	Lab PM	Carrier Tracking No(s)		COC No
Client Contact: <i>Pei Xu PhD</i>		Phone: <i>575-6501873</i>	Builes John	State of Origin:		880-6013-819-1
Company: <i>New Mexico State University</i>		PWSID:	John Builes@et.eurofinsus.com	Page 1 of 3		
Address: <i>3035 S Espina Street Box 30001 MSC-3CE</i>		Due Date Requested	Analysis Requested			Job #
City: <i>Las Cruces</i>	State Zip: <i>NM 88003</i>	TAT Requested (days)				
Phone: <i>575-646-8570(Tel)</i>	Compliance Project: ☐ Yes ☒ No	PO #:				
Email: <i>pxu@nmsu.edu</i>	Advance Payment Required	WC #:				
Project Name: <i>Water Quality Analysis</i>	Project #: <i>88001781</i>	SSOW#:				
Site: <i>Big Spring, TX</i>						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=Other, A=Air)	Field Filtered Sample (Yes or No)
Raw Produced Water	☒	<i>01/26/2024</i>	<i>8 am</i>	<i>G</i>	<i>Water</i>	☒
Treated Produced Water	☒				<i>Water</i>	☒
Groundwater	☒				<i>Water</i>	☒
Concentrate	☒				<i>Water</i>	☒
Custody Seal						
5202102						
DATE						
SIGNATURE						
TEST America						
suifona						
Special Instructions/Note						
Loc: 880						
38528						
Possible Hazard Identification						
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological						
Deliverable Requested I II III IV Other (specify)						
Empty Kit Relinquished by		Date	Time	Method of Shipment:		
Relinquished by: <i>John</i>		<i>01/26/24</i>	<i>9 40 am</i>	Received by: <i>John</i>		
Relinquished by:		Date/Time	Company	Received by:		
Relinquished by:		Date/Time	Company	Received by:		
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		
3.5/3-7						

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- 17

ORIGIN ID:MAFA (432) 563-1800
SAMPLE RECEIVING
XENCO LABORATORIES-ODESSA
1211 W. FLORIDA AVE.

MIDLAND, TX 79701
UNITED STATES US

TO SHIPPING/RECEIVING

EUROFINS PITTSBURGH
301 ALPHA DRIVE
RIDC PARK

PITTSBURGH PA 15238

(412) 963-7058 X 0000

REF

BILL SENDER

SHIP DATE: 26JAN24
ACTWGT: 20.00 LB
CAD: 7354048/INET4700

583J3/B014/9AE3

DEPT
PO
INW



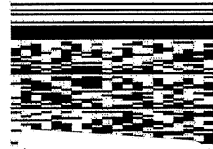
Uncorrected temp 4.8

Thermometer ID 4.8

CF 6.0 Initials Red

PT-WI-SR-001 effective 11/8/18

FedEx Express



SATURDAY 12:00P

PRIORITY OVERNIGHT

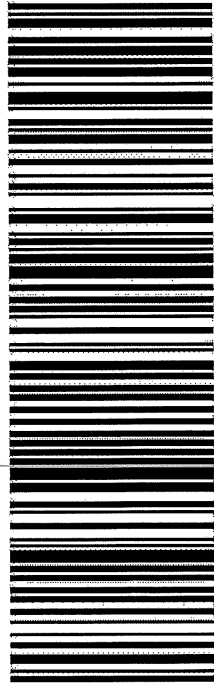
TRK# 7749 6708 5483

0201

15238

PA-US PIT

X0 AGCA



880-38528 Waybill

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- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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 EUROFINS NORTHEAST PITTSBURGH
 301 ALPHA DR

PITTSBURGH, PA 15238
 UNITED STATES US

SHIP DATE: 29JAN24
 ACTWGT: 15.00 LB
 CAD: 7354048/INET4700

.BILL SENDER

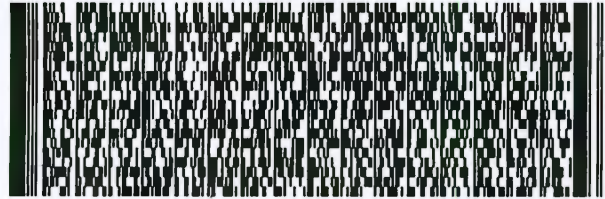
TO **EUROFINS CALSCIENCE, LLC**
EUROFINS CALSCIENCE, LLC
2841 DOW AVE

TUSTIN CA 92780

(714) 895-5494
 INV:
 PO:

REF:

DEPT:



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 0201 **7749 8910 8471**

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880-38528 Waybill



3/21/2024

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

Chain of Custody Record

Profins | Environment Testing

[illegible]



Environment Testing

Phone: 432-704-5440		Lab PM: Builes, John		Carrier Tracking No(s):		COC No: 880-9042.1	
Client Contact: Shipping/Receiving		E-Mail: John.Builes@et.eurofinsus.com		State of Origin: New Mexico		Page: Page 1 of 1	
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note):		Job #:		880-38528-1	
Address: 3355 McLemore Drive,		Due Date Requested: 2/16/2024		Analysis Requested		Preservation Codes:	
City: Pensacola		TAT Requested (days):				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
State, Zip: FL, 32514		PO #:					
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		WO #:					
Email:		Project #:					
Project Name: Water Quality Analysis		88001781					
Site:		SSOW#:					
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
Raw Produced (880-38528-1)		1/25/24		Mountain		Water	
Special Instructions/Note:		Perform MS/MSD (Yes or No)		SM5310B/ Sublist for summary and 2 reps only		SM5310_DOC_B/FILTRATION	
Field Filled Sample (Yes or No)		X		X		X	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)							
Preservation Code							
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.							
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab	
Unconfirmed		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		Archive For Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Date:		Received by:		Company	
Empty Kit Relinquished by:		Date/Time:		Received by:		Company	
Relinquished by:		Date/Time:		Received by:		Company	
Relinquished by:		Date/Time:		Received by:		Company	
Custody Seal No.:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:	

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Chain of Custody Record



3/21/2024

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Environment Testing

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

[illegible]

Number	Frequency (approximate)
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1

Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Source: Eurofins Midland

List Number: 1

Creator: Kramer, Jessica

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 8

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 01/30/24 11:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 5

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 01/27/24 01:40 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 3

List Creation: 01/27/24 01:05 PM

Creator: Santiago, Nathaniel

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temp acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $> 6\text{mm}$ in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 2

Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

List Creation: 01/27/24 11:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	9.8°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 6

Creator: Watson, Debbie

List Source: Eurofins Pittsburgh

List Creation: 01/27/24 03:28 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 4

Creator: Sims, Robert D

List Source: Eurofins Savannah

List Creation: 01/27/24 01:51 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38528-1

Login Number: 38528

List Number: 7

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 01/29/24 12:50 PM

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Pei Xu, PhD
New Mexico State University
3035 S. Espina Street
Box 30001, MSC-3CE
Las Cruces, New Mexico 88003

Generated 3/21/2024 11:40:00 AM

JOB DESCRIPTION

Water Quality Analysis

JOB NUMBER

880-38521-1

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
3/21/2024 11:40:00 AM

Authorized for release by
John Builes, Project Manager
John.Builes@et.eurofinsus.com
(561)558-4549

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Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Definitions/Glossary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Glossary

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

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38521-1

Job ID: 880-38521-1

Eurofins Midland

Job Narrative 880-38521-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 1/26/2024 9:40 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

Subcontract Work

Method Asbestos: This method was subcontracted to Eurofins J3 Resources x HOU. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-142954 recovered above the upper control limit for 1,2,4-Trichlorobenzene(20.1%). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-142954/2).

Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: Thermal Distillate (880-38521-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

Method 8270E_LL: The method blank for preparation batch 860-143257 contained 1,2-Dichlorobenzene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8270E_LL: The following sample was diluted due to the nature of the sample matrix: Thermal Distillate (880-38521-1). Elevated reporting limits (RLs) are provided.

Method Organotins_SIM: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-405719.Organotins-W

Method Organotins_SIM: Surrogate recovery for the following sample was outside the upper control limit: Thermal Distillate (880-38521-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D_SIM: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: Thermal Distillate (880-38521-1).

Method 8270D_SIM: The following sample was diluted due to the nature of the sample matrix: Thermal Distillate (880-38521-1). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Eurofins Midland

Case Narrative

Client: New Mexico State University
Project: Water Quality Analysis

Job ID: 880-38521-1

Job ID: 880-38521-1 (Continued)

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Herbicides

Method 8151A_MOD: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 860-142589 and analytical batch 860-142760 recovered outside control limits for the following analyte(s): Dinoseb. Dinoseb has been identified as a poor performing analyte when analyzed using this method. .

Method 8151A_MOD: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-142589 and analytical batch 860-142760 recovered outside control limits for the following analytes: Dinoseb.

Method 8151A_MOD: The method blank for preparation batch 860-142589 contained MCPA above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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

PCBs

Method 8082A_LL: The surrogate recovery for the blank associated with preparation batch 860-143280 and analytical batch 860-143420 was outside the upper control limits.

(MB 860-143280/1-A)

Method 8082A_LL: The surrogate recovery for the LCS/LCSD associated with preparation batch 860-143280 and analytical batch 860-143420 was outside the upper control limits.
(LCS 860-143280/13-A) and (LCSD 860-143280/14-A)

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

Pesticides

Method 8081B_LL: The surrogate recovery for the blank associated with preparation batch 860-143280 and analytical batch 860-143426 was outside the upper control limits.

(MB 860-143280/1-A)

Method 8081B_LL: The surrogate recovery for the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with preparation batch 860-143280 and analytical batch 860-143426 was outside the upper control limits.

(LCS 860-143280/2-A) and (LCSD 860-143280/3-A)

Method 8081B_LL: The laboratory control sample (LCS) for preparation batch 860-143280 and analytical batch 860-143426 recovered outside control limits for the following analytes: Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B_LL: The laboratory control sample duplicate (LCSD) for preparation batch 860-143280 and analytical batch 860-143426 recovered outside control limits for the following analytes: 4,4'-DDD and Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8141B_LL: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-458448.

Method 8141B_LL: The laboratory control sample (LCS) for preparation batch 180-458448 and analytical batch 180-458755 recovered outside control limits for the following analytes: Diazinon, Malathion and Guthion. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8141B_LL: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 180-458448 and analytical batch 180-458755 recovered outside control limits for the following analytes: Guthion and Diazinon.

Method 8141B_LL: Surrogate recovery for the following sample was outside the upper control limit due to carryover: (LCS 180-458448/2-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8141B_LL: Surrogate Triphenylphosphate recovery for the following sample was outside control limits: Thermal Distillate

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(880-38521-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8141B_LL: The continuing calibration verification (CCV) associated with 180-458755 recovered high and outside the control limits for Tributyl phosphate on one column. Results are confirmed on both columns and hits reported from the passing column. The associated samples are: (CCV 180-458755/22), (CCV 180-458755/30) and (CCVRT 180-458755/1).

Method 8141B_LL: The Tributyl phosphate surrogate recovery for the following samples was outside acceptance limits (high biased) on the both columns : (LCS 180-458448/2-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

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

HPLC/IC

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-143493 contained Chloride greater than the method detection limit (MDL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank/CCB. The data have been qualified and reported.

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-143834 contained Chloride greater than the method detection limit (MDL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank/CCB. The data have been reported.

Method 300_ORGFM_28D: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. Thermal Distillate (880-38521-1)

Method 300_ORGFMS: The following sample was analyzed outside of analytical holding time due to analyst oversight: Thermal Distillate (880-38521-1).

Method 300_ORGFMS: The following sample was analyzed outside of analytical holding time due to analyst oversight: Thermal Distillate (880-38521-1).

Method 8015D_DAI_VFA: The method blank for preparation batch 410-468290 contained Oxalic Acid above the method detection limit (MDL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8330B: With the exception of CCVRT 410-471494/5-A, 2,4,6-TNT and Nitrobenzene co-elute on the Synergi-Hydro column (UV/0). The retention time and the peak for these co-elutors is labeled as Nitrobenzene. All data reporting from the Luna Phenyl-Hexyl column.

Thermal Distillate (880-38521-1)

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

LCMS

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

PFAS

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

Dioxin

Method 8290A: Elevated reporting limits are provided for the following sample due to insufficient sample provided for <CHOOSE_ONE> preparation/analysis: Thermal Distillate (880-38521-1).

Method 8290A: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: Thermal Distillate (880-38521-1). Sample re-extracted due to bad QC. IDA passes all ion ratio and signal to noise criteria.

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

Metals

Method 6010D: The method blank for preparation batch 860-143032 and analytical batch 860-143222 contained Calcium above

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the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010D: The method blank for preparation batch 860-143032 and analytical batch 860-143222 contained Phosphorous and Zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020B: The following sample was diluted due to the nature of the sample matrix: Thermal Distillate (880-38521-1). Elevated reporting limits (RLs) are provided.

Method 6020B - Dissolved: The following sample was diluted due to the nature of the sample matrix: Thermal Distillate (880-38521-1). Elevated reporting limits (RLs) are provided.

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

General Chemistry

Method 2540C_Calcd: Reanalysis of the following sample was performed outside of the analytical holding time due to Total Dissolved Solids and Conductivity is out of ratio : Thermal Distillate (880-38521-1).

Method 3500_CR_B: The following sample was received outside of holding time: Thermal Distillate (880-38521-1).

Method SM5310B: The following samples were diluted due to the nature of the sample matrix: Thermal Distillate (880-38521-1), (890-6022-D-1) and (890-6022-D-1 DU). Elevated reporting limits (RLs) are provided.

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

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Job Narrative 880-38521-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 1/26/2024 9:40 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

Metals

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

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160-646186:

The method blank has bismuth-214 and lead-214 results above the achieved MDCs. This is possibly due to ambient radon present during sample count that was not present during the long monthly background count that is used for background subtraction. This ambient radon could also potentially affect the sample counts, and particularly affects non-soil matrices. Gamma spectroscopy is not very sensitive to radium and daughters (i.e. bismuth-214, lead-214). If the client is concerned with the results and desires a more reliable method for radium, the laboratory suggests EPA method 903.0 if TDS is relatively low

(MB 160-646186/1-A)

Method 901.1_Ra: Gamma prep batch 160-646186

The detection goal of 50 pCi/L was not met for Ra226 and/or Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC.

Thermal Distillate (880-38521-1), (550-213457-M-8-A) and (550-213457-M-8-B DU)

Method 901.1_Ra: Gamma Prep batch 160-646186

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216

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Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

Thermal Distillate (880-38521-1), (550-213457-M-8-A) and (550-213457-M-8-B DU)

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

Gas Flow Proportional Counter

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

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/30/24 21:00	1
Xylenes, Total	0.0181		0.0100	0.00124	mg/L			01/30/24 21:00	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/30/24 21:00	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/30/24 21:00	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/30/24 21:00	1
m,p-Xylenes	0.0109		0.0100	0.00124	mg/L			01/30/24 21:00	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/30/24 21:00	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/30/24 21:00	1
o-Xylene	0.00724		0.00100	0.000502	mg/L			01/30/24 21:00	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/30/24 21:00	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/30/24 21:00	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/30/24 21:00	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/30/24 21:00	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/30/24 21:00	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/30/24 21:00	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/30/24 21:00	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/30/24 21:00	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/30/24 21:00	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/30/24 21:00	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/30/24 21:00	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/30/24 21:00	1
4-Methyl-2-pentanone	0.0216	J	0.0500	0.00749	mg/L			01/30/24 21:00	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/30/24 21:00	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/30/24 21:00	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/30/24 21:00	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/30/24 21:00	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/30/24 21:00	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/30/24 21:00	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/30/24 21:00	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/30/24 21:00	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/30/24 21:00	1
1,2,4-Trimethylbenzene	0.00668		0.00100	0.000417	mg/L			01/30/24 21:00	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/30/24 21:00	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/30/24 21:00	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/30/24 21:00	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/30/24 21:00	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/30/24 21:00	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/30/24 21:00	1
1,3,5-Trimethylbenzene	0.00134		0.00100	0.000411	mg/L			01/30/24 21:00	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/30/24 21:00	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/30/24 21:00	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/30/24 21:00	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/30/24 21:00	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/30/24 21:00	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/30/24 21:00	1
2-Butanone	0.0471	J	0.0500	0.00828	mg/L			01/30/24 21:00	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/30/24 21:00	1
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/30/24 21:00	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/30/24 21:00	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	0.0706		0.0200	0.00401	mg/L			01/30/24 21:00	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/30/24 21:00	1
Benzene	0.0213		0.00100	0.000460	mg/L			01/30/24 21:00	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/30/24 21:00	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/30/24 21:00	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/30/24 21:00	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/30/24 21:00	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/30/24 21:00	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/30/24 21:00	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/30/24 21:00	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/30/24 21:00	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/30/24 21:00	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/30/24 21:00	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/30/24 21:00	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/30/24 21:00	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/30/24 21:00	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/30/24 21:00	1
Ethylbenzene	0.00234		0.00100	0.000385	mg/L			01/30/24 21:00	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/30/24 21:00	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/30/24 21:00	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/30/24 21:00	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			01/30/24 21:00	1
Naphthalene	0.00858	J	0.0100	0.00135	mg/L			01/30/24 21:00	1
t-Butyl alcohol	0.0555		0.0500	0.00500	mg/L			01/30/24 21:00	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/30/24 21:00	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/30/24 21:00	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/30/24 21:00	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/30/24 21:00	1
Toluene	0.0236		0.00100	0.000475	mg/L			01/30/24 21:00	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/30/24 21:00	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/30/24 21:00	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/30/24 21:00	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/30/24 21:00	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/30/24 21:00	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/30/24 21:00	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/30/24 21:00	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/30/24 21:00	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/30/24 21:00	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/30/24 21:00	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/30/24 21:00	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/30/24 21:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		01/30/24 21:00	1
4-Bromofluorobenzene (Surr)	99		74 - 124		01/30/24 21:00	1
Dibromofluoromethane (Surr)	99		75 - 131		01/30/24 21:00	1
Toluene-d8 (Surr)	101		80 - 120		01/30/24 21:00	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.829		0.500	0.0153	mg/L			01/31/24 14:03	5
2-Propanol	4.26		0.0500	0.0261	mg/L			01/31/24 14:03	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144					01/31/24 14:03	5
4-Bromofluorobenzene (Surr)	100		74 - 124					01/31/24 14:03	5
Dibromofluoromethane (Surr)	98		75 - 131					01/31/24 14:03	5
Toluene-d8 (Surr)	99		80 - 120					01/31/24 14:03	5

Method: SW846 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0000986	U	0.000179	0.0000986	mg/L		02/01/24 16:11	02/02/24 14:25	1
Acenaphthylene	<0.0000830	U	0.000179	0.0000830	mg/L		02/01/24 16:11	02/02/24 14:25	1
Anthracene	<0.0000887	U	0.000179	0.0000887	mg/L		02/01/24 16:11	02/02/24 14:25	1
Benzo[a]anthracene	<0.00132	U	0.00179	0.00132	mg/L		02/01/24 16:11	02/02/24 16:02	10
Benzo[a]pyrene	<0.000563	U	0.00179	0.000563	mg/L		02/01/24 16:11	02/02/24 16:02	10
Benzo[b]fluoranthene	<0.000690	U	0.00179	0.000690	mg/L		02/01/24 16:11	02/02/24 16:02	10
Benzo[g,h,i]perylene	<0.00111	U	0.00179	0.00111	mg/L		02/01/24 16:11	02/02/24 16:02	10
Benzo[k]fluoranthene	<0.00114	U	0.00179	0.00114	mg/L		02/01/24 16:11	02/02/24 16:02	10
Chrysene	<0.00154	U	0.00179	0.00154	mg/L		02/01/24 16:11	02/02/24 16:02	10
Dibenz(a,h)anthracene	<0.000749	U	0.00179	0.000749	mg/L		02/01/24 16:11	02/02/24 16:02	10
Fluoranthene	<0.000155	U	0.000179	0.000155	mg/L		02/01/24 16:11	02/02/24 14:25	1
Fluorene	0.00508		0.000179	0.0000996	mg/L		02/01/24 16:11	02/02/24 14:25	1
Indeno[1,2,3-cd]pyrene	<0.000900	U	0.00179	0.000900	mg/L		02/01/24 16:11	02/02/24 16:02	10
Naphthalene	0.0200		0.00359	0.0000958	mg/L		02/01/24 16:11	02/02/24 14:25	1
Phenanthrene	0.00406		0.000179	0.0000838	mg/L		02/01/24 16:11	02/02/24 14:25	1
Pyrene	<0.00128	U	0.00179	0.00128	mg/L		02/01/24 16:11	02/02/24 16:02	10
1-Methylnaphthalene	0.0397		0.000179	0.0000784	mg/L		02/01/24 16:11	02/02/24 14:25	1
2-Methylnaphthalene	0.0468		0.000179	0.0000900	mg/L		02/01/24 16:11	02/02/24 14:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	133		54 - 146				02/01/24 16:11	02/02/24 14:25	1
2-Fluorobiphenyl (Surr)	102		54 - 146				02/01/24 16:11	02/02/24 16:02	10
Nitrobenzene-d5 (Surr)	130		46 - 151				02/01/24 16:11	02/02/24 14:25	1
Nitrobenzene-d5 (Surr)	74		46 - 151				02/01/24 16:11	02/02/24 16:02	10
p-Terphenyl-d14 (Surr)	101	*3	51 - 139				02/01/24 16:11	02/02/24 14:25	1
p-Terphenyl-d14 (Surr)	96		51 - 139				02/01/24 16:11	02/02/24 16:02	10

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<6.80	U	20.0	6.80	ug/L		02/01/24 11:15	02/03/24 01:44	10
1,2-Dichlorobenzene	<2.96	U	20.0	2.96	ug/L		02/01/24 11:15	02/03/24 01:44	10
1,3-Dichlorobenzene	<3.50	U	20.0	3.50	ug/L		02/01/24 11:15	02/03/24 01:44	10
1,4-Dichlorobenzene	<4.28	U	20.0	4.28	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4,5-Trichlorophenol	<1.08	U	20.0	1.08	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4,6-Trichlorophenol	<1.35	U	20.0	1.35	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4-Dichlorophenol	<1.15	U	20.0	1.15	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4-Dimethylphenol	46.3		20.0	1.48	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4-Dinitrophenol	<14.6	U	80.0	14.6	ug/L		02/01/24 11:15	02/03/24 01:44	10
2,4-Dinitrotoluene	<1.27	U	20.0	1.27	ug/L		02/01/24 11:15	02/03/24 01:44	10

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	<1.99	U	20.0	1.99	ug/L		02/01/24 11:15	02/03/24 01:44	10
2-Chloronaphthalene	<10.9	U	80.0	10.9	ug/L		02/01/24 11:15	02/03/24 01:44	10
2-Methylnaphthalene	16.1	J	20.0	4.80	ug/L		02/01/24 11:15	02/03/24 01:44	10
2-Methylphenol	41.2		20.0	1.59	ug/L		02/01/24 11:15	02/03/24 01:44	10
2-Nitroaniline	<1.63	U	40.0	1.63	ug/L		02/01/24 11:15	02/03/24 01:44	10
2-Nitrophenol	<1.35	U	20.0	1.35	ug/L		02/01/24 11:15	02/03/24 01:44	10
3 & 4 Methylphenol	487		20.0	1.63	ug/L		02/01/24 11:15	02/03/24 01:44	10
3-Nitroaniline	<3.44	U	20.0	3.44	ug/L		02/01/24 11:15	02/03/24 01:44	10
4,6-Dinitro-2-methylphenol	<7.36	U	80.0	7.36	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Bromophenyl-phenylether	<1.67	U	20.0	1.67	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Chloro-3-methylphenol	<1.57	U	20.0	1.57	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Chloroaniline	<1.49	U	40.0	1.49	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Chlorophenyl-phenylether	<2.32	U	20.0	2.32	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Nitroaniline	<2.47	U	40.0	2.47	ug/L		02/01/24 11:15	02/03/24 01:44	10
4-Nitrophenol	<5.31	U	40.0	5.31	ug/L		02/01/24 11:15	02/03/24 01:44	10
Acenaphthene	<2.08	U	20.0	2.08	ug/L		02/01/24 11:15	02/03/24 01:44	10
Acenaphthylene	<2.15	U	20.0	2.15	ug/L		02/01/24 11:15	02/03/24 01:44	10
Aniline (Phenylamine, Aminobenzene)	<3.14	U	40.0	3.14	ug/L		02/01/24 11:15	02/03/24 01:44	10
Anthracene	<1.54	U	20.0	1.54	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzo[a]anthracene	<1.50	U	20.0	1.50	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzo[a]pyrene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzo[b]fluoranthene	<2.10	U	20.0	2.10	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzo[g,h,i]perylene	<1.43	U	20.0	1.43	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzo[k]fluoranthene	<1.66	U	20.0	1.66	ug/L		02/01/24 11:15	02/03/24 01:44	10
Benzoic acid	<10.6	U	80.0	10.6	ug/L		02/01/24 11:15	02/03/24 01:44	10
Butyl benzyl phthalate	<1.50	U	20.0	1.50	ug/L		02/01/24 11:15	02/03/24 01:44	10
Bis(2-chloroethoxy)methane	<1.70	U	20.0	1.70	ug/L		02/01/24 11:15	02/03/24 01:44	10
Bis(2-chloroethyl)ether	<2.78	U	20.0	2.78	ug/L		02/01/24 11:15	02/03/24 01:44	10
bis(2-chloroisopropyl) ether	<1.39	U	20.0	1.39	ug/L		02/01/24 11:15	02/03/24 01:44	10
Bis(2-ethylhexyl) phthalate	<2.25	U	20.0	2.25	ug/L		02/01/24 11:15	02/03/24 01:44	10
Chrysene	<1.59	U	20.0	1.59	ug/L		02/01/24 11:15	02/03/24 01:44	10
Dibenz(a,h)anthracene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 01:44	10
Dibenzofuran	<3.36	U	20.0	3.36	ug/L		02/01/24 11:15	02/03/24 01:44	10
Diethyl phthalate	<1.18	U	20.0	1.18	ug/L		02/01/24 11:15	02/03/24 01:44	10
Dimethyl phthalate	<1.43	U	20.0	1.43	ug/L		02/01/24 11:15	02/03/24 01:44	10
Di-n-butyl phthalate	<8.00	U	20.0	8.00	ug/L		02/01/24 11:15	02/03/24 01:44	10
Di-n-octyl phthalate	<1.69	U	20.0	1.69	ug/L		02/01/24 11:15	02/03/24 01:44	10
Fluoranthene	<1.48	U	20.0	1.48	ug/L		02/01/24 11:15	02/03/24 01:44	10
Fluorene	2.34	J	20.0	2.05	ug/L		02/01/24 11:15	02/03/24 01:44	10
Hexachlorobenzene	<1.26	U	20.0	1.26	ug/L		02/01/24 11:15	02/03/24 01:44	10
Hexachlorobutadiene	<2.52	U	20.0	2.52	ug/L		02/01/24 11:15	02/03/24 01:44	10
Hexachlorocyclopentadiene	<4.31	U	20.0	4.31	ug/L		02/01/24 11:15	02/03/24 01:44	10
Hexachloroethane	<1.40	U	20.0	1.40	ug/L		02/01/24 11:15	02/03/24 01:44	10
Indeno[1,2,3-cd]pyrene	<8.52	U	20.0	8.52	ug/L		02/01/24 11:15	02/03/24 01:44	10
Isophorone	<1.68	U	20.0	1.68	ug/L		02/01/24 11:15	02/03/24 01:44	10
Naphthalene	6.86	J	20.0	4.23	ug/L		02/01/24 11:15	02/03/24 01:44	10
Nitrobenzene	<9.34	U	20.0	9.34	ug/L		02/01/24 11:15	02/03/24 01:44	10
N-Nitrosodi-n-propylamine	<1.61	U	20.0	1.61	ug/L		02/01/24 11:15	02/03/24 01:44	10
N-Nitrosodiphenylamine	25.3		20.0	1.55	ug/L		02/01/24 11:15	02/03/24 01:44	10

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<4.41	U	20.0	4.41	ug/L		02/01/24 11:15	02/03/24 01:44	10
Phenanthrene	<1.76	U	20.0	1.76	ug/L		02/01/24 11:15	02/03/24 01:44	10
Phenol	440		40.0	2.02	ug/L		02/01/24 11:15	02/03/24 01:44	10
Pyrene	<1.59	U	20.0	1.59	ug/L		02/01/24 11:15	02/03/24 01:44	10
Pyridine	15.3	J	20.0	7.25	ug/L		02/01/24 11:15	02/03/24 01:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		31 - 132	02/01/24 11:15	02/03/24 01:44	10
2-Fluorobiphenyl (Surr)	53		40 - 130	02/01/24 11:15	02/03/24 01:44	10
2-Fluorophenol (Surr)	39		21 - 114	02/01/24 11:15	02/03/24 01:44	10
Nitrobenzene-d5 (Surr)	54		37 - 130	02/01/24 11:15	02/03/24 01:44	10
p-Terphenyl-d14 (Surr)	67		20 - 141	02/01/24 11:15	02/03/24 01:44	10
Phenol-d5 (Surr)	32		16 - 117	02/01/24 11:15	02/03/24 01:44	10

Method: Lab SOP Organotins SIM - Organotins (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	<1.13	U	2.96	1.13	ng/L		01/30/24 08:24	02/01/24 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	144	S1+	10 - 120				01/30/24 08:24	02/01/24 14:49	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4.61	J	5.14	1.02	mg/L			01/29/24 10:52	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<1.02	U	5.14	1.02	mg/L		01/29/24 07:37	01/29/24 10:52	1
Diesel Range Organics (Over C10-C28)	4.61	J	5.14	1.02	mg/L		01/29/24 07:37	01/29/24 10:52	1
Oil Range Organics (Over C28-C36)	<0.980	U	5.14	0.980	mg/L		01/29/24 07:37	01/29/24 10:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 135				01/29/24 07:37	01/29/24 10:52	1
o-Terphenyl	96		70 - 135				01/29/24 07:37	01/29/24 10:52	1

Method: SW846 8081B_LL - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012	U **	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	3			23					
4,4'-DDE	<0.00000013	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	1			31					
4,4'-DDT	<0.00000069	U	0.0000200	0.0000006	mg/L		02/01/24 12:24	02/02/24 13:41	1
	5			95					
Aldrin	<0.00000013	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	7			37					
alpha-BHC	<0.00000014	U	0.0000090	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	3		0	43					
alpha-Chlordane	<0.00000023	U	0.0000100	0.0000002	mg/L		02/01/24 12:24	02/02/24 13:41	1
	7			37					
beta-BHC	<0.00000190	U	0.0000180	0.0000019	mg/L		02/01/24 12:24	02/02/24 13:41	1
				0					

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	<0.00000851	U	0.000250	0.0000085	mg/L		02/01/24 12:24	02/02/24 13:41	1
				1					
delta-BHC	<0.00000038	U	0.000250	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:41	1
	7			87					
Dieldrin	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:41	1
	06			806					
Endosulfan I	<0.00000014	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	6			46					
Endosulfan II	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:41	1
	19			819					
Endosulfan sulfate	<0.00000031	U	0.0000100	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:41	1
	2			12					
Endrin	<0.00000016	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 13:41	1
	8			68					
Endrin aldehyde	<0.00000038	U *	0.0000100	0.0000003	mg/L		02/01/24 12:24	02/02/24 13:41	1
	4			84					
Endrin ketone	<0.00000040	U	0.0000100	0.0000004	mg/L		02/01/24 12:24	02/02/24 13:41	1
	5			05					
gamma-BHC (Lindane)	<0.00000060	U	0.0000100	0.0000006	mg/L		02/01/24 12:24	02/02/24 13:41	1
	0			00					
Heptachlor	<0.00000109	U	0.0000090	0.0000010	mg/L		02/01/24 12:24	02/02/24 13:41	1
			0	9					
Heptachlor epoxide	<0.00000008	U	0.0000100	0.0000000	mg/L		02/01/24 12:24	02/02/24 13:41	1
	71			871					
Methoxychlor	<0.00000056	U	0.0000200	0.0000005	mg/L		02/01/24 12:24	02/02/24 13:41	1
	6			66					
Toxaphene	<0.0000196	U	0.000200	0.0000196	mg/L		02/01/24 12:24	02/02/24 13:41	1
trans-Chlordane	<0.00000059	U	0.0000100	0.0000005	mg/L		02/01/24 12:24	02/02/24 13:41	1
	9			99					
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/01/24 12:24	02/02/24 13:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	22		15 - 136				02/01/24 12:24	02/02/24 13:41	1
Tetrachloro-m-xylene	52		18 - 126				02/01/24 12:24	02/02/24 13:41	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:20	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:20	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:20	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:20	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 13:20	1
PCB-1254	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 13:20	1
				0					
PCB-1260	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 13:20	1
				0					
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		18 - 116				02/01/24 12:24	02/02/24 13:20	1
DCB Decachlorobiphenyl (Surr)	46		27 - 123				02/01/24 12:24	02/02/24 13:20	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.0000398	U	0.000199	0.0000398	mg/L		01/29/24 09:51	01/30/24 17:17	1

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPP	<0.00186	U	0.0199	0.00186	mg/L		01/29/24 09:51	01/30/24 17:17	1
MCPA	<0.00115	U	0.0199	0.00115	mg/L		01/29/24 09:51	01/30/24 17:17	1
Dinoseb	<0.0000319	U *- *1	0.000199	0.0000319	mg/L		01/29/24 09:51	01/30/24 17:17	1
Dichlorprop	<0.0000438	U	0.000199	0.0000438	mg/L		01/29/24 09:51	01/30/24 17:17	1
Dicamba	<0.0000518	U	0.000199	0.0000518	mg/L		01/29/24 09:51	01/30/24 17:17	1
Dalapon	<0.0000737	U	0.000199	0.0000737	mg/L		01/29/24 09:51	01/30/24 17:17	1
2,4-DB	<0.0000548	U	0.000199	0.0000548	mg/L		01/29/24 09:51	01/30/24 17:17	1
2,4-D	<0.000154	U	0.000199	0.000154	mg/L		01/29/24 09:51	01/30/24 17:17	1
2,4,5-TP (Silvex)	<0.0000398	U	0.000199	0.0000398	mg/L		01/29/24 09:51	01/30/24 17:17	1
2,4,5-T	<0.0000508	U	0.000199	0.0000508	mg/L		01/29/24 09:51	01/30/24 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	101		42 - 150				01/29/24 09:51	01/30/24 17:17	1

Method: SW846 EPA 8141B - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0695	U ** *1	0.200	0.0695	ug/L		01/31/24 21:45	02/06/24 00:23	1
Demeton, Total	<0.0489	U	0.400	0.0489	ug/L		01/31/24 21:45	02/06/24 00:23	1
Chlorpyrifos	<0.0865	U	0.200	0.0865	ug/L		01/31/24 21:45	02/06/24 00:23	1
Malathion	<0.0794	U **	0.200	0.0794	ug/L		01/31/24 21:45	02/06/24 00:23	1
Diazinon	<0.0782	U ** *1	0.200	0.0782	ug/L		01/31/24 21:45	02/06/24 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tributyl phosphate	99		28 - 128				01/31/24 21:45	02/06/24 00:23	1
Triphenylphosphate	1841	S1+	76 - 138				01/31/24 21:45	02/06/24 00:23	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetate	<1.00	U H	2.00	1.00	mg/L			03/02/24 15:43	1
Nitrate as N	0.0871	J H	0.100	0.0391	mg/L			02/06/24 05:47	1
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/03/24 02:38	1
Nitrite as N	<0.0293	U H	0.100	0.0293	mg/L			02/03/24 02:38	1
Chloride	1.50		0.500	0.250	mg/L			02/06/24 05:47	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/03/24 02:38	1
Formate	<1.00	U	2.00	1.00	mg/L			02/18/24 16:52	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/03/24 02:38	1

Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		01/29/24 15:49	01/31/24 22:48	1

Method: SW846 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetic acid	<3200	U	10000	3200	ug/L		01/30/24 17:21	01/31/24 10:44	1
Butyric acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Citric Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Formic-acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Isovaleric acid	<3500	U	7100	3500	ug/L		01/30/24 17:21	01/31/24 10:44	1
L-Lactic Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Oxalic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 10:44	1
Propionic acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 13:24	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyruvic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 10:44	1
Quinic Acid	<2400	U F1	5000	2400	ug/L		01/30/24 17:21	01/31/24 10:44	1
Succinic Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Tartaric Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 10:44	1
Valeric acid	<2000	U	5000	2000	ug/L		01/30/24 17:21	01/31/24 10:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fumaric Acid	88		68 - 139	01/30/24 17:21	01/31/24 10:44	1
Fumaric Acid	108		68 - 139	01/30/24 17:21	01/31/24 13:24	1

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		01/30/24 10:37	02/08/24 02:31	1
1,3,5-Trinitrobenzene	4.59		1.00	0.460	ug/L		01/30/24 10:37	02/08/24 02:31	1
Tetryl	<0.398	U	1.60	0.398	ug/L		01/30/24 10:37	02/08/24 02:31	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		01/30/24 10:37	02/08/24 02:31	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		01/30/24 10:37	02/08/24 02:31	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		01/30/24 10:37	02/08/24 02:31	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		01/30/24 10:37	02/08/24 02:31	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		01/30/24 10:37	02/08/24 02:31	1
4-Amino-2,6-dinitrotoluene	<0.920	U	2.00	0.920	ug/L		01/30/24 10:37	02/08/24 02:31	1
2-Amino-4,6-dinitrotoluene	1.92	p	0.850	0.426	ug/L		01/30/24 10:37	02/08/24 02:31	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		01/30/24 10:37	02/08/24 02:31	1
2,4-Dinitrotoluene	<0.330	U	0.700	0.330	ug/L		01/30/24 10:37	02/08/24 02:31	1
PETN	<10.1	U	23.0	10.1	ug/L		01/30/24 10:37	02/08/24 02:31	1
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		01/30/24 10:37	02/08/24 02:31	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		01/30/24 10:37	02/08/24 02:31	1
3-Nitrotoluene	4.61		0.800	0.378	ug/L		01/30/24 10:37	02/08/24 02:31	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		01/30/24 10:37	02/08/24 02:31	1
2,4-diamino-6-nitrotoluene	<1.04	U	2.10	1.04	ug/L		01/30/24 10:37	02/08/24 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		68 - 122	01/30/24 10:37	02/08/24 02:31	1
2-Nitro-m-xylene	112		68 - 122	01/30/24 10:37	02/08/24 02:31	1

Method: SW846 8330B - Nitroaromatics and Nitramines (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	43.2	p	7.00	3.19	ug/L		01/30/24 10:37	02/08/24 03:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	89		68 - 122	01/30/24 10:37	02/08/24 03:07	5
2-Nitro-m-xylene	103		68 - 122	01/30/24 10:37	02/08/24 03:07	5

Method: Lab SOP VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	86.5		2.00	2.00	mg/L			02/10/24 03:15	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:15	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:15	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			02/10/24 03:15	1
Propionic acid	123		20.0	20.0	mg/L			02/10/24 03:36	10
Valeric acid	198		20.0	20.0	mg/L			02/10/24 03:36	10

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: Lab SOP VFA - HPLC - Volatile Fatty Acids (HPLC/UV) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyric-Isobutyric Acid	2.42		2.00	2.00	mg/L			02/10/24 03:15	1

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<0.897	U	1.79	0.897	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluoroheptanoic acid	<0.269	U	1.79	0.269	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorooctanoic acid	1.29	J	1.79	0.269	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorononanoic acid	<0.179	U	1.79	0.179	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorodecanoic acid	<0.269	U	1.79	0.269	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorotridecanoic acid	1.07	J	1.79	0.359	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorotetradecanoic acid	<0.359	U	1.79	0.359	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorobutanesulfonic acid	<0.269	U	1.79	0.269	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorohexanesulfonic acid	<0.179	U	1.79	0.179	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorooctanesulfonic acid	1.85		1.79	0.449	ng/L		01/31/24 06:46	02/02/24 18:25	1
NEtFOSAA	<0.449	U	1.79	0.449	ng/L		01/31/24 06:46	02/02/24 18:25	1
NMeFOSAA	0.680	J ^2	1.79	0.359	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluorododecanoic acid	<0.359	U	1.79	0.359	ng/L		01/31/24 06:46	02/02/24 18:25	1
HFPODA	<0.359	U	1.79	0.359	ng/L		01/31/24 06:46	02/02/24 18:25	1
9Cl-PF3ONS	<0.449	U	1.79	0.449	ng/L		01/31/24 06:46	02/02/24 18:25	1
11Cl-PF3OUdS	<0.449	U	1.79	0.449	ng/L		01/31/24 06:46	02/02/24 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.449	U	1.79	0.449	ng/L		01/31/24 06:46	02/02/24 18:25	1
Perfluoroundecanoic acid	<0.269	U	1.79	0.269	ng/L		01/31/24 06:46	02/02/24 18:25	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	85		28 - 166	01/31/24 06:46	02/02/24 18:25	1
13C4 PFHpA	97		40 - 165	01/31/24 06:46	02/02/24 18:25	1
13C8 PFOA	95		52 - 153	01/31/24 06:46	02/02/24 18:25	1
13C9 PFNA	116		52 - 168	01/31/24 06:46	02/02/24 18:25	1
13C6 PFDA	97		53 - 151	01/31/24 06:46	02/02/24 18:25	1
13C2-PFDoDA	92		22 - 165	01/31/24 06:46	02/02/24 18:25	1
13C2 PFTeDA	96		10 - 171	01/31/24 06:46	02/02/24 18:25	1
13C3 PFBS	99		34 - 200	01/31/24 06:46	02/02/24 18:25	1
13C3 PFHxS	99		48 - 169	01/31/24 06:46	02/02/24 18:25	1
13C8 PFOS	104		59 - 155	01/31/24 06:46	02/02/24 18:25	1
d3-NMeFOSAA	132		38 - 168	01/31/24 06:46	02/02/24 18:25	1
d5-NEtFOSAA	108		34 - 181	01/31/24 06:46	02/02/24 18:25	1
13C3 HFPO-DA	50		13 - 170	01/31/24 06:46	02/02/24 18:25	1
13C7 PFUnA	88		41 - 163	01/31/24 06:46	02/02/24 18:25	1

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<0.230	U	1.00	0.230	ug/L		01/31/24 13:12	01/31/24 15:48	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	<8.58	U	47.3	8.58	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,4,6,7,8-HpCDF	5.42	J I	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,4,7,8-HxCDD	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,4,7,8-HxCDF	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,4,7,8,9-HpCDF	5.93	J I	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,6,7,8-HxCDF	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,7,8-PeCDD	<5.98	U	47.3	5.98	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,7,8-PeCDF	7.21	J I	47.3	5.23	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,7,8,9-HxCDD	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
1,2,3,7,8,9-HxCDF	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
2,3,4,6,7,8-HxCDF	<4.73	U	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
2,3,4,7,8-PeCDF	11.9	J I	47.3	4.73	pg/L		03/05/24 06:52	03/06/24 15:42	1
2,3,7,8-TCDD	<1.65	U	9.47	1.65	pg/L		03/05/24 06:52	03/06/24 15:42	1
2,3,7,8-TCDF	14.1	I	9.47	1.54	pg/L		03/05/24 06:52	03/06/24 15:42	1
OCDD	<68.5	U	208	68.5	pg/L		03/05/24 06:52	03/06/24 15:42	1
OCDF	<11.6	U	94.7	11.6	pg/L		03/05/24 06:52	03/06/24 15:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>13C-1,2,3,4,6,7,8-HpCDD</i>	19	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,4,6,7,8-HpCDF</i>	21	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,4,7,8-HxCDD</i>	22	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,4,7,8-HxCDF</i>	25	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,4,7,8,9-HpCDF</i>	23	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,6,7,8-HxCDD</i>	21	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,6,7,8-HxCDF</i>	24	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,7,8-PeCDD</i>	21	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,7,8-PeCDF</i>	24	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,7,8,9-HxCDD</i>	22	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-1,2,3,7,8,9-HxCDF</i>	23	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-2,3,4,6,7,8-HxCDF</i>	24	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-2,3,4,7,8-PeCDF</i>	24	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-2,3,7,8-TCDD</i>	29	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-2,3,7,8-TCDF</i>	28	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-OCDD</i>	18	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1
<i>13C-OCDF</i>	20	*5-	40 - 135	03/05/24 06:52	03/06/24 15:42	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0385	J	0.200	0.0352	mg/L		01/31/24 10:30	01/31/24 20:40	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		01/31/24 10:30	01/31/24 20:40	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		01/31/24 10:30	01/31/24 20:40	1
Barium	0.00578	J	0.0100	0.00125	mg/L		01/31/24 10:30	01/31/24 20:40	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		01/31/24 10:30	01/31/24 20:40	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		01/31/24 10:30	01/31/24 20:40	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		01/31/24 10:30	01/31/24 20:40	1
Calcium	0.978	B	0.200	0.102	mg/L		01/31/24 10:30	01/31/24 20:40	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		01/31/24 10:30	01/31/24 20:40	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		01/31/24 10:30	01/31/24 20:40	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		01/31/24 10:30	01/31/24 20:40	1
Iron	0.259		0.200	0.0283	mg/L		01/31/24 10:30	01/31/24 20:40	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		01/31/24 10:30	01/31/24 20:40	1
Magnesium	<0.0445	U	0.200	0.0445	mg/L		01/31/24 10:30	01/31/24 20:40	1
Manganese	0.0110	J	0.0200	0.00436	mg/L		01/31/24 10:30	01/31/24 20:40	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		01/31/24 10:30	01/31/24 20:40	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00177	U	0.0100	0.00177	mg/L		01/31/24 10:30	01/31/24 20:40	1
Phosphorus	0.0787	B	0.0400	0.0184	mg/L		01/31/24 10:30	01/31/24 20:40	1
Potassium	<0.106	U	0.500	0.106	mg/L		01/31/24 10:30	01/31/24 20:40	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		01/31/24 10:30	01/31/24 20:40	1
Silicon	<0.173	U	0.500	0.173	mg/L		01/31/24 10:30	01/31/24 20:40	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		01/31/24 10:30	01/31/24 20:40	1
Sodium	0.928		0.500	0.152	mg/L		01/31/24 10:30	01/31/24 20:40	1
Strontium	0.161		0.0200	0.00308	mg/L		01/31/24 10:30	01/31/24 20:40	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		01/31/24 10:30	01/31/24 20:40	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		01/31/24 10:30	01/31/24 20:40	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		01/31/24 10:30	01/31/24 20:40	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		01/31/24 10:30	01/31/24 20:40	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		01/31/24 10:30	01/31/24 20:40	1
Lithium	<0.0174	U	0.0400	0.0174	mg/L		01/31/24 10:30	01/31/24 20:40	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0390	J	0.200	0.0352	mg/L		02/05/24 11:30	02/06/24 14:50	1
Antimony	0.0595		0.0200	0.00803	mg/L		02/05/24 11:30	02/06/24 14:50	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		02/05/24 11:30	02/06/24 14:50	1
Barium	0.00540	J	0.0100	0.00125	mg/L		02/05/24 11:30	02/06/24 14:50	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/05/24 11:30	02/06/24 14:50	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/05/24 11:30	02/06/24 14:50	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/05/24 11:30	02/06/24 14:50	1
Dissolved Calcium	0.916		0.200	0.102	mg/L		02/05/24 11:30	02/06/24 14:50	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/05/24 11:30	02/06/24 14:50	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/05/24 11:30	02/06/24 14:50	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/05/24 11:30	02/06/24 14:50	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/05/24 11:30	02/06/24 14:50	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/05/24 11:30	02/06/24 14:50	1
Dissolved Magnesium	0.0522	J	0.200	0.0445	mg/L		02/05/24 11:30	02/06/24 14:50	1
Manganese	0.0122	J	0.0200	0.00436	mg/L		02/05/24 11:30	02/06/24 14:50	1
Molybdenum	0.0215		0.0100	0.00260	mg/L		02/05/24 11:30	02/06/24 14:50	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/05/24 11:30	02/06/24 14:50	1
P	0.0787		0.0400	0.0184	mg/L		02/05/24 11:30	02/06/24 14:50	1
Potassium	<0.106	U	0.500	0.106	mg/L		02/05/24 11:30	02/06/24 14:50	1
Selenium	0.0170	J	0.0300	0.00927	mg/L		02/05/24 11:30	02/06/24 14:50	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		02/05/24 11:30	02/06/24 14:50	1
Sodium	0.626		0.500	0.152	mg/L		02/05/24 11:30	02/06/24 14:50	1
Strontium	0.144		0.0200	0.00308	mg/L		02/05/24 11:30	02/06/24 14:50	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/05/24 11:30	02/06/24 14:50	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/05/24 11:30	02/06/24 14:50	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/05/24 11:30	02/06/24 14:50	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/05/24 11:30	02/06/24 14:50	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/05/24 11:30	02/06/24 14:50	1
SiO2	<0.370	U	1.07	0.370	mg/L		02/05/24 11:30	02/06/24 14:50	1
Phosphorus as PO4	0.241		0.123	0.0564	mg/L		02/05/24 11:30	02/06/24 14:50	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: SW846 6020A - Rare Earth Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dysprosium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Praseodymium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Lanthanum	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Cerium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Neodymium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Yttrium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Terbium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1
Europium	<0.0500	U	0.0500	0.0500	mg/L		01/30/24 11:00	01/31/24 12:36	1

Method: SW846 6020B - Metals (ICP/MS), Isotopic Uranium

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium-233	<0.00667	U	0.0600	0.00667	ug/L		02/06/24 12:51	02/08/24 10:29	2
Uranium-234	<0.00348	U	0.0600	0.00348	ug/L		02/06/24 12:51	02/08/24 10:29	2
Uranium-235	<0.0280	U	0.0600	0.0280	ug/L		02/06/24 12:51	02/08/24 10:29	2
Uranium-236	<0.0148	U	0.0600	0.0148	ug/L		02/06/24 12:51	02/08/24 10:29	2
Uranium-238	<0.0240	U	0.0600	0.0240	ug/L		02/06/24 12:51	02/08/24 10:29	2

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gold	<0.0500	U	0.0500	0.0500	mg/L			01/31/24 12:36	1
Uranium	<0.0211	U	0.100	0.0211	mg/L		01/30/24 09:30	01/31/24 13:17	100
Zirconium	<0.0500	U	0.0500	0.0500	mg/L			01/31/24 12:36	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 13:08	1
Uranium	<0.0211	U	0.100	0.0211	mg/L		01/30/24 09:30	01/31/24 12:56	100
Zirconium	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 13:08	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	2.44		0.400	0.400	mg/L			02/06/24 12:48	1
Total hardness as CaCO3	2.44		0.400	0.400	mg/L			02/06/24 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	26.4		5.00	1.57	mg/L			02/08/24 16:15	1
Turbidity (EPA 180.1)	5.0		1.0	0.50	NTU			01/28/24 08:30	1
Ammonia (EPA 350.1)	12.5		10.0	5.10	mg/L			02/07/24 18:22	100
Oxygen, Dissolved (EPA 360.1)	7.92	HF	1.00	1.00	mg/L			01/28/24 16:36	1
Chemical Oxygen Demand (Hach 8000)	142		20.0	3.36	mg/L			02/05/24 17:28	1
Ferrous Iron (Hach 8146)	0.0900	HF	0.0500	0.0280	mg/L			02/07/24 12:19	1
Cyanide, Total (SW846 9012B)	<2.00	U	5.00	2.00	ug/L		01/29/24 19:37	01/30/24 17:26	1
Halogens, Total Organic (SW846 9020B)	<14.0	U	40.0	14.0	ug/L		02/05/24 07:30	02/06/24 08:56	1
Total Alkalinity as CaCO3 (SM 2320B)	93.2		4.00	4.00	mg/L			02/05/24 13:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00	4.00	mg/L			02/05/24 13:54	1

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Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Electrical Conductivity (25C) (SM 2510B)	108		10.0	10.0	umho/cm @ 25C			02/07/24 10:26	1
Total Dissolved Solids (SM 2540C)	79.5	H	5.00	5.00	mg/L			02/05/24 18:51	1
Total Suspended Solids (SM 2540D)	<8.00	U	8.00	8.00	mg/L			02/02/24 10:15	1
Ferric Iron (SM 3500)	0.189		0.0500	0.0280	mg/L			03/04/24 09:14	1
Cr (VI) (SM 3500 CR B)	0.0201	H	0.0100	0.00200	mg/L			01/29/24 09:49	1
Ferrous Iron (SM 3500 FE D)	0.0700	HF	0.0500	0.0280	mg/L			02/29/24 15:20	1
pH (SM 4500 H+ B)	9.5	HF	0.1	0.1	S.U.			02/05/24 14:46	1
Sulfide (SM 4500 S2 D)	0.0406	J	0.100	0.0400	mg/L			01/30/24 13:21	1
Total Organic Carbon (SM 5310B)	40.0		2.00	1.00	mg/L			02/03/24 08:25	2
Methylene Blue Active Substances (SM 5540C)	0.112		0.100	0.0800	mg/L			01/27/24 18:25	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	<5.00	U	5.00	5.00	mg/L			02/07/24 17:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	39.5		1.00	0.500	mg/L			02/03/24 00:25	1

Method: EPA 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.513	U	0.575	0.578	3.00	0.935	pCi/L	02/05/24 10:15	02/08/24 18:33	1
Gross Beta	0.148	U	0.537	0.537	4.00	0.922	pCi/L	02/05/24 10:15	02/08/24 18:33	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	1.39	U	24.4	24.4		128	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Actinium-228	-21.3	U	51.7	51.7		58.4	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Bismuth-212	-77.0	U	138	138		233	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Bismuth-214	85.3		19.9	22.3		10.8	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Lead-210	129	U	188	188		253	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Lead-212	-3.72	U	20.0	20.0		34.3	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Lead-214	41.5		14.8	15.6		21.8	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Potassium-40	129		60.7	62.6		52.7	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Protactinium-231	-0.0000425	U	716	716		1220	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Radium-226	85.3		19.9	22.3	50.0	10.8	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Radium-228	-21.3	U G	51.7	51.7	50.0	58.4	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Thallium-208	5.07	U	10.1	10.2		12.9	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Thorium-232	-21.3	U	51.7	51.7		58.4	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Thorium-234	79.2	U	199	199		291	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Uranium 235	0.000	U	41.8	41.8		151	pCi/L	01/30/24 12:50	02/20/24 21:49	1
Uranium 238	79.2	U	199	199		291	pCi/L	01/30/24 12:50	02/20/24 21:49	1

Eurofins Midland

Client Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0781	0.0786	1.00	0.112	pCi/L	01/31/24 09:04	02/23/24 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					01/31/24 09:04	02/23/24 12:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.345	U	0.322	0.323	1.00	0.510	pCi/L	01/31/24 09:11	02/13/24 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					01/31/24 09:11	02/13/24 11:22	1
Y Carrier	84.1		30 - 110					01/31/24 09:11	02/13/24 11:22	1

Method: EPA 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.415		0.234	0.237	3.00	0.355	pCi/L	01/31/24 09:16	02/12/24 16:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	80.9		30 - 110					01/31/24 09:16	02/12/24 16:17	1
Y Carrier	95.3		30 - 110					01/31/24 09:16	02/12/24 16:17	1

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
880-38521-1	Thermal Distillate	102	99	99	101
880-38521-1 - DL	Thermal Distillate	102	100	98	99
LCS 860-142779/1010	Lab Control Sample	99	102	101	101
LCS 860-142954/4	Lab Control Sample	99	100	100	100
LCSD 860-142779/13	Lab Control Sample Dup	100	99	100	102
LCSD 860-142954/5	Lab Control Sample Dup	100	102	100	100
MB 860-142779/17	Method Blank	100	101	98	99
MB 860-142954/11	Method Blank	102	107	99	100

Surrogate Legend

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

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (54-146)	NBZ (46-151)	TPHd14 (51-139)
880-38521-1	Thermal Distillate	133	130	101 *3
880-38521-1	Thermal Distillate	102	74	96
LCS 860-143347/2-A	Lab Control Sample	127	110	69
LCSD 860-143347/3-A	Lab Control Sample Dup	116	102	58
MB 860-143347/1-A	Method Blank	132	107	84

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (40-130)	2FP (21-114)	NBZ (37-130)	TPHd14 (20-141)	PHL (16-117)
880-38521-1	Thermal Distillate	71	53	39	54	67	32
LCS 860-143257/2-A	Lab Control Sample	66	59	35	55	81	29
LCSD 860-143257/3-A	Lab Control Sample Dup	67	65	41	62	90	34
MB 860-143257/1-A	Method Blank	34	45	29	43	67	21

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
880-38521-1	Thermal Distillate	144 S1+
LCS 570-405719/2-A	Lab Control Sample	100
LCSD 570-405719/3-A	Lab Control Sample Dup	86
MB 570-405719/1-A	Method Blank	95

Surrogate Legend

TPTT = Triphenyltin

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-135)	OTPH1 (70-135)
880-38521-1	Thermal Distillate	94	96
LCS 860-142559/2-A	Lab Control Sample	107	103
MB 860-142559/1-A	Method Blank	97	96

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1	OTPH1
LCSD 860-142559/3-A	Lab Control Sample Dup		

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Method: 8081B_LL - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (15-136)	TCX1 (18-126)
880-38521-1	Thermal Distillate	22	52
LCS 860-143280/2-A	Lab Control Sample	140 S1+	95
LCSD 860-143280/3-A	Lab Control Sample Dup	143 S1+	102
MB 860-143280/1-A	Method Blank	143 S1+	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (18-116)	DCB1 (27-123)
880-38521-1	Thermal Distillate	73	46
LCS 860-143280/13-A	Lab Control Sample	122 S1+	149 S1+
LCSD 860-143280/14-A	Lab Control Sample Dup	121 S1+	140 S1+
MB 860-143280/1-A	Method Blank	115	146 S1+
Surrogate Legend			
TCX = Tetrachloro-m-xylene			
DCB = DCB Decachlorobiphenyl (Surr)			

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA2 (42-150)	
880-38521-1	Thermal Distillate	101	
LCS 860-142589/2-A	Lab Control Sample	90	
LCSD 860-142589/3-A	Lab Control Sample Dup	93	
MB 860-142589/1-A	Method Blank	77	
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TBPH1 (28-128)	TPP1 (76-138)
880-38521-1	Thermal Distillate	99	1841 S1+
MB 180-458448/1-A	Method Blank	80	96
Surrogate Legend			
TBPH = Tributyl phosphate			
TPP = Triphenylphosphate			

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TBPH2 (28-128)	TPP1 (76-138)
LCS 180-458448/2-A	Lab Control Sample	161 S1+	137
LCSD 180-458448/3-A	Lab Control Sample Dup	121	102
Surrogate Legend			
TBPH = Tributyl phosphate			
TPP = Triphenylphosphate			

Surrogate Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	FumAcid1 (68-139)
880-38521-1	Thermal Distillate	88
880-38521-1	Thermal Distillate	108
880-38521-1 MS	Thermal Distillate	96
880-38521-1 MS	Thermal Distillate	108
880-38521-1 MSD	Thermal Distillate	96
880-38521-1 MSD	Thermal Distillate	108
LCS 410-468290/4-A	Lab Control Sample	90
LCS 410-468290/4-A	Lab Control Sample	102
LCSD 410-468290/3-A	Lab Control Sample Dup	107
MB 410-468290/1-A	Method Blank	83
MB 410-468290/1-A	Method Blank	107
Surrogate Legend		
FumAcid = Fumaric Acid		

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	2NMX1 (68-122)	2NMX2 (68-122)
880-38521-1	Thermal Distillate	112	92
880-38521-1 - DL	Thermal Distillate	103	89
LCS 410-468013/2-A	Lab Control Sample	95	93
LCS 410-468013/4-A	Lab Control Sample	97	93
LCSD 410-468013/3-A	Lab Control Sample Dup	94	93
LCSD 410-468013/5-A	Lab Control Sample Dup	92	87
MB 410-468013/1-A	Method Blank	96	92
Surrogate Legend			
2NMX = 2-Nitro-m-xylene			

Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13C5PHA (28-166)	C4PFHA (40-165)	C8PFOA (52-153)	C9PFNA (52-168)	C6PFDA (53-151)	PFDODA (22-165)	PFTDA (10-171)	C3PFBS (34-200)
880-38521-1	Thermal Distillate	85	97	95	116	97	92	96	99
LCS 410-468437/2-A	Lab Control Sample	91	90	93	105	94	97	100	100
LCSD 410-468437/3-A	Lab Control Sample Dup	91	93	98	107	99	98	102	103
MB 410-468437/1-A	Method Blank	88	90	94	101	90	90	90	96

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C3PFHS (48-169)	C8PFOS (59-155)	d3NMFOFOS (38-168)	d5NEFOS (34-181)	HFPODA (13-170)	13C7PUA (41-163)
880-38521-1	Thermal Distillate	99	104	132	108	50	88
LCS 410-468437/2-A	Lab Control Sample	96	97	108	122	95	91
LCSD 410-468437/3-A	Lab Control Sample Dup	99	100	111	121	104	94
MB 410-468437/1-A	Method Blank	94	94	98	111	94	86

Surrogate Legend

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
PFDODA = 13C2-PFDODA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
HFPODA = 13C3 HFPO-DA
13C7PUA = 13C7 PFUnA

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF (40-135)	HxCDD (40-135)	HxCDF (40-135)	HpCDF2 (40-135)	HxDD (40-135)	HxDF (40-135)	PeCDD (40-135)
880-38521-1	Thermal Distillate	19 *5-	21 *5-	22 *5-	25 *5-	23 *5-	21 *5-	24 *5-	21 *5-
LCS 410-479618/2-A	Lab Control Sample	96	92	87	91	93	89	90	83
MB 410-479618/1-A	Method Blank	112	108	103	108	110	105	108	96

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PeCDF (40-135)	13CHxCD (40-135)	HxCF (40-135)	13CHxCF (40-135)	PeCF (40-135)	TCDD (40-135)	TCDF (40-135)	OCDD (40-135)
880-38521-1	Thermal Distillate	24 *5-	22 *5-	23 *5-	24 *5-	24 *5-	29 *5-	28 *5-	18 *5-
LCS 410-479618/2-A	Lab Control Sample	86	95	90	90	92	81	81	97
MB 410-479618/1-A	Method Blank	103	114	105	106	108	98	98	115

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDF (40-135)
880-38521-1	Thermal Distillate	20 *5-
LCS 410-479618/2-A	Lab Control Sample	94
MB 410-479618/1-A	Method Blank	113

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Isotope Dilution Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCDD = 13C-1,2,3,7,8,9-HxCDD
HxCF = 13C-1,2,3,7,8,9-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD
OCDF = 13C-OCDF

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Tracer/Carrier Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)					
880-38521-1	Thermal Distillate	85.5					
LCS 160-646331/2-A	Lab Control Sample	98.0					
MB 160-646331/1-A	Method Blank	97.2					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)				
880-38521-1	Thermal Distillate	85.5	84.1				
LCS 160-646338/2-A	Lab Control Sample	98.0	83.4				
MB 160-646338/1-A	Method Blank	97.2	86.0				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Sr (30-110)	Y (30-110)				
880-38521-1	Thermal Distillate	80.9	95.3				
LCS 160-646341/2-A	Lab Control Sample	82.1	92.7				
MB 160-646341/1-A	Method Blank	83.1	95.3				
Tracer/Carrier Legend							
Sr = Sr Carrier							
Y = Y Carrier							

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: MB 860-142779/17

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/30/24 15:11	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			01/30/24 15:11	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/30/24 15:11	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/30/24 15:11	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/30/24 15:11	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			01/30/24 15:11	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/30/24 15:11	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/30/24 15:11	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			01/30/24 15:11	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/30/24 15:11	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/30/24 15:11	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/30/24 15:11	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/30/24 15:11	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/30/24 15:11	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/30/24 15:11	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/30/24 15:11	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/30/24 15:11	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/30/24 15:11	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/30/24 15:11	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/30/24 15:11	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/30/24 15:11	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			01/30/24 15:11	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/30/24 15:11	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/30/24 15:11	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/30/24 15:11	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			01/30/24 15:11	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/30/24 15:11	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/30/24 15:11	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/30/24 15:11	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/30/24 15:11	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/30/24 15:11	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/30/24 15:11	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			01/30/24 15:11	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/30/24 15:11	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/30/24 15:11	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/30/24 15:11	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/30/24 15:11	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/30/24 15:11	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/30/24 15:11	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			01/30/24 15:11	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/30/24 15:11	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/30/24 15:11	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/30/24 15:11	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/30/24 15:11	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/30/24 15:11	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/30/24 15:11	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			01/30/24 15:11	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/30/24 15:11	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: MB 860-142779/17

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/30/24 15:11	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			01/30/24 15:11	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/30/24 15:11	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			01/30/24 15:11	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/30/24 15:11	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			01/30/24 15:11	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/30/24 15:11	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/30/24 15:11	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/30/24 15:11	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/30/24 15:11	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/30/24 15:11	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/30/24 15:11	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/30/24 15:11	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/30/24 15:11	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/30/24 15:11	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/30/24 15:11	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/30/24 15:11	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/30/24 15:11	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/30/24 15:11	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/30/24 15:11	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			01/30/24 15:11	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/30/24 15:11	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/30/24 15:11	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/30/24 15:11	1
Methylene Chloride	0.001889	J	0.00500	0.00173	mg/L			01/30/24 15:11	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			01/30/24 15:11	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			01/30/24 15:11	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/30/24 15:11	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/30/24 15:11	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/30/24 15:11	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/30/24 15:11	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			01/30/24 15:11	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/30/24 15:11	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/30/24 15:11	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/30/24 15:11	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/30/24 15:11	1
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/30/24 15:11	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/30/24 15:11	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/30/24 15:11	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/30/24 15:11	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/30/24 15:11	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/30/24 15:11	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/30/24 15:11	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/30/24 15:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		63 - 144		01/30/24 15:11	1
4-Bromofluorobenzene (Surr)	101		74 - 124		01/30/24 15:11	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: MB 860-142779/17

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		75 - 131		01/30/24 15:11	1
Toluene-d8 (Surr)	99		80 - 120		01/30/24 15:11	1

Lab Sample ID: LCS 860-142779/1010

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	0.0500	0.05367		mg/L		107	60 - 140
cis-1,2-Dichloroethene	0.0500	0.05274		mg/L		105	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05350		mg/L		107	74 - 125
Isopropylbenzene	0.0500	0.05321		mg/L		106	75 - 125
m,p-Xylenes	0.0500	0.05354		mg/L		107	75 - 125
n-Butylbenzene	0.0500	0.05389		mg/L		108	75 - 125
N-Propylbenzene	0.0500	0.05366		mg/L		107	75 - 125
o-Xylene	0.0500	0.05318		mg/L		106	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05385		mg/L		108	75 - 125
tert-Butylbenzene	0.0500	0.05296		mg/L		106	75 - 125
trans-1,2-Dichloroethene	0.0500	0.05326		mg/L		107	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05367		mg/L		107	66 - 125
2-Chloroethyl vinyl ether	0.0500	0.05524		mg/L		110	50 - 150
2-Chlorotoluene	0.0500	0.05469		mg/L		109	73 - 125
Vinyl chloride	0.0500	0.05415		mg/L		108	60 - 140
1,1,1,2-Tetrachloroethane	0.0500	0.05319		mg/L		106	72 - 125
2-Hexanone	0.250	0.2567		mg/L		103	60 - 140
1,1,1-Trichloroethane	0.0500	0.05366		mg/L		107	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05182		mg/L		104	74 - 125
1,1,2-Trichloroethane	0.0500	0.05244		mg/L		105	75 - 130
4-Methyl-2-pentanone	0.250	0.2580		mg/L		103	60 - 140
1,1-Dichloroethane	0.0500	0.05376		mg/L		108	71 - 130
Acetonitrile	0.500	0.4486		mg/L		90	60 - 140
1,1-Dichloroethene	0.0500	0.05358		mg/L		107	50 - 150
Acetone	0.250	0.2491		mg/L		100	60 - 140
1,1-Dichloropropene	0.0500	0.05194		mg/L		104	75 - 125
Acrolein	0.250	0.3217		mg/L		129	60 - 140
1,2,3-Trichlorobenzene	0.0500	0.05220		mg/L		104	75 - 137
Acrylonitrile	0.500	0.4745		mg/L		95	60 - 140
1,2,3-Trichloropropane	0.0500	0.05040		mg/L		101	75 - 125
1,2,4-Trichlorobenzene	0.0500	0.05334		mg/L		107	75 - 135
1,2,4-Trimethylbenzene	0.0500	0.05347		mg/L		107	75 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.05182		mg/L		104	59 - 125
1,2-Dibromoethane	0.0500	0.04920		mg/L		98	73 - 125
1,2-Dichlorobenzene	0.0500	0.05311		mg/L		106	75 - 125
1,2-Dichloroethane	0.0500	0.05317		mg/L		106	72 - 130
Carbon disulfide	0.0500	0.05119		mg/L		102	60 - 140
1,2-Dichloropropane	0.0500	0.05451		mg/L		109	74 - 125
1,3,5-Trimethylbenzene	0.0500	0.05343		mg/L		107	60 - 140
1,3-Dichlorobenzene	0.0500	0.05303		mg/L		106	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCS 860-142779/1010

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	0.0500	0.05127		mg/L		103	75 - 125
1,4-Dichlorobenzene	0.0500	0.05273		mg/L		105	75 - 125
Cyclohexane	0.0500	0.04447		mg/L		89	70 - 130
Dibromomethane	0.0500	0.05350		mg/L		107	69 - 127
2,2-Dichloropropane	0.0500	0.05361		mg/L		107	75 - 125
2-Butanone	0.250	0.2330		mg/L		93	60 - 140
Iodomethane (Methyl Iodide)	0.0500	0.05453		mg/L		109	75 - 125
Isobutyl alcohol	1.24	1.257		mg/L		101	60 - 140
4-Chlorotoluene	0.0500	0.05420		mg/L		108	74 - 125
Methyl acetate	0.100	0.09623		mg/L		96	60 - 140
Methylcyclohexane	0.0500	0.05100		mg/L		102	75 - 125
Benzene	0.0500	0.05273		mg/L		105	75 - 125
Bromobenzene	0.0500	0.05342		mg/L		107	75 - 125
Bromochloromethane	0.0500	0.05331		mg/L		107	60 - 140
Bromodichloromethane	0.0500	0.05342		mg/L		107	75 - 125
Bromoform	0.0500	0.05452		mg/L		109	70 - 130
Bromomethane	0.0500	0.05016		mg/L		100	60 - 140
Tetrahydrofuran	0.100	0.1033		mg/L		103	75 - 125
Carbon tetrachloride	0.0500	0.04939		mg/L		99	70 - 125
Chlorobenzene	0.0500	0.05186		mg/L		104	82 - 135
Chloroethane	0.0500	0.04639		mg/L		93	60 - 140
Chloroform	0.0500	0.05362		mg/L		107	70 - 121
Chloromethane	0.0500	0.05402		mg/L		108	60 - 140
Vinyl acetate	0.250	0.2567		mg/L		103	60 - 140
Dibromochloromethane	0.0500	0.05422		mg/L		108	73 - 125
Dichlorodifluoromethane	0.0500	0.05089		mg/L		102	50 - 150
Ethylbenzene	0.0500	0.05250		mg/L		105	75 - 125
Hexachlorobutadiene	0.0500	0.05304		mg/L		106	75 - 125
n-Hexane	0.0500	0.04424		mg/L		88	72 - 125
MTBE	0.0500	0.05112		mg/L		102	65 - 135
Methylene Chloride	0.0500	0.04853		mg/L		97	71 - 125
Naphthalene	0.0500	0.05267		mg/L		105	70 - 130
t-Butyl alcohol	0.500	0.5094		mg/L		102	65 - 135
sec-Butylbenzene	0.0500	0.05311		mg/L		106	75 - 125
trans-1,4-Dichloro-2-butene	0.0500	0.05060		mg/L		101	70 - 130
Styrene	0.0500	0.05387		mg/L		108	75 - 125
Tetrachloroethene	0.0500	0.05255		mg/L		105	71 - 125
Toluene	0.0500	0.05220		mg/L		104	75 - 130
Trichloroethene	0.0500	0.05353		mg/L		107	75 - 135
Trichlorofluoromethane	0.0500	0.05136		mg/L		103	60 - 140
Allyl Chloride (3-Chloropropene)	0.0500	0.04495		mg/L		90	70 - 130
2-Chloro-1,3-butadiene	0.0500	0.05541		mg/L		111	70 - 130
Propane Nitrile (Propionitrile)	0.500	0.5163		mg/L		103	70 - 130
Methacrylonitrile	0.500	0.5162		mg/L		103	70 - 130
Methyl methacrylate	0.100	0.1059		mg/L		106	70 - 130
Ethyl ether	0.0500	0.05377	J	mg/L		108	70 - 130
Ethyl acetate	0.100	0.1012		mg/L		101	70 - 130
2-Nitropropane	0.100	0.1111		mg/L		111	75 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCS 860-142779/1010

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	101		75 - 131
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 860-142779/13

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Freon 113	0.0500	0.05369		mg/L		107	60 - 140	0	25
cis-1,2-Dichloroethene	0.0500	0.05389		mg/L		108	75 - 125	2	25
cis-1,3-Dichloropropene	0.0500	0.05418		mg/L		108	74 - 125	1	25
Isopropylbenzene	0.0500	0.05478		mg/L		110	75 - 125	3	25
m,p-Xylenes	0.0500	0.05468		mg/L		109	75 - 125	2	25
n-Butylbenzene	0.0500	0.05300		mg/L		106	75 - 125	2	25
N-Propylbenzene	0.0500	0.05242		mg/L		105	75 - 125	2	25
o-Xylene	0.0500	0.05458		mg/L		109	75 - 125	3	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05262		mg/L		105	75 - 125	2	25
tert-Butylbenzene	0.0500	0.05230		mg/L		105	75 - 125	1	25
trans-1,2-Dichloroethene	0.0500	0.05476		mg/L		110	75 - 125	3	25
trans-1,3-Dichloropropene	0.0500	0.05538		mg/L		111	66 - 125	3	25
2-Chloroethyl vinyl ether	0.0500	0.05568		mg/L		111	50 - 150	1	25
2-Chlorotoluene	0.0500	0.05117		mg/L		102	73 - 125	7	25
Vinyl chloride	0.0500	0.04881		mg/L		98	60 - 140	10	25
1,1,1,2-Tetrachloroethane	0.0500	0.05507		mg/L		110	72 - 125	3	25
2-Hexanone	0.250	0.2618		mg/L		105	60 - 140	2	25
1,1,1-Trichloroethane	0.0500	0.05547		mg/L		111	70 - 130	3	25
1,1,2,2-Tetrachloroethane	0.0500	0.05046		mg/L		101	74 - 125	3	25
1,1,2-Trichloroethane	0.0500	0.05455		mg/L		109	75 - 130	4	25
4-Methyl-2-pentanone	0.250	0.2579		mg/L		103	60 - 140	0	25
1,1-Dichloroethane	0.0500	0.05474		mg/L		109	71 - 130	2	25
Acetonitrile	0.500	0.4533		mg/L		91	60 - 140	1	25
1,1-Dichloroethene	0.0500	0.05421		mg/L		108	50 - 150	1	25
Acetone	0.250	0.2564		mg/L		103	60 - 140	3	25
1,1-Dichloropropene	0.0500	0.05315		mg/L		106	75 - 125	2	25
Acrolein	0.250	0.2898		mg/L		116	60 - 140	10	25
1,2,3-Trichlorobenzene	0.0500	0.05095		mg/L		102	75 - 137	2	25
Acrylonitrile	0.500	0.4757		mg/L		95	60 - 140	0	25
1,2,3-Trichloropropane	0.0500	0.04868		mg/L		97	75 - 125	3	25
1,2,4-Trichlorobenzene	0.0500	0.05210		mg/L		104	75 - 135	2	25
1,2,4-Trimethylbenzene	0.0500	0.05261		mg/L		105	75 - 125	2	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05037		mg/L		101	59 - 125	3	25
1,2-Dibromoethane	0.0500	0.05138		mg/L		103	73 - 125	4	25
1,2-Dichlorobenzene	0.0500	0.05252		mg/L		105	75 - 125	1	25
1,2-Dichloroethane	0.0500	0.05453		mg/L		109	72 - 130	3	25
Carbon disulfide	0.0500	0.05243		mg/L		105	60 - 140	2	25
1,2-Dichloropropane	0.0500	0.05578		mg/L		112	74 - 125	2	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCSD 860-142779/13

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	0.0500	0.05262		mg/L		105	60 - 140	2	25
1,3-Dichlorobenzene	0.0500	0.05239		mg/L		105	75 - 125	1	25
1,3-Dichloropropane	0.0500	0.05352		mg/L		107	75 - 125	4	25
1,4-Dichlorobenzene	0.0500	0.05243		mg/L		105	75 - 125	1	25
Cyclohexane	0.0500	0.04531		mg/L		91	70 - 130	2	25
Dibromomethane	0.0500	0.05432		mg/L		109	69 - 127	2	25
2,2-Dichloropropane	0.0500	0.05439		mg/L		109	75 - 125	1	25
2-Butanone	0.250	0.2310		mg/L		92	60 - 140	1	25
Iodomethane (Methyl Iodide)	0.0500	0.05629		mg/L		113	75 - 125	3	25
Isobutyl alcohol	1.24	1.253		mg/L		101	60 - 140	0	25
4-Chlorotoluene	0.0500	0.05319		mg/L		106	74 - 125	2	25
Methyl acetate	0.100	0.08959		mg/L		90	60 - 140	7	25
Methylcyclohexane	0.0500	0.05189		mg/L		104	75 - 125	2	25
Benzene	0.0500	0.05446		mg/L		109	75 - 125	3	25
Bromobenzene	0.0500	0.05231		mg/L		105	75 - 125	2	25
Bromochloromethane	0.0500	0.05428		mg/L		109	60 - 140	2	25
Bromodichloromethane	0.0500	0.05445		mg/L		109	75 - 125	2	25
Bromoform	0.0500	0.05574		mg/L		111	70 - 130	2	25
Bromomethane	0.0500	0.05106		mg/L		102	60 - 140	2	25
Tetrahydrofuran	0.100	0.1020		mg/L		102	75 - 125	1	25
Carbon tetrachloride	0.0500	0.05057		mg/L		101	70 - 125	2	25
Chlorobenzene	0.0500	0.05355		mg/L		107	82 - 135	3	25
Chloroethane	0.0500	0.04797		mg/L		96	60 - 140	3	25
Chloroform	0.0500	0.05518		mg/L		110	70 - 121	3	25
Chloromethane	0.0500	0.04950		mg/L		99	60 - 140	9	25
Vinyl acetate	0.250	0.2693		mg/L		108	60 - 140	5	25
Dibromochloromethane	0.0500	0.05664		mg/L		113	73 - 125	4	25
Dichlorodifluoromethane	0.0500	0.04656		mg/L		93	50 - 150	9	25
Ethylbenzene	0.0500	0.05392		mg/L		108	75 - 125	3	25
Hexachlorobutadiene	0.0500	0.05178		mg/L		104	75 - 125	2	25
n-Hexane	0.0500	0.04444		mg/L		89	72 - 125	0	25
MTBE	0.0500	0.05196		mg/L		104	65 - 135	2	25
Methylene Chloride	0.0500	0.04892		mg/L		98	71 - 125	1	25
Naphthalene	0.0500	0.05111		mg/L		102	70 - 130	3	25
t-Butyl alcohol	0.500	0.5077		mg/L		102	65 - 135	0	25
sec-Butylbenzene	0.0500	0.05198		mg/L		104	75 - 125	2	25
trans-1,4-Dichloro-2-butene	0.0500	0.04900		mg/L		98	70 - 130	3	25
Styrene	0.0500	0.05548		mg/L		111	75 - 125	3	25
Tetrachloroethene	0.0500	0.05507		mg/L		110	71 - 125	5	25
Toluene	0.0500	0.05464		mg/L		109	75 - 130	5	25
Trichloroethene	0.0500	0.05486		mg/L		110	75 - 135	2	25
Trichlorofluoromethane	0.0500	0.04475		mg/L		89	60 - 140	14	25
Allyl Chloride (3-Chloropropene)	0.0500	0.04541		mg/L		91	70 - 130	1	25
2-Chloro-1,3-butadiene	0.0500	0.05634		mg/L		113	70 - 130	2	25
Propane Nitrile (Propionitrile)	0.500	0.5091		mg/L		102	70 - 130	1	25
Methacrylonitrile	0.500	0.5166		mg/L		103	70 - 130	0	25
Methyl methacrylate	0.100	0.1067		mg/L		107	70 - 130	1	25
Ethyl ether	0.0500	0.05564	J	mg/L		111	70 - 130	3	25
Ethyl acetate	0.100	0.09949		mg/L		99	70 - 130	2	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCSD 860-142779/13

Matrix: Water

Analysis Batch: 142779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitropropane	0.100	0.1099		mg/L		110	75 - 125	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 144
4-Bromofluorobenzene (Surr)	99		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 113	<0.00111	U	0.0100	0.00111	mg/L			01/31/24 10:38	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			01/31/24 10:38	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			01/31/24 10:38	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			01/31/24 10:38	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			01/31/24 10:38	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			01/31/24 10:38	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			01/31/24 10:38	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			01/31/24 10:38	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			01/31/24 10:38	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			01/31/24 10:38	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			01/31/24 10:38	1
2-Chloroethyl vinyl ether	<0.000753	U	0.00500	0.000753	mg/L			01/31/24 10:38	1
2-Chlorotoluene	<0.000459	U	0.00200	0.000459	mg/L			01/31/24 10:38	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			01/31/24 10:38	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			01/31/24 10:38	1
2-Hexanone	<0.00745	U	0.0500	0.00745	mg/L			01/31/24 10:38	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			01/31/24 10:38	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
4-Methyl-2-pentanone	<0.00749	U	0.0500	0.00749	mg/L			01/31/24 10:38	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			01/31/24 10:38	1
Acetonitrile	<0.0146	U	0.100	0.0146	mg/L			01/31/24 10:38	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			01/31/24 10:38	1
Acetone	<0.00307	U	0.100	0.00307	mg/L			01/31/24 10:38	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			01/31/24 10:38	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			01/31/24 10:38	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			01/31/24 10:38	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			01/31/24 10:38	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			01/31/24 10:38	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			01/31/24 10:38	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			01/31/24 10:38	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			01/31/24 10:38	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			01/31/24 10:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			01/31/24 10:38	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			01/31/24 10:38	1
Carbon disulfide	<0.00165	U	0.00500	0.00165	mg/L			01/31/24 10:38	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			01/31/24 10:38	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			01/31/24 10:38	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			01/31/24 10:38	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			01/31/24 10:38	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			01/31/24 10:38	1
Cyclohexane	<0.00129	U	0.00500	0.00129	mg/L			01/31/24 10:38	1
Dibromomethane	<0.000357	U	0.00100	0.000357	mg/L			01/31/24 10:38	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			01/31/24 10:38	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			01/31/24 10:38	1
Iodomethane (Methyl Iodide)	<0.00652	U	0.0200	0.00652	mg/L			01/31/24 10:38	1
Isobutyl alcohol	<0.0171	U	0.0500	0.0171	mg/L			01/31/24 10:38	1
2-Propanol	<0.00523	U	0.0100	0.00523	mg/L			01/31/24 10:38	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			01/31/24 10:38	1
Methyl acetate	<0.00401	U	0.0200	0.00401	mg/L			01/31/24 10:38	1
Methylcyclohexane	<0.000608	U	0.0100	0.000608	mg/L			01/31/24 10:38	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			01/31/24 10:38	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			01/31/24 10:38	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			01/31/24 10:38	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			01/31/24 10:38	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			01/31/24 10:38	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			01/31/24 10:38	1
Tetrahydrofuran	<0.00183	U	0.0100	0.00183	mg/L			01/31/24 10:38	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			01/31/24 10:38	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			01/31/24 10:38	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			01/31/24 10:38	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			01/31/24 10:38	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			01/31/24 10:38	1
Vinyl acetate	<0.00214	U	0.0200	0.00214	mg/L			01/31/24 10:38	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			01/31/24 10:38	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			01/31/24 10:38	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			01/31/24 10:38	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			01/31/24 10:38	1
n-Hexane	<0.000517	U	0.00500	0.000517	mg/L			01/31/24 10:38	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			01/31/24 10:38	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			01/31/24 10:38	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
t-Butyl alcohol	<0.00500	U	0.0500	0.00500	mg/L			01/31/24 10:38	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			01/31/24 10:38	1
trans-1,4-Dichloro-2-butene	<0.00135	U	0.0100	0.00135	mg/L			01/31/24 10:38	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			01/31/24 10:38	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			01/31/24 10:38	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			01/31/24 10:38	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			01/31/24 10:38	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			01/31/24 10:38	1
Allyl Chloride (3-Chloropropene)	<0.000597	U	0.00500	0.000597	mg/L			01/31/24 10:38	1
2-Chloro-1,3-butadiene	<0.000598	U	0.00500	0.000598	mg/L			01/31/24 10:38	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: MB 860-142954/11

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Propane Nitrile (Propionitrile)	<0.00334	U	0.0100	0.00334	mg/L			01/31/24 10:38	1
Methacrylonitrile	<0.00272	U	0.0100	0.00272	mg/L			01/31/24 10:38	1
Methyl methacrylate	<0.00225	U	0.0100	0.00225	mg/L			01/31/24 10:38	1
Ethyl ether	<0.0100	U	0.100	0.0100	mg/L			01/31/24 10:38	1
Ethyl acetate	<0.000621	U	0.00200	0.000621	mg/L			01/31/24 10:38	1
2-Nitropropane	<0.00336	U	0.0100	0.00336	mg/L			01/31/24 10:38	1
Ethyl methacrylate	<0.00112	U	0.00500	0.00112	mg/L			01/31/24 10:38	1
Isopropyl acetate	<0.000576	U	0.00500	0.000576	mg/L			01/31/24 10:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		01/31/24 10:38	1
4-Bromofluorobenzene (Surr)	107		74 - 124		01/31/24 10:38	1
Dibromofluoromethane (Surr)	99		75 - 131		01/31/24 10:38	1
Toluene-d8 (Surr)	100		80 - 120		01/31/24 10:38	1

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Freon 113	0.0500	0.05290		mg/L		106	60 - 140
cis-1,2-Dichloroethene	0.0500	0.05396		mg/L		108	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05490		mg/L		110	74 - 125
Isopropylbenzene	0.0500	0.05429		mg/L		109	75 - 125
m,p-Xylenes	0.0500	0.05411		mg/L		108	75 - 125
n-Butylbenzene	0.0500	0.05454		mg/L		109	75 - 125
N-Propylbenzene	0.0500	0.05347		mg/L		107	75 - 125
o-Xylene	0.0500	0.05380		mg/L		108	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.05348		mg/L		107	75 - 125
tert-Butylbenzene	0.0500	0.05242		mg/L		105	75 - 125
trans-1,2-Dichloroethene	0.0500	0.05195		mg/L		104	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05563		mg/L		111	66 - 125
2-Chloroethyl vinyl ether	0.0500	0.05662		mg/L		113	50 - 150
2-Chlorotoluene	0.0500	0.05189		mg/L		104	73 - 125
Vinyl chloride	0.0500	0.05852		mg/L		117	60 - 140
1,1,1,2-Tetrachloroethane	0.0500	0.05452		mg/L		109	72 - 125
2-Hexanone	0.250	0.2712		mg/L		108	60 - 140
1,1,1-Trichloroethane	0.0500	0.05459		mg/L		109	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05210		mg/L		104	74 - 125
1,1,2-Trichloroethane	0.0500	0.05460		mg/L		109	75 - 130
4-Methyl-2-pentanone	0.250	0.2695		mg/L		108	60 - 140
1,1-Dichloroethane	0.0500	0.05461		mg/L		109	71 - 130
Acetonitrile	0.500	0.4797		mg/L		96	60 - 140
1,1-Dichloroethene	0.0500	0.05072		mg/L		101	50 - 150
Acetone	0.250	0.2544		mg/L		102	60 - 140
1,1-Dichloropropene	0.0500	0.05151		mg/L		103	75 - 125
Acrolein	0.250	0.3095		mg/L		124	60 - 140
1,2,3-Trichlorobenzene	0.0500	0.05332		mg/L		107	75 - 137

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acrylonitrile	0.500	0.4886		mg/L		98	60 - 140
1,2,3-Trichloropropane	0.0500	0.05103		mg/L		102	75 - 125
1,2,4-Trichlorobenzene	0.0500	0.05570		mg/L		111	75 - 135
1,2,4-Trimethylbenzene	0.0500	0.05318		mg/L		106	75 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.06050		mg/L		121	59 - 125
1,2-Dibromoethane	0.0500	0.05174		mg/L		103	73 - 125
1,2-Dichlorobenzene	0.0500	0.05257		mg/L		105	75 - 125
1,2-Dichloroethane	0.0500	0.05434		mg/L		109	72 - 130
Carbon disulfide	0.0500	0.04976		mg/L		100	60 - 140
1,2-Dichloropropane	0.0500	0.05586		mg/L		112	74 - 125
1,3,5-Trimethylbenzene	0.0500	0.05273		mg/L		105	60 - 140
1,3-Dichlorobenzene	0.0500	0.05253		mg/L		105	75 - 125
1,3-Dichloropropane	0.0500	0.05295		mg/L		106	75 - 125
1,4-Dichlorobenzene	0.0500	0.05239		mg/L		105	75 - 125
Cyclohexane	0.0500	0.04747		mg/L		95	70 - 130
Dibromomethane	0.0500	0.05495		mg/L		110	69 - 127
2,2-Dichloropropane	0.0500	0.05511		mg/L		110	75 - 125
2-Butanone	0.250	0.2475		mg/L		99	60 - 140
Iodomethane (Methyl Iodide)	0.0500	0.05107		mg/L		102	75 - 125
Isobutyl alcohol	1.24	1.203		mg/L		97	60 - 140
4-Chlorotoluene	0.0500	0.05355		mg/L		107	74 - 125
Methyl acetate	0.100	0.09044		mg/L		90	60 - 140
Methylcyclohexane	0.0500	0.05438		mg/L		109	75 - 125
Benzene	0.0500	0.05386		mg/L		108	75 - 125
Bromobenzene	0.0500	0.05254		mg/L		105	75 - 125
Bromochloromethane	0.0500	0.05411		mg/L		108	60 - 140
Bromodichloromethane	0.0500	0.05470		mg/L		109	75 - 125
Bromoform	0.0500	0.05632		mg/L		113	70 - 130
Bromomethane	0.0500	0.05039		mg/L		101	60 - 140
Tetrahydrofuran	0.100	0.1059		mg/L		106	75 - 125
Carbon tetrachloride	0.0500	0.05030		mg/L		101	70 - 125
Chlorobenzene	0.0500	0.05358		mg/L		107	82 - 135
Chloroethane	0.0500	0.05287		mg/L		106	60 - 140
Chloroform	0.0500	0.05399		mg/L		108	70 - 121
Chloromethane	0.0500	0.05836		mg/L		117	60 - 140
Vinyl acetate	0.250	0.2625		mg/L		105	60 - 140
Dibromochloromethane	0.0500	0.05588		mg/L		112	73 - 125
Dichlorodifluoromethane	0.0500	0.05506		mg/L		110	50 - 150
Ethylbenzene	0.0500	0.05423		mg/L		108	75 - 125
Hexachlorobutadiene	0.0500	0.05439		mg/L		109	75 - 125
n-Hexane	0.0500	0.05738		mg/L		115	72 - 125
MTBE	0.0500	0.05042		mg/L		101	65 - 135
Methylene Chloride	0.0500	0.04810		mg/L		96	71 - 125
Naphthalene	0.0500	0.05415		mg/L		108	70 - 130
t-Butyl alcohol	0.500	0.4507		mg/L		90	65 - 135
sec-Butylbenzene	0.0500	0.05310		mg/L		106	75 - 125
trans-1,4-Dichloro-2-butene	0.0500	0.05133		mg/L		103	70 - 130
Styrene	0.0500	0.05507		mg/L		110	75 - 125
Tetrachloroethene	0.0500	0.05466		mg/L		109	71 - 125

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCS 860-142954/4

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.0500	0.05354		mg/L		107	75 - 130
Trichloroethene	0.0500	0.05527		mg/L		111	75 - 135
Trichlorofluoromethane	0.0500	0.05353		mg/L		107	60 - 140
Allyl Chloride (3-Chloropropene)	0.0500	0.04807		mg/L		96	70 - 130
2-Chloro-1,3-butadiene	0.0500	0.05672		mg/L		113	70 - 130
Propane Nitrile (Propionitrile)	0.500	0.5327		mg/L		107	70 - 130
Methacrylonitrile	0.500	0.5294		mg/L		106	70 - 130
Methyl methacrylate	0.100	0.1102		mg/L		110	70 - 130
Ethyl ether	0.0500	0.05209	J	mg/L		104	70 - 130
Ethyl acetate	0.100	0.1035		mg/L		103	70 - 130
2-Nitropropane	0.100	0.1161		mg/L		116	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Freon 113	0.0500	0.05169		mg/L		103	60 - 140	2	25
cis-1,2-Dichloroethene	0.0500	0.05367		mg/L		107	75 - 125	1	25
cis-1,3-Dichloropropene	0.0500	0.05404		mg/L		108	74 - 125	2	25
Isopropylbenzene	0.0500	0.05333		mg/L		107	75 - 125	2	25
m,p-Xylenes	0.0500	0.05343		mg/L		107	75 - 125	1	25
n-Butylbenzene	0.0500	0.05429		mg/L		109	75 - 125	0	25
N-Propylbenzene	0.0500	0.05353		mg/L		107	75 - 125	0	25
o-Xylene	0.0500	0.05264		mg/L		105	75 - 125	2	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.05328		mg/L		107	75 - 125	0	25
tert-Butylbenzene	0.0500	0.05247		mg/L		105	75 - 125	0	25
trans-1,2-Dichloroethene	0.0500	0.04979		mg/L		100	75 - 125	4	25
trans-1,3-Dichloropropene	0.0500	0.05471		mg/L		109	66 - 125	2	25
2-Chloroethyl vinyl ether	0.0500	0.05536		mg/L		111	50 - 150	2	25
2-Chlorotoluene	0.0500	0.05139		mg/L		103	73 - 125	1	25
Vinyl chloride	0.0500	0.05264		mg/L		105	60 - 140	11	25
1,1,1,2-Tetrachloroethane	0.0500	0.05349		mg/L		107	72 - 125	2	25
2-Hexanone	0.250	0.2621		mg/L		105	60 - 140	3	25
1,1,1-Trichloroethane	0.0500	0.05484		mg/L		110	70 - 130	0	25
1,1,2,2-Tetrachloroethane	0.0500	0.05243		mg/L		105	74 - 125	1	25
1,1,2-Trichloroethane	0.0500	0.05368		mg/L		107	75 - 130	2	25
4-Methyl-2-pentanone	0.250	0.2613		mg/L		105	60 - 140	3	25
1,1-Dichloroethane	0.0500	0.05372		mg/L		107	71 - 130	2	25
Acetonitrile	0.500	0.4432		mg/L		89	60 - 140	8	25
1,1-Dichloroethene	0.0500	0.05035		mg/L		101	50 - 150	1	25
Acetone	0.250	0.2446		mg/L		98	60 - 140	4	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0500	0.05303		mg/L		106	75 - 125	3	25
Acrolein	0.250	0.2997		mg/L		120	60 - 140	3	25
1,2,3-Trichlorobenzene	0.0500	0.06595		mg/L		132	75 - 137	21	25
Acrylonitrile	0.500	0.4609		mg/L		92	60 - 140	6	25
1,2,3-Trichloropropane	0.0500	0.05128		mg/L		103	75 - 125	0	25
1,2,4-Trichlorobenzene	0.0500	0.06012		mg/L		120	75 - 135	8	25
1,2,4-Trimethylbenzene	0.0500	0.05272		mg/L		105	75 - 125	1	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05345		mg/L		107	59 - 125	12	25
1,2-Dibromoethane	0.0500	0.05051		mg/L		101	73 - 125	2	25
1,2-Dichlorobenzene	0.0500	0.05212		mg/L		104	75 - 125	1	25
1,2-Dichloroethane	0.0500	0.05370		mg/L		107	72 - 130	1	25
Carbon disulfide	0.0500	0.04781		mg/L		96	60 - 140	4	25
1,2-Dichloropropane	0.0500	0.05521		mg/L		110	74 - 125	1	25
1,3,5-Trimethylbenzene	0.0500	0.05274		mg/L		105	60 - 140	0	25
1,3-Dichlorobenzene	0.0500	0.05209		mg/L		104	75 - 125	1	25
1,3-Dichloropropane	0.0500	0.05271		mg/L		105	75 - 125	0	25
1,4-Dichlorobenzene	0.0500	0.05146		mg/L		103	75 - 125	2	25
Cyclohexane	0.0500	0.04673		mg/L		93	70 - 130	2	25
Dibromomethane	0.0500	0.05376		mg/L		108	69 - 127	2	25
2,2-Dichloropropane	0.0500	0.05509		mg/L		110	75 - 125	0	25
2-Butanone	0.250	0.2446		mg/L		98	60 - 140	1	25
Iodomethane (Methyl Iodide)	0.0500	0.04887		mg/L		98	75 - 125	4	25
Isobutyl alcohol	1.24	1.108		mg/L		89	60 - 140	8	25
4-Chlorotoluene	0.0500	0.05321		mg/L		106	74 - 125	1	25
Methyl acetate	0.100	0.09426		mg/L		94	60 - 140	4	25
Methylcyclohexane	0.0500	0.05442		mg/L		109	75 - 125	0	25
Benzene	0.0500	0.05247		mg/L		105	75 - 125	3	25
Bromobenzene	0.0500	0.05285		mg/L		106	75 - 125	1	25
Bromochloromethane	0.0500	0.05431		mg/L		109	60 - 140	0	25
Bromodichloromethane	0.0500	0.05403		mg/L		108	75 - 125	1	25
Bromoform	0.0500	0.05459		mg/L		109	70 - 130	3	25
Bromomethane	0.0500	0.04731		mg/L		95	60 - 140	6	25
Tetrahydrofuran	0.100	0.09859		mg/L		99	75 - 125	7	25
Carbon tetrachloride	0.0500	0.04926		mg/L		99	70 - 125	2	25
Chlorobenzene	0.0500	0.05253		mg/L		105	82 - 135	2	25
Chloroethane	0.0500	0.05258		mg/L		105	60 - 140	1	25
Chloroform	0.0500	0.05322		mg/L		106	70 - 121	1	25
Chloromethane	0.0500	0.05070		mg/L		101	60 - 140	14	25
Vinyl acetate	0.250	0.2649		mg/L		106	60 - 140	1	25
Dibromochloromethane	0.0500	0.05469		mg/L		109	73 - 125	2	25
Dichlorodifluoromethane	0.0500	0.04517		mg/L		90	50 - 150	20	25
Ethylbenzene	0.0500	0.05304		mg/L		106	75 - 125	2	25
Hexachlorobutadiene	0.0500	0.06200		mg/L		124	75 - 125	13	25
n-Hexane	0.0500	0.04614		mg/L		92	72 - 125	22	25
MTBE	0.0500	0.04884		mg/L		98	65 - 135	3	25
Methylene Chloride	0.0500	0.04753		mg/L		95	71 - 125	1	25
Naphthalene	0.0500	0.06012		mg/L		120	70 - 130	10	25
t-Butyl alcohol	0.500	0.4365		mg/L		87	65 - 135	3	25
sec-Butylbenzene	0.0500	0.05313		mg/L		106	75 - 125	0	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCSD 860-142954/5

Matrix: Water

Analysis Batch: 142954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,4-Dichloro-2-butene	0.0500	0.05166		mg/L		103	70 - 130	1	25
Styrene	0.0500	0.05333		mg/L		107	75 - 125	3	25
Tetrachloroethene	0.0500	0.05412		mg/L		108	71 - 125	1	25
Toluene	0.0500	0.05255		mg/L		105	75 - 130	2	25
Trichloroethene	0.0500	0.05336		mg/L		107	75 - 135	4	25
Trichlorofluoromethane	0.0500	0.05043		mg/L		101	60 - 140	6	25
Allyl Chloride (3-Chloropropene)	0.0500	0.04441		mg/L		89	70 - 130	8	25
2-Chloro-1,3-butadiene	0.0500	0.05643		mg/L		113	70 - 130	1	25
Propane Nitrile (Propionitrile)	0.500	0.5183		mg/L		104	70 - 130	3	25
Methacrylonitrile	0.500	0.5258		mg/L		105	70 - 130	1	25
Methyl methacrylate	0.100	0.1085		mg/L		109	70 - 130	2	25
Ethyl ether	0.0500	0.05228	J	mg/L		105	70 - 130	0	25
Ethyl acetate	0.100	0.1030		mg/L		103	70 - 130	0	25
2-Nitropropane	0.100	0.1142		mg/L		114	75 - 125	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 860-143347/1-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.000100	U	0.000182	0.000100	mg/L		02/01/24 16:11	02/02/24 10:12	1
Acenaphthylene	<0.0000842	U	0.000182	0.0000842	mg/L		02/01/24 16:11	02/02/24 10:12	1
Anthracene	<0.0000900	U	0.000182	0.0000900	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]anthracene	<0.000134	U	0.000182	0.000134	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[a]pyrene	<0.0000571	U	0.000182	0.0000571	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[b]fluoranthene	<0.0000700	U	0.000182	0.0000700	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[g,h,i]perylene	<0.000113	U	0.000182	0.000113	mg/L		02/01/24 16:11	02/02/24 10:12	1
Benzo[k]fluoranthene	<0.000116	U	0.000182	0.000116	mg/L		02/01/24 16:11	02/02/24 10:12	1
Chrysene	<0.000156	U	0.000182	0.000156	mg/L		02/01/24 16:11	02/02/24 10:12	1
Dibenz(a,h)anthracene	<0.0000760	U	0.000182	0.0000760	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluoranthene	<0.000157	U	0.000182	0.000157	mg/L		02/01/24 16:11	02/02/24 10:12	1
Fluorene	<0.000101	U	0.000182	0.000101	mg/L		02/01/24 16:11	02/02/24 10:12	1
Indeno[1,2,3-cd]pyrene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1
Naphthalene	<0.0000972	U	0.00364	0.0000972	mg/L		02/01/24 16:11	02/02/24 10:12	1
Phenanthrene	<0.0000850	U	0.000182	0.0000850	mg/L		02/01/24 16:11	02/02/24 10:12	1
Pyrene	<0.000130	U	0.000182	0.000130	mg/L		02/01/24 16:11	02/02/24 10:12	1
1-Methylnaphthalene	<0.0000795	U	0.000182	0.0000795	mg/L		02/01/24 16:11	02/02/24 10:12	1
2-Methylnaphthalene	<0.0000913	U	0.000182	0.0000913	mg/L		02/01/24 16:11	02/02/24 10:12	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 860-143347/1-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143347

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	132		54 - 146	02/01/24 16:11	02/02/24 10:12	1
Nitrobenzene-d5 (Surr)	107		46 - 151	02/01/24 16:11	02/02/24 10:12	1
p-Terphenyl-d14 (Surr)	84		51 - 139	02/01/24 16:11	02/02/24 10:12	1

Lab Sample ID: LCS 860-143347/2-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	0.0182	0.02355		mg/L		130	66 - 174
Acenaphthylene	0.0182	0.02444		mg/L		134	67 - 182
Anthracene	0.0182	0.02454		mg/L		135	55 - 191
Benzo[a]anthracene	0.0182	0.01623		mg/L		89	16 - 171
Benzo[a]pyrene	0.0182	0.01289		mg/L		71	10 - 165
Benzo[b]fluoranthene	0.0182	0.01508		mg/L		83	10 - 166
Benzo[g,h,i]perylene	0.0182	0.01308		mg/L		72	10 - 154
Benzo[k]fluoranthene	0.0182	0.01351		mg/L		74	10 - 178
Chrysene	0.0182	0.01407		mg/L		77	10 - 172
Dibenz(a,h)anthracene	0.0182	0.01500		mg/L		83	10 - 168
Fluoranthene	0.0182	0.02231		mg/L		123	52 - 185
Fluorene	0.0182	0.02525		mg/L		139	64 - 184
Indeno[1,2,3-cd]pyrene	0.0182	0.01466		mg/L		81	10 - 160
Naphthalene	0.0182	0.02274		mg/L		125	66 - 166
Phenanthrene	0.0182	0.02340		mg/L		129	66 - 184
Pyrene	0.0182	0.01964		mg/L		108	58 - 181
1-Methylnaphthalene	0.0182	0.02445		mg/L		134	64 - 167
2-Methylnaphthalene	0.0182	0.02456		mg/L		135	63 - 166

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	127		54 - 146
Nitrobenzene-d5 (Surr)	110		46 - 151
p-Terphenyl-d14 (Surr)	69		51 - 139

Lab Sample ID: LCSD 860-143347/3-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	0.0182	0.02249		mg/L		124	66 - 174	5	40
Acenaphthylene	0.0182	0.02312		mg/L		127	67 - 182	6	40
Anthracene	0.0182	0.02267		mg/L		125	55 - 191	8	40
Benzo[a]anthracene	0.0182	0.01379		mg/L		76	16 - 171	16	50
Benzo[a]pyrene	0.0182	0.01080		mg/L		59	10 - 165	18	50
Benzo[b]fluoranthene	0.0182	0.01255		mg/L		69	10 - 166	18	50
Benzo[g,h,i]perylene	0.0182	0.01066		mg/L		59	10 - 154	20	50
Benzo[k]fluoranthene	0.0182	0.01145		mg/L		63	10 - 178	16	50
Chrysene	0.0182	0.01154		mg/L		63	10 - 172	20	50
Dibenz(a,h)anthracene	0.0182	0.01220		mg/L		67	10 - 168	21	50

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 860-143347/3-A

Matrix: Water

Analysis Batch: 143428

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoranthene	0.0182	0.02057		mg/L		113	52 - 185	8	40
Fluorene	0.0182	0.02407		mg/L		132	64 - 184	5	40
Indeno[1,2,3-cd]pyrene	0.0182	0.01183		mg/L		65	10 - 160	21	50
Naphthalene	0.0182	0.02174		mg/L		120	66 - 166	5	40
Phenanthrene	0.0182	0.02190		mg/L		120	66 - 184	7	40
Pyrene	0.0182	0.01772		mg/L		97	58 - 181	10	40
1-Methylnaphthalene	0.0182	0.02389		mg/L		131	64 - 167	2	40
2-Methylnaphthalene	0.0182	0.02351		mg/L		129	63 - 166	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	116		54 - 146
Nitrobenzene-d5 (Surr)	102		46 - 151
p-Terphenyl-d14 (Surr)	58		51 - 139

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 860-143257/1-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.680	U	2.00	0.680	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,2-Dichlorobenzene	2.745		2.00	0.296	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,3-Dichlorobenzene	<0.350	U	2.00	0.350	ug/L		02/01/24 11:15	02/02/24 17:36	1
1,4-Dichlorobenzene	<0.428	U	2.00	0.428	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4,5-Trichlorophenol	<0.108	U	2.00	0.108	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4,6-Trichlorophenol	<0.135	U	2.00	0.135	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dichlorophenol	<0.115	U	2.00	0.115	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dimethylphenol	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dinitrophenol	<1.46	U	8.00	1.46	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,4-Dinitrotoluene	<0.127	U	2.00	0.127	ug/L		02/01/24 11:15	02/02/24 17:36	1
2,6-Dinitrotoluene	<0.199	U	2.00	0.199	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Chloronaphthalene	<1.09	U	8.00	1.09	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Methylnaphthalene	<0.480	U	2.00	0.480	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Methylphenol	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Nitroaniline	<0.163	U	4.00	0.163	ug/L		02/01/24 11:15	02/02/24 17:36	1
2-Nitrophenol	<0.135	U	2.00	0.135	ug/L		02/01/24 11:15	02/02/24 17:36	1
3 & 4 Methylphenol	<0.163	U	2.00	0.163	ug/L		02/01/24 11:15	02/02/24 17:36	1
3-Nitroaniline	<0.344	U	2.00	0.344	ug/L		02/01/24 11:15	02/02/24 17:36	1
4,6-Dinitro-2-methylphenol	<0.736	U	8.00	0.736	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Bromophenyl-phenylether	<0.167	U	2.00	0.167	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chloro-3-methylphenol	<0.157	U	2.00	0.157	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chloroaniline	<0.149	U	4.00	0.149	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Chlorophenyl-phenylether	<0.232	U	2.00	0.232	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Nitroaniline	<0.247	U	4.00	0.247	ug/L		02/01/24 11:15	02/02/24 17:36	1
4-Nitrophenol	<0.531	U	4.00	0.531	ug/L		02/01/24 11:15	02/02/24 17:36	1
Acenaphthene	<0.208	U	2.00	0.208	ug/L		02/01/24 11:15	02/02/24 17:36	1
Acenaphthylene	<0.215	U	2.00	0.215	ug/L		02/01/24 11:15	02/02/24 17:36	1
Aniline (Phenylamine, Aminobenzene)	<0.314	U	4.00	0.314	ug/L		02/01/24 11:15	02/02/24 17:36	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 860-143257/1-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	<0.154	U	2.00	0.154	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[a]anthracene	<0.150	U	2.00	0.150	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[a]pyrene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[b]fluoranthene	<0.210	U	2.00	0.210	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[g,h,i]perylene	<0.143	U	2.00	0.143	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzo[k]fluoranthene	<0.166	U	2.00	0.166	ug/L		02/01/24 11:15	02/02/24 17:36	1
Benzoic acid	<1.06	U	8.00	1.06	ug/L		02/01/24 11:15	02/02/24 17:36	1
Butyl benzyl phthalate	<0.150	U	2.00	0.150	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-chloroethoxy)methane	<0.170	U	2.00	0.170	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-chloroethyl)ether	<0.278	U	2.00	0.278	ug/L		02/01/24 11:15	02/02/24 17:36	1
bis(2-chloroisopropyl) ether	<0.139	U	2.00	0.139	ug/L		02/01/24 11:15	02/02/24 17:36	1
Bis(2-ethylhexyl) phthalate	<0.225	U	2.00	0.225	ug/L		02/01/24 11:15	02/02/24 17:36	1
Chrysene	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dibenz(a,h)anthracene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dibenzofuran	<0.336	U	2.00	0.336	ug/L		02/01/24 11:15	02/02/24 17:36	1
Diethyl phthalate	<0.118	U	2.00	0.118	ug/L		02/01/24 11:15	02/02/24 17:36	1
Dimethyl phthalate	<0.143	U	2.00	0.143	ug/L		02/01/24 11:15	02/02/24 17:36	1
Di-n-butyl phthalate	<0.800	U	2.00	0.800	ug/L		02/01/24 11:15	02/02/24 17:36	1
Di-n-octyl phthalate	<0.169	U	2.00	0.169	ug/L		02/01/24 11:15	02/02/24 17:36	1
Fluoranthene	<0.148	U	2.00	0.148	ug/L		02/01/24 11:15	02/02/24 17:36	1
Fluorene	<0.205	U	2.00	0.205	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorobenzene	<0.126	U	2.00	0.126	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorobutadiene	<0.252	U	2.00	0.252	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachlorocyclopentadiene	<0.431	U	2.00	0.431	ug/L		02/01/24 11:15	02/02/24 17:36	1
Hexachloroethane	<0.140	U	2.00	0.140	ug/L		02/01/24 11:15	02/02/24 17:36	1
Indeno[1,2,3-cd]pyrene	<0.852	U	2.00	0.852	ug/L		02/01/24 11:15	02/02/24 17:36	1
Isophorone	<0.168	U	2.00	0.168	ug/L		02/01/24 11:15	02/02/24 17:36	1
Naphthalene	<0.423	U	2.00	0.423	ug/L		02/01/24 11:15	02/02/24 17:36	1
Nitrobenzene	<0.934	U	2.00	0.934	ug/L		02/01/24 11:15	02/02/24 17:36	1
N-Nitrosodi-n-propylamine	<0.161	U	2.00	0.161	ug/L		02/01/24 11:15	02/02/24 17:36	1
N-Nitrosodiphenylamine	<0.155	U	2.00	0.155	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pentachlorophenol	<0.441	U	2.00	0.441	ug/L		02/01/24 11:15	02/02/24 17:36	1
Phenanthrene	<0.176	U	2.00	0.176	ug/L		02/01/24 11:15	02/02/24 17:36	1
Phenol	<0.202	U	4.00	0.202	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pyrene	<0.159	U	2.00	0.159	ug/L		02/01/24 11:15	02/02/24 17:36	1
Pyridine	<0.725	U	2.00	0.725	ug/L		02/01/24 11:15	02/02/24 17:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	34		31 - 132	02/01/24 11:15	02/02/24 17:36	1
2-Fluorobiphenyl (Surr)	45		40 - 130	02/01/24 11:15	02/02/24 17:36	1
2-Fluorophenol (Surr)	29		21 - 114	02/01/24 11:15	02/02/24 17:36	1
Nitrobenzene-d5 (Surr)	43		37 - 130	02/01/24 11:15	02/02/24 17:36	1
p-Terphenyl-d14 (Surr)	67		20 - 141	02/01/24 11:15	02/02/24 17:36	1
Phenol-d5 (Surr)	21		16 - 117	02/01/24 11:15	02/02/24 17:36	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143257/2-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	20.0	11.69		ug/L		58	34 - 117
1,2-Dichlorobenzene	20.0	14.81		ug/L		74	38 - 111
1,3-Dichlorobenzene	20.0	10.82		ug/L		54	37 - 111
1,4-Dichlorobenzene	20.0	10.62		ug/L		53	37 - 111
2,4,5-Trichlorophenol	20.0	12.12		ug/L		61	39 - 125
2,4,6-Trichlorophenol	20.0	11.89		ug/L		59	42 - 125
2,4-Dichlorophenol	20.0	10.90		ug/L		54	38 - 120
2,4-Dimethylphenol	20.0	11.80		ug/L		59	39 - 117
2,4-Dinitrophenol	20.0	10.15		ug/L		51	13 - 152
2,4-Dinitrotoluene	20.0	16.16		ug/L		81	41 - 128
2,6-Dinitrotoluene	20.0	14.41		ug/L		72	42 - 127
2-Chloronaphthalene	20.0	11.02		ug/L		55	40 - 118
2-Methylnaphthalene	20.0	12.20		ug/L		61	37 - 112
2-Methylphenol	20.0	9.788		ug/L		49	36 - 125
2-Nitroaniline	20.0	10.42		ug/L		52	34 - 126
2-Nitrophenol	20.0	11.02		ug/L		55	38 - 125
3 & 4 Methylphenol	20.0	9.191		ug/L		46	35 - 116
3-Nitroaniline	20.0	12.82		ug/L		64	42 - 123
4,6-Dinitro-2-methylphenol	20.0	14.45		ug/L		72	12 - 157
4-Bromophenyl-phenylether	20.0	13.04		ug/L		65	40 - 126
4-Chloro-3-methylphenol	20.0	12.21		ug/L		61	40 - 119
4-Chloroaniline	20.0	9.411		ug/L		47	39 - 111
4-Chlorophenyl-phenylether	20.0	13.18		ug/L		66	40 - 122
4-Nitroaniline	20.0	17.15		ug/L		86	42 - 125
4-Nitrophenol	20.0	10.61		ug/L		53	14 - 102
Acenaphthene	20.0	11.80		ug/L		59	41 - 116
Acenaphthylene	20.0	12.19		ug/L		61	41 - 118
Aniline (Phenylamine, Aminobenzene)	20.0	6.730		ug/L		34	31 - 100
Anthracene	20.0	14.38		ug/L		72	39 - 127
Benzo[a]anthracene	20.0	16.55		ug/L		83	40 - 129
Benzo[a]pyrene	20.0	17.28		ug/L		86	36 - 141
Benzo[b]fluoranthene	20.0	16.00		ug/L		80	34 - 139
Benzo[g,h,i]perylene	20.0	19.70		ug/L		98	32 - 141
Benzo[k]fluoranthene	20.0	16.29		ug/L		81	31 - 139
Benzoic acid	60.0	18.44		ug/L		31	27 - 195
Butyl benzyl phthalate	20.0	15.79		ug/L		79	44 - 133
Bis(2-chloroethoxy)methane	20.0	11.55		ug/L		58	36 - 113
Bis(2-chloroethyl)ether	20.0	10.80		ug/L		54	38 - 111
bis(2-chloroisopropyl) ether	20.0	10.50		ug/L		53	10 - 150
Bis(2-ethylhexyl) phthalate	20.0	13.81		ug/L		69	44 - 136
Chrysene	20.0	16.83		ug/L		84	41 - 124
Dibenz(a,h)anthracene	20.0	19.04		ug/L		95	35 - 143
Dibenzofuran	20.0	12.39		ug/L		62	41 - 119
Diethyl phthalate	20.0	14.95		ug/L		75	41 - 125
Dimethyl phthalate	20.0	13.73		ug/L		69	42 - 123
Di-n-butyl phthalate	20.0	16.84		ug/L		84	41 - 133
Di-n-octyl phthalate	20.0	13.10		ug/L		65	34 - 145
Fluoranthene	20.0	17.65		ug/L		88	38 - 132

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 860-143257/2-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	20.0	13.18		ug/L		66	41 - 121
Hexachlorobenzene	20.0	13.22		ug/L		66	39 - 128
Hexachlorobutadiene	20.0	11.08		ug/L		55	31 - 120
Hexachlorocyclopentadiene	20.0	13.93		ug/L		70	15 - 117
Hexachloroethane	20.0	10.99		ug/L		55	37 - 109
Indeno[1,2,3-cd]pyrene	20.0	19.67		ug/L		98	35 - 141
Isophorone	20.0	12.22		ug/L		61	40 - 115
Naphthalene	20.0	11.46		ug/L		57	37 - 113
Nitrobenzene	20.0	10.45		ug/L		52	37 - 114
N-Nitrosodi-n-propylamine	20.0	11.71		ug/L		59	38 - 117
N-Nitrosodiphenylamine	20.0	13.13		ug/L		66	40 - 127
Pentachlorophenol	20.0	12.06		ug/L		60	10 - 137
Phenanthrene	20.0	13.86		ug/L		69	39 - 126
Phenol	20.0	6.317		ug/L		32	15 - 106
Pyrene	20.0	14.19		ug/L		71	40 - 130
Pyridine	20.0	3.711		ug/L		19	16 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	66		31 - 132
2-Fluorobiphenyl (Surr)	59		40 - 130
2-Fluorophenol (Surr)	35		21 - 114
Nitrobenzene-d5 (Surr)	55		37 - 130
p-Terphenyl-d14 (Surr)	81		20 - 141
Phenol-d5 (Surr)	29		16 - 117

Lab Sample ID: LCSD 860-143257/3-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	20.0	12.79		ug/L		64	34 - 117	9	30
1,2-Dichlorobenzene	20.0	16.56		ug/L		83	38 - 111	11	30
1,3-Dichlorobenzene	20.0	12.22		ug/L		61	37 - 111	12	30
1,4-Dichlorobenzene	20.0	12.19		ug/L		61	37 - 111	14	30
2,4,5-Trichlorophenol	20.0	13.68		ug/L		68	39 - 125	12	30
2,4,6-Trichlorophenol	20.0	13.20		ug/L		66	42 - 125	10	30
2,4-Dichlorophenol	20.0	12.31		ug/L		62	38 - 120	12	30
2,4-Dimethylphenol	20.0	13.29		ug/L		66	39 - 117	12	30
2,4-Dinitrophenol	20.0	11.24		ug/L		56	13 - 152	10	30
2,4-Dinitrotoluene	20.0	15.75		ug/L		79	41 - 128	3	30
2,6-Dinitrotoluene	20.0	14.49		ug/L		72	42 - 127	1	30
2-Chloronaphthalene	20.0	11.62		ug/L		58	40 - 118	5	30
2-Methylnaphthalene	20.0	13.35		ug/L		67	37 - 112	9	30
2-Methylphenol	20.0	11.33		ug/L		57	36 - 125	15	30
2-Nitroaniline	20.0	11.54		ug/L		58	34 - 126	10	30
2-Nitrophenol	20.0	12.11		ug/L		61	38 - 125	9	30
3 & 4 Methylphenol	20.0	10.61		ug/L		53	35 - 116	14	30
3-Nitroaniline	20.0	13.43		ug/L		67	42 - 123	5	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-143257/3-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,6-Dinitro-2-methylphenol	20.0	14.63		ug/L		73	12 - 157	1	30
4-Bromophenyl-phenylether	20.0	12.80		ug/L		64	40 - 126	2	30
4-Chloro-3-methylphenol	20.0	13.03		ug/L		65	40 - 119	7	30
4-Chloroaniline	20.0	10.56		ug/L		53	39 - 111	12	30
4-Chlorophenyl-phenylether	20.0	13.51		ug/L		68	40 - 122	2	30
4-Nitroaniline	20.0	17.03		ug/L		85	42 - 125	1	30
4-Nitrophenol	20.0	10.81		ug/L		54	14 - 102	2	30
Acenaphthene	20.0	12.56		ug/L		63	41 - 116	6	30
Acenaphthylene	20.0	13.15		ug/L		66	41 - 118	8	30
Aniline (Phenylamine, Aminobenzene)	20.0	8.001		ug/L		40	31 - 100	17	30
Anthracene	20.0	14.40		ug/L		72	39 - 127	0	30
Benzo[a]anthracene	20.0	18.50		ug/L		92	40 - 129	11	30
Benzo[a]pyrene	20.0	19.34		ug/L		97	36 - 141	11	30
Benzo[b]fluoranthene	20.0	17.76		ug/L		89	34 - 139	10	30
Benzo[g,h,i]perylene	20.0	21.89		ug/L		109	32 - 141	11	30
Benzo[k]fluoranthene	20.0	18.28		ug/L		91	31 - 139	12	30
Benzoic acid	60.0	20.01		ug/L		33	27 - 195	8	30
Butyl benzyl phthalate	20.0	17.71		ug/L		89	44 - 133	11	30
Bis(2-chloroethoxy)methane	20.0	12.86		ug/L		64	36 - 113	11	30
Bis(2-chloroethyl)ether	20.0	12.40		ug/L		62	38 - 111	14	30
bis(2-chloroisopropyl) ether	20.0	11.98		ug/L		60	10 - 150	13	30
Bis(2-ethylhexyl) phthalate	20.0	15.48		ug/L		77	44 - 136	11	30
Chrysene	20.0	18.45		ug/L		92	41 - 124	9	30
Dibenz(a,h)anthracene	20.0	21.31		ug/L		107	35 - 143	11	30
Dibenzofuran	20.0	13.11		ug/L		66	41 - 119	6	30
Diethyl phthalate	20.0	15.11		ug/L		76	41 - 125	1	30
Dimethyl phthalate	20.0	13.98		ug/L		70	42 - 123	2	30
Di-n-butyl phthalate	20.0	18.20		ug/L		91	41 - 133	8	30
Di-n-octyl phthalate	20.0	14.51		ug/L		73	34 - 145	10	30
Fluoranthene	20.0	19.01		ug/L		95	38 - 132	7	30
Fluorene	20.0	13.66		ug/L		68	41 - 121	4	30
Hexachlorobenzene	20.0	13.22		ug/L		66	39 - 128	0	30
Hexachlorobutadiene	20.0	12.00		ug/L		60	31 - 120	8	30
Hexachlorocyclopentadiene	20.0	15.40		ug/L		77	15 - 117	10	30
Hexachloroethane	20.0	12.58		ug/L		63	37 - 109	13	30
Indeno[1,2,3-cd]pyrene	20.0	21.93		ug/L		110	35 - 141	11	30
Isophorone	20.0	13.11		ug/L		66	40 - 115	7	30
Naphthalene	20.0	12.74		ug/L		64	37 - 113	11	30
Nitrobenzene	20.0	11.80		ug/L		59	37 - 114	12	30
N-Nitrosodi-n-propylamine	20.0	13.02		ug/L		65	38 - 117	11	30
N-Nitrosodiphenylamine	20.0	13.23		ug/L		66	40 - 127	1	30
Pentachlorophenol	20.0	13.20		ug/L		66	10 - 137	9	30
Phenanthrene	20.0	13.73		ug/L		69	39 - 126	1	30
Phenol	20.0	7.192		ug/L		36	15 - 106	13	30
Pyrene	20.0	15.46		ug/L		77	40 - 130	9	30
Pyridine	20.0	3.627		ug/L		18	16 - 135	2	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8270E LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 860-143257/3-A

Matrix: Water

Analysis Batch: 143536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143257

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	67		31 - 132
2-Fluorobiphenyl (Surr)	65		40 - 130
2-Fluorophenol (Surr)	41		21 - 114
Nitrobenzene-d5 (Surr)	62		37 - 130
p-Terphenyl-d14 (Surr)	90		20 - 141
Phenol-d5 (Surr)	34		16 - 117

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-405719/1-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 405719

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	<1.14	U	3.00	1.14	ng/L		01/30/24 08:24	02/01/24 12:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	95		10 - 120				01/30/24 08:24	02/01/24 12:39	1

Lab Sample ID: LCS 570-405719/2-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 405719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Tributyltin	178	195.3		ng/L		110	10 - 120		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Tripentyltin	100		10 - 120						

Lab Sample ID: LCSD 570-405719/3-A

Matrix: Water

Analysis Batch: 406749

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 405719

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tributyltin	178	162.3		ng/L		91	10 - 120	18	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Tripentyltin	86		10 - 120						

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-142559/1-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.988	U	5.00	0.988	mg/L		01/29/24 07:37	01/29/24 11:12	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 860-142559/1-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<0.988	U	5.00	0.988	mg/L		01/29/24 07:37	01/29/24 11:12	1
Oil Range Organics (Over C28-C36)	<0.954	U	5.00	0.954	mg/L		01/29/24 07:37	01/29/24 11:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 135				01/29/24 07:37	01/29/24 11:12	1
o-Terphenyl	96		70 - 135				01/29/24 07:37	01/29/24 11:12	1

Lab Sample ID: LCS 860-142559/2-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	100	90.06		mg/L		90	70 - 135
Diesel Range Organics (Over C10-C28)	100	104.9		mg/L		105	70 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 135				
o-Terphenyl	103		70 - 135				

Lab Sample ID: LCSD 860-142559/3-A

Matrix: Water

Analysis Batch: 142550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142559

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	100	97.58		mg/L					
Diesel Range Organics (Over C10-C28)	100	108.0		mg/L					
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane									
o-Terphenyl									

Method: 8081B_LL - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-143280/1-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00000012	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 10:35	1
4,4'-DDE	<0.00000013	U	0.0000100	0.0000001	mg/L		02/01/24 12:24	02/02/24 10:35	1
4,4'-DDT	<0.00000069	U	0.0000200	0.0000006	mg/L		02/01/24 12:24	02/02/24 10:35	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 860-143280/1-A
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.00000013 7	U	0.0000100	0.0000001 37	mg/L		02/01/24 12:24	02/02/24 10:35	1
alpha-BHC	<0.00000014 3	U	0.0000090 0	0.0000001 43	mg/L		02/01/24 12:24	02/02/24 10:35	1
alpha-Chlordane	<0.00000023 7	U	0.0000100	0.0000002 37	mg/L		02/01/24 12:24	02/02/24 10:35	1
beta-BHC	<0.00000190	U	0.0000180	0.0000019 0	mg/L		02/01/24 12:24	02/02/24 10:35	1
Chlorodane	<0.00000851	U	0.000250	0.0000085 1	mg/L		02/01/24 12:24	02/02/24 10:35	1
delta-BHC	<0.00000038 7	U	0.000250	0.0000003 87	mg/L		02/01/24 12:24	02/02/24 10:35	1
Dieldrin	<0.00000008 06	U	0.0000100	0.0000000 806	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan I	<0.00000014 6	U	0.0000100	0.0000001 46	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan II	<0.00000008 19	U	0.0000100	0.0000000 819	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endosulfan sulfate	<0.00000031 2	U	0.0000100	0.0000003 12	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin	<0.00000016 8	U	0.0000100	0.0000001 68	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin aldehyde	<0.00000038 4	U	0.0000100	0.0000003 84	mg/L		02/01/24 12:24	02/02/24 10:35	1
Endrin ketone	<0.00000040 5	U	0.0000100	0.0000004 05	mg/L		02/01/24 12:24	02/02/24 10:35	1
gamma-BHC (Lindane)	<0.00000060 0	U	0.0000100	0.0000006 00	mg/L		02/01/24 12:24	02/02/24 10:35	1
Heptachlor	<0.00000109 0	U	0.0000090	0.0000010 9	mg/L		02/01/24 12:24	02/02/24 10:35	1
Heptachlor epoxide	<0.00000008 71	U	0.0000100	0.0000000 871	mg/L		02/01/24 12:24	02/02/24 10:35	1
Methoxychlor	<0.00000056 6	U	0.0000200	0.0000005 66	mg/L		02/01/24 12:24	02/02/24 10:35	1
Toxaphene	<0.0000196	U	0.000200	0.0000196	mg/L		02/01/24 12:24	02/02/24 10:35	1
trans-Chlordane	<0.00000059 9	U	0.0000100	0.0000005 99	mg/L		02/01/24 12:24	02/02/24 10:35	1
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		02/01/24 12:24	02/02/24 10:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	143	S1+	15 - 136				02/01/24 12:24	02/02/24 10:35	1
Tetrachloro-m-xylene	89		18 - 126				02/01/24 12:24	02/02/24 10:35	1

Lab Sample ID: LCS 860-143280/2-A
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.000100	0.0001294		mg/L		129	45 - 130
4,4'-DDE	0.000100	0.0001076		mg/L		108	44 - 133
4,4'-DDT	0.000100	0.0001272		mg/L		127	46 - 150
Aldrin	0.000100	0.00009059		mg/L		91	40 - 120
alpha-BHC	0.000100	0.00009424		mg/L		94	46 - 115

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 860-143280/2-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
alpha-Chlordane	0.000100	0.0001071		mg/L		107	47 - 127
beta-BHC	0.000100	0.0001003		mg/L		100	45 - 127
delta-BHC	0.000100	0.00004738	J	mg/L		47	16 - 130
Dieldrin	0.000100	0.00009350		mg/L		93	46 - 127
Endosulfan I	0.000100	0.0001108		mg/L		111	44 - 125
Endosulfan II	0.000100	0.0001174		mg/L		117	47 - 132
Endosulfan sulfate	0.000100	0.0001027		mg/L		103	48 - 134
Endrin	0.000100	0.0001086		mg/L		109	48 - 145
Endrin aldehyde	0.000100	0.0001294	*+	mg/L		129	22 - 121
Endrin ketone	0.000100	0.0001316		mg/L		132	41 - 153
gamma-BHC (Lindane)	0.000100	0.0001008		mg/L		101	50 - 118
Heptachlor	0.000100	0.0001151		mg/L		115	43 - 138
Heptachlor epoxide	0.000100	0.0001096		mg/L		110	46 - 123
Methoxychlor	0.000100	0.0001352		mg/L		135	49 - 152
trans-Chlordane	0.000100	0.0001032		mg/L		103	45 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	140	S1+	15 - 136
Tetrachloro-m-xylene	95		18 - 126

Lab Sample ID: LCSD 860-143280/3-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.000100	0.0001435	*+	mg/L		143	45 - 130	10	25
4,4'-DDE	0.000100	0.0001204		mg/L		120	44 - 133	11	25
4,4'-DDT	0.000100	0.0001353		mg/L		135	46 - 150	6	25
Aldrin	0.000100	0.0001022		mg/L		102	40 - 120	12	25
alpha-BHC	0.000100	0.0001068		mg/L		107	46 - 115	12	25
alpha-Chlordane	0.000100	0.0001212		mg/L		121	47 - 127	12	25
beta-BHC	0.000100	0.0001188		mg/L		119	45 - 127	17	25
delta-BHC	0.000100	0.00005583	J	mg/L		56	16 - 130	16	25
Dieldrin	0.000100	0.0001060		mg/L		106	46 - 127	12	25
Endosulfan I	0.000100	0.0001247		mg/L		125	44 - 125	12	25
Endosulfan II	0.000100	0.0001306		mg/L		131	47 - 132	11	25
Endosulfan sulfate	0.000100	0.0001114		mg/L		111	48 - 134	8	25
Endrin	0.000100	0.0001181		mg/L		118	48 - 145	8	25
Endrin aldehyde	0.000100	0.0001438	*+	mg/L		144	22 - 121	11	25
Endrin ketone	0.000100	0.0001428		mg/L		143	41 - 153	8	25
gamma-BHC (Lindane)	0.000100	0.0001180		mg/L		118	50 - 118	16	25
Heptachlor	0.000100	0.0001295		mg/L		130	43 - 138	12	25
Heptachlor epoxide	0.000100	0.0001230		mg/L		123	46 - 123	12	25
Methoxychlor	0.000100	0.0001446		mg/L		145	49 - 152	7	25
trans-Chlordane	0.000100	0.0001171		mg/L		117	45 - 128	13	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	143	S1+	15 - 136

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8081B_LL - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 860-143280/3-A

Matrix: Water

Analysis Batch: 143426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	102		18 - 126

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-143280/1-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143280

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1221	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1232	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1242	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1248	<0.0000125	U	0.000200	0.0000125	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1254	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 10:27	1
PCB-1260	<0.00000780	U	0.000200	0.0000078	mg/L		02/01/24 12:24	02/02/24 10:27	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Tetrachloro-m-xylene	115		18 - 116	02/01/24 12:24	02/02/24 10:27	1			
DCB Decachlorobiphenyl (Surr)	146	S1+	27 - 123	02/01/24 12:24	02/02/24 10:27	1			

Lab Sample ID: LCS 860-143280/13-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
PCB-1016	0.00100	0.001027		mg/L		103		54 - 125	
PCB-1260	0.00100	0.001133		mg/L		113		41 - 126	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	122	S1+	18 - 116
DCB Decachlorobiphenyl (Surr)	149	S1+	27 - 123

Lab Sample ID: LCSD 860-143280/14-A

Matrix: Water

Analysis Batch: 143420

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143280

Analyte	Spike	LCSD	LCSD							
	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	RPD	Limit
PCB-1016	0.00100	0.001045		mg/L		104		54 - 125	2	20
PCB-1260	0.00100	0.001142		mg/L		114		41 - 126	1	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	121	S1+	18 - 116
DCB Decachlorobiphenyl (Surr)	140	S1+	27 - 123

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-142589/1-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 12:26	1
MCP	<0.00187	U	0.0200	0.00187	mg/L		01/29/24 09:51	01/30/24 12:26	1
MCPA	0.01960	J	0.0200	0.00116	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dinoseb	<0.0000321	U	0.000200	0.0000321	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dichlorprop	<0.0000441	U	0.000200	0.0000441	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dicamba	<0.0000521	U	0.000200	0.0000521	mg/L		01/29/24 09:51	01/30/24 12:26	1
Dalapon	<0.0000741	U	0.000200	0.0000741	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4-DB	<0.0000551	U	0.000200	0.0000551	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4-D	<0.000155	U	0.000200	0.000155	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4,5-TP (Silvex)	<0.0000401	U	0.000200	0.0000401	mg/L		01/29/24 09:51	01/30/24 12:26	1
2,4,5-T	<0.0000511	U	0.000200	0.0000511	mg/L		01/29/24 09:51	01/30/24 12:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		42 - 150	01/29/24 09:51	01/30/24 12:26	1

Lab Sample ID: LCS 860-142589/2-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pentachlorophenol	0.00201	0.001336		mg/L		67	48 - 134
MCP	0.201	0.1868		mg/L		93	45 - 132
MCPA	0.201	0.2017		mg/L		100	42 - 129
Dinoseb	0.00201	0.0003657	*-	mg/L		18	20 - 128
Dichlorprop	0.00201	0.001611		mg/L		80	45 - 125
Dicamba	0.00201	0.001670		mg/L		83	48 - 134
Dalapon	0.00201	0.001350		mg/L		67	48 - 134
2,4-DB	0.00201	0.001604		mg/L		80	48 - 148
2,4-D	0.00201	0.001563		mg/L		78	45 - 124
2,4,5-TP (Silvex)	0.00201	0.001797		mg/L		90	45 - 124
2,4,5-T	0.00201	0.001680		mg/L		84	40 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	90		42 - 150

Lab Sample ID: LCSD 860-142589/3-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Pentachlorophenol	0.00204	0.001390		mg/L		68	48 - 134	4	25
MCP	0.204	0.2082		mg/L		102	45 - 132	11	25
MCPA	0.204	0.1936		mg/L		95	42 - 129	4	25
Dinoseb	0.00204	0.0001044	J *- *1	mg/L		5	20 - 128	111	25
Dichlorprop	0.00204	0.001697		mg/L		83	45 - 125	5	25
Dicamba	0.00204	0.001750		mg/L		86	48 - 134	5	25
Dalapon	0.00204	0.001425		mg/L		70	48 - 134	5	25
2,4-DB	0.00204	0.001608		mg/L		79	48 - 148	0	25

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 860-142589/3-A

Matrix: Water

Analysis Batch: 142760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	0.00204	0.001660		mg/L		81	45 - 124	6	25
2,4,5-TP (Silvex)	0.00204	0.001860		mg/L		91	45 - 124	3	25
2,4,5-T	0.00204	0.001741		mg/L		85	40 - 134	4	25
Surrogate	%Recovery	LCSD Qualifier	LCSD Limits						
2,4-Dichlorophenylacetic acid	93		42 - 150						

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 180-458448/1-A

Matrix: Water

Analysis Batch: 458755

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.0695	U	0.200	0.0695	ug/L		01/31/24 21:45	02/05/24 22:18	1
Demeton, Total	<0.0489	U	0.400	0.0489	ug/L		01/31/24 21:45	02/05/24 22:18	1
Chlorpyrifos	<0.0865	U	0.200	0.0865	ug/L		01/31/24 21:45	02/05/24 22:18	1
Malathion	<0.0794	U	0.200	0.0794	ug/L		01/31/24 21:45	02/05/24 22:18	1
Diazinon	<0.0782	U	0.200	0.0782	ug/L		01/31/24 21:45	02/05/24 22:18	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
Tributyl phosphate	80		28 - 128				01/31/24 21:45	02/05/24 22:18	1
Triphenylphosphate	96		76 - 138				01/31/24 21:45	02/05/24 22:18	1

Lab Sample ID: LCS 180-458448/2-A

Matrix: Water

Analysis Batch: 458755

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Guthion	2.00	2.535	*+	ug/L		127	48 - 124		
Demeton, Total	2.00	2.560		ug/L		128	30 - 170		
Chlorpyrifos	2.00	2.536		ug/L		127	73 - 128		
Malathion	2.00	2.682	*+	ug/L		134	68 - 133		
Diazinon	2.00	2.612	*+	ug/L		131	74 - 123		
Surrogate	%Recovery	LCS Qualifier	LCS Limits						
Tributyl phosphate	161	S1+	28 - 128						
Triphenylphosphate	137		76 - 138						

Lab Sample ID: LCSD 180-458448/3-A

Matrix: Water

Analysis Batch: 458755

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 458448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Guthion	2.00	1.965	*1	ug/L		98	48 - 124	25	15
Demeton, Total	2.00	1.977		ug/L		99	30 - 170	26	35
Chlorpyrifos	2.00	1.988		ug/L		99	73 - 128	24	24
Malathion	2.00	2.061		ug/L		103	68 - 133	26	34

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: EPA 8141B - Organophosphorous Pesticides (GC) (Continued)

Lab Sample ID: LCSD 180-458448/3-A

Matrix: Water

Analysis Batch: 458755

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 458448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diazinon	2.00	2.003	*1	ug/L		100	74 - 123	26	17
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Tributyl phosphate	121		28 - 128						
Triphenylphosphate	102		76 - 138						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-143493/3

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/02/24 12:34	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/02/24 12:34	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/02/24 12:34	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/02/24 12:34	1

Lab Sample ID: LCS 860-143493/4

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.944		mg/L		99	90 - 110
Chloride	10.0	9.644		mg/L		96	90 - 110
Fluoride	10.0	10.14		mg/L		101	90 - 110
Sulfate	10.0	10.10		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-143493/5

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	10.0	9.885		mg/L		99	90 - 110	1	20
Chloride	10.0	9.636		mg/L		96	90 - 110	0	20
Fluoride	10.0	10.14		mg/L		101	90 - 110	0	20
Sulfate	10.0	10.06		mg/L		101	90 - 110	0	20

Lab Sample ID: LLCS 860-143493/7

Matrix: Water

Analysis Batch: 143493

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4199	J	mg/L		84	50 - 150
Chloride	0.500	0.2792	J	mg/L		56	50 - 150
Fluoride	0.500	0.4764	J	mg/L		95	50 - 150
Sulfate	0.500	0.2751	J	mg/L		55	50 - 150

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 860-143494/3

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/02/24 12:34	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L			02/02/24 12:34	1

Lab Sample ID: LCS 860-143494/4

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10.0	9.596		mg/L		96	80 - 120
Nitrite as N	10.0	9.443		mg/L		94	80 - 120

Lab Sample ID: LCSD 860-143494/5

Matrix: Water

Analysis Batch: 143494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	10.0	9.564		mg/L		96	80 - 120	0	20
Nitrite as N	10.0	9.398		mg/L		94	80 - 120	0	20

Lab Sample ID: MB 860-143834/13

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<0.0711	U	0.500	0.0711	mg/L			02/05/24 18:35	1
Chloride	<0.250	U	0.500	0.250	mg/L			02/05/24 18:35	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/05/24 18:35	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/05/24 18:35	1

Lab Sample ID: LCS 860-143834/14

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.758		mg/L		95	90 - 110
Chloride	5.00	4.853		mg/L		97	90 - 110
Fluoride	5.00	5.189		mg/L		104	90 - 110
Sulfate	5.00	5.072		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-143834/15

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.729		mg/L		95	90 - 110	1	20
Chloride	5.00	4.862		mg/L		97	90 - 110	0	20
Fluoride	5.00	5.207		mg/L		104	90 - 110	0	20
Sulfate	5.00	5.060		mg/L		101	90 - 110	0	20

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 860-143834/17

Matrix: Water

Analysis Batch: 143834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.4433	J	mg/L		89	50 - 150
Chloride	0.500	0.4719	J	mg/L		94	50 - 150
Fluoride	0.500	0.4207	J	mg/L		84	50 - 150
Sulfate	0.500	0.3727	J	mg/L		75	50 - 150

Lab Sample ID: MB 860-143835/13

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/05/24 18:35	1
Nitrite as N	<0.0293	U	0.100	0.0293	mg/L			02/05/24 18:35	1

Lab Sample ID: LCS 860-143835/14

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	4.936		mg/L		99	80 - 120
Nitrite as N	5.00	5.014		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-143835/15

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	4.919		mg/L		98	80 - 120	0	20
Nitrite as N	5.00	5.015		mg/L		100	80 - 120	0	20

Lab Sample ID: LLCS 860-143835/16

Matrix: Water

Analysis Batch: 143835

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.09518	J	mg/L		95	50 - 150

Lab Sample ID: MB 860-145833/10

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetate	<1.00	U	2.00	1.00	mg/L			02/17/24 21:44	1
Formate	<1.00	U	2.00	1.00	mg/L			02/17/24 21:44	1

Lab Sample ID: LCS 860-145833/11

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetate	10.0	9.591		mg/L		96	70 - 130

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-145833/11

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Formate	10.0	10.13		mg/L		101	70 - 130

Lab Sample ID: LCSD 860-145833/12

Matrix: Water

Analysis Batch: 145833

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetate	10.0	9.534		mg/L		95	70 - 130	1	30
Formate	10.0	10.31		mg/L		103	70 - 130	2	30

Lab Sample ID: MB 860-147854/10

Matrix: Water

Analysis Batch: 147854

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetate	<1.00	U	2.00	1.00	mg/L			03/02/24 03:29	1
Formate	<1.00	U	2.00	1.00	mg/L			03/02/24 03:29	1

Lab Sample ID: LCS 860-147854/11

Matrix: Water

Analysis Batch: 147854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetate	10.0	9.775		mg/L		98	70 - 130
Formate	10.0	10.31		mg/L		103	70 - 130

Lab Sample ID: LCSD 860-147854/12

Matrix: Water

Analysis Batch: 147854

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetate	10.0	9.762		mg/L		98	70 - 130	0	30
Formate	10.0	10.30		mg/L		103	70 - 130	0	30

Method: 632 - Carbamate and Urea Pesticides (HPLC)

Lab Sample ID: MB 860-142666/1-A

Matrix: Water

Analysis Batch: 147511

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142666

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		01/29/24 15:49	01/31/24 20:37	1

Lab Sample ID: LCS 860-142666/2-A

Matrix: Water

Analysis Batch: 147511

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142666

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbaryl	100	116.8		ug/L		117	70 - 130

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 632 - Carbamate and Urea Pesticides (HPLC) (Continued)

Lab Sample ID: LCSD 860-142666/3-A

Matrix: Water

Analysis Batch: 147511

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142666

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbaryl	100	115.6		ug/L		116	70 - 130	1	20

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC)

Lab Sample ID: MB 410-468290/1-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetic acid	<3200	U	10000	3200	ug/L		01/30/24 17:21	01/31/24 07:52	1
Butyric acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Citric Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Formic-acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Isovaleric acid	<3500	U	7100	3500	ug/L		01/30/24 17:21	01/31/24 07:52	1
L-Lactic Acid	<1000	U	5000	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Oxalic Acid	275.3	J	1250	250	ug/L		01/30/24 17:21	01/31/24 07:52	1
Pyruvic Acid	<250	U	1250	250	ug/L		01/30/24 17:21	01/31/24 07:52	1
Quinic Acid	<2400	U	5000	2400	ug/L		01/30/24 17:21	01/31/24 07:52	1
Succinic Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Tartaric Acid	<1000	U	2500	1000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Valeric acid	<2000	U	5000	2000	ug/L		01/30/24 17:21	01/31/24 07:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fumaric Acid	83		68 - 139				01/30/24 17:21	01/31/24 07:52	1

Lab Sample ID: MB 410-468290/1-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Propionic acid	<2000	U	10000	2000	ug/L		01/30/24 17:21	01/31/24 10:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fumaric Acid	107		68 - 139				01/30/24 17:21	01/31/24 10:18	1

Lab Sample ID: LCS 410-468290/4-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetic acid	101000	87180		ug/L		87	77 - 123
Butyric acid	100000	88970		ug/L		89	73 - 134
Citric Acid	50000	48560		ug/L		97	77 - 123
Formic-acid	100000	87180		ug/L		87	73 - 129
L-Lactic Acid	50400	42950		ug/L		85	71 - 115
Oxalic Acid	12600	9891		ug/L		78	59 - 138
Pyruvic Acid	12600	11570		ug/L		92	74 - 115
Quinic Acid	50400	45500		ug/L		90	85 - 115

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC) (Continued)

Lab Sample ID: LCS 410-468290/4-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468290

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Fumaric Acid	90		68 - 139

Lab Sample ID: LCS 410-468290/4-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468290

	Spike	LCS	LCS						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Propionic acid	101000	96310		ug/L		96	42 - 145		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Fumaric Acid	102		68 - 139

Lab Sample ID: LCSD 410-468290/3-A

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468290

	Spike	LCSD	LCSD							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Isovaleric acid	100000	91030		ug/L		91	70 - 115	0	30	
Succinic Acid	50000	44400		ug/L		89	65 - 142	0	30	
Tartaric Acid	50000	45300		ug/L		91	75 - 115	0	30	
Valeric acid	101000	92270		ug/L		92	57 - 126	0	30	

Lab Sample ID: LCSD 410-468290/3-A

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468290

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Fumaric Acid	107		68 - 139

Lab Sample ID: 880-38521-1 MS

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Thermal Distillate

Prep Type: Total/NA

Prep Batch: 468290

	Sample	Sample	Spike	MS	MS					
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetic acid	<3200	U	101000	92930		ug/L		92	77 - 123	
Butyric acid	<2000	U	100000	105500		ug/L		105	73 - 134	
Citric Acid	<1000	U	50000	45730		ug/L		91	77 - 123	
Formic-acid	<2000	U	100000	87320		ug/L		87	73 - 129	
L-Lactic Acid	<1000	U	50400	45260		ug/L		90	71 - 115	
Oxalic Acid	<250	U	12600	9413		ug/L		75	59 - 138	
Pyruvic Acid	<250	U	12600	13670		ug/L		109	74 - 115	
Quinic Acid	<2400	U F1	50400	66340	F1	ug/L		132	85 - 115	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Fumaric Acid	96		68 - 139

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8015D VFA - Volatile Fatty Acids - Direct Aqueous Injection (HPLC) (Continued)

Lab Sample ID: 880-38521-1 MS

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Thermal Distillate

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Propionic acid	<2000	U	101000	100200		ug/L		100	42 - 145		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
Fumaric Acid	108		68 - 139								

Lab Sample ID: 880-38521-1 MSD

Matrix: Water

Analysis Batch: 468365

Client Sample ID: Thermal Distillate

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Acetic acid	<3200	U	101000	92560		ug/L		92	77 - 123	0	30
Butyric acid	<2000	U	100000	104500		ug/L		104	73 - 134	1	30
Citric Acid	<1000	U	50000	45530		ug/L		91	77 - 123	0	30
Formic-acid	<2000	U	100000	86930		ug/L		87	73 - 129	0	30
L-Lactic Acid	<1000	U	50400	45270		ug/L		90	71 - 115	0	20
Oxalic Acid	<250	U	12600	9392		ug/L		75	59 - 138	0	30
Pyruvic Acid	<250	U	12600	13770		ug/L		110	74 - 115	1	30
Quinic Acid	<2400	U F1	50400	66370	F1	ug/L		132	85 - 115	0	30

Lab Sample ID: 880-38521-1 MSD

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Thermal Distillate

Prep Type: Total/NA

Prep Batch: 468290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Propionic acid	<2000	U	101000	99940		ug/L	-	99	42 - 145	0	30
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
Fumaric Acid	108		68 - 139								

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 410-468013/1-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	<0.700	U	1.60	0.700	ug/L		01/30/24 10:37	02/07/24 23:30	1
RDX	<0.637	U	1.40	0.637	ug/L		01/30/24 10:37	02/07/24 23:30	1
1,3,5-Trinitrobenzene	<0.460	U	1.00	0.460	ug/L		01/30/24 10:37	02/07/24 23:30	1
Tetryl	<0.398	U	1.60	0.398	ug/L		01/30/24 10:37	02/07/24 23:30	1
1,3-Dinitrobenzene	<0.400	U	1.00	0.400	ug/L		01/30/24 10:37	02/07/24 23:30	1
3,5-Dinitroaniline	<0.377	U	0.900	0.377	ug/L		01/30/24 10:37	02/07/24 23:30	1
Nitroglycerin	<7.54	U	20.0	7.54	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4,6-Trinitrotoluene	<1.80	U	3.70	1.80	ug/L		01/30/24 10:37	02/07/24 23:30	1
Nitrobenzene	<0.420	U	0.900	0.420	ug/L		01/30/24 10:37	02/07/24 23:30	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: MB 410-468013/1-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Amino-2,6-dinitrotoluene	<0.920	U	2.00	0.920	ug/L		01/30/24 10:37	02/07/24 23:30	1
2-Amino-4,6-dinitrotoluene	<0.426	U	0.850	0.426	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,6-Dinitrotoluene	<0.350	U	0.800	0.350	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4-Dinitrotoluene	<0.330	U	0.700	0.330	ug/L		01/30/24 10:37	02/07/24 23:30	1
PETN	<10.1	U	23.0	10.1	ug/L		01/30/24 10:37	02/07/24 23:30	1
2-Nitrotoluene	<0.429	U	0.900	0.429	ug/L		01/30/24 10:37	02/07/24 23:30	1
4-Nitrotoluene	<0.438	U	0.900	0.438	ug/L		01/30/24 10:37	02/07/24 23:30	1
3-Nitrotoluene	<0.378	U	0.800	0.378	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,6-diamino-4-nitrotoluene	<0.931	U	2.00	0.931	ug/L		01/30/24 10:37	02/07/24 23:30	1
2,4-diamino-6-nitrotoluene	<1.04	U	2.10	1.04	ug/L		01/30/24 10:37	02/07/24 23:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		68 - 122	01/30/24 10:37	02/07/24 23:30	1
2-Nitro-m-xylene	96		68 - 122	01/30/24 10:37	02/07/24 23:30	1

Lab Sample ID: LCS 410-468013/2-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HMX	10.0	9.883		ug/L		98	59 - 134
RDX	10.1	10.11		ug/L		100	72 - 127
1,3,5-Trinitrobenzene	10.1	9.918		ug/L		98	71 - 122
Tetryl	10.1	10.20		ug/L		101	67 - 120
1,3-Dinitrobenzene	10.1	10.17		ug/L		101	75 - 120
3,5-Dinitroaniline	10.1	9.800		ug/L		97	71 - 121
Nitroglycerin	111	142.9		ug/L		129	44 - 133
2,4,6-Trinitrotoluene	10.1	10.67		ug/L		106	81 - 128
Nitrobenzene	10.1	10.09	p	ug/L		100	85 - 120
4-Amino-2,6-dinitrotoluene	10.1	13.06		ug/L		129	67 - 132
2-Amino-4,6-dinitrotoluene	10.1	9.965		ug/L		99	72 - 120
2,6-Dinitrotoluene	10.1	10.12		ug/L		100	85 - 122
2,4-Dinitrotoluene	10.1	10.22		ug/L		101	76 - 122
PETN	110	103.1		ug/L		93	71 - 121
2-Nitrotoluene	10.1	9.841		ug/L		97	72 - 122
4-Nitrotoluene	10.1	10.29		ug/L		102	70 - 127
3-Nitrotoluene	10.1	10.25		ug/L		102	72 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	95		68 - 122

Lab Sample ID: LCS 410-468013/4-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-diamino-4-nitrotoluene	20.1	16.61		ug/L		82	50 - 150

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 410-468013/4-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-diamino-6-nitrotoluene	20.0	11.11		ug/L		56	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	97		68 - 122

Lab Sample ID: LCSD 410-468013/3-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
HMX	10.0	9.618		ug/L		96	59 - 134	3	30
RDX	10.1	10.03		ug/L		99	72 - 127	1	30
1,3,5-Trinitrobenzene	10.1	9.929		ug/L		99	71 - 122	0	30
Tetryl	10.1	10.11		ug/L		100	67 - 120	1	30
1,3-Dinitrobenzene	10.1	10.15		ug/L		101	75 - 120	0	30
3,5-Dinitroaniline	10.1	9.796		ug/L		97	71 - 121	0	30
Nitroglycerin	111	141.9		ug/L		128	44 - 133	1	30
2,4,6-Trinitrotoluene	10.1	10.65		ug/L		106	81 - 128	0	30
Nitrobenzene	10.1	10.06	p	ug/L		100	85 - 120	0	30
4-Amino-2,6-dinitrotoluene	10.1	13.11		ug/L		130	67 - 132	0	30
2-Amino-4,6-dinitrotoluene	10.1	9.957		ug/L		99	72 - 120	0	30
2,6-Dinitrotoluene	10.1	10.11		ug/L		100	85 - 122	0	30
2,4-Dinitrotoluene	10.1	10.18		ug/L		101	76 - 122	0	30
PETN	110	102.5		ug/L		93	71 - 121	1	30
2-Nitrotoluene	10.1	9.791		ug/L		97	72 - 122	1	30
4-Nitrotoluene	10.1	10.31		ug/L		102	70 - 127	1	30
3-Nitrotoluene	10.1	10.19		ug/L		101	72 - 126	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	93		68 - 122
2-Nitro-m-xylene	94		68 - 122

Lab Sample ID: LCSD 410-468013/5-A

Matrix: Water

Analysis Batch: 471494

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
2,6-diamino-4-nitrotoluene	20.1	18.41		ug/L		91	50 - 150	10	30
2,4-diamino-6-nitrotoluene	20.0	14.67		ug/L		73	50 - 150	28	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	87		68 - 122
2-Nitro-m-xylene	92		68 - 122

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: VFA - HPLC - Volatile Fatty Acids (HPLC/UV)

Lab Sample ID: MB 860-145354/3

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caproic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Heptanoic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Isocaproic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Isovaleric acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Propionic acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Valeric acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1
Butyric-Isobutyric Acid	<2.00	U	2.00	2.00	mg/L			02/09/24 18:47	1

Lab Sample ID: LCS 860-145354/4

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Caproic acid	50.0	48.50		mg/L		97	70 - 130
Heptanoic acid	50.0	48.15		mg/L		96	70 - 130
Isocaproic acid	50.0	48.92		mg/L		98	70 - 130
Isovaleric acid	50.0	49.62		mg/L		99	70 - 130
Propionic acid	50.0	50.87		mg/L		102	70 - 130
Valeric acid	50.0	49.00		mg/L		98	70 - 130
Butyric-Isobutyric Acid	100	100.5		mg/L		101	70 - 130

Lab Sample ID: LCSD 860-145354/5

Matrix: Water

Analysis Batch: 145354

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Caproic acid	50.0	49.33		mg/L		99	70 - 130	2	30
Heptanoic acid	50.0	47.58		mg/L		95	70 - 130	1	30
Isocaproic acid	50.0	49.72		mg/L		99	70 - 130	2	30
Isovaleric acid	50.0	49.93		mg/L		100	70 - 130	1	30
Propionic acid	50.0	50.45		mg/L		101	70 - 130	1	30
Valeric acid	50.0	49.19		mg/L		98	70 - 130	0	30
Butyric-Isobutyric Acid	100	100.0		mg/L		100	70 - 130	0	25

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-468437/1-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<1.00	U	2.00	1.00	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluoroheptanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorooctanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorononanoic acid	<0.200	U	2.00	0.200	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorodecanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorotridecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorotetradecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorobutanesulfonic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-468437/1-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid	<0.200	U	2.00	0.200	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorooctanesulfonic acid	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
NEtFOSAA	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
NMeFOSAA	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluorododecanoic acid	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
HFPODA	<0.400	U	2.00	0.400	ng/L		01/31/24 06:46	02/02/24 16:09	1
9CI-PF3ONS	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
11CI-PF3OUdS	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.500	U	2.00	0.500	ng/L		01/31/24 06:46	02/02/24 16:09	1
Perfluoroundecanoic acid	<0.300	U	2.00	0.300	ng/L		01/31/24 06:46	02/02/24 16:09	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	88		28 - 166	01/31/24 06:46	02/02/24 16:09	1
13C4 PFHpA	90		40 - 165	01/31/24 06:46	02/02/24 16:09	1
13C8 PFOA	94		52 - 153	01/31/24 06:46	02/02/24 16:09	1
13C9 PFNA	101		52 - 168	01/31/24 06:46	02/02/24 16:09	1
13C6 PFDA	90		53 - 151	01/31/24 06:46	02/02/24 16:09	1
13C2-PFDoDA	90		22 - 165	01/31/24 06:46	02/02/24 16:09	1
13C2 PFTeDA	90		10 - 171	01/31/24 06:46	02/02/24 16:09	1
13C3 PFBS	96		34 - 200	01/31/24 06:46	02/02/24 16:09	1
13C3 PFHxS	94		48 - 169	01/31/24 06:46	02/02/24 16:09	1
13C8 PFOS	94		59 - 155	01/31/24 06:46	02/02/24 16:09	1
d3-NMeFOSAA	98		38 - 168	01/31/24 06:46	02/02/24 16:09	1
d5-NEtFOSAA	111		34 - 181	01/31/24 06:46	02/02/24 16:09	1
13C3 HFPO-DA	94		13 - 170	01/31/24 06:46	02/02/24 16:09	1
13C7 PFUnA	86		41 - 163	01/31/24 06:46	02/02/24 16:09	1

Lab Sample ID: LCS 410-468437/2-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	22.08		ng/L		86	59 - 130
Perfluoroheptanoic acid	25.6	22.23		ng/L		87	64 - 130
Perfluorooctanoic acid	25.6	21.95		ng/L		86	58 - 132
Perfluorononanoic acid	25.6	21.15		ng/L		83	63 - 133
Perfluorodecanoic acid	25.6	23.44		ng/L		92	62 - 133
Perfluorotridecanoic acid	25.6	22.27		ng/L		87	59 - 136
Perfluorotetradecanoic acid	25.6	21.94		ng/L		86	62 - 131
Perfluorobutanesulfonic acid	22.7	19.63		ng/L		87	64 - 132
Perfluorohexanesulfonic acid	23.3	19.54		ng/L		84	62 - 130
Perfluorooctanesulfonic acid	23.7	19.45		ng/L		82	62 - 130
NEtFOSAA	25.6	20.88		ng/L		82	63 - 130
NMeFOSAA	25.6	20.38		ng/L		80	62 - 131
Perfluorododecanoic acid	25.6	22.12		ng/L		86	61 - 132
HFPODA	25.6	20.27		ng/L		79	53 - 131
9CI-PF3ONS	23.8	20.15		ng/L		85	60 - 130
11CI-PF3OUdS	23.8	19.61		ng/L		82	57 - 130

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-468437/2-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	24.2	20.75		ng/L		86	61 - 130
Perfluoroundecanoic acid	25.6	23.97		ng/L		94	62 - 131
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C5 PFHxA	91		28 - 166				
13C4 PFHpA	90		40 - 165				
13C8 PFOA	93		52 - 153				
13C9 PFNA	105		52 - 168				
13C6 PFDA	94		53 - 151				
13C2-PFDoDA	97		22 - 165				
13C2 PFTeDA	100		10 - 171				
13C3 PFBS	100		34 - 200				
13C3 PFHxS	96		48 - 169				
13C8 PFOS	97		59 - 155				
d3-NMeFOSAA	108		38 - 168				
d5-NEtFOSAA	122		34 - 181				
13C3 HFPO-DA	95		13 - 170				
13C7 PFUnA	91		41 - 163				

Lab Sample ID: LCSD 410-468437/3-A

Matrix: Water

Analysis Batch: 469600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468437

Analysis Data: 100000							Rep Data: 100000		Rep Data: 100000		
Analyte			Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
			Added	Result	Qualifier			Limits	Limits	Limit	
Perfluorohexanoic acid			25.6	23.58		ng/L		92	59 - 130	7	30
Perfluoroheptanoic acid			25.6	23.33		ng/L		91	64 - 130	5	30
Perfluorooctanoic acid			25.6	22.47		ng/L		88	58 - 132	2	30
Perfluorononanoic acid			25.6	21.42		ng/L		84	63 - 133	1	30
Perfluorodecanoic acid			25.6	23.62		ng/L		92	62 - 133	1	30
Perfluorotridecanoic acid			25.6	22.36		ng/L		87	59 - 136	0	30
Perfluorotetradecanoic acid			25.6	22.25		ng/L		87	62 - 131	1	30
Perfluorobutanesulfonic acid			22.7	20.07		ng/L		89	64 - 132	2	30
Perfluorohexanesulfonic acid			23.3	20.05		ng/L		86	62 - 130	3	30
Perfluorooctanesulfonic acid			23.7	19.66		ng/L		83	62 - 130	1	30
NEtFOSAA			25.6	21.93		ng/L		86	63 - 130	5	30
NMeFOSAA			25.6	21.19		ng/L		83	62 - 131	4	30
Perfluorododecanoic acid			25.6	22.21		ng/L		87	61 - 132	0	30
HFPODA			25.6	19.88		ng/L		78	53 - 131	2	30
9Cl-PF3ONS			23.8	20.28		ng/L		85	60 - 130	1	30
11Cl-PF3OUdS			23.8	20.09		ng/L		84	57 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			24.2	21.01		ng/L		87	61 - 130	1	30
Perfluoroundecanoic acid			25.6	23.18		ng/L		91	62 - 131	3	30
LCSD LCSD											
Isotope Dilution	%Recovery	Qualifier	Limits								
13C5 PFHxA	91		28 - 166								
13C4 PFHpA	93		40 - 165								
13C8 PFOA	98		52 - 153								

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-468437/3-A
Matrix: Water
Analysis Batch: 469600

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468437

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
13C9 PFNA	107		52 - 168
13C6 PFDA	99		53 - 151
13C2-PFDoDA	98		22 - 165
13C2 PFTeDA	102		10 - 171
13C3 PFBS	103		34 - 200
13C3 PFHxS	99		48 - 169
13C8 PFOS	100		59 - 155
d3-NMeFOSAA	111		38 - 168
d5-NEtFOSAA	121		34 - 181
13C3 HFPO-DA	104		13 - 170
13C7 PFUnA	94		41 - 163

Method: SW846 6850 - Perchlorate by LC/MS or LC/MS/MS

Lab Sample ID: MB 410-468684/1-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468684

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perchlorate	<0.230	U	1.00	0.230	ug/L		01/31/24 13:12	01/31/24 15:00	1

Lab Sample ID: LCS 410-468684/2-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468684

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Perchlorate	1.00	0.9575	J	ug/L		96	80 - 120

Lab Sample ID: LCSD 410-468684/3-A
Matrix: Water
Analysis Batch: 468704

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468684

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Perchlorate	1.00	0.9588	J	ug/L		96	80 - 120	0	15

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 410-479618/1-A
Matrix: Water
Analysis Batch: 480011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 479618

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,3,4,6,7,8-HpCDD	<4.53	U	25.0	4.53	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,4,6,7,8-HpCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,4,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,4,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,4,7,8,9-HpCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,6,7,8-HxCDD	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,7,8-PeCDD	<3.16	U	25.0	3.16	pg/L		03/05/24 06:52	03/06/24 01:05	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 410-479618/1-A
Matrix: Water
Analysis Batch: 480011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 479618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDF	<2.76	U	25.0	2.76	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,7,8,9-HxCDD	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
1,2,3,7,8,9-HxCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
2,3,4,6,7,8-HxCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
2,3,4,7,8-PeCDF	<2.50	U	25.0	2.50	pg/L		03/05/24 06:52	03/06/24 01:05	1
2,3,7,8-TCDD	<0.873	U	5.00	0.873	pg/L		03/05/24 06:52	03/06/24 01:05	1
2,3,7,8-TCDF	<0.812	U	5.00	0.812	pg/L		03/05/24 06:52	03/06/24 01:05	1
OCDD	<36.2	U	110	36.2	pg/L		03/05/24 06:52	03/06/24 01:05	1
OCDF	<6.15	U	50.0	6.15	pg/L		03/05/24 06:52	03/06/24 01:05	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	112		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,4,6,7,8-HpCDF	108		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,4,7,8-HxCDD	103		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,4,7,8-HxCDF	108		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,4,7,8,9-HpCDF	110		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,6,7,8-HxCDD	105		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,6,7,8-HxCDF	108		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,7,8-PeCDD	96		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,7,8-PeCDF	103		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,7,8,9-HxCDD	114		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-1,2,3,7,8,9-HxCDF	105		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-2,3,4,6,7,8-HxCDF	106		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-2,3,4,7,8-PeCDF	108		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-2,3,7,8-TCDD	98		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-2,3,7,8-TCDF	98		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-OCDD	115		40 - 135	03/05/24 06:52	03/06/24 01:05	1
13C-OCDF	113		40 - 135	03/05/24 06:52	03/06/24 01:05	1

Lab Sample ID: LCS 410-479618/2-A
Matrix: Water
Analysis Batch: 480011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 479618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,3,4,6,7,8-HpCDD	1000	789.0		pg/L		79	76 - 123
1,2,3,4,6,7,8-HpCDF	1000	809.7		pg/L		81	74 - 123
1,2,3,4,7,8-HxCDD	1000	849.6		pg/L		85	79 - 129
1,2,3,4,7,8-HxCDF	1000	826.1		pg/L		83	78 - 127
1,2,3,4,7,8,9-HpCDF	1000	834.7		pg/L		83	75 - 124
1,2,3,6,7,8-HxCDD	1000	865.0		pg/L		86	80 - 128
1,2,3,6,7,8-HxCDF	1000	815.2		pg/L		82	78 - 125
1,2,3,7,8-PeCDD	1000	919.5		pg/L		92	80 - 133
1,2,3,7,8-PeCDF	1000	894.1		pg/L		89	80 - 131
1,2,3,7,8,9-HxCDD	1000	863.2		pg/L		86	80 - 133
1,2,3,7,8,9-HxCDF	1000	834.5		pg/L		83	78 - 125
2,3,4,6,7,8-HxCDF	1000	831.9		pg/L		83	77 - 126
2,3,4,7,8-PeCDF	1000	892.1		pg/L		89	80 - 130
2,3,7,8-TCDD	200	177.8		pg/L		89	75 - 128
2,3,7,8-TCDF	200	161.8		pg/L		81	72 - 128

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 410-479618/2-A

Matrix: Water

Analysis Batch: 480011

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 479618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
OCDD	2000	1707		pg/L		85	80 - 123
OCDF	2000	1693		pg/L		85	78 - 125

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-1,2,3,4,6,7,8-HpCDD	96		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	92		40 - 135
13C-1,2,3,4,7,8-HxCDD	87		40 - 135
13C-1,2,3,4,7,8-HxCDF	91		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	93		40 - 135
13C-1,2,3,6,7,8-HxCDD	89		40 - 135
13C-1,2,3,6,7,8-HxCDF	90		40 - 135
13C-1,2,3,7,8-PeCDD	83		40 - 135
13C-1,2,3,7,8-PeCDF	86		40 - 135
13C-1,2,3,7,8,9-HxCDD	95		40 - 135
13C-1,2,3,7,8,9-HxCDF	90		40 - 135
13C-2,3,4,6,7,8-HxCDF	90		40 - 135
13C-2,3,4,7,8-PeCDF	92		40 - 135
13C-2,3,7,8-TCDD	81		40 - 135
13C-2,3,7,8-TCDF	81		40 - 135
13C-OCDD	97		40 - 135
13C-OCDF	94		40 - 135

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-143032/1-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143032

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		01/31/24 10:30	01/31/24 18:55	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		01/31/24 10:30	01/31/24 18:55	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		01/31/24 10:30	01/31/24 18:55	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		01/31/24 10:30	01/31/24 18:55	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		01/31/24 10:30	01/31/24 18:55	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		01/31/24 10:30	01/31/24 18:55	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		01/31/24 10:30	01/31/24 18:55	1
Calcium	0.5950		0.200	0.102	mg/L		01/31/24 10:30	01/31/24 18:55	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		01/31/24 10:30	01/31/24 18:55	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		01/31/24 10:30	01/31/24 18:55	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		01/31/24 10:30	01/31/24 18:55	1
Iron	<0.0283	U	0.200	0.0283	mg/L		01/31/24 10:30	01/31/24 18:55	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		01/31/24 10:30	01/31/24 18:55	1
Magnesium	<0.0445	U	0.200	0.0445	mg/L		01/31/24 10:30	01/31/24 18:55	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		01/31/24 10:30	01/31/24 18:55	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		01/31/24 10:30	01/31/24 18:55	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		01/31/24 10:30	01/31/24 18:55	1
Phosphorus	0.02170	J	0.0400	0.0184	mg/L		01/31/24 10:30	01/31/24 18:55	1
Potassium	<0.106	U	0.500	0.106	mg/L		01/31/24 10:30	01/31/24 18:55	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		01/31/24 10:30	01/31/24 18:55	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 860-143032/1-A
Matrix: Water
Analysis Batch: 143222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143032

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silicon	<0.173	U	0.500	0.173	mg/L		01/31/24 10:30	01/31/24 18:55	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		01/31/24 10:30	01/31/24 18:55	1
Sodium	<0.152	U	0.500	0.152	mg/L		01/31/24 10:30	01/31/24 18:55	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		01/31/24 10:30	01/31/24 18:55	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		01/31/24 10:30	01/31/24 18:55	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		01/31/24 10:30	01/31/24 18:55	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		01/31/24 10:30	01/31/24 18:55	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		01/31/24 10:30	01/31/24 18:55	1
Zinc	0.01630	J	0.0300	0.00837	mg/L		01/31/24 10:30	01/31/24 18:55	1
Lithium	<0.0174	U	0.0400	0.0174	mg/L		01/31/24 10:30	01/31/24 18:55	1

Lab Sample ID: LCS 860-143032/2-A
Matrix: Water
Analysis Batch: 143222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	4.600		mg/L		92	80 - 120
Antimony	1.00	0.8850		mg/L		89	80 - 120
Arsenic	1.00	0.9900		mg/L		99	80 - 120
Barium	1.00	0.9450		mg/L		95	80 - 120
Beryllium	1.00	0.9560		mg/L		96	80 - 120
Boron	1.00	0.9650		mg/L		97	80 - 120
Cadmium	1.00	0.9780		mg/L		98	80 - 120
Calcium	25.0	25.40		mg/L		102	80 - 120
Chromium	1.00	0.9920		mg/L		99	80 - 120
Cobalt	1.00	0.9470		mg/L		95	80 - 120
Copper	1.00	1.010		mg/L		101	80 - 120
Iron	5.00	5.120		mg/L		102	80 - 120
Lead	1.00	0.9910		mg/L		99	80 - 120
Magnesium	25.0	25.20		mg/L		101	80 - 120
Manganese	1.00	1.040		mg/L		104	80 - 120
Molybdenum	1.00	0.9700		mg/L		97	80 - 120
Nickel	1.00	0.9370		mg/L		94	80 - 120
Phosphorus	1.00	0.9410		mg/L		94	80 - 120
Potassium	10.0	9.620		mg/L		96	80 - 120
Selenium	1.00	0.9690		mg/L		97	80 - 120
Silicon	10.0	9.610		mg/L		96	80 - 120
Silver	0.500	0.5420		mg/L		108	80 - 120
Sodium	25.0	25.40		mg/L		102	80 - 120
Strontium	1.00	1.050		mg/L		105	80 - 120
Thallium	1.00	1.000		mg/L		100	80 - 120
Tin	1.00	0.9850		mg/L		99	80 - 120
Titanium	1.00	1.010		mg/L		101	80 - 120
Vanadium	1.00	0.9860		mg/L		99	80 - 120
Zinc	1.00	0.9370		mg/L		94	80 - 120
Lithium	1.00	0.9330		mg/L		93	80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 860-143032/3-A

Matrix: Water

Analysis Batch: 143222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143032

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	5.00	4.680		mg/L		94	80 - 120	2	20
Antimony	1.00	0.9220		mg/L		92	80 - 120	4	20
Arsenic	1.00	1.010		mg/L		101	80 - 120	2	20
Barium	1.00	0.9600		mg/L		96	80 - 120	2	20
Beryllium	1.00	0.9720		mg/L		97	80 - 120	2	20
Boron	1.00	0.9780		mg/L		98	80 - 120	1	20
Cadmium	1.00	0.9940		mg/L		99	80 - 120	2	20
Calcium	25.0	25.70		mg/L		103	80 - 120	1	20
Chromium	1.00	1.010		mg/L		101	80 - 120	2	20
Cobalt	1.00	0.9620		mg/L		96	80 - 120	2	20
Copper	1.00	1.030		mg/L		103	80 - 120	2	20
Iron	5.00	5.200		mg/L		104	80 - 120	2	20
Lead	1.00	1.010		mg/L		101	80 - 120	2	20
Magnesium	25.0	25.60		mg/L		102	80 - 120	2	20
Manganese	1.00	1.060		mg/L		106	80 - 120	2	20
Molybdenum	1.00	0.9980		mg/L		100	80 - 120	3	20
Nickel	1.00	0.9500		mg/L		95	80 - 120	1	20
Phosphorus	1.00	0.9450		mg/L		95	80 - 120	0	20
Potassium	10.0	9.750		mg/L		98	80 - 120	1	20
Selenium	1.00	0.9930		mg/L		99	80 - 120	2	20
Silicon	10.0	9.780		mg/L		98	80 - 120	2	20
Silver	0.500	0.5490		mg/L		110	80 - 120	1	20
Sodium	25.0	25.80		mg/L		103	80 - 120	2	20
Strontium	1.00	1.070		mg/L		107	80 - 120	2	20
Thallium	1.00	1.020		mg/L		102	80 - 120	2	20
Tin	1.00	1.000		mg/L		100	80 - 120	2	20
Titanium	1.00	1.030		mg/L		103	80 - 120	2	20
Vanadium	1.00	1.000		mg/L		100	80 - 120	1	20
Zinc	1.00	0.9530		mg/L		95	80 - 120	2	20
Lithium	1.00	0.9460		mg/L		95	80 - 120	1	20

Lab Sample ID: MB 860-142731/22-C

Matrix: Water

Analysis Batch: 144061

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 143811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0352	U	0.200	0.0352	mg/L		02/05/24 11:30	02/06/24 14:42	1
Antimony	<0.00803	U	0.0200	0.00803	mg/L		02/05/24 11:30	02/06/24 14:42	1
Arsenic	<0.00650	U	0.0100	0.00650	mg/L		02/05/24 11:30	02/06/24 14:42	1
Barium	<0.00125	U	0.0100	0.00125	mg/L		02/05/24 11:30	02/06/24 14:42	1
Beryllium	<0.00107	U	0.00400	0.00107	mg/L		02/05/24 11:30	02/06/24 14:42	1
Boron	<0.0162	U	0.0500	0.0162	mg/L		02/05/24 11:30	02/06/24 14:42	1
Cadmium	<0.000831	U	0.00500	0.000831	mg/L		02/05/24 11:30	02/06/24 14:42	1
Dissolved Calcium	<0.102	U	0.200	0.102	mg/L		02/05/24 11:30	02/06/24 14:42	1
Chromium	<0.00216	U	0.0100	0.00216	mg/L		02/05/24 11:30	02/06/24 14:42	1
Cobalt	<0.00123	U	0.0100	0.00123	mg/L		02/05/24 11:30	02/06/24 14:42	1
Copper	<0.00388	U	0.0200	0.00388	mg/L		02/05/24 11:30	02/06/24 14:42	1
Iron	<0.0283	U	0.200	0.0283	mg/L		02/05/24 11:30	02/06/24 14:42	1
Lead	<0.00368	U	0.0100	0.00368	mg/L		02/05/24 11:30	02/06/24 14:42	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 860-142731/22-C

Matrix: Water

Analysis Batch: 144061

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 143811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Magnesium	<0.0445	U	0.200	0.0445	mg/L		02/05/24 11:30	02/06/24 14:42	1
Manganese	<0.00436	U	0.0200	0.00436	mg/L		02/05/24 11:30	02/06/24 14:42	1
Molybdenum	<0.00260	U	0.0100	0.00260	mg/L		02/05/24 11:30	02/06/24 14:42	1
Nickel	<0.00177	U	0.0100	0.00177	mg/L		02/05/24 11:30	02/06/24 14:42	1
P	<0.0184	U	0.0400	0.0184	mg/L		02/05/24 11:30	02/06/24 14:42	1
Potassium	<0.106	U	0.500	0.106	mg/L		02/05/24 11:30	02/06/24 14:42	1
Selenium	<0.00927	U	0.0300	0.00927	mg/L		02/05/24 11:30	02/06/24 14:42	1
Silver	<0.00371	U	0.0200	0.00371	mg/L		02/05/24 11:30	02/06/24 14:42	1
Sodium	<0.152	U	0.500	0.152	mg/L		02/05/24 11:30	02/06/24 14:42	1
Strontium	<0.00308	U	0.0200	0.00308	mg/L		02/05/24 11:30	02/06/24 14:42	1
Thallium	<0.0110	U	0.0200	0.0110	mg/L		02/05/24 11:30	02/06/24 14:42	1
Tin	<0.00689	U	0.0200	0.00689	mg/L		02/05/24 11:30	02/06/24 14:42	1
Titanium	<0.00397	U	0.0300	0.00397	mg/L		02/05/24 11:30	02/06/24 14:42	1
Vanadium	<0.00518	U	0.0200	0.00518	mg/L		02/05/24 11:30	02/06/24 14:42	1
SiO2	<0.370	U	1.07	0.370	mg/L		02/05/24 11:30	02/06/24 14:42	1
Zinc	<0.00837	U	0.0300	0.00837	mg/L		02/05/24 11:30	02/06/24 14:42	1
Phosphorus as PO4	<0.0564	U	0.123	0.0564	mg/L		02/05/24 11:30	02/06/24 14:42	1

Lab Sample ID: LCS 860-142731/23-C

Matrix: Water

Analysis Batch: 144061

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 143811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	4.540		mg/L		91	80 - 120
Antimony	1.00	0.8000		mg/L		80	80 - 120
Arsenic	1.00	0.9700		mg/L		97	80 - 120
Barium	1.00	1.000		mg/L		100	80 - 120
Beryllium	1.00	0.9950		mg/L		100	80 - 120
Boron	1.00	0.9670		mg/L		97	80 - 120
Cadmium	1.00	0.9870		mg/L		99	80 - 120
Dissolved Calcium	25.0	23.70		mg/L		95	80 - 120
Chromium	1.00	0.9830		mg/L		98	80 - 120
Cobalt	1.00	0.9670		mg/L		97	80 - 120
Copper	1.00	0.9900		mg/L		99	80 - 120
Iron	5.00	4.890		mg/L		98	80 - 120
Lead	1.00	0.9720		mg/L		97	80 - 120
Dissolved Magnesium	25.0	23.70		mg/L		95	80 - 120
Manganese	1.00	1.010		mg/L		101	80 - 120
Molybdenum	1.00	0.9120		mg/L		91	80 - 120
Nickel	1.00	0.9630		mg/L		96	80 - 120
P	1.00	0.8470		mg/L		85	80 - 120
Potassium	10.0	9.470		mg/L		95	80 - 120
Selenium	1.00	0.9640		mg/L		96	80 - 120
Silver	0.500	0.4300		mg/L		86	80 - 120
Sodium	25.0	24.10		mg/L		96	80 - 120
Strontium	1.00	1.030		mg/L		103	80 - 120
Thallium	1.00	1.000		mg/L		100	80 - 120
Tin	1.00	0.9780		mg/L		98	80 - 120
Titanium	1.00	0.9670		mg/L		97	80 - 120

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-142731/23-C

Matrix: Water

Analysis Batch: 144061

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 143811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	1.00	0.9850		mg/L		99	80 - 120
SiO2	21.4	21.61		mg/L		101	80 - 120
Zinc	1.00	0.9750		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-142731/24-C

Matrix: Water

Analysis Batch: 144061

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 143811

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	5.00	4.540		mg/L		91	80 - 120	0	20
Antimony	1.00	0.8800		mg/L		88	80 - 120	10	20
Arsenic	1.00	0.9710		mg/L		97	80 - 120	0	20
Barium	1.00	1.000		mg/L		100	80 - 120	0	20
Beryllium	1.00	0.9960		mg/L		100	80 - 120	0	20
Boron	1.00	0.9740		mg/L		97	80 - 120	1	20
Cadmium	1.00	0.9880		mg/L		99	80 - 120	0	20
Dissolved Calcium	25.0	23.70		mg/L		95	80 - 120	0	20
Chromium	1.00	0.9870		mg/L		99	80 - 120	0	20
Cobalt	1.00	0.9670		mg/L		97	80 - 120	0	20
Copper	1.00	0.9860		mg/L		99	80 - 120	0	20
Iron	5.00	4.900		mg/L		98	80 - 120	0	20
Lead	1.00	0.9730		mg/L		97	80 - 120	0	20
Dissolved Magnesium	25.0	23.70		mg/L		95	80 - 120	0	20
Manganese	1.00	1.010		mg/L		101	80 - 120	0	20
Molybdenum	1.00	0.9340		mg/L		93	80 - 120	2	20
Nickel	1.00	0.9620		mg/L		96	80 - 120	0	20
P	1.00	0.8530		mg/L		85	80 - 120	1	20
Potassium	10.0	9.480		mg/L		95	80 - 120	0	20
Selenium	1.00	0.9740		mg/L		97	80 - 120	1	20
Silver	0.500	0.4280		mg/L		86	80 - 120	0	20
Sodium	25.0	24.20		mg/L		97	80 - 120	0	20
Strontium	1.00	1.030		mg/L		103	80 - 120	0	20
Thallium	1.00	0.9990		mg/L		100	80 - 120	0	20
Tin	1.00	0.9830		mg/L		98	80 - 120	1	20
Titanium	1.00	0.9680		mg/L		97	80 - 120	0	20
Vanadium	1.00	0.9850		mg/L		99	80 - 120	0	20
SiO2	21.4	21.61		mg/L		101	80 - 120	0	20
Zinc	1.00	0.9770		mg/L		98	80 - 120	0	20

Method: 6020A - Rare Earth Metals (ICP/MS)

Lab Sample ID: MB 860-142814/1-A

Matrix: Water

Analysis Batch: 143074

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dysprosium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Praseodymium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Lanthanum	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6020A - Rare Earth Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-142814/1-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 142814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cerium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Neodymium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Yttrium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Terbium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1
Europium	<0.00100	U	0.00100	0.00100	mg/L		01/30/24 11:00	01/31/24 12:25	1

Lab Sample ID: LCS 860-142814/2-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 142814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dysprosium	0.0500	0.04816		mg/L		96	80 - 120
Praseodymium	0.0500	0.04806		mg/L		96	80 - 120
Lanthanum	0.0500	0.04797		mg/L		96	80 - 120
Cerium	0.0500	0.04815		mg/L		96	80 - 120
Neodymium	0.0500	0.04843		mg/L		97	80 - 120
Europium	0.0500	0.04799		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-142814/3-A
Matrix: Water
Analysis Batch: 143074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 142814

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Dysprosium	0.0500	0.04797		mg/L		96	80 - 120	0	20
Praseodymium	0.0500	0.04809		mg/L		96	80 - 120	0	20
Lanthanum	0.0500	0.04781		mg/L		96	80 - 120	0	20
Cerium	0.0500	0.04806		mg/L		96	80 - 120	0	20
Neodymium	0.0500	0.04813		mg/L		96	80 - 120	1	20
Europium	0.0500	0.04792		mg/L		96	80 - 120	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 860-144617/2-A
Matrix: Water
Analysis Batch: 145320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144617

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Au	0.0500	0.05541		mg/L		111	80 - 120

Lab Sample ID: LCSD 860-144617/3-A
Matrix: Water
Analysis Batch: 145320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144617

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Au	0.0500	0.05431		mg/L		109	80 - 120	2	20

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-142731/1-B

Matrix: Water

Analysis Batch: 143084

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 142784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/30/24 09:30	01/31/24 12:25	1

Lab Sample ID: LCS 860-142731/2-B

Matrix: Water

Analysis Batch: 143084

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 142784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	0.0250	0.02436		mg/L		97	80 - 120

Lab Sample ID: LCSD 860-142731/3-B

Matrix: Water

Analysis Batch: 143084

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 142784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Uranium	0.0250	0.02455		mg/L		98	80 - 120	1	20

Lab Sample ID: MB 860-142731/1-D

Matrix: Water

Analysis Batch: 145320

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 144617

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Au	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 12:37	1
Zirconium	<0.00100	U	0.00100	0.00100	mg/L		02/09/24 10:30	02/14/24 12:37	1

Method: 6020B - Metals (ICP/MS), Isotopic Uranium

Lab Sample ID: MB 160-647099/1-A

Matrix: Water

Analysis Batch: 650329

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 647099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium-233	<0.00667	U	0.0600	0.00667	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-234	<0.00348	U	0.0600	0.00348	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-235	<0.0280	U	0.0600	0.0280	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-236	<0.0148	U	0.0600	0.0148	ug/L		02/06/24 12:51	02/08/24 10:22	2
Uranium-238	<0.0240	U	0.0600	0.0240	ug/L		02/06/24 12:51	02/08/24 10:22	2

Lab Sample ID: LCS 160-647099/2-A

Matrix: Water

Analysis Batch: 650329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 647099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium-234	0.0764	0.07936		ug/L		104	80 - 120
Uranium-235	4.50	4.701		ug/L		104	80 - 120
Uranium-238	5.02	5.382		ug/L		107	80 - 120

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 860-144512/1
Matrix: Water
Analysis Batch: 144512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.57	U	5.00	1.57	mg/L			02/08/24 16:15	1

Lab Sample ID: LCS 860-144512/2
Matrix: Water
Analysis Batch: 144512

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	37.30		mg/L		93	78 - 114

Lab Sample ID: LCSD 860-144512/3
Matrix: Water
Analysis Batch: 144512

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM	40.0	36.00		mg/L		90	78 - 114	4	18

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 860-142519/3
Matrix: Water
Analysis Batch: 142519

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	<0.50	U	1.0	0.50	NTU			01/28/24 08:30	1

Lab Sample ID: 880-38521-1 DU
Matrix: Water
Analysis Batch: 142519

Client Sample ID: Thermal Distillate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	Prepared	RPD	RPD Limit
Turbidity	5.0		4.9		NTU			2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 860-144435/16
Matrix: Water
Analysis Batch: 144435

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.0510	U	0.100	0.0510	mg/L			02/07/24 16:51	1

Lab Sample ID: LCS 860-144435/17
Matrix: Water
Analysis Batch: 144435

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	1.071		mg/L		107	90 - 110

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 860-144435/18
Matrix: Water
Analysis Batch: 144435

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	1.00	1.055		mg/L		106	90 - 110	1	20

Method: 8000 - COD

Lab Sample ID: MB 860-143905/3
Matrix: Water
Analysis Batch: 143905

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<3.36	U	20.0	3.36	mg/L			02/05/24 17:13	1

Lab Sample ID: LCS 860-143905/4
Matrix: Water
Analysis Batch: 143905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand	100	99.00		mg/L		99	90 - 110		

Method: 8146 - Iron, Ferrous

Lab Sample ID: MB 860-144250/3
Matrix: Water
Analysis Batch: 144250

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	<0.0280	U	0.0500	0.0280	mg/L			02/07/24 12:19	1

Lab Sample ID: LCS 860-144250/4
Matrix: Water
Analysis Batch: 144250

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ferrous Iron	1.00	0.8400		mg/L		84	75 - 125		

Lab Sample ID: LCSD 860-144250/5
Matrix: Water
Analysis Batch: 144250

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ferrous Iron	1.00	0.8400		mg/L		84	75 - 125	0	25

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 860-142713/30-A
Matrix: Water
Analysis Batch: 143080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 142713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<24.0	U	60.0	24.0	ug/L		01/29/24 19:37	01/30/24 17:29	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MB 860-142713/4-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<2.00	U	5.00	2.00	ug/L		01/29/24 19:37	01/30/24 16:47	1

Lab Sample ID: LCS 860-142713/5-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	100	98.34		ug/L		98	90 - 110

Lab Sample ID: LCSD 860-142713/32-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cyanide, Total	1250	1252		ug/L		100	90 - 110	2	20

Lab Sample ID: LLCS 860-142713/6-A

Matrix: Water

Analysis Batch: 143080

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142713

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	5.00	4.485	J	ug/L		90	50 - 150

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-821257/1-A

Matrix: Water

Analysis Batch: 821269

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 821257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<14.0	U	40.0	14.0	ug/L		02/05/24 07:30	02/05/24 10:35	1

Lab Sample ID: LCS 680-821257/2-A

Matrix: Water

Analysis Batch: 821269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 821257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TOX Result 1	400	424.4		ug/L		106	60 - 140
TOX Result 2	400	424.4		ug/L		106	60 - 140

Lab Sample ID: LCSD 680-821257/15-A

Matrix: Water

Analysis Batch: 821269

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 821257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
TOX Result 1	400	446.0		ug/L		112	60 - 140	5	40
TOX Result 2	400	446.0		ug/L		112	60 - 140	5	40

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-143896/3

Matrix: Water

Analysis Batch: 143896

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			02/05/24 11:19	1
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00	4.00	mg/L			02/05/24 11:19	1

Lab Sample ID: LCS 860-143896/4

Matrix: Water

Analysis Batch: 143896

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	250	270.9		mg/L		108	85 - 115

Lab Sample ID: LCSD 860-143896/5

Matrix: Water

Analysis Batch: 143896

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	250	268.5		mg/L		107	85 - 115	1	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 860-144211/29

Matrix: Water

Analysis Batch: 144211

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Electrical Conductivity (25C)	<10.0	U	10.0	10.0	umho/cm @ 25C			02/07/24 10:26	1

Lab Sample ID: LCS 860-144211/30

Matrix: Water

Analysis Batch: 144211

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Electrical Conductivity (25C)	1410	1418		umho/cm @ 25C		100	85 - 115

Lab Sample ID: LCSD 860-144211/31

Matrix: Water

Analysis Batch: 144211

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Electrical Conductivity (25C)	1410	1407		umho/cm @ 25C		100	85 - 115	1	20

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

Lab Sample ID: MB 860-143923/1

Matrix: Water

Analysis Batch: 143923

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/05/24 18:51	1

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

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

Lab Sample ID: LCS 860-143923/2

Matrix: Water

Analysis Batch: 143923

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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

Lab Sample ID: LCSD 860-143923/3

Matrix: Water

Analysis Batch: 143923

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1002		mg/L		100	80 - 120	1	10

Lab Sample ID: LLCS 860-143923/4

Matrix: Water

Analysis Batch: 143923

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 860-143460/1

Matrix: Water

Analysis Batch: 143460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<4.00	U	4.00	4.00	mg/L			02/02/24 10:15	1

Lab Sample ID: LCS 860-143460/2

Matrix: Water

Analysis Batch: 143460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids	100	103.0		mg/L		103	80 - 120		

Lab Sample ID: LCSD 860-143460/3

Matrix: Water

Analysis Batch: 143460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	100	103.0		mg/L		103	80 - 120	0	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 860-142587/3

Matrix: Water

Analysis Batch: 142587

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00200	U	0.0100	0.00200	mg/L			01/29/24 09:49	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 860-142587/4
Matrix: Water
Analysis Batch: 142587

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.200	0.1808		mg/L		90	80 - 120

Lab Sample ID: LCSD 860-142587/5
Matrix: Water
Analysis Batch: 142587

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.200	0.1821		mg/L		91	80 - 120	1	20

Lab Sample ID: 880-38521-1 MS
Matrix: Water
Analysis Batch: 142587

Client Sample ID: Thermal Distillate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.0201	H	0.200	0.1794		mg/L		80	80 - 120

Lab Sample ID: 880-38521-1 MSD
Matrix: Water
Analysis Batch: 142587

Client Sample ID: Thermal Distillate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.0201	H	0.200	0.1794		mg/L		80	80 - 120	0	20

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 860-147660/3
Matrix: Water
Analysis Batch: 147660

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	<0.0280	U	0.0500	0.0280	mg/L			02/29/24 15:19	1

Lab Sample ID: LCS 860-147660/4
Matrix: Water
Analysis Batch: 147660

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ferrous Iron	1.00	0.8600		mg/L		86	75 - 125

Lab Sample ID: LCSD 860-147660/5
Matrix: Water
Analysis Batch: 147660

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ferrous Iron	1.00	0.8700		mg/L		87	75 - 125	1	25

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: 880-38521-1 DU

Matrix: Water

Analysis Batch: 147660

Client Sample ID: Thermal Distillate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	0.0700	HF	0.07000		mg/L		0	25

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 860-142852/3

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.0400	U	0.100	0.0400	mg/L			01/30/24 13:21	1

Lab Sample ID: LCS 860-142852/4

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	1.00	1.095		mg/L		110	90 - 110

Lab Sample ID: LCSD 860-142852/5

Matrix: Water

Analysis Batch: 142852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Sulfide	1.00	1.092		mg/L		109	90 - 110	0	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 400-659665/52

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/03/24 06:56	1

Lab Sample ID: LCS 400-659665/53

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.93		mg/L		100	85 - 115

Lab Sample ID: LCSD 400-659665/54

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Total Organic Carbon	20.0	20.24		mg/L		101	85 - 115	2	30

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MRL 400-659665/6

Matrix: Water

Analysis Batch: 659665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 400-659673/1-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Method Blank

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	<0.500	U	1.00	0.500	mg/L			02/02/24 21:58	1

Lab Sample ID: LCS 400-659673/2-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.33		mg/L		97	85 - 115

Lab Sample ID: LCSD 400-659673/3-A

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.88		mg/L		99	85 - 115	3	30

Lab Sample ID: MRL 400-659666/6

Matrix: Water

Analysis Batch: 659666

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	1.00	0.9212	J	mg/L		92	50 - 150

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 860-142599/3

Matrix: Water

Analysis Batch: 142599

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	<0.0800	U	0.100	0.0800	mg/L			01/27/24 18:19	1

Lab Sample ID: LCS 860-142599/4

Matrix: Water

Analysis Batch: 142599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Blue Active Substances	1.00	0.9663		mg/L		97	90 - 110

Eurofins Midland

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-646914/1-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646914

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.1792	U	0.458	0.458	3.00	0.964	pCi/L	02/05/24 10:15	02/08/24 18:18	1
Gross Beta	0.03519	U	0.489	0.489	4.00	0.873	pCi/L	02/05/24 10:15	02/08/24 18:18	1

Lab Sample ID: LCS 160-646914/2-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Alpha	49.3	54.21		7.90	3.00	2.54	pCi/L	110	75 - 125

Lab Sample ID: LCSB 160-646914/3-A
Matrix: Water
Analysis Batch: 647336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646914

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	72.0	73.18		7.85	4.00	0.797	pCi/L	102	75 - 125

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-646186/1-A
Matrix: Water
Analysis Batch: 649533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646186

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium-227	26.36	U	74.0	74.0		97.8	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Actinium-228	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-212	66.70	U	123	123		208	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Bismuth-214	65.56		22.6	23.9		17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-210	-209.4	U	171	173		308	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-212	-18.53	U	19.7	19.8		36.2	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Lead-214	41.66		14.4	15.3		22.4	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Potassium-40	52.54	U	93.1	93.3		101	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Protactinium-231	0.0000	U	163	163		1190	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-226	65.56		22.6	23.9	50.0	17.9	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Radium-228	-32.44	U G	56.6	56.8	50.0	63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thallium-208	12.95		10.7	10.8		10.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-232	-32.44	U	56.6	56.8		63.3	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Thorium-234	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 235	17.83	U	47.5	47.5		173	pCi/L	01/30/24 12:50	02/23/24 14:01	1
Uranium 238	109.0	U	210	210		288	pCi/L	01/30/24 12:50	02/23/24 14:01	1

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QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: LCS 160-646186/2-A
Matrix: Water
Analysis Batch: 648904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646186

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	139200		16600		479	pCi/L	103	75 - 125
Cesium-137	40000	41430		4940		110	pCi/L	104	75 - 125
Cobalt-60	15800	16600		1980		66.7	pCi/L	105	75 - 125

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-646331/1-A
Matrix: Water
Analysis Batch: 649307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646331

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03443	U	0.0635	0.0636	1.00	0.112	pCi/L	01/31/24 09:04	02/22/24 20:14	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					01/31/24 09:04	02/22/24 20:14	1

Lab Sample ID: LCS 160-646331/2-A
Matrix: Water
Analysis Batch: 649307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646331

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	11.12		1.15	1.00	0.140	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.0		30 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-646338/1-A
Matrix: Water
Analysis Batch: 647950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646338

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.05753	U	0.234	0.234	1.00	0.426	pCi/L	01/31/24 09:11	02/13/24 11:15	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					01/31/24 09:11	02/13/24 11:15	1
Y Carrier	86.0		30 - 110					01/31/24 09:11	02/13/24 11:15	1

QC Sample Results

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-646338/2-A

Matrix: Water

Analysis Batch: 647950

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 646338

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228		9.22	10.28		1.33	1.00	0.496	pCi/L	112	75 - 125
	LCS	LCS								
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	98.0		30 - 110							
Y Carrier	83.4		30 - 110							

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-646341/1-A

Matrix: Water

Analysis Batch: 647857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 646341

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.1007	U	0.187	0.187	3.00	0.318	pCi/L	01/31/24 09:16	02/12/24 16:04	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits							
Sr Carrier	83.1		30 - 110							
Y Carrier	95.3		30 - 110							
								Prepared	Analyzed	Dil Fac
								01/31/24 09:16	02/12/24 16:04	1
								01/31/24 09:16	02/12/24 16:04	1

Lab Sample ID: LCS 160-646341/2-A

Matrix: Water

Analysis Batch: 647857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 646341

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Strontium-90		7.19	8.116		0.877	3.00	0.304	pCi/L	113	75 - 125
	LCS	LCS								
Carrier	%Yield	Qualifier	Limits							
Sr Carrier	82.1		30 - 110							
Y Carrier	92.7		30 - 110							

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

GC/MS VOA

Analysis Batch: 142779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8260D	
MB 860-142779/17	Method Blank	Total/NA	Water	8260D	
LCS 860-142779/1010	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-142779/13	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 142954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1 - DL	Thermal Distillate	Total/NA	Water	8260D	
MB 860-142954/11	Method Blank	Total/NA	Water	8260D	
LCS 860-142954/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-142954/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 143257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3510C	
MB 860-143257/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-143257/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-143257/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 143347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3511	
MB 860-143347/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 143428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8270D SIM	143347
880-38521-1	Thermal Distillate	Total/NA	Water	8270D SIM	143347
MB 860-143347/1-A	Method Blank	Total/NA	Water	8270D SIM	143347
LCS 860-143347/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	143347
LCSD 860-143347/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	143347

Analysis Batch: 143536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8270E LL	143257
MB 860-143257/1-A	Method Blank	Total/NA	Water	8270E LL	143257
LCS 860-143257/2-A	Lab Control Sample	Total/NA	Water	8270E LL	143257
LCSD 860-143257/3-A	Lab Control Sample Dup	Total/NA	Water	8270E LL	143257

Prep Batch: 405719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	Organotin	
MB 570-405719/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-405719/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-405719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

GC/MS Semi VOA

Analysis Batch: 406749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	Organotins SIM	405719
MB 570-405719/1-A	Method Blank	Total/NA	Water	Organotins SIM	405719
LCS 570-405719/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	405719
LCSD 570-405719/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	405719

GC Semi VOA

Analysis Batch: 130308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015 NM	

Analysis Batch: 142550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-142559/1-A	Method Blank	Total/NA	Water	8015B NM	142559
LCS 860-142559/2-A	Lab Control Sample	Total/NA	Water	8015B NM	142559
LCSD 860-142559/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	142559

Analysis Batch: 142554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015B NM	142559

Prep Batch: 142559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015NM Aq Prep	
MB 860-142559/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 860-142559/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 860-142559/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

Prep Batch: 142589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3511	
MB 860-142589/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-142589/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-142589/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 142760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8151A	142589
MB 860-142589/1-A	Method Blank	Total/NA	Water	8151A	142589
LCS 860-142589/2-A	Lab Control Sample	Total/NA	Water	8151A	142589
LCSD 860-142589/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	142589

Prep Batch: 143280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3510C	
MB 860-143280/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-143280/13-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 860-143280/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-143280/14-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 860-143280/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

GC Semi VOA

Analysis Batch: 143420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8082A	143280
MB 860-143280/1-A	Method Blank	Total/NA	Water	8082A	143280
LCS 860-143280/13-A	Lab Control Sample	Total/NA	Water	8082A	143280
LCSD 860-143280/14-A	Lab Control Sample Dup	Total/NA	Water	8082A	143280

Analysis Batch: 143426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8081B_LL	143280
MB 860-143280/1-A	Method Blank	Total/NA	Water	8081B_LL	143280
LCS 860-143280/2-A	Lab Control Sample	Total/NA	Water	8081B_LL	143280
LCSD 860-143280/3-A	Lab Control Sample Dup	Total/NA	Water	8081B_LL	143280

Prep Batch: 458448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3510C	
MB 180-458448/1-A	Method Blank	Total/NA	Water	3510C	
LCS 180-458448/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-458448/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 458755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	EPA 8141B	458448
MB 180-458448/1-A	Method Blank	Total/NA	Water	EPA 8141B	458448
LCS 180-458448/2-A	Lab Control Sample	Total/NA	Water	EPA 8141B	458448
LCSD 180-458448/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 8141B	458448

HPLC/IC

Prep Batch: 142666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	CWA_Prep	
MB 860-142666/1-A	Method Blank	Total/NA	Water	CWA_Prep	
LCS 860-142666/2-A	Lab Control Sample	Total/NA	Water	CWA_Prep	
LCSD 860-142666/3-A	Lab Control Sample Dup	Total/NA	Water	CWA_Prep	

Analysis Batch: 143493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-143493/3	Method Blank	Total/NA	Water	300.0	
LCS 860-143493/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143493/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143493/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 143494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-143494/3	Method Blank	Total/NA	Water	300.0	
LCS 860-143494/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143494/5	Lab Control Sample Dup	Total/NA	Water	300.0	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

HPLC/IC

Analysis Batch: 143834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-143834/13	Method Blank	Total/NA	Water	300.0	
LCS 860-143834/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143834/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143834/17	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 143835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-143835/13	Method Blank	Total/NA	Water	300.0	
LCS 860-143835/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-143835/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-143835/16	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 145354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	VFA - HPLC	
880-38521-1	Thermal Distillate	Total/NA	Water	VFA - HPLC	
MB 860-145354/3	Method Blank	Total/NA	Water	VFA - HPLC	
LCS 860-145354/4	Lab Control Sample	Total/NA	Water	VFA - HPLC	
LCSD 860-145354/5	Lab Control Sample Dup	Total/NA	Water	VFA - HPLC	

Analysis Batch: 145833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-145833/10	Method Blank	Total/NA	Water	300.0	
LCS 860-145833/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-145833/12	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 147511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	632	142666
MB 860-142666/1-A	Method Blank	Total/NA	Water	632	142666
LCS 860-142666/2-A	Lab Control Sample	Total/NA	Water	632	142666
LCSD 860-142666/3-A	Lab Control Sample Dup	Total/NA	Water	632	142666

Analysis Batch: 147854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	300.0	
MB 860-147854/10	Method Blank	Total/NA	Water	300.0	
LCS 860-147854/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-147854/12	Lab Control Sample Dup	Total/NA	Water	300.0	

Prep Batch: 468013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1 - DL	Thermal Distillate	Total/NA	Water	8330-Prep	
880-38521-1	Thermal Distillate	Total/NA	Water	8330-Prep	
MB 410-468013/1-A	Method Blank	Total/NA	Water	8330-Prep	
LCS 410-468013/2-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCS 410-468013/4-A	Lab Control Sample	Total/NA	Water	8330-Prep	
LCSD 410-468013/3-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

HPLC/IC (Continued)

Prep Batch: 468013 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-468013/5-A	Lab Control Sample Dup	Total/NA	Water	8330-Prep	

Prep Batch: 468290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015 VFA	
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015 VFA	
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015 VFA	
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015 VFA	
880-38521-1 MS	Thermal Distillate	Total/NA	Water	8015 VFA	
880-38521-1 MSD	Thermal Distillate	Total/NA	Water	8015 VFA	

Analysis Batch: 468365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015D VFA	468290
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015D VFA	468290
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015D VFA	468290
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015D VFA	468290
880-38521-1 MS	Thermal Distillate	Total/NA	Water	8015D VFA	468290
880-38521-1 MSD	Thermal Distillate	Total/NA	Water	8015D VFA	468290

Analysis Batch: 468367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8015D VFA	468290
MB 410-468290/1-A	Method Blank	Total/NA	Water	8015D VFA	468290
LCS 410-468290/4-A	Lab Control Sample	Total/NA	Water	8015D VFA	468290
LCSD 410-468290/3-A	Lab Control Sample Dup	Total/NA	Water	8015D VFA	468290
880-38521-1 MS	Thermal Distillate	Total/NA	Water	8015D VFA	468290
880-38521-1 MSD	Thermal Distillate	Total/NA	Water	8015D VFA	468290

Analysis Batch: 471494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8330B	468013
880-38521-1 - DL	Thermal Distillate	Total/NA	Water	8330B	468013
MB 410-468013/1-A	Method Blank	Total/NA	Water	8330B	468013
LCS 410-468013/2-A	Lab Control Sample	Total/NA	Water	8330B	468013
LCS 410-468013/4-A	Lab Control Sample	Total/NA	Water	8330B	468013
LCSD 410-468013/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	468013
LCSD 410-468013/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	468013

LCMS

Prep Batch: 468437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SPE	
MB 410-468437/1-A	Method Blank	Total/NA	Water	SPE	
LCS 410-468437/2-A	Lab Control Sample	Total/NA	Water	SPE	
LCSD 410-468437/3-A	Lab Control Sample Dup	Total/NA	Water	SPE	

Prep Batch: 468684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	6850 Prep	

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

LCMS (Continued)

Prep Batch: 468684 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-468684/1-A	Method Blank	Total/NA	Water	6850 Prep	
LCS 410-468684/2-A	Lab Control Sample	Total/NA	Water	6850 Prep	
LCSD 410-468684/3-A	Lab Control Sample Dup	Total/NA	Water	6850 Prep	

Analysis Batch: 468704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SW846 6850	468684
MB 410-468684/1-A	Method Blank	Total/NA	Water	SW846 6850	468684
LCS 410-468684/2-A	Lab Control Sample	Total/NA	Water	SW846 6850	468684
LCSD 410-468684/3-A	Lab Control Sample Dup	Total/NA	Water	SW846 6850	468684

Analysis Batch: 469600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	537 IDA	468437
MB 410-468437/1-A	Method Blank	Total/NA	Water	537 IDA	468437
LCS 410-468437/2-A	Lab Control Sample	Total/NA	Water	537 IDA	468437
LCSD 410-468437/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	468437

Specialty Organics

Prep Batch: 479618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8290A	
MB 410-479618/1-A	Method Blank	Total/NA	Water	8290A	
LCS 410-479618/2-A	Lab Control Sample	Total/NA	Water	8290A	

Analysis Batch: 480011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-479618/1-A	Method Blank	Total/NA	Water	8290A	479618
LCS 410-479618/2-A	Lab Control Sample	Total/NA	Water	8290A	479618

Analysis Batch: 480286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8290A	479618

Metals

Filtration Batch: 142731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	Filtration	
MB 860-142731/1-B	Method Blank	Dissolved	Water	Filtration	
MB 860-142731/1-D	Method Blank	Dissolved	Water	Filtration	
MB 860-142731/22-C	Method Blank	Dissolved	Water	Filtration	
LCS 860-142731/23-C	Lab Control Sample	Dissolved	Water	Filtration	
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 860-142731/24-C	Lab Control Sample Dup	Dissolved	Water	Filtration	
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	Filtration	

Prep Batch: 142784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	3010A	142731
880-38521-1	Thermal Distillate	Total/NA	Water	3010A	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Metals (Continued)

Prep Batch: 142784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-142731/1-B	Method Blank	Dissolved	Water	3010A	142731
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	3010A	142731
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	3010A	142731

Prep Batch: 142814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3010A	
MB 860-142814/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-142814/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-142814/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Prep Batch: 143032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3010A	
MB 860-143032/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-143032/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-143032/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 143074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	6020A	142814
MB 860-142814/1-A	Method Blank	Total/NA	Water	6020A	142814
LCS 860-142814/2-A	Lab Control Sample	Total/NA	Water	6020A	142814
LCSD 860-142814/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	142814

Analysis Batch: 143075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	6020B	

Analysis Batch: 143084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	6020B	142784
880-38521-1	Thermal Distillate	Total/NA	Water	6020B	142784
MB 860-142731/1-B	Method Blank	Dissolved	Water	6020B	142784
LCS 860-142731/2-B	Lab Control Sample	Dissolved	Water	6020B	142784
LCSD 860-142731/3-B	Lab Control Sample Dup	Dissolved	Water	6020B	142784

Analysis Batch: 143222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	6010D	143032
MB 860-143032/1-A	Method Blank	Total/NA	Water	6010D	143032
LCS 860-143032/2-A	Lab Control Sample	Total/NA	Water	6010D	143032
LCSD 860-143032/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	143032

Prep Batch: 143811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	3010A	142731
MB 860-142731/22-C	Method Blank	Dissolved	Water	3010A	142731
LCS 860-142731/23-C	Lab Control Sample	Dissolved	Water	3010A	142731
LCSD 860-142731/24-C	Lab Control Sample Dup	Dissolved	Water	3010A	142731

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QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Metals

Analysis Batch: 144035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 2340B	

Analysis Batch: 144061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	6010D	143811
MB 860-142731/22-C	Method Blank	Dissolved	Water	6010D	143811
LCS 860-142731/23-C	Lab Control Sample	Dissolved	Water	6010D	143811
LCSD 860-142731/24-C	Lab Control Sample Dup	Dissolved	Water	6010D	143811

Prep Batch: 144617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	3010A	142731
MB 860-142731/1-D	Method Blank	Dissolved	Water	3010A	142731
LCS 860-144617/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-144617/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 145320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	6020B	144617
MB 860-142731/1-D	Method Blank	Dissolved	Water	6020B	144617
LCS 860-144617/2-A	Lab Control Sample	Total/NA	Water	6020B	144617
LCSD 860-144617/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	144617

Prep Batch: 647099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	3010A	
MB 160-647099/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-647099/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 650329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	6020B	647099
MB 160-647099/1-A	Method Blank	Total/NA	Water	6020B	647099
LCS 160-647099/2-A	Lab Control Sample	Total/NA	Water	6020B	647099

General Chemistry

Analysis Batch: 138272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM4500 S2 H	

Analysis Batch: 142519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	180.1	
MB 860-142519/3	Method Blank	Total/NA	Water	180.1	
LCS 860-142519/5	Lab Control Sample	Total/NA	Water	180.1	
LCSD 860-142519/6	Lab Control Sample Dup	Total/NA	Water	180.1	
LLCS 860-142519/4	Lab Control Sample	Total/NA	Water	180.1	
880-38521-1 DU	Thermal Distillate	Total/NA	Water	180.1	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

General Chemistry

Analysis Batch: 142528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	360.1	

Analysis Batch: 142587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 3500 CR B	
MB 860-142587/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 860-142587/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 860-142587/5	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
880-38521-1 MS	Thermal Distillate	Total/NA	Water	SM 3500 CR B	
880-38521-1 MSD	Thermal Distillate	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 142599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 5540C	
MB 860-142599/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 860-142599/4	Lab Control Sample	Total/NA	Water	SM 5540C	

Prep Batch: 142713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	9012B	
MB 860-142713/30-A	Method Blank	Total/NA	Water	9012B	
MB 860-142713/4-A	Method Blank	Total/NA	Water	9012B	
LCS 860-142713/5-A	Lab Control Sample	Total/NA	Water	9012B	
LCSD 860-142713/32-A	Lab Control Sample Dup	Total/NA	Water	9012B	
LLCS 860-142713/6-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 142852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 4500 S2 D	
MB 860-142852/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 860-142852/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 860-142852/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 143080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	9012B	142713
MB 860-142713/30-A	Method Blank	Total/NA	Water	9012B	142713
MB 860-142713/4-A	Method Blank	Total/NA	Water	9012B	142713
LCS 860-142713/5-A	Lab Control Sample	Total/NA	Water	9012B	142713
LCSD 860-142713/32-A	Lab Control Sample Dup	Total/NA	Water	9012B	142713
LLCS 860-142713/6-A	Lab Control Sample	Total/NA	Water	9012B	142713

Analysis Batch: 143460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 2540D	
MB 860-143460/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 860-143460/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 860-143460/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

General Chemistry

Analysis Batch: 143891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 143896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 2320B	
MB 860-143896/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 860-143896/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-143896/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 143905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8000	
MB 860-143905/3	Method Blank	Total/NA	Water	8000	
LCS 860-143905/4	Lab Control Sample	Total/NA	Water	8000	

Analysis Batch: 143923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 2540C	
MB 860-143923/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-143923/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-143923/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-143923/4	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 144137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 3500	

Analysis Batch: 144211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 2510B	
MB 860-144211/29	Method Blank	Total/NA	Water	SM 2510B	
LCS 860-144211/30	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-144211/31	Lab Control Sample Dup	Total/NA	Water	SM 2510B	

Analysis Batch: 144250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	8146	
MB 860-144250/3	Method Blank	Total/NA	Water	8146	
LCS 860-144250/4	Lab Control Sample	Total/NA	Water	8146	
LCSD 860-144250/5	Lab Control Sample Dup	Total/NA	Water	8146	

Analysis Batch: 144435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	350.1	
MB 860-144435/16	Method Blank	Total/NA	Water	350.1	
LCS 860-144435/17	Lab Control Sample	Total/NA	Water	350.1	
LCSD 860-144435/18	Lab Control Sample Dup	Total/NA	Water	350.1	

Analysis Batch: 144512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	1664B	

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

General Chemistry (Continued)

Analysis Batch: 144512 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-144512/1	Method Blank	Total/NA	Water	1664B	
LCS 860-144512/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 860-144512/3	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 147660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 3500 FE D	
MB 860-147660/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 860-147660/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
LCSD 860-147660/5	Lab Control Sample Dup	Total/NA	Water	SM 3500 FE D	
880-38521-1 DU	Thermal Distillate	Total/NA	Water	SM 3500 FE D	

Analysis Batch: 659665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	SM 5310B	
MB 400-659665/52	Method Blank	Total/NA	Water	SM 5310B	
LCS 400-659665/53	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 400-659665/54	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
MRL 400-659665/6	Lab Control Sample	Total/NA	Water	SM 5310B	

Analysis Batch: 659666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	SM 5310B	659673
MB 400-659673/1-A	Method Blank	Dissolved	Water	SM 5310B	659673
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	SM 5310B	659673
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	SM 5310B	659673
MRL 400-659666/6	Lab Control Sample	Dissolved	Water	SM 5310B	

Filtration Batch: 659673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Dissolved	Water	FILTRATION	
MB 400-659673/1-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 400-659673/2-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 400-659673/3-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Prep Batch: 821257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	Carbon Trap	
MB 680-821257/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-821257/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
LCSD 680-821257/15-A	Lab Control Sample Dup	Total/NA	Water	Carbon Trap	

Analysis Batch: 821269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	9020B	821257
MB 680-821257/1-A	Method Blank	Total/NA	Water	9020B	821257
LCS 680-821257/2-A	Lab Control Sample	Total/NA	Water	9020B	821257
LCSD 680-821257/15-A	Lab Control Sample Dup	Total/NA	Water	9020B	821257

Eurofins Midland

QC Association Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Rad

Prep Batch: 646186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	Fill_Geo-21	
MB 160-646186/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-646186/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	

Prep Batch: 646331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	PrecSep-21	
MB 160-646331/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-646331/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 646338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	PrecSep_0	
MB 160-646338/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-646338/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 646341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	PrecSep-7	
MB 160-646341/1-A	Method Blank	Total/NA	Water	PrecSep-7	
LCS 160-646341/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	

Prep Batch: 646914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38521-1	Thermal Distillate	Total/NA	Water	Evaporation	
MB 160-646914/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-646914/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-646914/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	142779	01/30/24 21:00	NA	EET HOU
Total/NA	Analysis	8260D	DL	5	5 mL	5 mL	142954	01/31/24 14:03	NA	EET HOU
Total/NA	Prep	3511			55.8 mL	2.00 mL	143347	02/01/24 16:11	DR	EET HOU
Total/NA	Analysis	8270D SIM		1	1 mL	1 mL	143428	02/02/24 14:25	LPL	EET HOU
Total/NA	Prep	3511			55.8 mL	2.00 mL	143347	02/01/24 16:11	DR	EET HOU
Total/NA	Analysis	8270D SIM		10	1 mL	1 mL	143428	02/02/24 16:02	LPL	EET HOU
Total/NA	Prep	3510C			250 mL	1.00 mL	143257	02/01/24 11:15	DR	EET HOU
Total/NA	Analysis	8270E LL		10	1 mL	1 mL	143536	02/03/24 01:44	PXS	EET HOU
Total/NA	Prep	Organotin			1011.9 mL	1 mL	405719	01/30/24 08:24	UWEZ	EET CAL 4
Total/NA	Analysis	Organotins SIM		1	1 mL	1 mL	406749	02/01/24 14:49	ULLI	EET CAL 4
Total/NA	Analysis	8015 NM		1			130308	01/29/24 10:52	ELJ	EET HOU
Total/NA	Prep	8015NM Aq Prep			29.2 mL	3 mL	142559	01/29/24 07:37	TH	EET HOU
Total/NA	Analysis	8015B NM		1			142554	01/29/24 10:52	TH	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	143280	02/01/24 12:24	BH	EET HOU
Total/NA	Analysis	8081B_LL		1			143426	02/02/24 13:41	WP	EET HOU
Total/NA	Prep	3510C			1000 mL	1 mL	143280	02/01/24 12:24	BH	EET HOU
Total/NA	Analysis	8082A		1			143420	02/02/24 13:20	WP	EET HOU
Total/NA	Prep	3511			50.2 mL	4 mL	142589	01/29/24 09:51	JN	EET HOU
Total/NA	Analysis	8151A		1			142760	01/30/24 17:17	WP	EET HOU
Total/NA	Prep	3510C			1000 mL	1.0 mL	458448	01/31/24 21:45	CBY	EET PIT
Total/NA	Analysis	EPA 8141B		1	1 mL	1 mL	458755	02/06/24 00:23	SMW	EET PIT
Total/NA	Analysis	300.0		1			143493	02/03/24 02:38	WP	EET HOU
Total/NA	Analysis	300.0		1			143494	02/03/24 02:38	WP	EET HOU
Total/NA	Analysis	300.0		1			143834	02/06/24 05:47	RBNS	EET HOU
Total/NA	Analysis	300.0		1			143835	02/06/24 05:47	RBNS	EET HOU
Total/NA	Analysis	300.0		1			145833	02/18/24 16:52	WP	EET HOU
Total/NA	Analysis	300.0		1	0 mL	1.0 mL	147854	03/02/24 15:43	WP	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	142666	01/29/24 15:49	DR	EET HOU
Total/NA	Analysis	632		1			147511	01/31/24 22:48	YG	EET HOU
Total/NA	Prep	8015 VFA			1 mL	1 mL	468290	01/30/24 17:21	GM5C	ELLE
Total/NA	Analysis	8015D VFA		1	1 mL	1 mL	468367	01/31/24 13:24	UHEW	ELLE
Total/NA	Prep	8015 VFA			1 mL	1 mL	468290	01/30/24 17:21	GM5C	ELLE
Total/NA	Analysis	8015D VFA		1	1 mL	1 mL	468365	01/31/24 10:44	UHEW	ELLE
Total/NA	Prep	8330-Prep			500 mL	10 mL	468013	01/30/24 10:37	LJG2	ELLE
Total/NA	Analysis	8330B		1			471494	02/08/24 02:31	GM5C	ELLE
Total/NA	Prep	8330-Prep	DL		500 mL	10 mL	468013	01/30/24 10:37	LJG2	ELLE
Total/NA	Analysis	8330B	DL	5			471494	02/08/24 03:07	GM5C	ELLE
Total/NA	Analysis	VFA - HPLC		1			145354	02/10/24 03:15	YG	EET HOU
Total/NA	Analysis	VFA - HPLC		10			145354	02/10/24 03:36	YG	EET HOU
Total/NA	Prep	SPE			278.6 mL	1 mL	468437	01/31/24 06:46	M4QQ	ELLE
Total/NA	Analysis	537 IDA		1			469600	02/02/24 18:25	DQV6	ELLE
Total/NA	Prep	6850 Prep			10 mL	10 mL	468684	01/31/24 13:12	VVE5	ELLE
Total/NA	Analysis	SW846 6850		1	1 mL	1 mL	468704	01/31/24 15:48	UAD3	ELLE

Eurofins Midland

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290A			528.2 mL	20 uL	479618	03/05/24 06:52	W2ZP	ELLE
Total/NA	Analysis	8290A		1	20 uL	20 uL	480286	03/06/24 15:42	RGA5	ELLE
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	143811	02/05/24 11:30	MD	EET HOU
Dissolved	Analysis	6010D		1			144061	02/06/24 14:50	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	143032	01/31/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			143222	01/31/24 20:40	JDM	EET HOU
Total/NA	Prep	3010A			1 mL	50 mL	142814	01/30/24 11:00	MD	EET HOU
Total/NA	Analysis	6020A		1			143074	01/31/24 12:36	DP	EET HOU
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	142784	01/30/24 09:30	MD	EET HOU
Dissolved	Analysis	6020B		100			143084	01/31/24 12:56	DP	EET HOU
Dissolved	Filtration	Filtration			250 mL	250 mL	142731	01/29/24 08:00	AGR	EET HOU
Dissolved	Prep	3010A			50 mL	50 mL	144617	02/09/24 10:30	MD	EET HOU
Dissolved	Analysis	6020B		1			145320	02/14/24 13:08	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	142784	01/30/24 09:30	MD	EET HOU
Total/NA	Analysis	6020B		100			143084	01/31/24 13:17	DP	EET HOU
Total/NA	Analysis	6020B		1			143075	01/31/24 12:36	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	647099	02/06/24 12:51	LKP	EET SL
Total/NA	Analysis	6020B		2			650329	02/08/24 10:29	CGB	EET SL
Total/NA	Analysis	SM 2340B		1			144035	02/06/24 12:48	DP	EET HOU
Total/NA	Analysis	1664B		1	1000 mL	1000 mL	144512	02/08/24 16:15	TB	EET HOU
Total/NA	Analysis	180.1		1			142519	01/28/24 08:30	PSC	EET HOU
Total/NA	Analysis	350.1		100	10 mL	10 mL	144435	02/07/24 18:22	ADL	EET HOU
Total/NA	Analysis	360.1		1			142528	01/28/24 16:36	ALL	EET HOU
Total/NA	Analysis	8000		1	2 mL	2 mL	143905	02/05/24 17:28	HN	EET HOU
Total/NA	Analysis	8146		1	25 mL	25 mL	144250	02/07/24 12:19	SCI	EET HOU
Total/NA	Prep	9012B			6 mL	6 mL	142713	01/29/24 19:37	LD	EET HOU
Total/NA	Analysis	9012B		1			143080	01/30/24 17:26	AA	EET HOU
Total/NA	Prep	Carbon Trap			25 mL	100 mL	821257	02/05/24 07:30	CLJ	EET SAV
Total/NA	Analysis	9020B		1			821269	02/06/24 08:56	CLJ	EET SAV
Total/NA	Analysis	SM 2320B		1			143896	02/05/24 13:54	KEG	EET HOU
Total/NA	Analysis	SM 2510B		1			144211	02/07/24 10:26	KEG	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	143923	02/05/24 18:51	YG	EET HOU
Total/NA	Analysis	SM 2540D		1	500 mL	1000 mL	143460	02/02/24 10:15	ADL	EET HOU
Total/NA	Analysis	SM 3500		1			144137	03/04/24 09:14	MC	EET HOU
Total/NA	Analysis	SM 3500 CR B		1	25 mL	25 mL	142587	01/29/24 09:49	SCI	EET HOU
Total/NA	Analysis	SM 3500 FE D		1	25 mL	25 mL	147660	02/29/24 15:20	SCI	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			143891	02/05/24 14:46	KEG	EET HOU
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	142852	01/30/24 13:21	SCI	EET HOU
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	659673	02/02/24 14:30	DEK	EET PEN
Dissolved	Analysis	SM 5310B		1			659666	02/03/24 00:25	DEK	EET PEN
Total/NA	Analysis	SM 5310B		2	50 mL	50 mL	659665	02/03/24 08:25	DEK	EET PEN

Eurofins Midland

Lab Chronicle

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Client Sample ID: Thermal Distillate

Lab Sample ID: 880-38521-1

Date Collected: 01/26/24 08:00

Matrix: Water

Date Received: 01/26/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	142599	01/27/24 18:25	JM	EET HOU
Total/NA	Analysis	SM4500 S2 H		1			138272	02/07/24 17:52	MC	EET HOU
Total/NA	Prep	Evaporation			200.02 mL	1.0 g	646914	02/05/24 10:15	ASG	EET SL
Total/NA	Analysis	900.0		1			647476	02/08/24 18:33	FLC	EET SL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	646186	01/30/24 12:50	SAC	EET SL
Total/NA	Analysis	901.1		1			648904	02/20/24 21:49	EMH	EET SL
Total/NA	Prep	PrecSep-21			998.60 mL	1.0 g	646331	01/31/24 09:04	KAC	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	649399	02/23/24 12:31	SCB	EET SL
Total/NA	Prep	PrecSep_0			998.60 mL	1.0 g	646338	01/31/24 09:11	KAC	EET SL
Total/NA	Analysis	904.0		1	1.0 mL	1.0 mL	647938	02/13/24 11:22	SCB	EET SL
Total/NA	Prep	PrecSep-7			995.37 mL	1.0 g	646341	01/31/24 09:16	KAC	EET SL
Total/NA	Analysis	905		1			647894	02/12/24 16:17	SCB	EET SL

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins J = Eurofins J3 Resources, 6110 W 34th St, Houston, TX 77092

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
California	Los Angeles County Sanitation Districts	10109	08-01-24
California	State	3082	07-31-24
Kansas	NELAP	E-10420	08-01-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-11-24
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-24
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-28-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24
Wyoming (UST)	A2LA	0001.01	11-30-24

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-24
Illinois	NELAP	004375	06-30-24
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23 *
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-24
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-24
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	04-30-24
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-24
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	07-14-24
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-24

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24
Hawaii	State	<cert No.>	06-30-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Laboratory: Eurofins Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Midland

Accreditation/Certification Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET HOU
8270E LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET HOU
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	EET CAL 4
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8081B_LL	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
EPA 8141B	Organophosphorous Pesticides (GC)	SW846	EET PIT
300.0	Anions, Ion Chromatography	EPA	EET HOU
632	Carbamate and Urea Pesticides (HPLC)	EPA-01	EET HOU
8015D VFA	Volatile Fatty Acids - Direct Aqueous Injection (HPLC)	SW846	ELLE
8330B	Nitroaromatics and Nitramines (HPLC)	SW846	ELLE
VFA - HPLC	Volatile Fatty Acids (HPLC/UV)	Lab SOP	EET HOU
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
SW846 6850	Perchlorate by LC/MS or LC/MS/MS	SW846	ELLE
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	ELLE
6010D	Metals (ICP)	SW846	EET HOU
6020A	Rare Earth Metals (ICP/MS)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	EET HOU
1664B	HEM and SGT-HEM	1664B	EET HOU
180.1	Turbidity, Nephelometric	EPA	EET HOU
350.1	Nitrogen, Ammonia	EPA	EET HOU
360.1	Oxygen, Dissolved	EPA	EET HOU
8000	COD	Hach	EET HOU
8146	Iron, Ferrous	Hach	EET HOU
9012B	Cyanide, Total and/or Amenable	SW846	EET HOU
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
SM 2320B	Alkalinity	SM	EET HOU
SM 2510B	Conductivity, Specific Conductance	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 2540D	Solids, Total Suspended (TSS)	SM	EET HOU
SM 3500	Iron, Ferric	SM	EET HOU
SM 3500 CR B	Chromium, Hexavalent	SM	EET HOU
SM 3500 FE D	Iron, Ferrous and Ferric	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
SM 4500 S2 D	Sulfide, Total	SM	EET HOU
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET HOU
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET HOU
Subcontract	Asbestos	None	Eurofins J
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET PIT
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
6850 Prep	Perchlorate Water Prep	EPA	ELLE
8015 VFA	Volatile Fatty Acids - Water Prep	SW846	ELLE
8015NM Aq Prep	Microextraction	SW846	EET HOU
8290A	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	ELLE

Eurofins Midland

Method Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

Method	Method Description	Protocol	Laboratory
8330-Prep	Solid-Phase Extraction (Explosives)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET HOU
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
CWA_Prep	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET HOU
Filtration	Sample Filtration	None	EET HOU
FILTRATION	Sample Filtration	None	EET PEN
Organotin	Extraction (Organotins)	WRC	EET CAL 4
SPE	PFAS by SPE	Lab SOP	ELLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

Hach = Hach Company

Lab SOP = Laboratory Standard Operating Procedure

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins J = Eurofins J3 Resources, 6110 W 34th St, Houston, TX 77092

Sample Summary

Client: New Mexico State University
Project/Site: Water Quality Analysis

Job ID: 880-38521-1

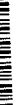
Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38521-1	Thermal Distillate	Water	01/26/24 08:00	01/26/24 09:40

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Chain of Custody Record

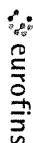
Environ & Jo-Jing

Chain of Custody Record



880-38521 Chain of Custody

Chain of Custody Record



Environment Testing

521

Client Information

Client Contact
Pat Xi PhD

Company
New Mexico State University

Address
3035 S Espina Street Box 30001 MCC-3CE

City
Las Cruces

State, Zip
NM 88003

Phone
575-646-8570(Tel)

Email
pxi@nmsu.edu

Project Name
Water Quality Analysis

Site
Big Spring, TX

Sampler
H. Mal. Delanica-Palms

Phone
575-6501873

Lab P#
Bulles, John

E-Mail
John.Bulles@eurofins.com

State of Origin

Carrier Tracking No(s)

COC No
860-25914-91452

Page
Page 2 of 3

Job #

Analysis Requested

Sample Identification

Raw/Produced water

Thermal Distillate

Post-treated water

Concentrate

Sample Date

Sample Time

Sample Type
(C=Comp, G=grab)

Matrix
(W=Water, S=soil, O=water, BT=Tissue, A=Air)

Preservation Code

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8270D_SIM - Polycyclic Aromatic Hydrocarbons (PAHs,

SM4500_S2_F Local Method

8270E_LL - Full List SVOCs

8151A Target Compound List

350 1 - Ammonia

HACH8000_NP Local Method

180.1, 2320B, 2510B, 300_ORGFM_28D, 300_ORGFMS,

3500_CR_B, 6010D, 6020B

5540C - Local Method

6010D - (MOD) Custom List

6020B - (MOD) Custom List

6020A_REE - Local Method

Custody Seal
01/26/2024

DATE

SIGNATURE

Environment Testing
TestAmerica

Signature

Environment Testing
TestAmerica

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Environment Testing
TestAmerica

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Environment Testing
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Environment Testing
TestAmerica

Loc: 880
38521

2012081

Environment Testing
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Environment Testing
TestAmerica

Signature

Environment Testing
TestAmerica

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested I II III IV Other (specify)

Empty Kit Relinquished by

Relinquished by

Relinquished by

Custody Seals Intact: ☐ Yes ☐ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months

Special Instructions/OC Requirements

Method of Shipment:

Received by

Received by

Received by

Cooler Temperature(s) °C and Other Remarks

3.5/3.7

Ver 01/16

ORIGIN ID:MAFA (432) 563-1800
SAMPLE RECEIVING
XENCO LABORATORIES-ODESSA
1211 W. FLORIDA AVE

SHIP DATE: 26 JAN 24
ACTWGT: 50.00 LB
CAD: 7354048/INET4700

MIDLAND, TX 79701
UNITED STATES US

BILL SENDER

TO EUROFINS CALSCIENCE, LLC
EUROFINS CALSCIENCE, LLC
2841 DOW AVE

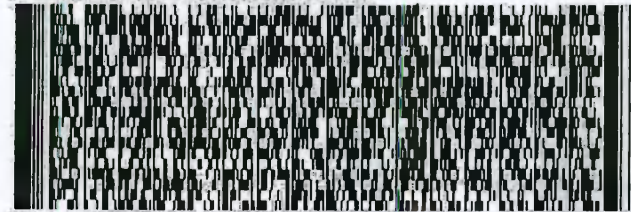
TUSTIN CA 92780

(714) 895-5494

REF

INV
PO

DEPT



FedEx
Express



SATURDAY 12:00P

PRIORITY OVERNIGHT

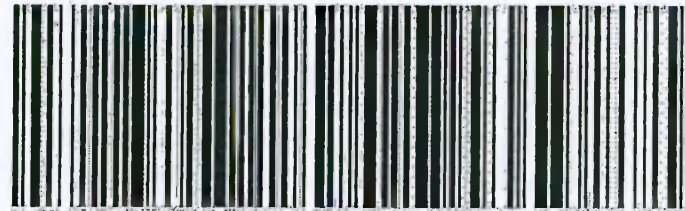
TRK#
0201

7749 6693 9806

X0 DTHA

92780

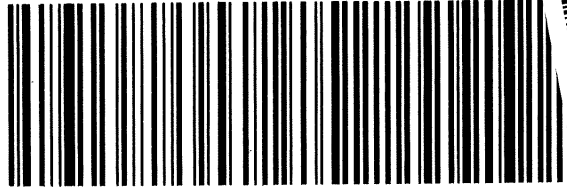
CA-US SNA



880-38521 Waybill

FedEx Ship Manager - Print Your Label(s)

1/26/24, 1:09 PM



15238
PA-US
PIT

XN AGCA

WED - 31 JAN 10:30A
PRIORITY OVERNIGHT
TRK# 7256 7307 7131 0201

PT-MI-SR-001 effective 11/8/18

CF - 018 Initials *NA*

Thermometer ID *20*

Uncorrected temp *33* °C

FedEx Express

E

41021902020327

10 SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTH
301 ALPHA DRIVE
RDC PARK
PITTSBURGH PA 15238
REF: 8670-94191
PO: YES
(412) 968-7068

ORIGIN ID: DTHA (949) 261-1022
ARASH AHMADIAN
EUROFINS CALSCIENCE
2841 DOM AVE
SUITE 100
TUSTIN, CA 927807221
UNITED STATES US
BILL RECIPIENT

585CS/EC2B/AED7
Part #159469-434 MTW EXP 08/24

RT 198
FZ 197
10:30
7131
01:31
A

Chain of Custody Record

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

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2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone 714-895-5494

Chain of Custody Record

urofins

Environment Testing

[illegible]

Eurofins Midland

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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:																			
Client Contact:		Phone:		E-Mail:		State of Origin:		Page:																			
Shipping/Receiving				John.Builes@et.eurofinsus.com		New Mexico		Page 1 of 1																			
Company:				Accreditations Required (See note):				Job #:																			
Eurofins Lancaster Laboratories Environm								880-38521-1																			
Address:		Due Date Requested:		Analysis Requested						Preservation Codes:																	
2425 New Holland Pike,		2/16/2024																									
City:		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6850/6850_Prep		8330B/8330_P_SPE		8290A/8290_P_Sep 8290 17 Isomers		PFC_IDA/PFAS_W_Prep PFAS 18 Compounds (in 537.1 method)		8015D_DAL_VFA/0015_VFA_Prep (MOD) Custom Analyte List		Total Number of containers									
Lancaster																											
State, Zip:		PO #:																									
PA, 17601																											
Phone:		WO #:																									
717-656-2300(Tel)																											
Email:																											
Project Name:		Project #:																									
Water Quality Analysis		88001781																									
Site:		SSOW#:																									
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6850/6850_Prep		8330B/8330_P_SPE		8290A/8290_P_Sep 8290 17 Isomers		PFC_IDA/PFAS_W_Prep PFAS 18 Compounds (in 537.1 method)		8015D_DAL_VFA/0015_VFA_Prep (MOD) Custom Analyte List		Total Number of containers		Special Instructions/Note:	
Thermal Distillate (880-38521-1)		1/26/24		08:00 Mountain				Water						X		X		X		X		X				8	

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

Chain of Custody Record



Loc: 880
38521

[illegible]

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

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2	
		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:	
Relinquished by:		Time:	
Relinquished by:		Method of Shipment:	
Relinquished by:		Date/Time:	
Relinquished by:		Company	
Relinquished by:		Received by:	
Relinquished by:		Date/Time:	
Relinquished by:		Company	
Relinquished by:		Received by:	
Relinquished by:		Date/Time:	
Relinquished by:		Company	
Custody Seals Intact:		Cooler Temperature(s) °C/and Other Remarks:	
Δ Yes Δ No		1.2/1.2 SC 12	
Custody Seal No.:		3/21/202	

[illegible]

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Chain of Custody Record



1/2024

[illegible]

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 5

Creator: Yu, Tiffany

List Source: Eurofins Calscience

List Creation: 01/27/24 11:36 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 6

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 01/27/24 01:40 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 3

List Creation: 01/27/24 01:05 PM

Creator: Santiago, Nathaniel

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temp acceptable, where thermal pres is required ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $> 6\text{mm}$ in diameter (none, if from WV)?	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 2

Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

List Creation: 01/27/24 11:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	9.8°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 8

Creator: Watson, Debbie

List Source: Eurofins Pittsburgh

List Creation: 01/31/24 06:46 PM

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

Login Sample Receipt Checklist

Client: New Mexico State University

Job Number: 880-38521-1

Login Number: 38521

List Number: 4

Creator: Sims, Robert D

List Source: Eurofins Savannah

List Creation: 01/27/24 01:51 PM

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